SOGON

SOCIETY OF GYNAECOLOGY AND OBSTETRICS OF NIGERIA

CONFERENCE PROCEEDINGS

2011

PROMOTING UNIVERSAL ACCESS TO MATERNAL AND NEWBORN HEALTH

EDITORIAL TEAM

Morhason-Bello I.O., Aimakhu C.O., Adesina O.A., Olayemi O., Fasubaa O.B., Ladipo O.A.(OON)

PROMOTING UNIVERSAL ACCESS TO MATERNAL AND NEWBORN HEALTH

Proceedings of the
45th Scientific Conference and Annual
General Meeting of the Society of
Gynaecology and Obstetrics of Nigeria
(SOGON) "Ẹbá Ọdàn 2011"

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"SOGON Ẹbá Ọdàn 2011"

THEME

Promoting Universal Access to Maternal & Newborn Health

SUB-THEMES

Training the Obstetrics and Gynaecology Resident in 21st Century
Ethical issues and litigation in Obstetrics and Gynaecology practice
The role of computers in Reproductive Health

PREMIER HOTEL, Mokola, Ibadan, Oyo State.
Nov. 22nd – 26th, 2011

EDITORAL TEAM

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Promoting Universal Access to Maternal & Newborn Health

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EDITORIAL COMMENTARY

PROMOTING UNIVERSAL ACCESS TO MATERNAL AND NEWBORN HEALTH: MYTH OR FACT

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Universal access to maternal health is one of the key indicators of human development index (HDI). This entails provision of equitable and qualitative maternal health services to all women irrespective of social status, religion, ethnicity, language, location, and other differences. The United Nations in recognition of maternal health indices as a significant measure of an egalitarian society passed a resolution to member states to allocate resources to women's health in general[1,2]. In addition, she designed composite measures of indices to compare countries and it has since been leveraged to measure level of development[1,2,3]. One of such is the Millennium Development Goals (MDG), which measures specific key indicators of HDI including maternal and newborn health[1]. Infant mortality rate and maternal mortality ratio represent key indicator of MDG 4 and 5 respectively.

Estimates show that every minute one woman dies from pregnancy and childbirth complications worldwide, and 9 out of 10 of these women reside in developing countries[4]. For every maternal death, there are several collateral effects such as high perinatal mortality and poor child survival indices. The driver of maternal deaths is multifaceted and it has medical, social, cultural and economic dimension. Evidence had shown that most direct causes of maternal death are preventable interventions such as family planning, qualitative emergency obstetric and newborn care, availability of skilled birth attendants at every delivery, provision of essential drugs such as oxytocic, magnesium sulphate, and misoprostol as well non-pneumatic anti-shock garment amongst others[5]. Majority of these intervention are cheap and affordable by countries with appalling maternal mortality figures but what is really lacking is the will and commitment to appropriately invest.

Maternal mortality ratio of 525 per 100, 000 for Nigeria presently suggests that the country is far from achieving the target of the MDG 5 and this will definitely impact on the MDG4 as well. The failure could be traceable to lack of adequate funding for health, weak health systems, lack of manpower and capacity to offer qualitative health service as well as poverty and ignorance[6,7]. Recently, the Federal Government of Nigeria has make giant strides at implementing policies and programs that could drastically reduce the MMR. The government of Nigeria for the first time released money for the purchase and distribution of modern contraceptive commodities in the country. The initial commitment was $3 million for the procurement of reproductive health commodities and additional $8.35 million per annum was announced during the 2012 London Family Planning Summit for by the Nigerian government[8]. This increases Nigeria's total commitment for the next four years from US $12 million to US $45.4 million, an increase of almost 300%[8]. This singular effort will drastically reduce the unmet need for family planning in the country. Secondly, midwives service scheme (MSS) program is firmly rooted in the country to address the problem of inadequate manpower - skilled birth attendant[9]. The scheme has recruited and trained over 5,000 midwives on emergency obstetric and newborn care (EMONC) at the primary health care till date. The implementation framework a cluster model of four PHCs that offers basic EMONC services and a general hospital that is capable of comprehensive EMONC[9]. Feedback from monitoring programs shows that MSS had impacted positively on maternal and newborn health in the country. Thirdly, allocation of significant proportion of proceeds from oil subsidy removal to fund maternal health is another commendable effort of federal government[10]. Although, there were criticisms that government is utilizing the money for unsustainable project such as the conditional cash transfer, however, there other programs such as training of different health workers on EMONC and purchase of equipment, which are worth mentioning.

Since Nigeria transited to democratic governance, there has been a systematic improvement in maternal and newborn but the pace is yet to get to the cruising level. It is expected that state and local government will compliment the effort of the federal government in this regard. Available records shows that some states are running while others are walking and crawling in terms of their commitment and investment to maternal and newborn health. All these determine the national average indicators. The roles of international and national non-governmental organisations at ensuring the country attain MDG 4 and 5 are commendable. They have provided technical and financial support for the country in a diverse way over the years. In addition, they have institutionalized their ideas however, it is important that future support should focus more on gaps identified with the representative of the government of Nigeria rather than importing a "blue print intervention" that are not sustainable.

The society of Obstetrics and Gynaecology of Nigeria (SOGON) recognized the importance of equitable access to maternal and newborn health in Nigeria, and this is why her 45th annual conference tagged "Eba Odan 2011" with the theme titled "promoting universal access to maternal and newborn health" focused on it. The sub-themes were "training the obstetrics and gynaecology resident in the 21st century, ethical issues and litigation in obstetrics and gynaecology practice, and the role of computers in

reproductive health".

There is no gain saying that we are yet to attain a universal access but there is ample evidence that the path is being created now. It is our hope that this shall be a fact but not a myth. During the 2011 SOGON conference, Nigerian members and our colleagues abroad presented scientific papers that focused on various aspect of the theme, and they are compiled in this conference proceeding.

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PL-01

THE PREVALENCE, PATTERN OF PRESENTATION AND PERCEPTION OF DOMESTIC VIOLENCE AMONG WOMEN IN RURAL AND URBAN COMMUNITIES IN ENUGU.

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INTRODUCTION

- Domestic violence (DV) against women refers to any type of harmful behaviour directed at women and girls by others such as the husband/spouse (Little etal 2000;Verku etal 2002)
- It is the third highest cause of death among women, 15-44 years of age, and the most common form of violence against women(Krug etal 2002)
- Domestic violence can take various forms and could be physical, verbal or sexual(Fisher etal 2003;Population reports 1999)
- It is a prevalent public health problem in Nigeria(Okemgbo etal 2002)
- Respondents who were not living with a male partner were more likely than their counterparts who were married/cohabiting to accept intimate partner violence (Owoaje etal 2006)
- There was gross under-reporting (8.1%) of domestic violence because of cultural factors, embarrassment and the repercussions that follow such reports(Obi etal 2007).
- Domestic Violence against women cuts across ages, ethnicity, religion and educational barriers(Little etal 2000)
- Its prevalence varies from 17 to 37%(Bacchus etal 2001;Kwawukume etal 2001)
- Low socio-economic and educational status, early marriage, alcohol and substance abuse by the partner and unemployment have been suggested as its risk factors(Erhan etal 2007)
- Some women and men accept Domestic Violence, while some even justify it because their culture allows it(Ikeme etal 2001)
- The awareness of the populace on the economic, physical and psychological impact of domestic violence against women and the various ways of curtailing it was very low.
- Most of the previous studies on the subject matter were hospital based and in the urban communities
- It was because of these factors that a community-based cross-sectional and comparative study on the subject matter was carried out.

AIM AND OBJECTIVES.

- AIM: To determine the prevalence, pattern of presentation and perception of domestic violence against women in rural and urban communities in Enugu State.

SPECIFIC OBJECTIVES:

1. To determine the prevalence, pattern of presentation and perception of domestic violence in a rural community in Enugu State.
2. To determine the prevalence, pattern of presentation and perception of domestic violence in an urban community in Enugu State.
3. To determine if there is difference in the prevalence, pattern of presentation and perception of domestic violence in the rural and urban communities in Enugu State.
4. To make recommendations based on the result of the study.

MATERIALS AND METHODS.

- The study was carried out in Enugu State.
- Ogui Nike Enugu (urban community) in Enugu North Local Government Area (LGA) and Okpanku (rural community) in Aninri LGA were chosen for the study through stratified sampling.
- Both group and individual counselling of the respondents were done.
- A pretested questionnaire was used to obtain information from the respondents during the 'August meeting' in 2011.
- The 'August meeting' in Okpanku occurred from 1st to 7th August, 2011 while that in Ogui Nike occurred from 8th to 14th August,2011.
- Sample Size Determination
- A minimum sample size each for the rural and urban communities was calculated using the formula(Oyejide etal 1992): N = Z2 (P) (1 – P)/ d2 where, N = minimum sample size at 95% confidence level; Z = the standard normal deviate usually set at 1.96; d= precision: the difference between the true population rate and your sample rate that you could tolerate and it was set at 0.05; P = population prevalence from previous study and 13.6%(Umeora etal 2008) was used.
- N' was calculated thus: 1.96x 1.96 x 0.136 x(1-0.136)/0.05x0.05=181.

- Therefore each of the rural and urban communities had the minimal sample size of 181.
- Eligibility Criteria:All apparently healthy-looking women who gave their consent to be used for the study and were within the age range of between 15 and 49 years and had the domestic violence within 3 years to avoid recall bias.
- Exclusion Criteria: This included women who were less than 15 years or above 49 years or those that, despite adequate counseling, refused to give their consent as well as those who experienced Domestic Violence at more than 3 years ago to avoid recall bias.
- Ethical Clearance:The proposal was submitted to the ethics committee of the University of Nigeria Teaching Hospital (UNTH), Enugu for assessment and approval was obtained.

RESULTS

AGE DISTRIBUTION (YEARS)	FREQUENCY(%)	
	RURAL	URBAN
15-19	12(3.2)	4(0.9)
20-24	44(11.7)	72(15.7)
25-29	80(21.3)	132(28.7)
30-34	100(26.6)	132(28.7)
35-39	48(12.8)	64(13.9)
40-44	24(6.4)	48(10.4)
45-49	68(18.1)	8(1.7)
TOTAL	**376(100)**	**460(100)**

HIGHEST EDUCATIONAL STATUS	RURAL	URBAN
NONE	88(23.4)	4(0.9)
PRIMARY	108(28.7)	8(1.7)
SECONDARY	104(27.7)	84(18.3)
TERTIARY	76(20.2)	364(79.1)
TOTAL	**376(100**	**460(100)**

FORM OF MARRIAGE	RURAL	URBAN
MONOGAMOUS	248(66)	400(87)
POLYGAMOUS	116(30.9)	40(8.7)
SINGLE PARENT	12(3.1)	20(4.3)
TOTAL	**376(100)**	**460(100)**

OCCUPATIONAL DISTRIBUTION OF THE RESPONDENTS.

OCCUPATION	RURAL	URBAN
UNEMPLOYED	20(5.3)	120(26.1)
FARMING	96(25.5)	36(7.8)
TEACHING	16(4.3)	32(7.0)
ARTISANS	36(9.6)	12(2.6)
CIVIL SERVANTS	48 (12.8)	140(30.4)
TRADING	52 (13.8	32(7.0)
PROFESSIONALS	8(2.1)	88(19.1)
TOTAL	**376(100)**	**460(100)**

PARITY DISTRIBUTION AND SEX OF CHILDREN.

PARITY	FREQUENCY(%)	
	RURAL	URBAN
0	72(19.1)	172(37.4)
1	72(19.1)	100(21.7)
2-4	136(36.2)	152(33.0)
>4	96(25.5)	36 (7.8)
TOTAL	**376(100)**	**460(100)**

SEX OF CHILDREN	RURAL	URBAN
NO LIVING CHILD	84(22.3)	180(39.1)
MALE	68(18.1)	68(14.9)
FEMALE	48(12.8)	100(21.7)
BOTH MALE AND FEMALE	176(46.8)	112(24.3)
TOTAL	**376(100)**	**460(100)**

TYPES AND PERIOD OF DOMESTIC VIOLENCE.

TYPE OF VIOLENCE	FREQUENCY(%)		X^2	P-VALUE
	RURAL	URBAN		
NONE	12(3.2)	88(19.1)	40.02	0.00
PHYSICAL	72(19.1)	60(13.0)	4.20	0.04
PSYCHOLOGICAL	164(43.6)	224(48.7)	0.79	0.38
SEXUAL	24(6.4)	20(4.3)	1.54	0.21
MORE THAN ONE	104(27.7)	68(14.7)	13.72	0.00
TOTAL	**376(100)**	**460(100)**		

PHYSICAL VIOLENCE	RURAL	URBAN		
BEATEN UP	84(60)	52(48.1)	1.02	0.31
OBJECTS THROWN AT VICTIM	24(17.1)	8(7.4)	4.02	0.04
SLAPPED	32(22.9)	36(33.3)	1.90	0.17
FLOGGED	- (-)	12(11.1)	14.68	0.00
TOTAL	**140(100)**	**108(100)**		

FORMS OF PSYCHOLOGICAL VIOLENCE AND PERIOD OF VIOLENCE

PSYCHOLOGICAL VIOLENCE	RURAL	URBAN	X2	P
SHOUTING AT VICTIM	111 (50.7)	79 (31.3)	7.70	0.01
FINANCIAL DEPRVATION	45 (20.5)	65 (25.8)	1.12	0.29
NOT TALKING TO VICTIM	36 (16.4)	48 (19.0)	0.38	0.54
NOT COMING HOME	-(-)	12(4.8)	10.21	0.00
COMING LATE FROM WORK	21(9.6)	30(11.9)	0.52	0.47
NOT EATING VICTIM'S FOOD	6 (2.7)	18(7.1)	4.26	0.04

PERIOD OF VIOLENCE

< 6 MONTHS	80(24.4)	124(39.2)	8.52	0.00
6 MONTHS-<12 MONTHS	120(36.6)	84(26.6)	3.87	0.05
1 YEAR-<2 YEARS	60(18.3)	48(15.2)	0.79	0.37
2-3 YEARS	68(20.7)	60(19.0)	0.21	0.65
TOTAL	328 (100)	316(100)		

PERCEPTION OF DV

PERCEPTION	FREQUENCY(%) RURAL	URBAN	X^2	P
ALWAYS EXCUSABLE	44(11.7)	68(14.8)	1.30	0.25
SOMETIMES EXCUSABLE	220(58.5)	136(29.6)	6.65	0.01
NOT EXCUSABLE	72(19.1)	180(39.1)	21.5	0.03
UNDECIDED	40(10.6)	76(16.5)	4.56	0.03
TOTAL	376(100)	460(100)		

REASONS FOR JUSTIFICATION OF DV

JUSTIFICATION	FREQUENCY (%) RURAL	URBAN	X^2	P
GOINGOUT WITHOUTTELLINGPARTNER	108(28.7)	53(11.5)	6.16	0.01
NEGLECTS THE CHILDREN	104(27.7)	47(10.2)	6.83	0.01
ARGUES WITH THE PARTNER	104(27.7)	88(19.1)	1.28	0.26
REFUSES TO HAVE SEX	30(8)	61(13.3)	4.81	0.03
BURNS THE FOOD	7 (1.9)	4(0.9)	1.53	0.22
NONE	10(2.7)	199(43.3)	116	0.00
MORE THAN ONE REASON	13(3.5)	8(1.7)	2.37	0.12
TOTAL	**376(100)**	**460(100)**		

REACTION OF RESPONDENTS TO DV

REACTION	FREQUENCY(%)		X^2	P
	RURAL	URBAN		
REPORT TO AUTHORITY	44(11.7)	68(14.8)	66.5	0.00
KEEP IT SECRET	113(30.1)	105(22.8)	3.27	0.07
REPORT TO FAMILY	190(50.5)	84(18.3)	49.0	0.00
REPORT TO INLAWS	18(4.8)	18(3.9)	0.35	0.55
REPORT TO A CLOSE FRIEND	12(3.2)	25(5.4)	2.26	0.13
REPORT TO A DOCTOR	7(1.9)	12(2.6)	0.50	0.48
REPORT TO A CLERGY	17(4.5)	27(5.9)	0.68	0.41
UNDECIDED	8(2.1)	64(13.9)	8.08	0.00
TOTAL	**376(100)**	**460(100)**		

DATA COLLECTION AND ANALYSIS

- The results obtained were analyzed using the Statistical Package for the Social Sciences (SPSS) version 16. Chi-square (x2) analysis was used for discrete variables and the values for P –value of less than 0.05 were considered statistically significant.

DISCUSSION.

- This study showed that 96.4% and 80.9% of Okpanku and Ogui Nike women respectively had experienced domestic violence. This was similar to the findings in Enugu and Abakaliki ,as well aslbadan but higher than the findings in Abuja and Pakistan(Obi etal 2007;Owoaje etal 2006;Efetie etal 2007;Karmaliani etal 2008)
- 53.2% and 45.2% of domestic violence occurred in the previous 12 months in the rural and urban communities respectively and these were higher than findings in a rural Anambra community and Ibadan(urban community) respectively(Ilika etal 2002;Owoaje etal 2006)
- Psychological violence being the commonest type of violence in both rural and urban communities in Enugu was similar to the previous studies in Enugu, Abakaliki , Anambra, Abuja and Benin(Ilika etal 2002;Obi etal 2007;Umeora etal 2008;Efetie etal 2007;Olagbuji etal 2010)
- The rural physical violence from this study was much higher than the report from Anambra and 2008 Nigerian Demographic and Health Survey(Ilika etal 2002;NDHS 2008)
- Physical violence was experienced more in Okpanku than Ogui Nike and this was statistically significant
- Beating up of the respondents accounting for the highest form of physical violence in both communities in Enugu was similar to the previous report from Rwanda(Karmaliani etal 2008)
- Beating up of the respondents was followed by slapping of the victims and this was against a previous work in Enugu and Abakaliki where slapping was the commonest form of physical violence(Obi etal 2007)
- Sexual violence report from this study in both rural and urban communities was lower than the previous reports from Abuja and South Africa(Efetie etal 2007;Modiba etal 2011)
- On the perception of domestic violence by the respondents, the urban women were more likely not to excuse it than rural women and this was statistically significant
- Though there was no statistical difference between the two, 14.8% and 11.7% of urban and rural women respectively felt that domestic violence was always excusable and this negates the attainment of sexual and reproductive health and rights of women
- This study also showed that 97.3% and 56.7% of respondents in the rural and urban communities respectively justified domestic violence in at least one of the five reasons mentioned in this study
- The high justification rate of domestic violence in Okpanku were more than the report from previous work among the rural Nigerian women(Antai etal 2008)
- More urban women would report domestic violence to the authority like the law enforcement agents and/or even sue the culprits to court.
- In conclusion, though domestic violence against women was more common in rural than urban communities in Enugu, it was still very high in both communities
- In order to reduce domestic violence against women, efforts should be focused on solving this public health problem
- Promotion of female education and women empowerment as well as advocacy should be encouraged.

- Appropriate laws against domestic violence should be made and strengthened by the government with the culprits punished adequately to serve as deterrent to others.
- Reduction of domestic violence against women would help Nigeria attain Millenium Development Goals 3 and 5

PL-02

50G ORAL GLUCOSE CHALLENGE TEST IN SCREENING FOR GESTATIONAL DIABETES MELLITUS AT UNIVERSITY COLLEGE HOSPITAL IBADAN, OYO STATE

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4. Dr. SESAN OLUWASOLA, Department of Obstetrics and Gynaecology.
5. Mrs. OPEMIPO MAXWELL, Public Health Nursing Department, University College Hospital, Ibadan, Nigeria.

INTRODUCTION

- Gestational diabetes mellitus (GDM)- hyperglycaemia first in pregnancy.*Ferrara A, et al. 2002*
- Commonest endocrinological complication of pregnancy. 3-10% of pregnancies.
- Incidence in Nigerian women is 0.13% (Benin) and 0.74%(Ibadan). *Oladokun A, et al. 2003*
- In the USA, affects 2-5% of pregnant women and has been increasing with time in all ethnic groups, *Hoffert A et al. 2008*

RISKS ASSOCIATED WITH GDM

- Poorly controlled diabetes mellitus in pregnancy is often associated with high fetal and maternal morbidity and mortality.
- Infants of diabetic mothers experience double the risk of birth injuries, mothers have triple the risk of caesarean delivery and quadruple the incidence of newborn intensive care unit admission.
- 36% of GDM patients developed DM when followed up for 24 years. *Dornhorst A, 1998.*
- The risk of subsequent DM with 10 years follow up was 15.7% compared with 1% in non GDM population.*Chodick .G, 2010*

SCREENING TESTS

- WHO criteria based on a 75g oral glucose tolerance test (OGTT).
- Need for screening test prior to OGTT
- Subjecting all pregnant women to OGTT would not be cost effective.
- Traditionally and in UCH presently, history / clinical features used in screening, with low sensitivity and specificity.
- Other screening tests are timed random plasma glucose, fasting plasma glucose, glycosylated haemoglobin and albumin levels in the serum.
- Factors determining type of screening test - cost and prevalence of GDM in population.
- The 50g oral glucose test is regarded as gold standard with sensitivity and specificity of 79-80% and 83-90% respectively *O'Sullivan et al 1973, Jowett N.I et al 1997.*

OBJECTIVE

- To determine whether universal screening of pregnant women using 50G glucose challenge test (GCT) is more predictive of GDM than risk factor-based screening in UCH, Ibadan, Nigeria

METHODOLOGY

- Prospective study.
- Approved by UI/UCH Ethical Committee
- At booking, subjects were counseled for 50G GCT following 8 – 12 hours of overnight fasting.
- Venous blood taken for fasting plasma glucose; 50G oral glucose administered; blood sample taken 1 hour later.
- Sample for 75G OGTT was taken 2hrs after the glucose load
- Process repeated at 24 – 28 weeks using 75G oral glucose.
- Positive screening test is glucose level of more than 140mg/100ml.
- Positive 75G OGTT test is glucose level of more than 140mg/100ml
- Process repeated at 24 – 28 weeks using 75G oral glucose.
- Positive screening test is glucose level of more than 140mg/100ml.

- Positive 75G OGTT test is glucose level of more than 140mg/100ml
- Proforma used to identify risk factors such as family history of diabetes mellitus in a first degree relative, previous unexplained fetal death or delivery of a macrosomic baby and so on.
- Informed written consent was obtained.
- Participation terminated with:
- Withdrawal of consent
- Failure to perform or finish the screening and diagnostic tests
- Premature termination of pregnancy.

RESULTS

- Seventy – nine women were recruited.
- 72.5% were > 30 years, with mean age and length of gestation being 30.80 +1.20years and 24.23 + 1.59 weeks

Figure 1: DISTRIBUTION OF LENGTH OF GESTATION OF SUBJECTS WHO HAD BOTH TESTS

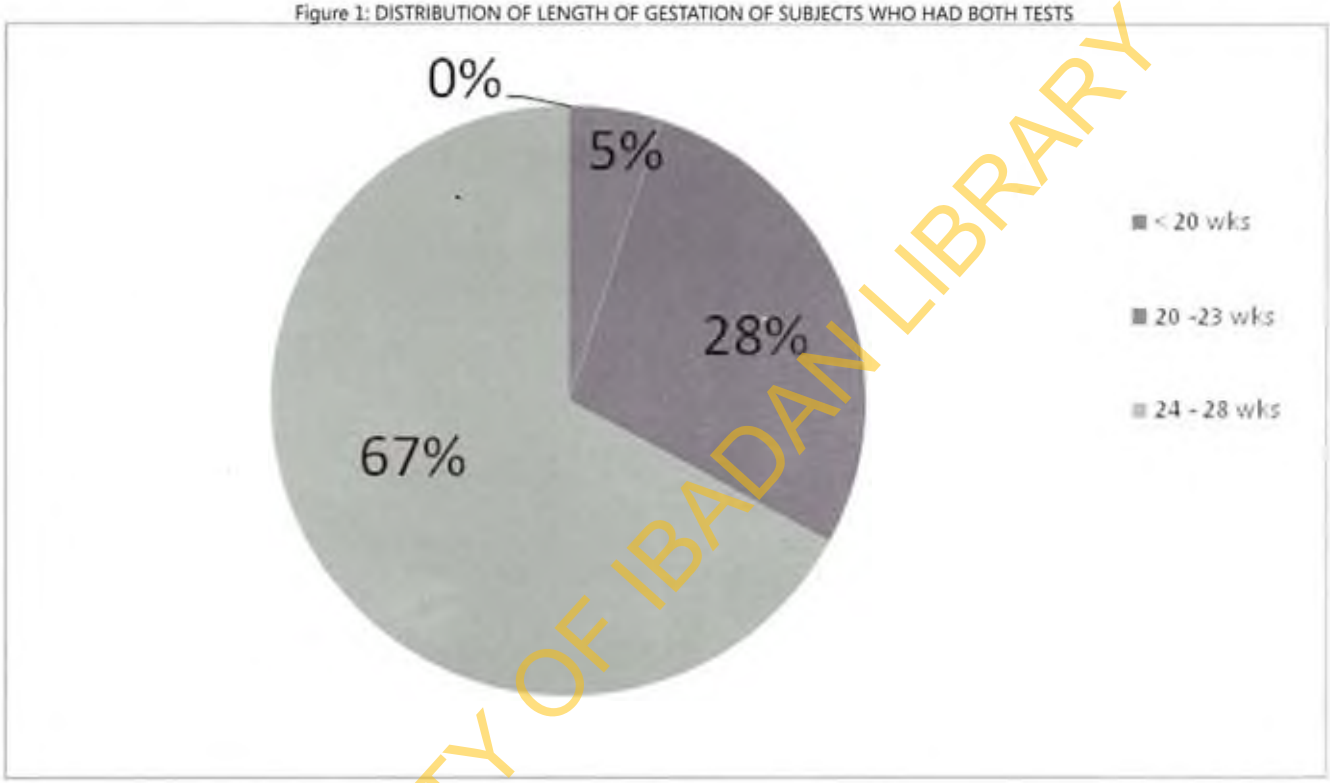
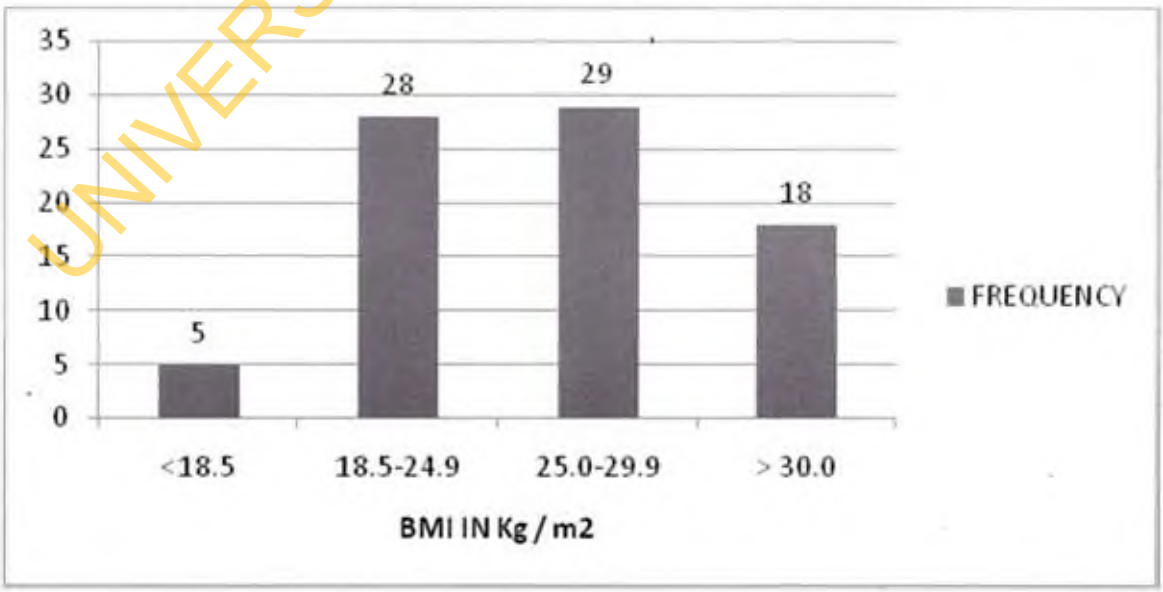


Figure 2 : DISTRIBUTION OF BMI OF PATIENTS AT THE TIME OF RECRUITMENT INTO THE STUDY



COMPARISONS OF RESULTS OF 50g GCT, RF/FG AND RF ALONE

50g GCT	SENSITIVITY	SPECIFICITY	PPV	NPV
Percent (%)	66.7	87.3	20.0	98.5
95% CI	52.20-81.20	79.90-94.70	11.12-28.88	95.83-99.90
P value	0.075	0.037	0.050	0.014

COMPARISONS OF RESULTS OF 50g GCT, RF/FG AND RF ALONE

RISK FACTORS	SENSITIVITY	SPECIFICITY	PPV	NPV
Percent (%)	51.9	70.5	4.1	98.2
95% CI	39.92-61.88	60.90-79.50	3.71-44.9	97.42-98.99
P value	0.056	0.050	0.002	0.004

respectively.

- Means of their weights and heights were 70.80 + 5.24kg and 1.64 + 0.02m with the mean of BMI at recruitment being 25.97 + 1.87kg/m2.
- The BMI of at least 27kg/m2 was observed in 44.1% of the cases

RESULTS

- 44.3% are nulliparous - highest parity group.
- Para >4 formed 2.5%
- Interval between test was 3.8 + 1.5 days.
- Risk factor(RF) for GDM 30.3%.
- Fasting glucose(FG) and risk factors screening positive in 11.3%.
- 50g GCT abnormal in 12.6%.
- When the fasting glucose and risk factors were negative (88.6% of subjects), diagnostic test was normal.
- When 50g GCT was negative (87.3% of subjects), 75g OGTT was normal.
- 75g OGTT was normal in 77subjects (97.4%) and confirmed GDM in 2 subjects (2.5%).

DISCUSSION

- One in five women (20%) with an elevated GCT and no risk factors was found to have GDM.
- In this study using the threshold plasma glucose value of 140mg/dl with 10 (12.6%) women found positive.
- Only 2 were found to have GDM with a diagnostic yield of 20%.
- Compared to using the threshold plasma glucose value of 130mg/dl, 14 (17.7%) women were positive for 50g GCT.
- Only 2 were found to have GDM with a diagnostic yield of 14.3%.
- Thus if 140mg/dl is used as the plasma glucose threshold a smaller number of women will undergo 75g OGTT with a higher diagnostic yield.

CONCLUSION AND RECOMMENDATION

- The 50g GCT appeared to be a feasible and acceptable screening test.
- It is simple, convenient, cheap and easy to organize in the outpatient setting.
- It was well tolerated by all the patients.
- It has increased sensitivity compared to historical risk factors.
- The detected incidence of GDM in this study population was 2.5%.
- We recommend using the 140mg/dl threshold plasma glucose value considering its economic advantage.
- The prime emphasis in the management of GDM should be focused on its early detection.

PL-03

IS ASCORBIC ACID EFFECTIVE IN THE TREATMENT OF ASYMPTOMATIC BACTERIURIA IN VESICO-VAGINAL FISTULA PATIENTS?

Oladeinde O MBBS, Sunday-Adeoye. I Msc, FWACS, FICS, Uneke J Msc, PHD, Dimejesi I FWACS, FMCOG

BACKGROUND

- The direct pathological communication between the vagina and the urinary track enhances the colonization of the urinary bladder
- by pathogenic bacteria with consequent infection or asymptomatic bacteriuria.
- Significant bacteriuria can lead to UTI
- The direct pathological communication between the vagina and the urinary track enhances the colonization of the urinary bladder
- by pathogenic bacteria with consequent infection or asymptomatic bacteriuria.
- Significant bacteriuria can lead to UTI
- presence of bacteria in the urine of an individual without obvious signs or symptoms of urinary tract infection has been described as asymptomatic bacteriuria
- this condition has been associated with an increased incidence of pyelonephritis especially among pregnant women
- In several fistula centres in Nigeria, the place of prophylactic antibiotics in the routine management of VVF clients has remained a controversial issue
- Hard data either supporting or refuting its place is lacking in the literature.
- Empirically many fistula surgeons recommend the intake of large volumes of water for VVF clients awaiting surgery as a means of reducing the microbial load in the bladder prior to surgery.
- However the effectiveness of this preoperative therapy has not been subjected to scientific evaluation.

OBJECTIVE

- This is an exploratory study to evaluate the effectiveness of acidification of urine with ascorbic acid in the reduction of the microbial burden in VVF clients with asymptomatic bacteriuria.

METHODOLOGY

- Exploratory study conducted at the NOFC Abakaliki in february 2011.
- Forty consecutive consenting VVF patients who fulfilled the inclusion criteria were recruited
- Informed consented was obtained from all participants and ethical approval was obtained from the ethics committee of the hospital.
- Pippete specimen of urine (4ml each) of the selected 40 patients undergoing surgical repair for VVF was collected for microbiological studies into sterile universal urine specimen containers before surgical intervention.
- They were all post operatively placed on tablets ascorbic acid 200mg three times daily for 10 days.
- Patients who developed features of UTI were commenced on antibiotics and were excluded from the study.
- Asymptomatic bacteriuria was described as bacteria count of equal or greater than 105 colony forming units per ml of urine (cfu/ml).
- On the eleventh day post operatively they had a repeat of catheter urine microbiological study. The two results were then analysed to find the effect of ascorbic acid therapy on microbial load.
- All persistent cases of asymptomatic bacteruria received appropriate antibiotics

INCLUSION CRITERIA

- Patients with only vesico-vaginal fistula (VVF), who consented
- The patients had no other clinical symptom except leakage of urine

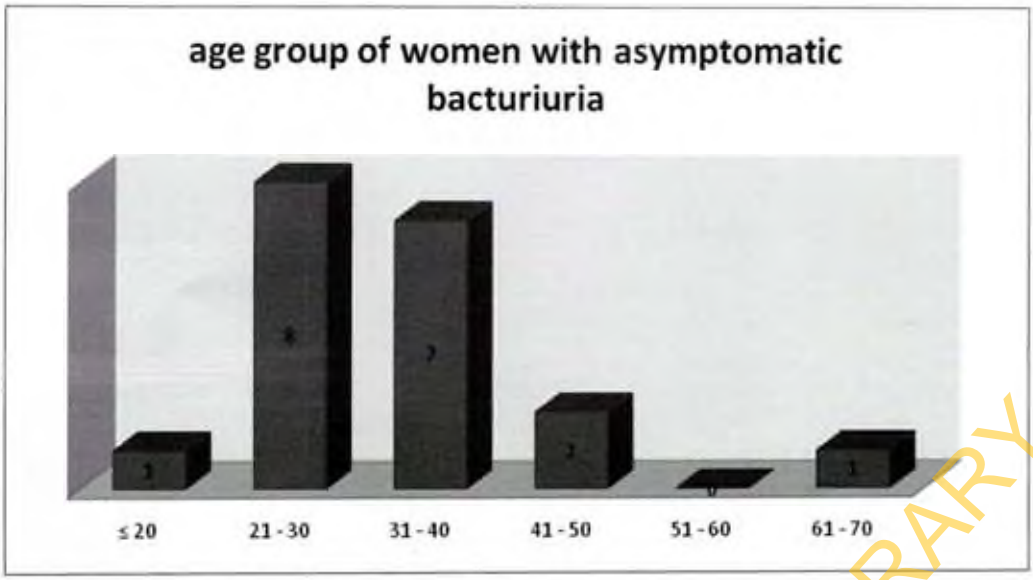
EXCLUSION CRITERIA

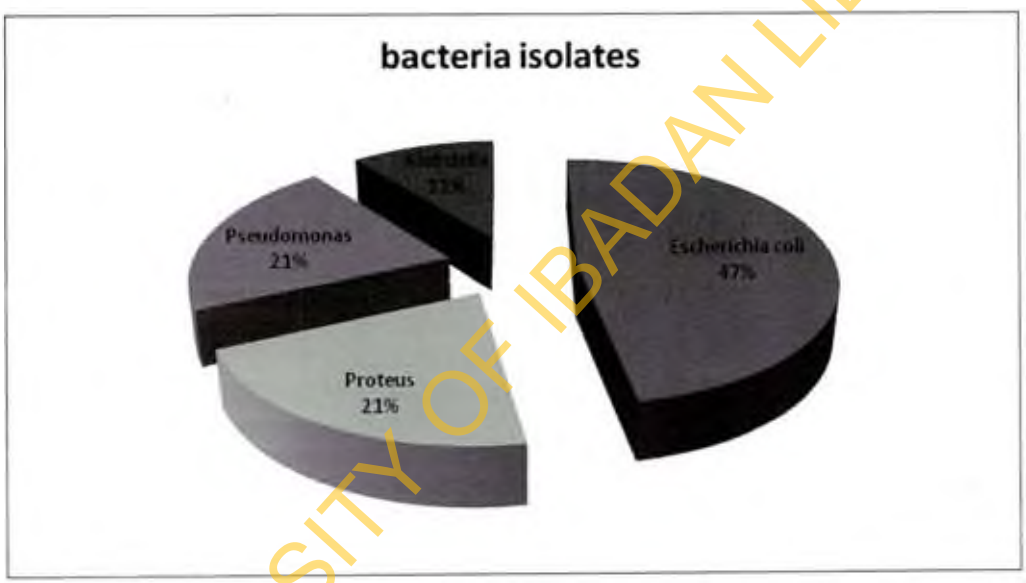
- Patients who refused consent, Patients with rectovaginal-vaginal fistula (RVF), Patients with combined fistulae (VVF/RVF), Patients with history of fever, Patients with history suggestive of urinary tract infecion or pyelonephritis, Patients on antibiotics

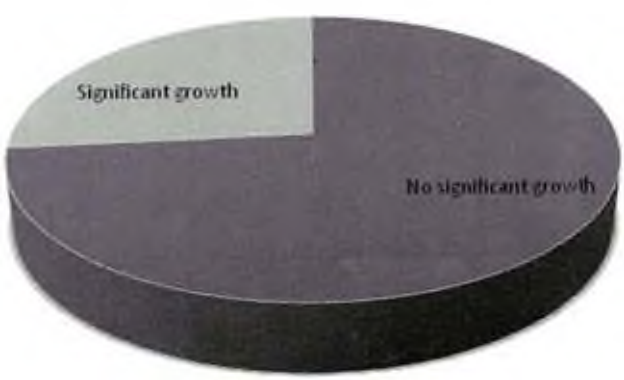
RESULTS

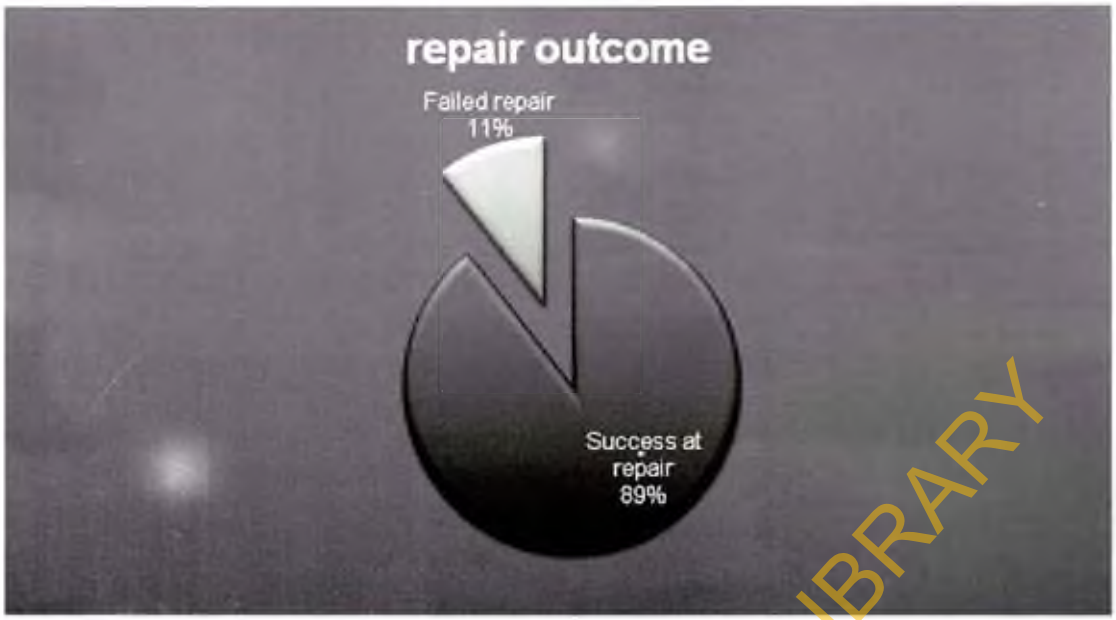
- Asymptomatic bacteriuria (≥105 colony forming units per ml of urine cfu/ml) was identified in 31 VVF patients (77.5%)out of the 40 patients screened.
- The mean age of women with asymptomatic bacteriuria was 35.1years
- Twelve (12) patients subsequently developed features suggestive of UTI postoperatively and were commenced on antibiotics in addition to vitamin c.
- The remaining Nineteen (19) patients who had asymptomatic bacteriuria form the basis of this presentation

Results









- The bacteria isolated included Escherichia coli (47.3%), Proteus (21.1%), Pseudomonas species (21.1%) and klebsiella (10.5%)

RESULTS

- Then a repeat urine microbial study on the 11th day of surgery revealed persistent significant bacteriuria in 5(26.3%) out of the 19 initial positive samples (this excludes the 12 patients treated for UTI who equally had repeat microbiological analysis)
- Fourteen (73.7%) of the patients urine culture yielded no significant bacterial growth after 10days therapy with ascorbic acid.

CONCLUSION

- The findings from this exploratory study suggest that ascorbic acid may play a significant role in the reduction of asymptomatic bacteriuria among VVF patients.
- It calls for more elaborate studies with larger sample size on the efficacy of ascorbic acid in treatment of asymptomatic bacteriuria among VVF patients.
- It equally calls for a long term follow up of treated VVF patients for urinary tract infection or pyelonephritis in the light of the possible progression of asymptomatic Bacteriuria

PL-04

SEXUAL PRACTICES TO ACHIEVE CONCEPTION AMONG PEOPLE LIVING WITH HIV IN IBADAN.

Temitope I. Akinola, Olutosin A. Awolude, Olubukola A. Adesina, Isaac F. Adewole

BACKGROUND

- Improving quality of life and changing sexual and reproductive behaviour and decisions among People Living with HIV (PLWHIV) are fast becoming realities in our environment.
- Among such decisions is procreation .
- For us in developing Country, especially Nigeria:
- It is important to understand the ways by which PLWHIV achieve their fertility desires.
- It is also important to understand the associated determinants.
- This is because of the need to balance successful conception without increasing the risk of heterosexual and vertical HIV transmission.
- This study assesses the sexual practices in achieving conception by PLWHIV and the implications of these on the principle of safer sexual practice.

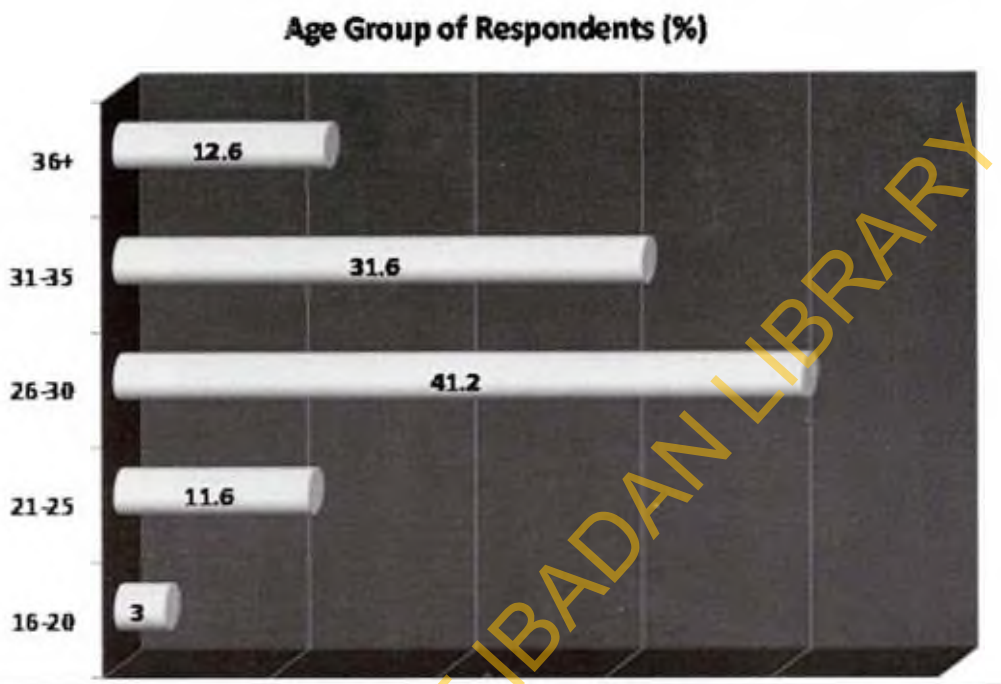
OBJECTIVES

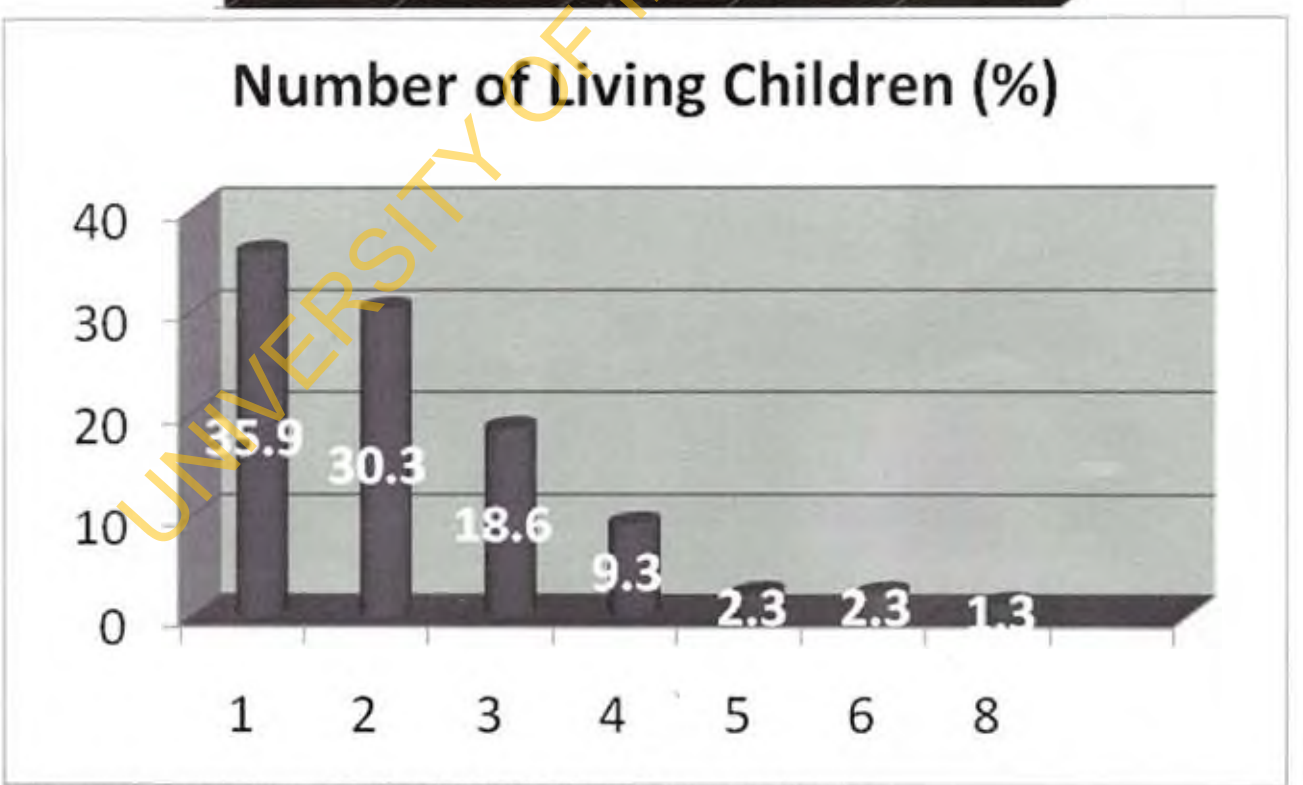
- The objective of the study was to assess

1. The sexual practices in achieving conception by PLWHIV
2. The implications of these practices on the principle of safer sex.

METHODOLOGY

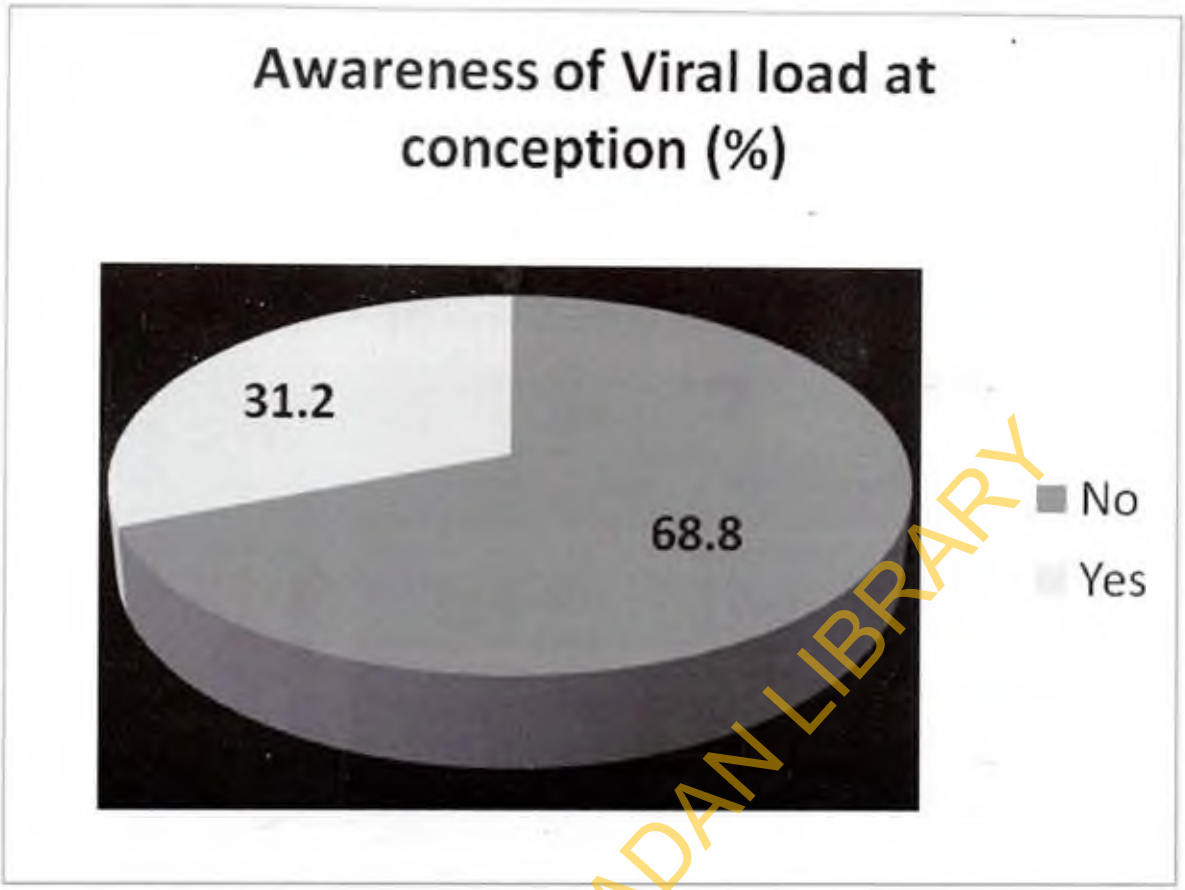
- The study was carried out at the PMTCT clinic of the UCH-PEPFAR partnered ARV clinic between June-December 2009.

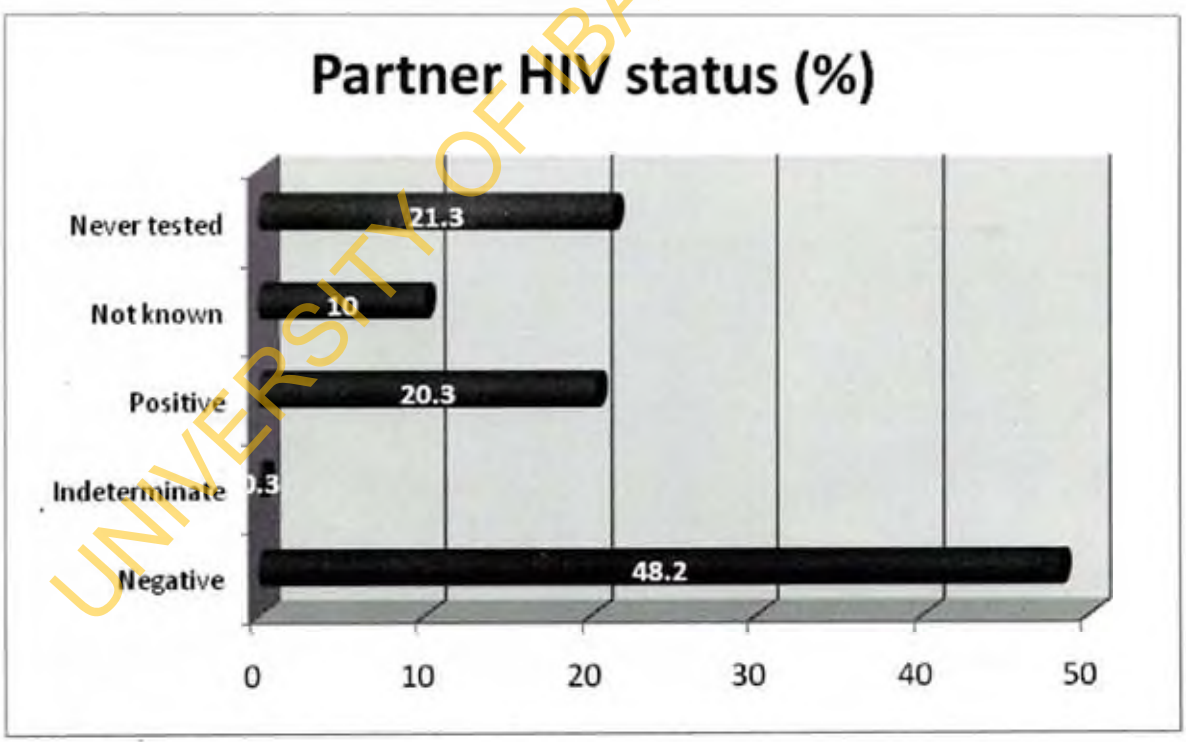




- The survey was carried out on 301 female PLWHIV using a 20- stem questionnaire.
- The inclusion criterion, among others, was that the respondent must have been enrolled in the program for a minimum of 6 months prior to conception.

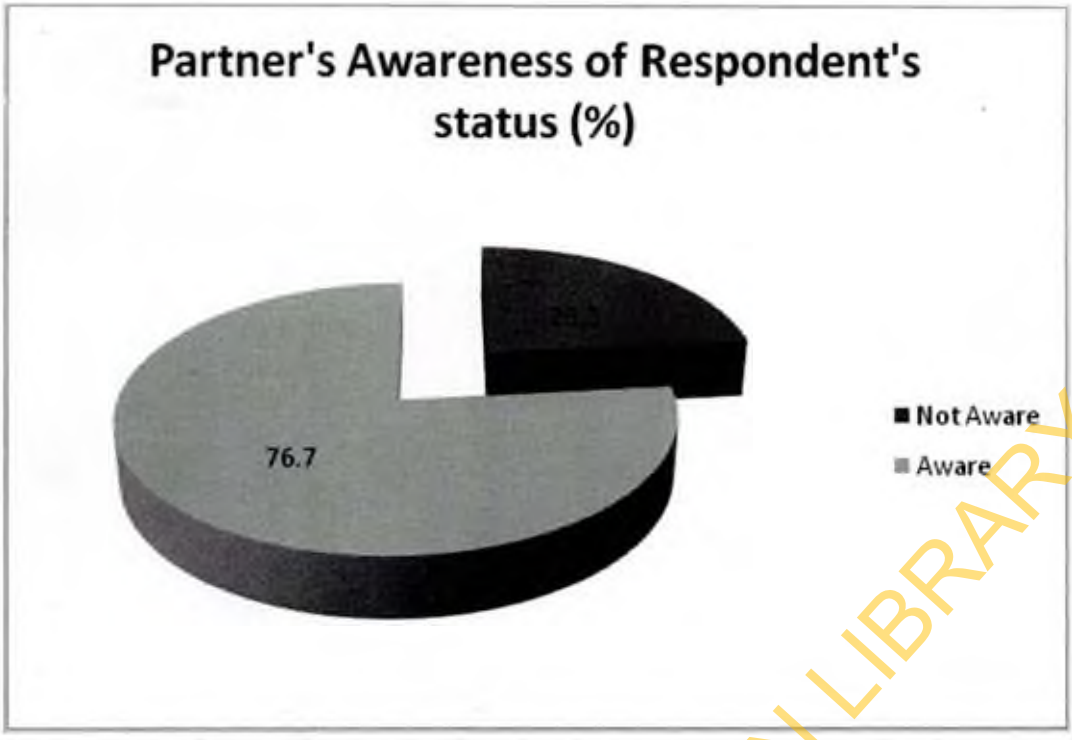
RESULTS

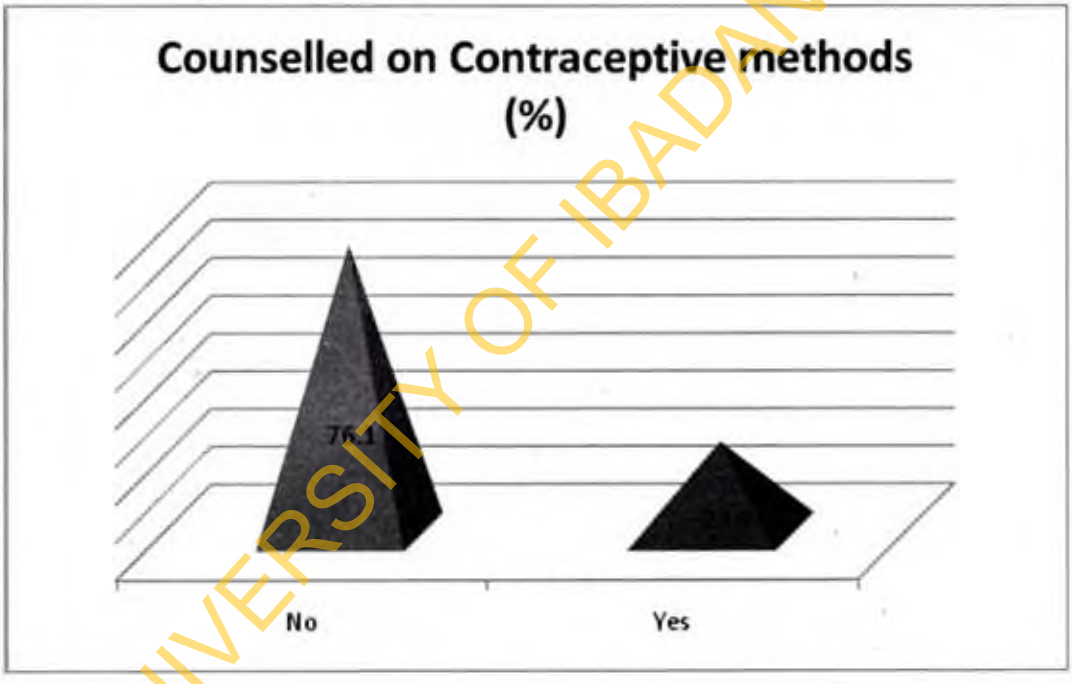




- The mean age was 30.32 (±3.2)years.
- Majority (67.4%) of the pregnancies were planned.
- Most of the women were not aware of their viral load before conception (68.8%).
- Having more children was the reason for getting pregnant (61.4%)
- Majority had more than 3 children before getting pregnant again.

- The number of living children had no significant effect on desire to get pregnant again.





- Unprotected sexual intercourse (94.4%) was the mode of getting pregnant while .
- Majority (48.2%) of the partners were HIV negative and 231 (76.7%) of the respondents had disclosed their HIV status to their partners before getting pregnant.
- Two hundred and eight (69.1%) respondents had no counseling on contraception methods but 182 (60.5%) had been using contraception since HIV diagnosis.
- 153 (50.8%) of the respondents used condom as a form of contraception.
- The use of HAART was positively correlated to desire to get pregnant (p=0.004).

CONCLUSIONS

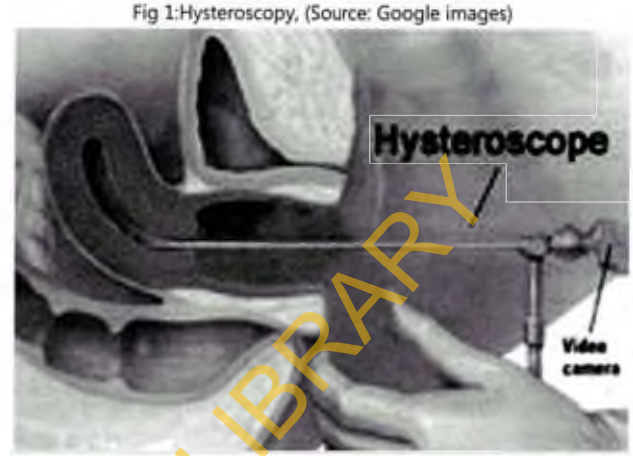
- The study showed that being HIV positive has no negative effect on PLWHIV fertility desires.
- However, there is need to strengthen safer sex practice counseling.
- It is also important to make provisions for risk reduction fertility procedures to ensure a good balance of achieving desired reproductive right and preventing heterosexual and vertical HIV transmission.

ACKNOWLEDGEMENTS

- My co-authors, The staffs of APIN Plus/Harvard PEPFAR Program, Management of University College Hospital, Ibadan, Nigeria, The Patients, Organisers of 45th SOGON 2011 Conference

- Hysteroscopy is considered the gold standard in assessing the uterine cavity for pathology
- Uterine factors are among causes of infertility and may constitute up to 5% of causes.1
- A Nigerian study found uterine factor in up to 30% of infertile women studied.2

Fig 1:Hysteroscopy, (Source: Google images)



PL-05

COMPARING HYSTEROSCOPIC FINDINGS BETWEEN INFERTILE NIGERIAN AND INDIAN WOMEN.

Ajayi V D1 , Ajayi A.b 1, Kolade C.o 1 Ramesh B2

1. Nordica Fertility and Endoscopy Centre, Lagos and Asaba, Nigeria.
2. Dr Ramesh Gynae Endoscopy and Infertility Centre, Bangalore, India.

OBJECTIVE

- To compare hysteroscopic findings between infertile Nigerian and Indian women, determine if there are any differences and attempt to explain why.

METHODS AND MATERIALS

Results

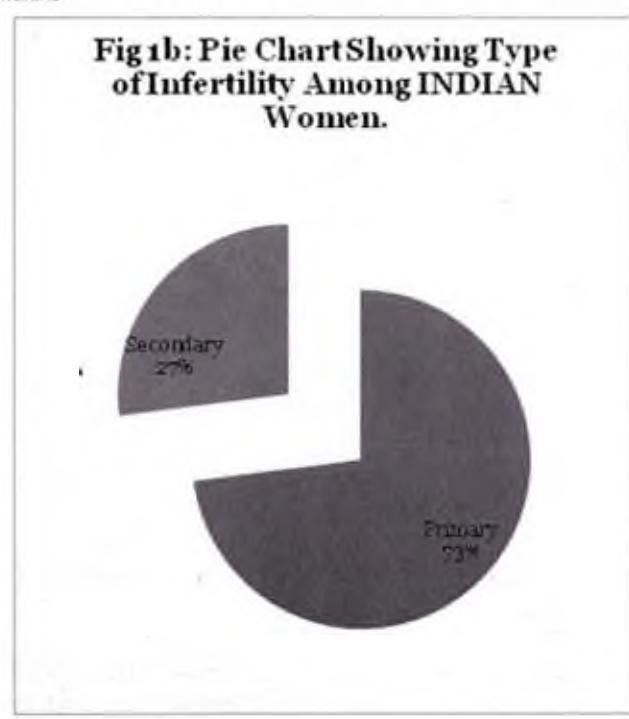


Fig 2a: Bar Chart Showing Hysteroscopic Findings Among NIGERIAN Women.

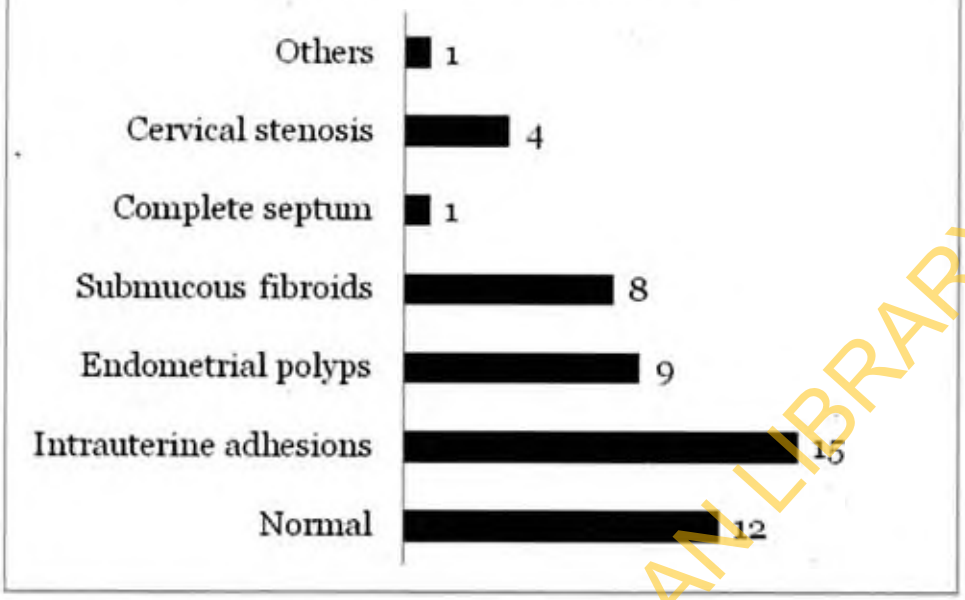
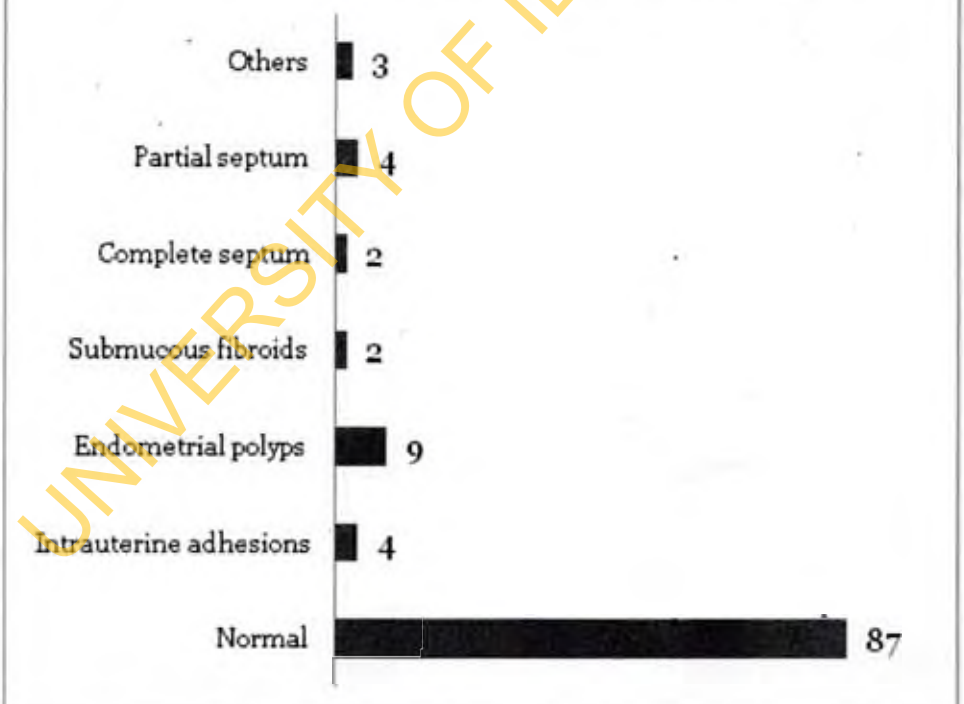


Fig 2b: Bar Chart Showing Hysteroscopic Findings Among INDIAN Women.



- A retrospective study.
- Conducted at Nordica Fertility and Endoscopy Centre, Asaba, Nigeria and Dr Ramesh Gynae Endoscopy and Infertility Centre, Bangalore, India.
- The bio-data and findings at hysteroscopy of fifty consecutive infertile Nigerian women who had hysteroscopy between January and December 2010 at Nordica Fertility Centre Asaba, Nigeria and 111 consecutive infertile Indian women who also had hysteroscopy between March and August 2010 at Dr Ramesh Infertility and Endoscopy Centre, Bangalore, India were reviewed and compared.

RESULTS :

Table 1: Summary of Key Findings.

FINDING	*NIGERIAN WOMEN*	*INDIAN WOMEN*
Total number	50	111
Mean age (years)	39.1 (29-56)	30.7 (19-45)
Commonest type of infertility	Secondary (86%)	Primary (73%)
Abnormal hysteroscopy	76%	26.1%
Abnormalities seen Intraut. Adhesions Polyps Submuc Fibroids Complete septum	30% (Commonest) 18% 16% 2%	3.6% 8.1% (Commonest) 1.8% 1.8%

- Analysis was done using SPSS version 17.0

DISCUSSION

- Nigerian women were older (39.1 vs 30.7 yrs): Indian women present earlier, better awareness?, Nigerians first seek alternative means, Non-availability/non-utilization of hysteroscopy in Nigeria/not widespread.

DISCUSSION

- Nigerian women were more likely to have secondary infertility, Indian women primary infertility
- Sule 2 et al found secondary infertility to be 77.5% and primary infertility 22.5% prevalent in their study. (cf 86% and 14% respectively)
- Socio-cultural issues, strict social restrictions on extramarital relationships among Indians
- Unsafe abortion (Nigeria)
- Puerperal complications (Nigeria)
- Uterine cavity pathology were more likely in Nigerian women (76% vs 26.1%) :Smaller group studied?, True reflection of susceptibility?

DISCUSSION

- Intrauterine adhesions commonest among Nigerians, accounted for 30% of pathology identified. (3.6% among Indians)
  - Complications following poorly supervised deliveries/puerperal complications(note 20 infertility higher among Nigerians)
  - Abortion laws restrictive in Nigeria, liberal laws in India since 19713
  - Higher incidence of unsafe abortion in Nigeria4
  - Alternative treatment, harmful socio-cultural beliefs and practices eg insertion of concoctions/foreign bodies.
  - Fibroids commoner, more myomectomies and complications? A sister study showed that 60% of the Nigerian women who had intrauterine adhesions had a prior myomectomy.
- Fibroids commoner among Nigerians: Black race, Late age at presentation
- Complete septum similar incidence: Either group not more susceptible

Fig 2:Normal uterine cavity (Source:Radiology info.org)

Fig 3: Intrauterine adhesions (Source: Google images)

fig 4: Submucous fibroid

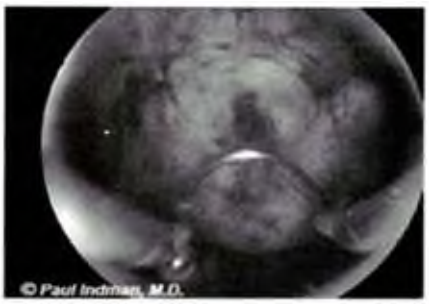
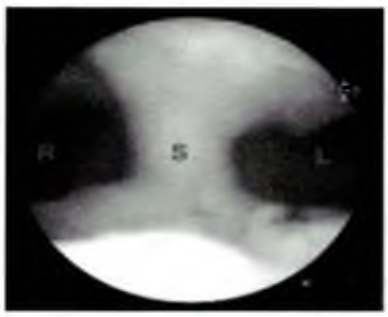


Fig 5: Uterine Septum(Source:Radiology info.org)



CONCLUSION

- There are significant differences in hysteroscopic findings between infertile Nigerian and Indian women.
- These maybe explained by peculiar socio-cultural and reproductive experiences each group of infertile women are exposed to.
- This may also account for differing prevalence in type of infertility in each group.
- Taking measures such as enlightening our women on need for early presentation, avoidance of harmful socio-cultural beliefs and practices and availing themselves of expert care in gynaecological issues, liberalizing abortion laws etc may mitigate acquired uterine factors and thus help in the prevention, treatment and prognosis of infertility in Nigeria.

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PL-06

CHILDBEARING DESIRES AND INTENTIONS OF NIGERIANS LIVING WITH HIV INFECTION

Dr. Oladele/Ezechi

BACKGROUND

- With increased access to ARV drugs and improved health status, PLWHIV's concern have shifted from quest for survival to quest for other life desires including childbearing.

- Unprotected sexual activity required for conception carries a risk of HIV transmission to uninfected sexual partners, transmission of drug resistant virus and vertical transmission of the virus to the unborn child.
- Counseling PLHIVs on secondary HIV prevention has remained a major challenge because of the high premium placed on childbearing in our environment.
- There is therefore an urgent need to redesign the present counseling strategy so as to take into consideration childbearing behaviour and determinants among PLHIVs.

OBJECTIVE OF THE STUDY

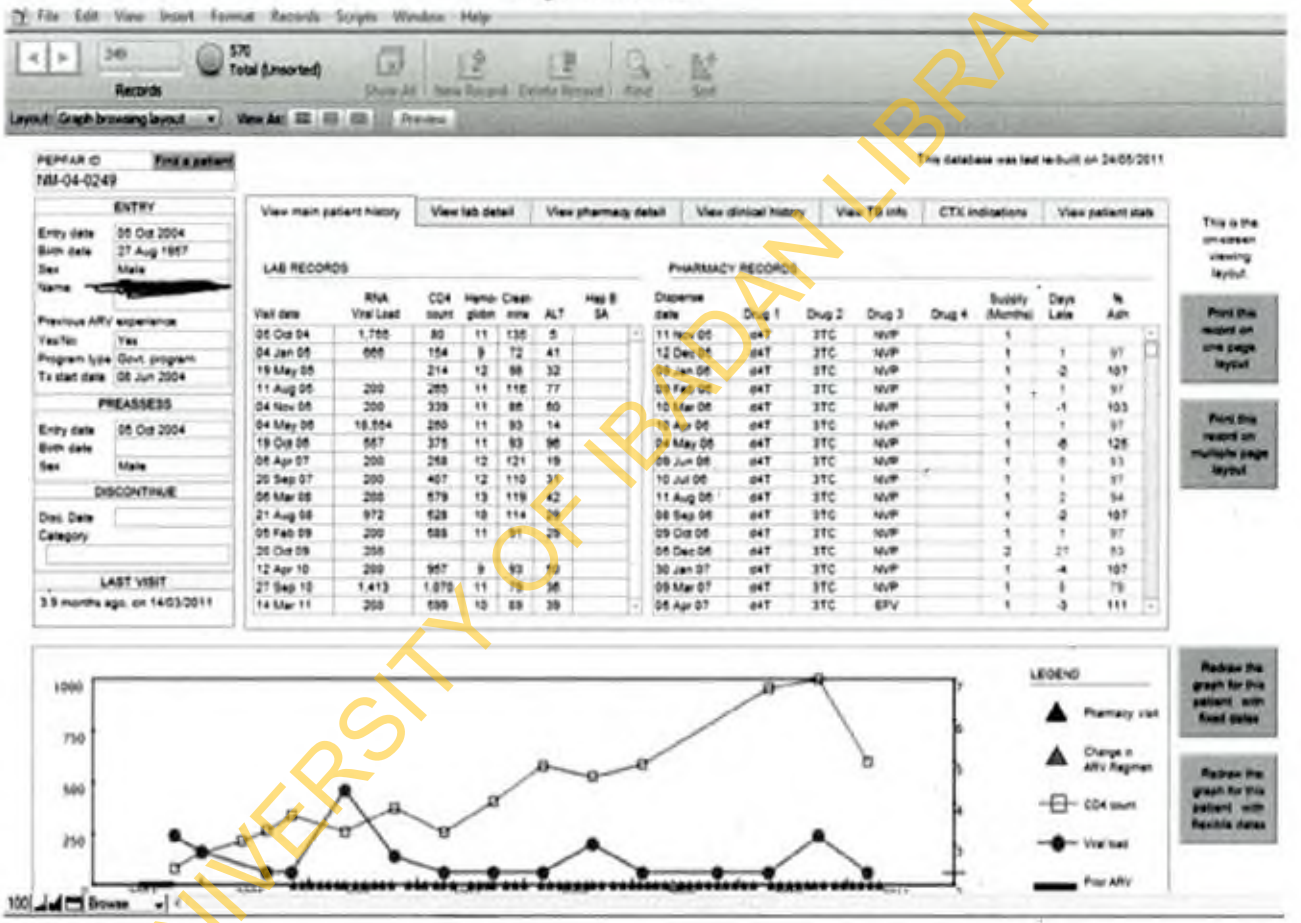
- To determine the child bearing desires, intentions and the associated factors among Nigerians living with HIV Infection seen at the HIV treatment centre, Nigerian Institute of Medical Research, Yaba, Lagos.

SUBJECTS & METHODS

Study Design

SUBJECTS & METHODS

Programme data base



- Crossectional survey of HIV positive persons receiving care at a large HIV treatment centre. Medical records were also reviewed to obtain some biologic data

STUDY SETTING:

- HIV treatment Centre, NIMR, Yaba Lagos.

ELIGIBILITY:

- Only patients aged 18- 49 years competent to sign informed consent seen at the clinic between Jan. 2008- Dec. 2010.

STUDY SAMPLE

- All consenting patients meeting the eligibility criteria seen during the study period

DATA COLLECTION:

- Data collection was with a self administered questionnaire after pilot testing to ensure comprehension. Unlettered were assisted by trained counselor.

STUDY PRIMARY OUTCOME

- Was determined by the answer to the question "Are you planning to have children in the future ? (Yes/No)

STATISTICAL ANALYSIS

- Childbearing intention rate was calculated for all respondents and then segregated by sex. In addition we measured the presence and strengthens of the association between some variables and childbearing intention using both univariate and

Sociodemographic characteristics of the respondents

Xteristics	All Respond. N= 5473 (%)	Desires Children N=3453(%)	No Child desire N= 2020(%)	Chi square	P value
Age (years)	504(9.2)	385(76.4)	119(23.6)	380.14	<0.001
• 18-20	1899(34.7)	1434(75.5)	465(24.5)		
• 20 -29	2441(44.6)	1404(57.5)	1037(42.5)		
• 30-39	635(11.6)	236(37.2)	399(62.8)		
• 40-49					
Sex	2004(36.6)	1192(59.5)	812(40.5)	8.07	0.005
• Male	3469(63.4)	2199(64.9)	1270(35.1)		
• Female					
Tribe	1669(30.5)	1087(65.1)	582(34.9)	2.68	0.61
• Yoruba	1270(23.2)	815(64.2)	455(35.8)		
• Igbo	586(10.7)	367(62.7)	219(37.3)		
• Hausa/Fula	1133(20.7)	707(62.3)	426(37.7)		
ni	815(14.9)	518(63.6)	297(36.4)		
• S. Minority					
• N. Minority					

Xteristics	All Respond. N= 5473 (%)	Desires Child. N=3453(%)	No Child desired N= 2020(%)	Chi square	P value
Educat. status	2118(38.7)	1386(65.4)	733(34.6)	7.81	0.01
• Less than 2°	33549(61.3)	2067(60.9)	1287(39.1)		
• At least 2°					
Religion	274(0.5)	154(59.5)	120(40.5)	7.65	0.06
• ATR	3450(59.4)	2199(64.9)	1270(35.1)		
• Christianity	1669(30.9)	1058(63.4)	611(36.6)		
• Islam	504(9.2)	302(59.9)	202(40.1)		
• Others					
Marital status	3076(56.2)	1087(65.1)	582(34.9)	0.25	0.62
• Married	2397(43.8)	815(64.2)	455(35.8)		
• Not married					
Employ. status	1937(35.4)		699(36.1)	0.84	0.36
• Not working	3536(64.6)	1238(63.9)	1322(37.4)		
• Working		2215(62.6)			

Clinical and biologic characteristics of the respondents

Xteristics	All Respond. N= 5473 (%)	Desired Child. N=3453(%)	No Child desired N= 2020(%)	Chi square	P value
Time on care(Yrs.)					
• Less than 1	782(14.3)	479(61.3)	303(38.7)	3.30	0.19
• 1-5	3128(57.2)	2005(64.1)	1123(35.9)		
• >5	1563(28.6)	969(62.0)	594(38.0)		
ARV use					
• Yes	3607(65.9)	2651(73.5)	956(26.5)	490.5	<0.001
• No	1866(34.1)	802(67.9)	1064(32.1)		
CD4 level					
• ⩽ 350	3076(56.2)	1907(62.0)	1169(38.8)	3.51	0.06
• >350	2397(43.8)	1546(64. 5)	851(35.5)		
Presence of OIs					
• Yes	1609(29.4)	907(61.2)	702(38.8)	43.8	<0.001
• No	3864(70.6)	2546(65.9)	1318(34.1)		

Crude and adjusted analyses of variables associated with childbearing Intentions in the study

Variables	Desired Child. N=3453(%)	No Child desired N= 2020(%)	COR (95%CI)	AOR (95%CI)
Age(yrs.)				
• <30	1819(75.7)	584(24.3)	2.30[2.03-2.61]	2.1[1.6-2.5]
• 30-39	1404(57.50	1037(42.5)	1.00	1.00
• 40-49	236(37.2)	399(62.8)	044[0.36-0.53]	0.56[0.41-0.84]
Sex				
• Male	1254(62.6)	750(37.4)	1.00	1.00
• Female	2199(63.7)	1270(36.3)	1.85[1.26-8.43]	1.9[1.32-3.67]
Edu. Status				
• <2◦	1386(65.4)	733(34.6)	1.00	1.00
• ⩾ 2	2067(60.9)	1287(39.1)	1.18[1.05-1.32]	0.54[0.32-7.00]
ARV Use				
• Yes	2651(73.5)	956(26.5)	3.68[3.26-4.15]	3.2[2.6-5.91
• No	802(67.9)	1064(32.1)	1.00	1.00

Variables independently associated with childbearing desires and intention

Variables	Adjusted odd Ratio	95% confidence interval
Respondent age less than 30 Years	2.1	
Having less than 3 living children	3.9	3.2 – 5.9
Respondents subjective good health rating	1.5	1.4 – 2.5
Use of ARV drugs	3.2	2.6 – 5.91
Female patients	1.9	1.32 – 3.67

multiple logistic regression models. All statistical test were 2 sided and were considered significant at alpha 0.01. Analysis was with SPSS for windows version 14.0

RESULTS

- 5769 questionnaires were administered
- 5473 (94.9%) questionnaire found suitable for analysis
- Distribution of reason for unsuitability
- Not returned : 109(1.9%)
- Incomplete information : 128(2.2%)
- Age outside the range (18-49 years) : 59(1.0%)

DESIRE FOR CHILDREN AMONG THE RESPONDENTS

- Of the 5473 respondents, 3453 (63.1%) desire to have children now or in the near future: Desire rate among the male : 59.5%, Desire rate among the female: 64.9%
- Number of desire children by respondents: At least 3 children : 71.3%, Two children : 17.7%, One child : 11.0%

DISCUSSION

- The desire for conception rate in our study of 63.1% is similar to a southwestern Nigerian study (Oladapo et al 2004) but at variance with other studies in South Africa, USA, Canada and France that reported rates of 27-33% (Chen et al 2001,Myer et al 2007,Ogilvie et al 2007). This could be due to peculiar socio-cultural demand in Nigeria.
- The predictors of childbearing intentions in our study of young age, low parity and perceived good health agree with previous work in Southern Africa and a USA cohort (Chen et al 2001, Myer et al 2007).
- However contrary to previous published work, our study did not demonstrate the association between education, Non-disclosure of HIV status and shorter time of HIV diagnosis and the desire for future child bearing . (Oladapo et al 2004,Oyediran et al 2006)

CONCLUSION

- Our findings shows that most PLHIV desires children and that important associations exists between childbearing intentions and some sociodemographic, clinical and biologic characteristics of the respondents .
- The childbearing desires and intention profile of HIV-positive persons in this study demands the integration of reproductive health services into all existing HIV services to support the rights of PLHIVs to safely achieve their childbearing goals, while minimizing risks of transmission.

PRE CONFERENCE WORKSHOP

PL-07

FETAL MEDICINE *WORKSHOP ON* NUCHAL TRANSLUCENCY SCAN

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NUCHAL TRANSLUCENCY FLUID

Subcutaneous accumulation behind the neck of the fetus, visualized in the 3rd month of intrauterine life. It is the intrauterine image of Down description of the appearance of the skin of some babies affected by severe MR in the condition that was to be later named after him – Down syndrome

1838-46: Esquirol and Seguine described the phenotypic differences among MR humans

1866: John Langdon Down, a Physician at the London Hospital proposed the 4 ethnic classifications of the phenotypes in MR "The hair is not black, as in real Mongol, but of a brownish color, straight and scanty. The face is flat and broad and destitute of prominence. The cheeks are roundish and extended laterally. The eyes are obliquely placed and the internal canthi more than normally distant from one another. The palpebral fissure is narrow. The forehead is wrinkled transversely from the constant assistance, which the levator palpebrum derive from the occipi-frontallis muscle in opening of the eyes. The lips are large and thick with transverse fissures. The tongue is long, thick and is much roughened. The nose is small. The skin has a slight dirty yellowish tinge, and is deficient in elasticity, giving it the appearance of being too large for the body"L. Down. (1866) "Observation on an ethnic classification of idiots" - 'Mongolian idiot'

Above found among trisomy 21 babies

1876: Fraser and Mitchell suggested that the condition that the condition could be congenital

1909: Shuttleworth examined 350 children with similar features and wrote:

> *"It would seem fair interference...that more than half of the Mongolian imbeciles in institutions are last born children, mostly of long families, and that in a considerable proportion from one -half to one –third the mothers were at the time of gestation approaching the climacteric period, and that in consequence the reproductive powers were at a low ebb"*

RAISED TWO ISSUES

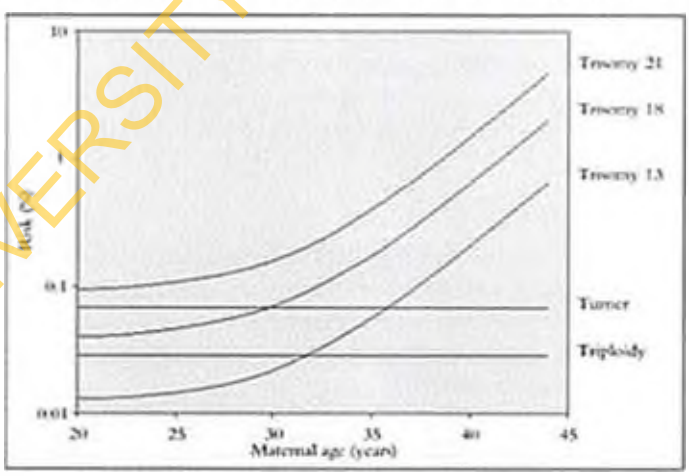
1. Advanced Maternal Age
2. Birth Order/High Parity

1930

Penrose study brought MA to prominence

- Maternal Age (MA): The First screening method for DS. Introduced as screening tool in the early 70's

Figure 1: Relationship between MA and Risk of Chromosomal abnormality (Adapted from Nicolaides *et al*,)



IMPLICATION

Amniocentesis was performed on all pregnancies considered at risk based on MA

Contending Factors: Risk of procedure related abortion and Financial cost

Cut off MA was 40 years at inception because of the significant high risk of abortion. Reduced to 35 years as amniocentesis became safer 5% of the pregnant population are above this MA. Increased again to 38 years because of following:

1. Late marriages and conception,
2. Wider utilization of ART in relatively older women

Amniocentesis detect about 30% of DS for 5% ITR, 70% left undetected. Challenge is to get methods with higher DR at

same ITR

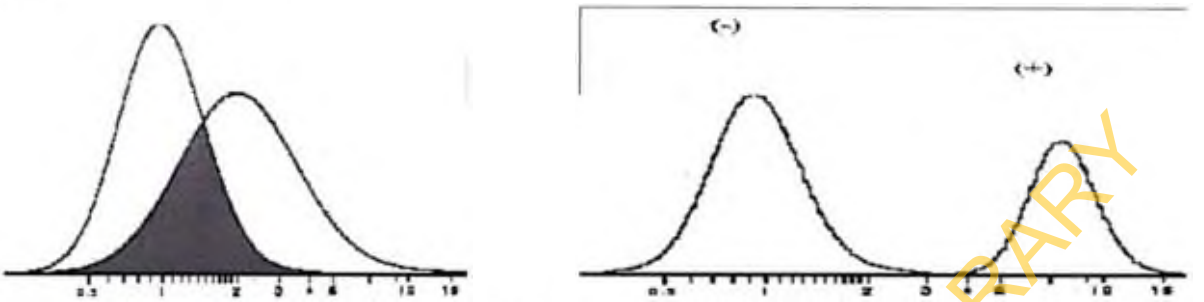
In 1980s: Additional markers introduced in the 2nd trimester

Based on variations of MS hormones with GA (Reduced levels of MSAFP with DS foetuses, Increased levels of MS hCG and Reduced level of unconjugated estriol (uE3))

Biochemical markers are affected by many factors (twin, DM, weight, race etc) & have wide overlap between normal and abnormal foetuses: Triple Test yields a DR of 60-70% and hCG has the highest single DR for DS

Wide spread of normal value with overlap in the
distribution between affected and unaffected pregnancies

1990s



- HCG replaced with free beta subunit of hCG, Inhibin A added to become quadruple test for higher DR, Emphasis shifted to 1st trimester screening, The introduction of Chorionic Villous Sampling, The development of better ultrasound technique, Pregnancy associated plasma protein (PAPP-A) reduced by about 50% in DS pregnancies, The concept of Nuchal fluid was introduced

ADVANTAGES/ BONUS EFFECTS OF NT SCAN

1. First trimester procedure
2. The detection rate is about 75% (higher than MSB)

AFP	**34**
AFP + hCG (Double screen)	50 – 60
AFP + hCG + uE3 (Triple screen)	60 – 70
AFP + hCG + uE3 + Inhibin A (Quad screen)	80

3. Not affected significantly by race, ethnicity, diabetes or parity

The commonest Chromosomal abnormality in live born. World wide (Approximately 1 per 1000 live births, Range 0.83-1.43 per 1000 live births); Nigeria (Reported 1/865 (Adeyokunnu,1985) and 1st reported case (Tompkins,1964)).

Early screening and diagnosis of Major structural anomalies especially cardiac and genetic syndromes. Predictor of adverse pregnancy outcome in MCT pregnancies e.g TTTS and in apparently normal pregnancies e.g fetal death. Opportunity for Early pregnancy screening for impaired placentation (doppler studies)

Method of Screening	**DR (%)**
Maternal Age (MA)	30
MA and Maternal Serum Biochemistry (MSB) at 15-18weeks	50-70
MA and Fetal Nuchal Translucency (NT) at 11-13+6 weeks	*70-80*
MA and fetal NT and Maternal Serum free B-hCG and PAPP-A at 11-13+6weeks	85-90
MA and fetal NT and Nasal Bone (NB) at 11-13+6weeks	90
MA and fetal NT and NB and Maternal serum free B-hCG and PAPP-A at 11-13+6weeks	95

Adapted from The 11-13+6 weeks scan (Ed. Nicolaides K.H)

STRUCTURAL ABNORMALITIES ASSOCIATED WITH INCREASED NT

1. Cardiac defects: a. High association in both chr normal and abnormal fetuses, b.DR of 37.5% for a FPR of 4.9%
2. Diaphragmatic Hernia 3. Pulmonary hypoplasia, 4. Exomphalos, 5. Inc NT in 80% of chr Abn and 40% of chr N fetuses 6. Megacystitis: a) Longitudinal bladder length >7mm

GENETIC SYNDROMES

- Nephritic syndrome, Noonan syndrome, Robert syndrome, Zellweger syndrome, Beckwith-Wiedemann syndrome,

NT and Fetal Outcome

N T (mm)	Chromo	Struct def	Death	Alive/Well
2.1 – 2.9 (<95th)	0.2	1.6	1.3	97
3.0 – 3.4 (95th – 99th)	3.7	2.5	1.3	93
3.5 - 4.4	21.1	10.0	2.7	70
4.5 – 5.4	33.3	18.5	3.4	50
5.5 – 6.4	50.5	24.2	10.1	30
>6.5	64.5	46.2	19.0	15

Achondroplasia

FETAL DEATH

- Prevalence of FD inc exponentially with NT inc from 1.3% at 95th – 99th centile to 20% at 6.5 mm
- Majority die by 20 weeks with slow progression from inc NT to fetal hydrops

DEVELOPMENTAL DELAY

- Prevalence of 2-4% reported for delayed milestone

TERMINOLOGIES

SCREEN POSITIVE/INVASIVE TESTING RATE

Refers to women that will have invasive testing after a positive screening test. The lower the rate, the more effective the screening test (1% is better than 5% screen positive rate). 5% is the universal rate for most screening test

DETECTION RATE (DR)

The proportion of women confirmed to have an abnormality after an invasive testing. The higher the (DR), the better the screening test

FALSE POSITIVE RATE (FPR)

Number of women that had invasive testing after positive screening, but had a negative invasive diagnosis (result)

SENSITIVITY

How reliably is the test positive when disease is present

SPECIFICITY

How reliably is the test negative in normal health (disease absent)

NUCHAL TRANSLUCENCY (NT)

BASIS

The Down description of the appearance of the skin of affected babies about century earlier (too large for the body)

DEFINITION

The NT is the sonographic appearance of subcutaneous accumulation of fluid behind the fetal neck in the first trimester of pregnancy

PATHOPHYSIOLOGY

Increased NT is found in multiple conditions suggesting multiple mechanism

- Cardiac dysfunction, Majority of chromosomally abnormal fetuses terminated at 11-12 weeks due to increased NT demonstrated abnormalities of the heart and great vessels, Common defects are AVSD, Valvular defects,

narrowing of the isthmus and dilatation of ascending aorta
Resolution of N/fluid follows reduced vascular resistance and widening of the aortic isthmus.

VENOUS CONGESTION IN THE HEAD AND NECK
From mediastinal/intrathoracic compression & impedance to venous return. e.gIntrathoracic herniation of abdominal viscera (DH), Narrow thoracic cage in skeletal dysplasia

FETAL HYPOPROTEINEMIA
- Implicated in both immune and non immune hydrops
- Reduced MS AFP is suggestive of fetal hypoproteinemia
- Fetal proteinuria in congenital nephritic syndrome lead to fetal hypoproteinemia and fetal hydrops

ALTERATION OF EXTRACELLULAR MATRIX
- The extracellular matrix consist of ground substance (mucoproteins/polysaccharides and collagen fibres (from fibroblasts)
- Most of the component proteins of the ECM are encoded on Chromosomes 21, 18 or 13
- Immunohistobiochemical studies have demonstrated alteration in ECM that is gene dosage dependent

T21 has abundant collagen VI, T13, collagen IV and T18, laminin

FAILURE OF LYMPHATIC DRAINAGE
Main lymphatic develops from and lose its connection to the venous system except the juguloaxillary sacs that drains lymph to the venous system

POSSIBLE MECHANISM INCLUDE:
- Developmental delay in the connection to the venous system
- Primary abnormal dilatation of the lymphatic system
- Abnormal proliferation of the lymphatic channels, interfering with normal flow between lymphatic and venous system

EXAMPLE IS IN TURNER SYNDROME
- Fetal infection
  - In 10% of unexplained 2nd or 3rd trimester fetal hydrops, there is evidence of recent maternal infection (fetus also affected)
  - Increase NT does not suggest higher prevalence of TORCH above the general population
  - Increased NT in infected mothers does not suggest fetal infection
  - Parvo V B19 causes increased NT

NUCHAL TRANSLUCENCY SCAN
TECHNIQUE AND GUIDELINES FOR MEASUREMENT

Optimum GA for NT Measurement, · 11- 13^{+6} weeks (CRL 45mm - 84mm)

REASONS FOR MINIMUM GA OF 11 WEEKS
1. Follow up invasive test (CVS), for screen positive fetuses not advised before 11 weeks due to the possible higher risks of : Oro Mandibular Facial Deformity (OMFD), Transverse Limb Deformity, Higher background risk of abortion
2. Most fetal structures only become well developed and appreciated after 11 weeks gestation : 10 Wks- 4 chamber

view of the heart and main arteries, 11 Wks- Gut rotation completed at 11 weeks to exclude exomphalos, 11 Wks- Acrania and anencephaly, 11 Wks- Fetal bladder visualized in about 80% and 100% by 12 weeks

REASONS FOR THE UPPER LIMIT OF 13^{+6} WEEKS

- First trimester termination of affected fetuses, safer than in second trimester
- Incidence of abnormal accumulation of nuchal fluid in chromosomally abnormal fetuses decreases after 11-14 weeks
- After 14 weeks, the fetus becomes more vertical in position most times, and getting appropriate images and measurements becomes more difficult

BASIC REQUIREMENTS FOR GOOD NT IMAGING

- Standard protocol and technique, Appropriate training, High motivation

STANDARD PROTOCOL AND TECHNIQUE

- Truly sagittal view, Head in neutral position, Adequacy of Magnification, Amnion is separate from the nuchal membrane, Calipers are positioned appropriately (in- to –in rule), Accurate CRL measurement depends on: True sagittal image, Head in neutral position. , CRL is crucial to pregnancy dating which is the basis for relying on the NT measurement and risk calculation

ADEQUATE MAGNIFICATION

The film is occupied by at least three-quarters of the fetal image (head, neck and upper chest)
Separate and distinguish the amnion from the nuchal membrane
(Both appear as thin membranes)
How?

1. Wait for spontaneous fetal movement away from the amniotic membrane
2. Bounce the fetus off the amnion: a. Belly dance, b. Maternal thrust motion/movement

- Umbilical cord round the neck (5-10%), produces a falsely increased NT (+0.8 mm)
- Take the measurements above and below the cord and use the average measurement
- Color doppler becomes useful
- Identify the area of maximum thickness of the subcutaneous translucency
- Place the calipers at that point (In- to –In rule)
- Record ≥1measurement and use the maximum

CALIPER PLACEMENT

- Identify the area of maximum thickness of the subcutaneous translucency
- Place the calipers at that point (In- to –In rule)
- Record ≥1measurement and use the maximum

QUALITIES OF USS MACHINE

- High resolution, Video cine loop, Measures to the nearest 0.1mm, Color doppler (optional but advantageous)

True Sagittal View

Flexed head decreases NT by about 0.4mm

Head in neutral position

D1:0.9mm

Head in neutral position

Extended head: Hyperextended fetal neck increased NT by 0.6mm

NT:1.1mm

NT:1.4mm

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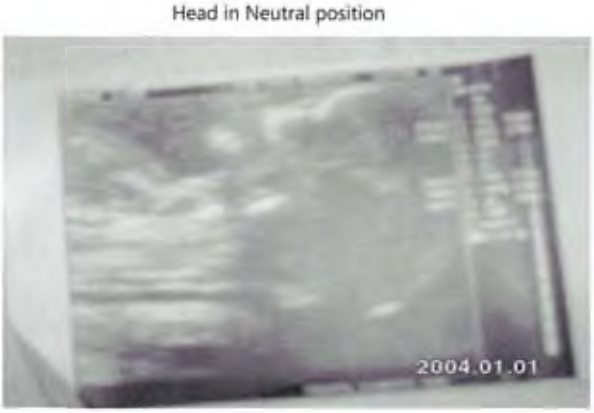
NT:1.3mm

Head in Neutral position



Adequate magnification

NT:1.4mm

Adequate magnification

NT:1.4mm

Image of separated membranes (Amnion/Nuchal)

Amnion/Nuchal membrane

NT:1.4mm

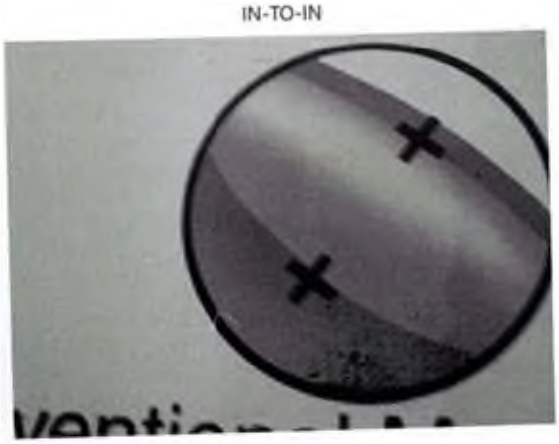
Amnion/Nuchal membrane

NT:1.4mm

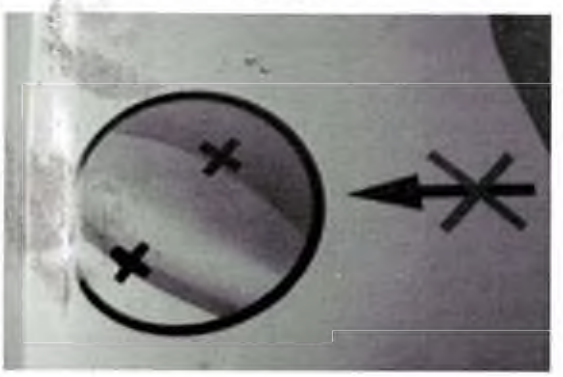
Amnion/NT Membrane/ Flexed head

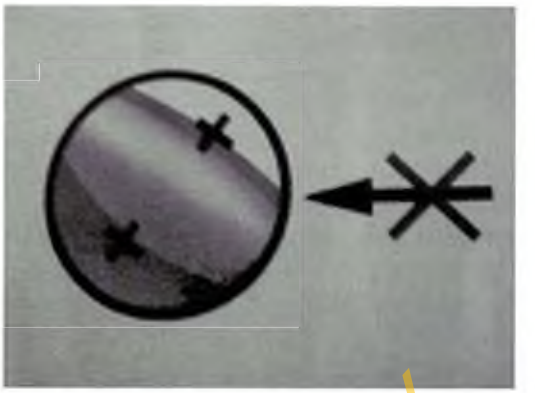
Umbilical cord round neck/ poor magnification

IN-TO-IN



IN-TO-OUT





PL-08

OFFICE HYSTEROSCOPY

Prof . A. O. Arowojolu (FRCOG)

INTRODUCTION

The obstetrician and gynaecologist often has to assess the uterine cavity for a reason or the other.

Methods of assessing the uterine cavity include

- hysterosalpingogram (i.e. HSG)., saline infusion sonogram (i.e. SIS or sonohysterogram), hysteroscopy.

INTRODUCTION HSG

HSG is a procedure done in the hospital radiology department while the patient is on a fluoroscopy table (sometimes without fluoroscopy).

THERE IS NO ANESTHESIA.

The X-Ray will show dye passing into the fallopian tubes and confirm free spill of dye into the peritoneum or blocked tubes.

Defects may be seen in the uterine cavity such as polyps or myomas.

Defects in the cervical canal will not be seen because the cannula / catheter tip is usually above this level.

About 15% of these procedures will give false-negative results.

INTRODUCTION SIS

- The Saline Infusion Sonogram allows us to assess the uterine cavity as well as the wall of the uterus at the same time.
- It does not allow observation of the fallopian tubes like the HSG.
- Saline may be seen to flow into the pelvis with the SIS, but one does not know which tube is open.

INTRODUCTION. GOLD STANDARD

SIS may show lesions in the uterus.

Neither procedure allows for treatment at the same time as diagnosis like hysteroscopy.

Since hysteroscopy allows direct visualization by the physician and treatment, it is clearly the 'Gold Standard' of uterine assessment

INTRODUCTION: HYSTEROSCOPY.

Hysteroscopy is an endoscopic inspection of the uterine cavity using a thin telescope that is inserted through the cervix into the uterus.

The instrument used for the procedure is called a HYSTEROSCOPE.

Modern hysteroscopes are very thin and will fit through the cervix with minimal or no dilation.

HISTORICAL PERSPECTIVES

The first uterine endoscopy was reported in 1869 by Pantaleoni.

However, at that time, instrumentation was elementary, and expansion of the uterine cavity was insufficient.

Rubin first used CO_2 to distend the uterus in 1925.

Around the same time, Gauss experimented with the use of fluids to achieve uterine expansion.

Hysteroscopy became popular by the 1970s, when technology afforded more practical and usable instruments than before.

developeThe use of liquid distention media became routine by the 1980s.

Many operative hysteroscopic procedures, including endometrial ablation, wered subsequently.

By the mid-1980s, hysteroscopic procedures had nearly replaced dilation and curettage (D&C) for diagnosing intrauterine pathology.

Later the resectoscope was modified for resection of intrauterine pathology with monopolar cautery
Resectoscopes were initially used by Urologists for transurethral resection of the prostate gland.

RECENT ADVANCES

Refinements in optical and fiber optical technology, and inventions of new surgical accessories have greatly improved visual resolution and therefore, surgical procedures in hysteroscopy.

While the insertion portion of the hysteroscope itself is very thin, the advanced optic design allows a full color view of the inside of the uterus and the openings to the Fallopian tubes.

In the past hysteroscopy is performed under general anaesthesia or spinal analgesia due to the pain associated with cervical dilatation and insertion of large bore hysteroscopes.

Recent advances include the use of 3mm hysteroscopes and flexible ones which allow easy access into the uterine cavity without cervical dilatation or the use of tenaculum, without anaethesia in an office procedure.

EQUIPMENT FOR HYSTEROSCOPY

Hysteroscopes– Rigid or Flexible.

- carry optical and light channels or fibers, Covered by a sheath that provides an inflow and outflow channel for insufflation of the uterine cavity.

May contain an operative channel may be present to introduce scissors, graspers or biopsy instruments

HYSTEROSCOPES: TYPES

- A flexible hysteroscope
- A contact hysteroscope is a hysteroscope that does not use distention media.
- A hysteroscopic resectoscope allows entry of an electric loop to shave off tissue such as a fibroid.
- Microcolpohysteroscopes have additional use for colposcopy.

COMPONENTS OF RIGID HYSTEROSCOPES:

The telescope consists of 3 parts: the eyepiece, the barrel, and the objective lens.
The focal length and angle of the distal tip of the instrument are important for visualization.
Angle options include 0°, 12°, 15°, 25°, 30°, and 70°.

RIGID HYSTEROSCOPES

A 0° hysteroscope provides a panoramic view.
An angled one might improve the view of the ostia in an abnormally shaped cavity.
3-5 mm in diameter scope offers the sharpest and clearest view.

FLEXIBLE HYSTEROSCOPES.

- The flexible hysteroscope is most commonly used for office hysteroscopy.
- It is useful for diagnostic and operative procedures.
- It has a tip that deflects over a range of 120-160.
- Its most appropriate use is to accommodate the irregularly shaped uterus and to navigate around intrauterine lesions.

LIGHT SOURCE

Internal or external light source for illumination at the distal tip.

- Energy sources include: tungsten, metal halide, xenon.
- A xenon light source with a liquid cable is considered the superior option.

MEDIA

- Media open the potential space of the otherwise narrow uterine cavity.
- The media in use are gas or fluids
- The refractive index of each medium affects magnification and visualization of the endometrium.

MEDIA: GASSES

- Carbon dioxide (CO_2) is the most widely used gas medium.
- It is rapidly absorbed and easily cleared from the body by respiration.
- The refractory index of CO_2 is 1.0, which allows for excellent clarity and widens the field of view at low magnification.
- The gas easily flows through narrow channels in small-diameter scopes, making it useful for office-based diagnostic hysteroscopy.
- CO_2 offers no way to clear blood from the scope.

CABONDIOXIDE GAS

- A hysteroscopic insufflator is required to regulate flow and limit maximal intrauterine pressure.
- A flow rate to 40-60 mL/min at a maximum pressure of 100 mm Hg is generally accepted as safe.
- Pressures and rates higher than this can result in cardiac arrhythmias, embolism, and arrest.

FLUIDS

- Fluids produce symmetric distention of the uterus.
- Fluids have effective ability to flush blood, mucus, bubbles, and small tissue fragments out of the visual field.
- A pressure of 75 mm Hg (max. 100 mm Hg) is usually adequate for uterine distention.
- Higher pressures increase the risk of intravasation of medium.

DISTENDING FLUIDS

- Normal Saline (0.9% sodium chloride solution) and Ringer lactate solution.
    - Isotonic, conductive, low-viscosity fluids
    - Can be used for diagnostic hysteroscopy and for limited operative procedures.
    - Surgical procedures using mechanical, laser, monopolar and bipolar energy are safe.

N/SALINE & RINGER'S SOLN.

Disadvantages –

- Miscibility with blood - obscures visibility with bleeding, leading to the need for increased volumes to clear the operative field.
- Excellent conductivity - precludes procedures that use standard monopolar electrosurgery.

5% MANNITOL, 3% SORBITOL, AND 1.5% GLYCINE

- Can be used in diagnostic as well as operative hysteroscopy.
- 5% mannitol can be used only with monopolar operative procedures.
- Improve visualization when bleeding occurs.
- Impose a risk of volume overload and hyponatremia from intravascular absorption (particularly > 2 L).

DANGERS.

- Intravasation of 5% mannitol causes increased extracelluar fluid causing oedema.
- 3% sorbitol has an added risk of hyperglycemia when absorbed in excess.
- Use of 1.5% glycine with caution in patients with impaired hepatic function because glycine is metabolized to ammonia.

DEXTRAN70 (HYSKON)

70% Dextran.

- A non-electrolytic, nonconductive fluid that can be used in all types of procedures.
- It is immiscible with blood and allows for excellent visibility during surgical procedures.
- It minimally leaks through the cervix and tubes.

DANGERS

- Allergic reactions / Anaphylaxis, Fluid overload, Disseminated intravascular coagulopathy, Damage of instruments

DISTENDING SYSTEMS

- Various delivery systems are designed to suit the many distending media and to accurately record volumes of inflow and outflow.
- Preventing excess absorption of hypotonic fluids is essential for patient safety.
- The simplest delivery system is a syringe that most often is used with high-viscosity Dextran 70.

MEDIA DELIVERY SYSTEMS

- Hanging, gravity-fed containers to deliver low-viscosity fluids can be raised or compressed with a cuff. e.g. infusion drips: unreliable in estimating intrauterine pressures.
- Pump are used monitor pressure and volume for low-viscosity media: Their design creates laminar flow, which keeps the visual field clear.

SURGICAL INSTRUMENTS: TYPES & USES.

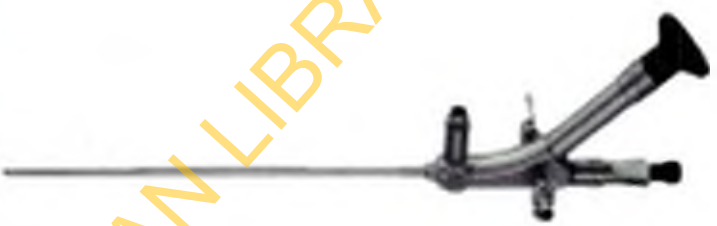
- Scissors - To incise a septum, excise a polyp, or lyse synechiae.
- Biopsy forceps - To perform directed biopsy for pathologic review.
- Grasping instruments - To remove foreign bodies.
- Roller ball, barrel, or ellipsoid - To perform endometrial ablation and/or desiccation (This instrument is used with a resectoscope.)
- Loop electrode - To resect a fibroid or polyp or endometrium (This instrument is used with a resectoscope.)

- Scalpel - To cut or coagulate tissue, with high power density at its tip (This instrument is used with a resectoscope.)
- Vaporizing electrodes – To destroy endometrial polyps, fibroids, intrauterine adhesions, and septa; also used for endometrial ablation (This instrument is used with a resectoscope.)
- Morcellator – To cut and remove endometrial polyps or fibroids.

RECENT ADVANCES.

- Chip E-Vac System (Richard Wolf Medical Instruments Corporation, Vernon Hill, Ill) - incorporates a suction channel and a pump to aid in removing chips of tissue during resection.
- MyoSure (Interlace Medical, Inc, Framingham, Mass) – a hysteroscopic morcellator that removes submucosal fibroids up to 3 cm in diameter, with a unit that only requires cervical dilation to 6 mm.

Instruments: Rigid Hysteroscopes. (Karl Stortz)



ENERGY SOURCES. – MONOPOLAR CAUTERY.

- Double-armed electrode and a trigger device for use in hypotonic, nonconductive media, such as glycine.
- It cuts and coagulates tissue by means of contact desiccation with resistive heating.
- The depth of thermal damage is based on several factors: endometrial thickness; speed, pressure, and duration of contact during motion; and power setting.
- A thin electrode can cut tissue, whereas one with a large surface area, such as a ball or barrel, is best suited for coagulation.
- often used with a resectoscope

Rigid diagnostic hysteroscope with both inflow and out flow ports

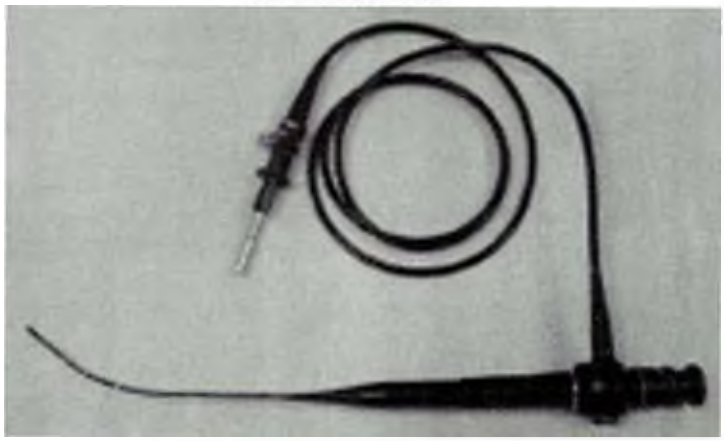
ENERGY SOURCE. – BIPOLAR CAUTERY

The Versa Point system (Gynecare, Inc, Somerville, NJ), uses bipolar circuitry for electrosurgery, which can be performed in isotonic conductive media.

THIS SYSTEM INCLUDES:

- a spring tip for hemostatic vaporization of large areas, a ball tip for precise vaporization,a twizzle tip for hemostatic resection and morcellation of tissue, There is also a cutting loop similar to traditional resectoscopy, Bipolar resectoscopes have been designed by both Karl Storz (Tuttlingen, Germany) and Richard Wolf Medical Instruments Corporation (Vernon Hill, Ill).

Flexible hysteroscope.



ENERGY SOURCES. - LASER TECHNIQUES.

- Potassium-titanyl-phosphate (KTP), Argon, Nd:YAG lasers, They all have different wavelengths, though the KTP and argon lasers have similar properties.

ANAETHESIA

- Severe pain and patient anxiety are among the most common causes of surgical failure.
- A Cochrane review supports the use of local anesthesia as effective pain control during and within 30 minutes of completing hysteroscopy (Ahmad et al 2010).
- The same review did not show significant pain reduction with the widely practiced use of NSAIDs or opioids during or after the procedure.
- Conventional panoramic hysteroscopy requires some form of anesthesia, while the smaller caliber flexible hysteroscopes require little to no anesthesia.
- For hysteroscopes of larger diameter, injectable local anesthetics combined with preoperative vaginal misoprostol (Cytotec, Pfizer, New York, NY) is usually sufficient.

TOPICAL ANAESTHESIA

- Studies have shown mixed efficacy with the use of topical anaesthesia.
- Aerosolized preparations of lidocaine may decrease cervical pain from tenaculum placement but do not decrease uterine sensation (Davies et al 1997)
- A study comparing the addition of lidocaine with the saline distension media showed no difference in pain score compared with saline alone (Shankar et al, 2004)
- Transcervical instillation of 5 mL of 2% mepivacaine lowered pain scores and decreased the rate of vasovagal reactions for women undergoing diagnostic hysteroscopy followed by endometrial biopsy (Zupi et al 1994).
- Topical anesthetics typically do not provide long-lasting relief but may be sufficient for the non-anesthetized patient as in office hysteroscopy.

OFFICE HYSTEROSCOPY.

- Hysteroscopy performed in the office setting.

Gas insufflator (Co_2)

- Safely and conveniently performed with local anesthesia (paracervical block) or even intravenous sedation (conscious sedation).

BENEFITS

- The scheduling is much easier, the stress is much less, and the cost much less.

OFFICE HYSTEROSCOPES

- As instruments become thinner, office hysteroscopy is replacing operating-room procedures.
- One of the most recent hysteroscopic procedures is female sterilization (Essure, Conceptus, Incorporated, Mountain View, Calif), which can be performed in the gynecologist's office.
- The 5-mm Office Continuous Flow Operative Bettocchi Hysteroscope (Karl Storz, Tuttlingen, Germany) has encountered success in the office setting.
- This system includes a 2.9-mm rod lens system with an outer diameter of 5-mm.
- The instrument has a sheath for irrigation and another for suction as well as a 5 F (1.6-mm) operative canal.

OFFICE HYSTEROSCOPY.

OPERATIVE HYSTEROSCOPY.

- A hysteroscopy is described as operative when it involves an additional procedure such as a biopsy or treatment.
- If a medical condition is diagnosed straight away, such as a polyp, it may be treated at the same time of the diagnostic hysteroscopy.

OPERATIVE OFFICE HYSTEROSCOPY.

- The pain during hysteroscopy is usually proportional to the outer diameter of the hysteroscope and amount of cervical dilation.
- Because diagnostic hysteroscopy is generally a short procedure with minimal blood loss, CO_2, NS, and LR are all appropriate distention media choices.

INDICATIONS FOR OFFICE DIAGNOSTIC HYSTEROSCOPY

- Abnormal uterine bleeding, Heavy or irregular periods, Pelvic pain, Unusual vaginal discharge, Repeated miscarriage, Infertility, It can be performed with or without a local anaesthesia.

INDICATIONS FOR OPERATIVE HYSTEROSCOPY

- Endometrial malignancy, Asherman's syndrome, Endometrial Polypectomy, Myomectomy, Congenital Uterine malformations e.g.septum, Evacuation of retained products of conception in selected cases, Removal of embedded IUDs, Endometrial ablation.

ABNORMAL UTERINE BLEEDING.

- Hysteroscopy has nearly replaced standard D&C for the management of abnormal uterine bleeding.
- It allows for direct visualization and diagnosis of intrauterine abnormalities and offers an opportunity for simultaneous treatment.
- Evaluation of the uterine cavity with diagnostic hysteroscopy is up to 88% effective in identifying polyps and submucous fibroids.

HYSTEROSCOPY FOR AUB

- Hysteroscopic diagnosis of intracavitary abnormalities in women with AUB carries a sensitivity of 94% and specificity of 89%.
- This compares favorably with the accuracy of saline infusion sonography, which has a reported 95% sensitivity and 88% specificity.

Fluid management system: dolphin ii.

- Impedance in uterine arteries increased in those who subsequently develop Pre-eclampsia and FGR
- Pooled LR for complications: For the development of Pre-eclampsia, 5.0 with abnormal Doppler, 0.5 for normal Doppler,; For the development of FGR: 2.0 for abnormal Doppler and 0.9 for normal Doppler

ABNORMAL UTERINE ARTERY DOPPLER

- At 24 weeks Gestation Unilateral/bilateral Early diastolic notch and RI >95th centile, 77% sensitivity for predicting pre-eclampsia
- At 24 weeks Gestation Bilateral notching: RI >95th centile for both arteries, Sensitivity of 58% for predicting FGR <10th centile *Harrington et al. USOG 7: 182-188 1996*

SUMMARY

- Abnormal Doppler: 10-15% at 20 weeks, ~5% at 24 weeks, Identifies 50% of those who subsequently develop Pre-Eclampsia and 30% of those who subsequently have FGR, Sensitivities for severe disease requiring early delivery; 80% for PE; 60% for FGR

PROBLEMS WITH UTERINE ARTERY DOPPLERS

- Low risk population – of no proven benefit *(Irion et al. BJOG 1998; 105: 422-429)*
- Problems with interpretation: Small notches, Indices – resistance or pulsatility?, Reliability of method of acquisition *(Valensise USOG 1998; 12: 81-83)*

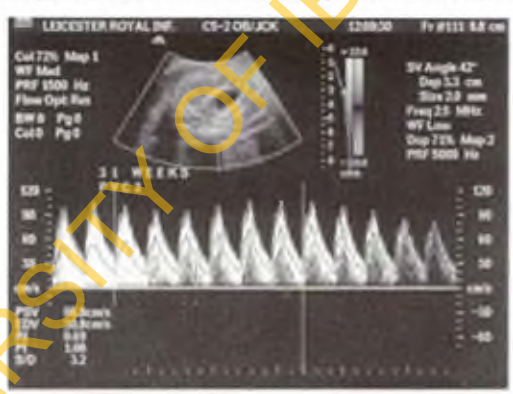
DOPPLER AS A MONITORING TOOL

- Umbilical Artery, Middle cerebral artery, Ductus venosus, Other fetal vessels; Ascending aorta, Descending aorta, Abdominal aorta, Renal artery, Umbilical vein

THE MIDDLE CEREBRAL ARTERY (MCA)

- Reflects central circulation, Resistance falls with gestation, Measurements made:In the mid-sagittal section, At the

Khare M, Paul S, Konje JC. Variation in Doppler indices along the length of the cord from the intraabdomial to the placental insertion. Acta Obstet Gynecol Scand. 2006;85(8):922-8



Level of the lesser wing of the sphenoid, From the origin from the Circle of Willis; More useful in assessing high risk pregnancies

MCAD INTERPRETATION

- Ratios:S/D or PI or RI
- Plot on a chart (do not give clinicians figures without a chart)
- In compromised fetus: EDF increases, Blood vessels widen, Volume flow increases

MCAD AS A MONITORING TOOL

- Mainly monitoring of fetal: Anaemia, Growth restriction (FGR)

MIDDLE CEREBRAL ARTERY IN FGR

Should not be used in isolation – combine with UmA .
Indications for its use: FGR – with abnormal liquor volume, FGR - with absent or reversed end diastolic flow velocities on umbilical artery Dopplers, FGR and other abnormal indices e.g BPP

DOPPLER OF MIDDLE CEREBRAL ARTERY

- Doppler indices fall with advancing gestation

- As FGR progresses, values fall faster and reflect centralisation of circulation
- At a late stage, there is reversal with an increase in end diastolic flow velocities – terminal changes *(Konje et a. 2001, BJOG)*

DOPPLER OF THE VENOUS CIRCULATION

- Reflect ventricular function and to a lesser extent, cardiac afterload
- Shunting through the DV increases in compromised fetuses
- Increasing hypoxaemia results in hypoxaemic cardiomyopathy with ventricular dysfunction
- As severity intensifies, direction of flow in the ductus venosus reverses during atrial contraction causing pulsatile umbilical venous flow

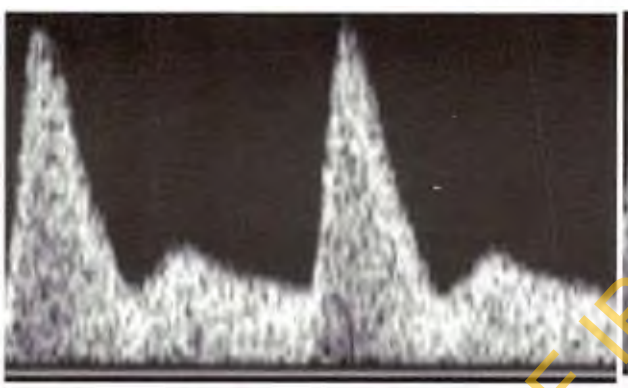
DUCTUS VENOSUS FLOW

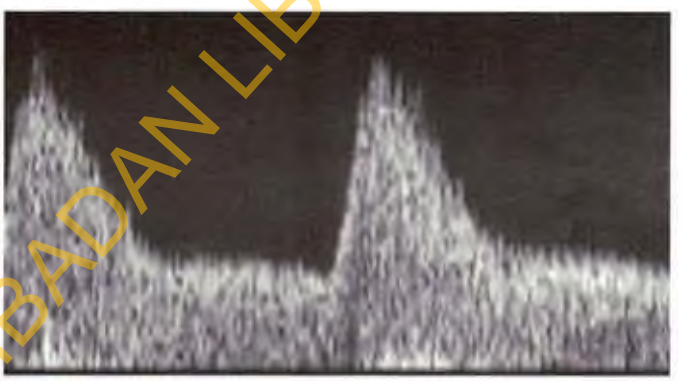
- Modulated by: DV diameter, Portal venous resistance, Increased Hct, increased DV shunt., Humoral factors:PGs, NO, Adrenergic stimulus

PATHOLOGIC VENOUS DOPPLER

- Late sign of CV decompensation, Reflects decreased ability to handle venous return, Increase in RAP causes a-wave, Accentuated A-wave may be:Transmitted to DV., Transmitted to UV.; Precedes FHR decels, IUFD., Present in 79/211 (37%) of preterm IUGR**,** Highly predictive of pH<7.2 (LR=4.2)

Bower et al. USOG 1992;2:261-265;

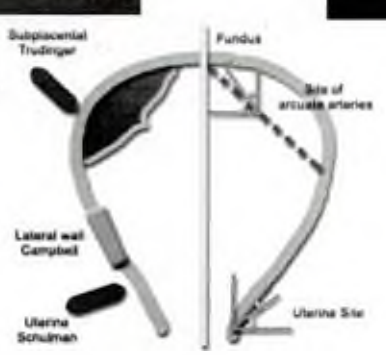




1. Harrington et al. EJOG Rep Bio 1991;42:14-20;

2. Papegeorghiou et al. USOG 2001;18:441-449

The uterine artery – Sites for obtaining Doppler waveforms



ABU – ENDOMETRIAL CANCER.

- The diagnostic accuracy of hysteroscopy for endometrial cancer is also high with an overall sensitivity of 86.4% and specificity of 99.2%.
- However, the use of hysteroscopy in endometrial cancer is well not established as there is concern that cancer cells could be spread into the peritoneal cavity.
- Some consider MRI useful for evaluating intrauterine pathology, but MRI is a relatively expensive test.

INFERTILITY

Hysteroscopy is not often part of the routine workup for infertility but it is as useful for evaluating the uterine cavity.

It increases accuracy in diagnosing the cause of intrauterine filling defects.

Intracavitry lesions are implicated as causes of infertility, and their removal may increase fertility.

Overall, pregnancy rates of 50-78% in previously infertile women have been reported after hysteroscopic polypectomy.

For patients with recurrent miscarriage and intracavitary fibroids, surgery increases rates of viable pregnancy outcomes.

The only randomized control trial comparing pregnancy rates after polypectomy versus no treatment in infertile women concluded hysteroscopic polypectomy prior to IUI increased the odds of pregnancy, with a relative risk of 2.1 (95% CI, 1.5-2.9).

ASHERMAN'S SYNDROME

Intrauterine adhesions (IUA) are often associated with amenorrhea or infertility.

Adhesions has been reported about 30% of women undergoing hysteroscopy following 3 or more spontaneous abortions treated with dilation and curettage.

Hysteroscopy is the gold standard used to diagnose and treat these adhesions.

Benefits include visually directed lysis.

Filmy adhesions are often lysed by distention alone.

Dense adhesions often require cutting or excision with blunt, sharp, electrocautery, or laser techniques.

UTERINE SEPTUM

Septate uterus is the most common structural uterine anomaly, accounting for 35% of anomalies, and is associated with the highest incidence of reproductive failure.

Division of a uterine septum has historically been performed by laparotomy but is now most commonly performed via a hysteroscopic approach.

Edstrom reported the first hysteroscopic resection of a septum and Bret and Guillet were the first to recommend incising versus excising the septum.

Post operative complications are lesser with hysteroscopic resection for müllerian anomalies than with laparotomy approach - (20% vs 50% for dysmenorrhea).

Pregnancy rate is as high as 80%.

UTERINE POLYPS AND FIBROIDS.

Diagnosis of endometrial polyps via hysteroscopy is 94% sensitive and 92% specific.

For submucosal myomas, diagnostic hysteroscopy is 87% sensitive and 95% specific.

Only 16% of treated patients require further surgery.

Hysteroscopic myomectomy for submucus fibroids improves results and decreased pelvic adhesion rates.

In patients desiring to maintain fertility, hysteroscopic myomectomy is a reasonable option, and minimal cauterization should be used to decrease damage to otherwise healthy endometrium.

When AUB is present, polypectomy has been reported to successfully alleviate symptoms 75-100% of the time.

Initial hysteroscopy is estimated to successfully remove fibroids in 85-95% of cases, with additional surgery required in approximately 5-15%.

STERILIZATION

Irreversible tubal sterilization can be accomplished transcervically with the Essure contraceptive tubal occlusion device and delivery system (Conceptus Inc, Mountain View, Calif).

The procedure is quick, with a total procedure time averaging 15 - 35 minutes (Conceptus Inc).

No need for abdominal incisions, recovery time is rapid, and successful bilateral placement at first attempt ranges from 83-94.1%.

A second attempt at placement may be needed, increasing successful placement to 96.7%.

Overall, the procedure carries a 4-year effectiveness rate of 99.8% (Conceptus Inc).

Good visualization of the tubal ostia, placement during the proliferative phase of the menstrual cycle.

OTHER USES

Removal of foreign body

- Hysteroscopy can be applied to remove an intrauterine device (IUD) under direct vision.

As an adjunct to Falloposcopy

- Fexible scopes can be used for this procedure

CONTRAINDICATIONS

Active cervical or uterine infection.

A large uterine cavity, ie, longer than 10 cm in length.

- ≥12-wk pregnant uterus.

PREGNANCY

Severe medical conditions precluding surgery e.g., use of hypotonic media in patients with hyponatremia , use of glycine in patients with liver disease, use of sorbitol in patients with severe diabetes.

SUMMARY

Hysteroscopy is a safe and well-tolerated procedure that is performed for diagnostic or operative indications.

Diagnostic hysteroscopy is indicated in cases of abnormal uterine bleeding, suspected Müllerian anomalies, removal of foreign bodies, and when abnormal imaging findings need to be confirmed.

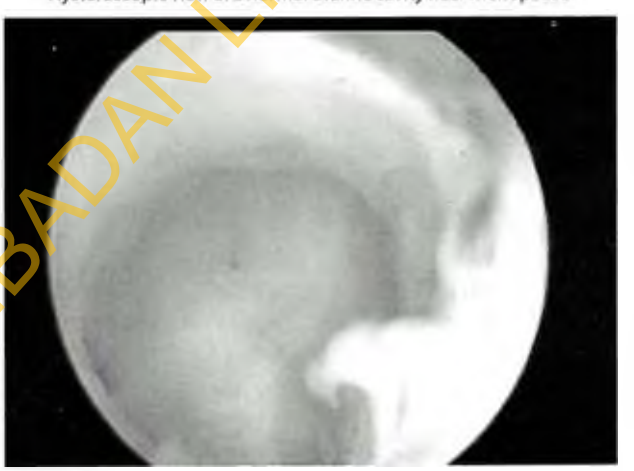
Diagnostic hysteroscopy cannot be performed in the setting of a viable intrauterine pregnancy, cervical or uterine cancer, active pelvic infection, or when the primary surgeon is inexperienced

Most operative office surgery can be done easily.

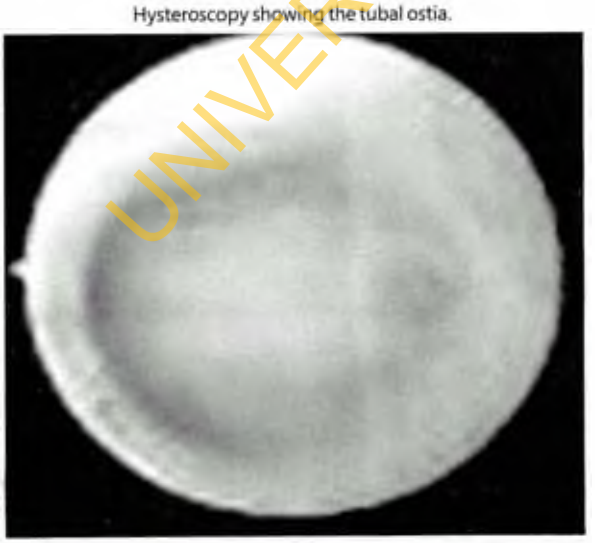
The procedure can be terminated and rescheduled for the operating room if the office surgery becomes complicated.

Hysteroscopic view of a normal uterine cavity.

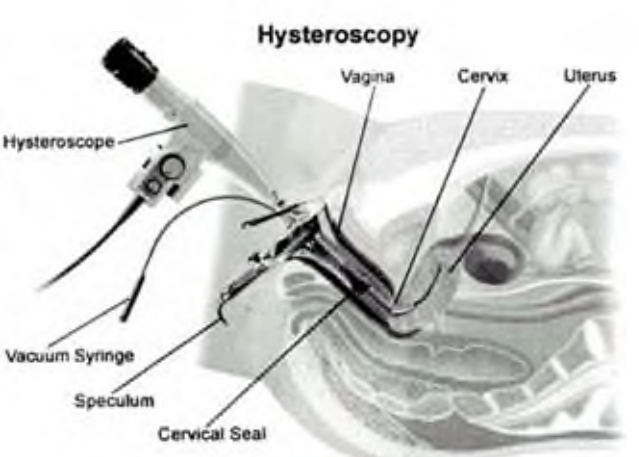
Hysteroscopic view of a normal uterine cavity near menopause



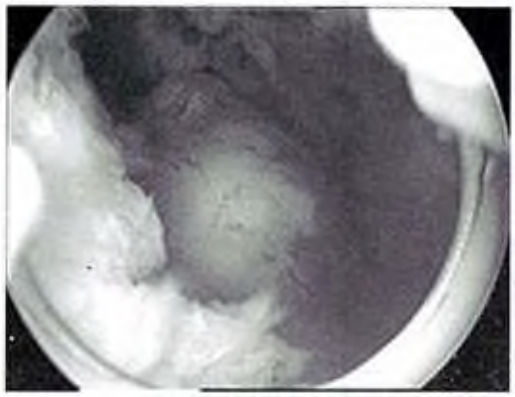
Hysteroscopy showing the tubal ostia.



Office hysteroscopy.

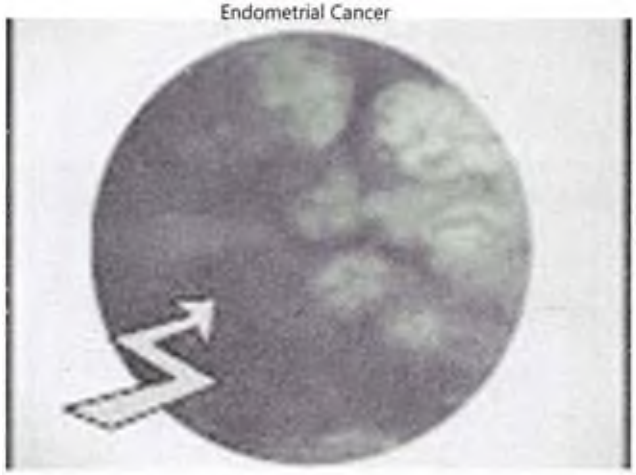


Hysteroscopic view of a submucous uterine fibroid



Office Hysteroscopic view of intracavitry fibroid polyp.

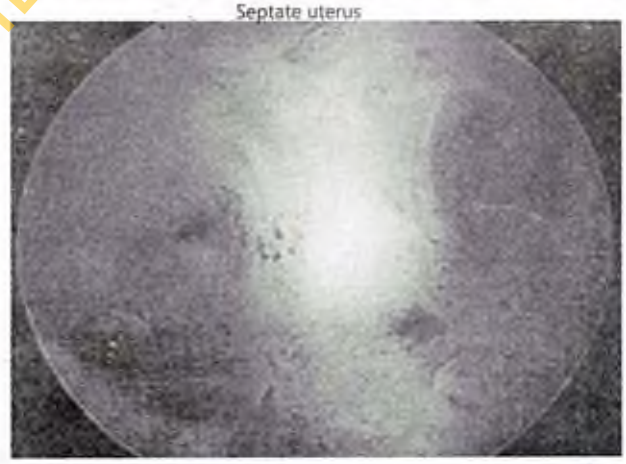
Endometrial Cancer



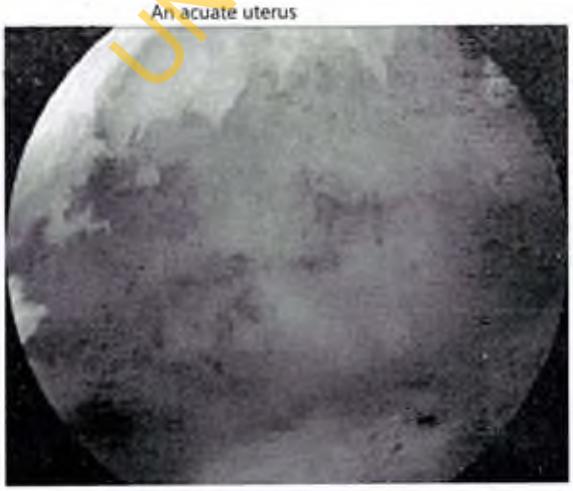
Intrauterine adhesion band.

Intrauterine adhesiolysis

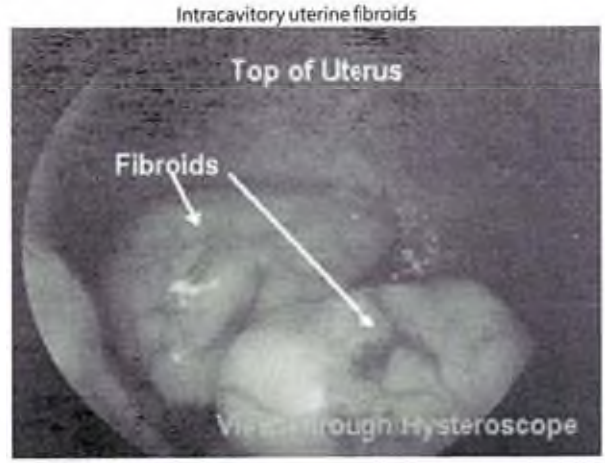
Septate uterus



An acuate uterus



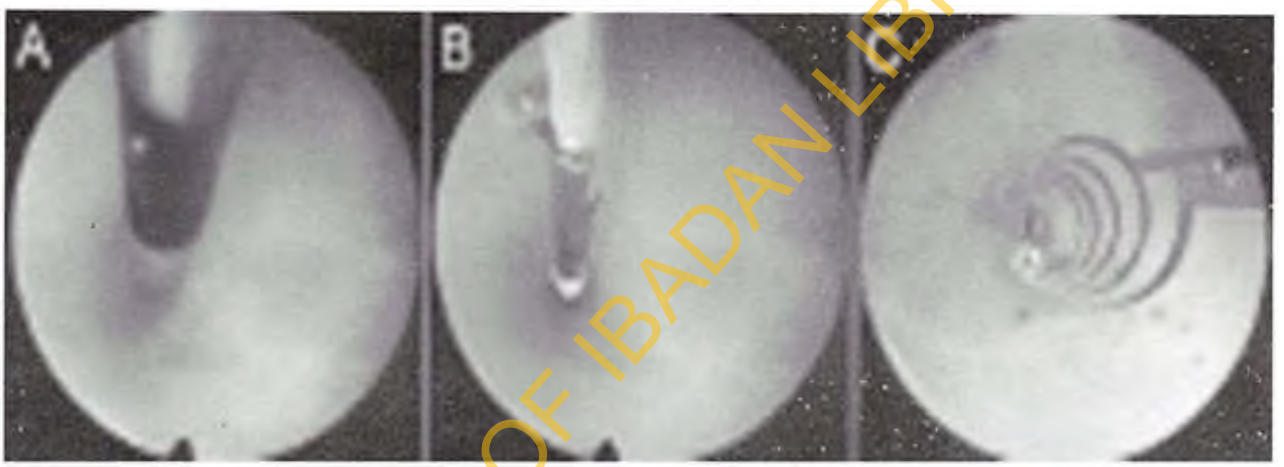
Intracavitory uterine fibroids



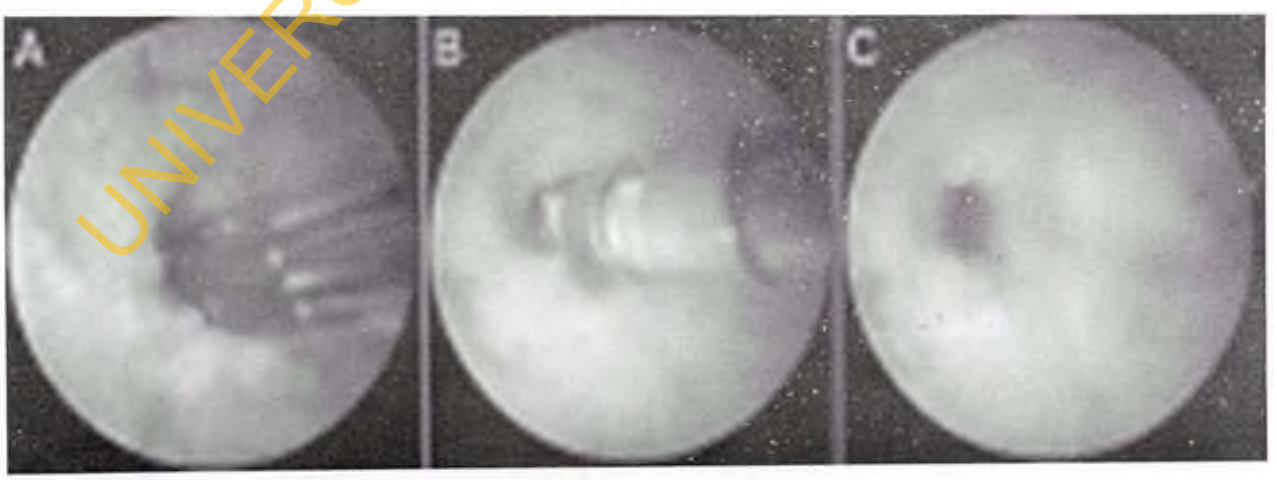
Excision of polyp at base.

After resection.

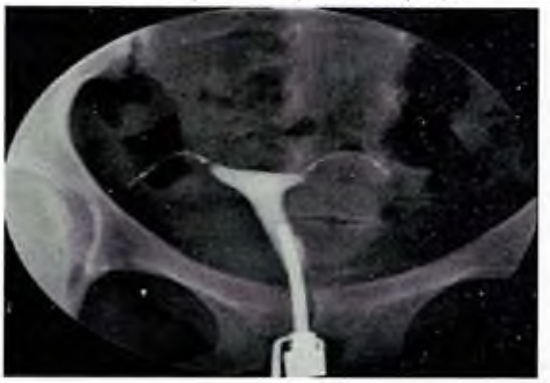
Sterilization: Ensure procedure (conceptus)



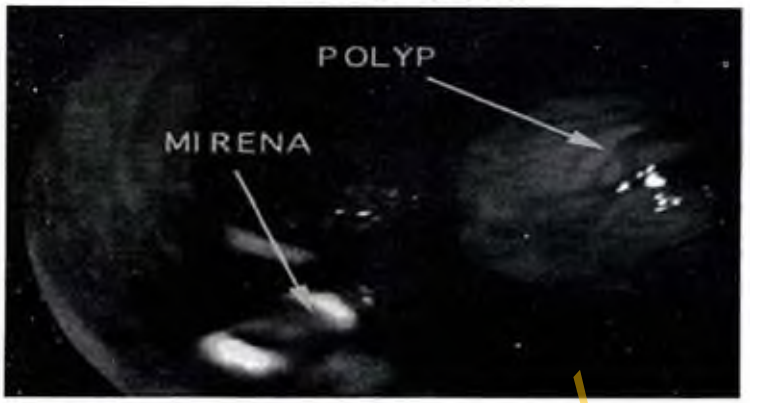
Sterilization: Adiana procedure



HSG showing ENSURE in place (Conceptus)



Hysteroscopic view of embedded IUD.



Diagnostic hysteroscopy is becoming a standard part of office gynecology, and so may be operative hysteroscopy in future
With the proper equipment and patient selection and experience, the hysteroscopist can do diagnostic and operative hysteroscopy at the same time, resulting in a substantial savings of both cost and time for the patient and the physician.

PL-09

THE ROLE OF THE CARDIOTOCOGRAPHY IN THE MANAGEMENT OF HIGH RISK PREGNANCIES

Dr Olajuwon Alabi, MRCOG
Consultant, Obstetrician and Gynaecologist
St Nicholas Hospital, Lagos

TYPES OF FETAL MONITORING

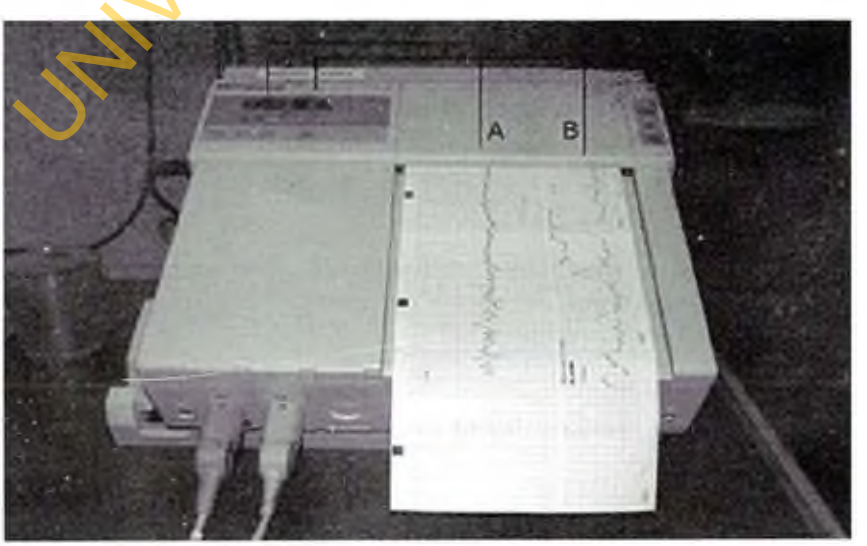
- Ultrasound- BPP and Doppler, Normal CTG, Computerised CTG, Fetal pulse oximeter, STAN- ST analysis, Fetal scalp blood sampling – PH, Lactate

WHAT IS A CARDIOTOCOGRAPHY (CTG)

- It is a means of recording the fetal heartbeat and uterine contractions especially in the 3rd trimester of pregnancy
- The machine used, is called an electronic fetal monitor or a Cardiotocograph.
- Developed by Dr Konrad Hammacher initially for Hewlett Packard

COMPONENTS OF A CARDIOTOCOGRAPH

- Contains two transducers, one measures fetal heart rate and the second the uterine contractions
- The transducers can be either external or internal
- The external involves strapping sensors on the abdominal wall
- The internal, requires some degree of cervical dilation (pressure catheter into the uterine cavity and scalp electrode to the fetal head).



INTERPRETATION

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Both qualitative and quantitative descriptions uterine activity: Baseline fetal heart rate, Baseline FHR variability, Presence of accelerations, Periodic or episodic deceleration, Changes or trends of FHR patterns over time

UTERINE ACTIVITY

- Frequency, Duration, Intensity, Resting tone, interval,

BASELINE FETAL HEART RATE

- Approximating the mean FHR during a ten minutes window, excluding acceleration and deceleration and marked FHR variability, Normal rate is between 110 to 160bpm, Rate below 110bpm is bradycardia, Rate above 160 bpm is tachycardia

BASELINE FHR VARIABILITY

Fluctuations in the baseline FHR that are irregular in amplitude and frequency

Absent: Minimal- less than 5 beat per minute, Moderate 6- 25bpm, Marked greater than 25bpm

ACCELERATIONS

- A visually abrupt increase in the FHR. This is described as an increase from the onset of acceleration to the peak in less than or equals to 30 seconds.
- The peak must be greater than or equal to 15beats per min.
- Before 32 weeks, a rise of 10 bpm is acceptable.

DECELERATION

- Early deceleration, Late deceleration, Variable deceleration, Prolonged deceleration

PATTERN CLASSIFICATION

- Normal or Reassuring: BHR 110-160bpm, Moderate variability, Absence of late and variable decelerations, Early deceleration may or may not be present
- Indeterminate or suspicious: Not indicative of hypoxia but needs continuous monitoring, One abnormality.

ABNORMAL OR PATHOLOGICAL

Indicative of abnormal fetal acid-base status requires prompt evaluation and management

Absence of variability with recurrent late or variable decelerations or bradycardia

Prolonged bradycardia ie cord prolapse

CLINICAL IMPLICATIONS

- Does CTG prevent cerebral palsy, perinatal death. Cochrane Review said no evidence to support this
- However it is likely to increase instrumental delivery and caesarean section.
- I believe this is in reference to low risk pregnancies.

LOW RISK PREGNANCY

- Admission CTG, CTG not necessarily needed in labour

HIH RISK

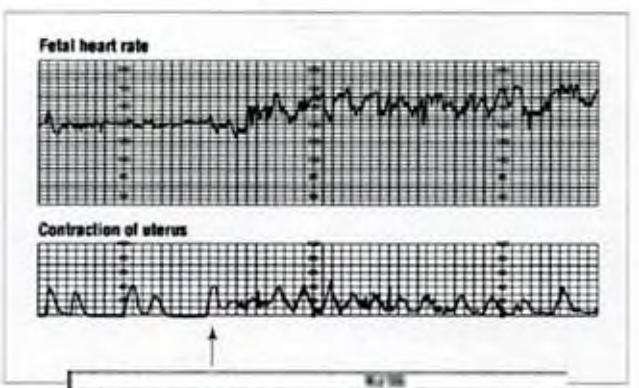
- Previous CS, Myomectomies, Multiple gestation, Preeclampsia, IUGR, Ante partum haemorrhage, Diabetes in

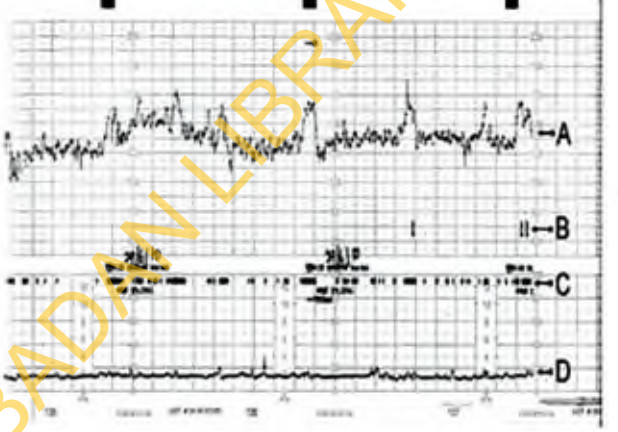
pregnancy, Prolonged ruptured Membranes, Induction of labour, Medical disorders, And many more

The recommendation is to use a form of fetal monitoring method preferably an electronic monitoring system because, it is -

- Reproducible, Objective, Accountable medical records

Endocannabinoid research laboratory





PL-010

DOPPLER ULTRASOUND IN OBSTETRICS THE WHEN WHERE AND HOW

Justin C Konje

Endocannabinoid Research Group

Reproductive Sciences Section, University of Leicester

DOPPLER – HISTORICAL MILESTONES

- Fitzgerald & Drumm. Umbilical artery studies *1977 BMJ,* Eik-Nes et al. Fetal aortic velocimetry : Dupplex scanner *1980 Lancet,* Campbell et al. Utero-placental circulation: Dupplex scanner *1983 Lancet,* Wladimiroff et al. MCA / UA PI ratio *1987 Obstet & Gynecol,* Kiserud et al. Ductus venosus velocimetry 1991 *Lancet*

BASIC PRINCIPLES

T1 : time of omitted signal .

T2 : time of returned signal .

T2 – T1 = *time difference or phase shift .*

from phase shift the Doppler frequency is obtained.

AS TIME DIFFERENCE DECREASE THE DOPPLER FREQUENCY INCREASE.

Doppler ultrasound measures the movement of the scatterers through the beam as a phase change in the received signal.

The resulting Doppler frequency can be used to measure velocity if the beam/flow angle is known.

If a second pulse is sent before the first is received, the receiver cannot discriminate between the reflected signal from both pulses and aliasing occur.

Example of aliasing and correction of the aliasing. (a) Waveforms with aliasing, with abrupt termination of the peak systolic and display this peaks bellow the baseline Sonogram clear without aliasing. (b) Correction: increased the pulse repetition frequency and adjust baseline (move down)

ALIASING

So to eliminate aliasing The pulse repetition frequency or scale is set appropriately for the flow velocities

FACTORS AFFECTING THE SPECTRAL DOPPLER IMAGE

- Power: transmitted power into tissue*
- Gain: overall sensitivity to flow signals
- Pulse repetition frequency (also called scale): low pulse repetition frequency to look at low velocities, high pulse repetition frequency reduces aliasing*
- Gate size*
- Beam steering can allow improved beam/flow angle for better accuracy of velocity
- calculation*
- Live duplex/triplex spectral resolution constrained by need for B-mode/color pulses

OTHER FACTORS AFFECTING THE SPECTRAL DOPPLER IMAGE

- Gate: sharpness of resolution*, Filter: high filter cuts out more noise but more of flow signal*, Post-processing: assigns brightness to output*, Settings appropriate for specific examinations assigned by set-up/application keys

GUIDELINES FOR A PRACTICAL APPROACH TO OBTAIN GOOD-QUALITY SPECTRAL IMAGES

(1) Set power to within fetal study limits
(2) Position the pulsed wave Doppler cursor on the vessel to be investigated
(3) Adjust gain so that the sonogram is clearly visible and free of noise
(4) Use probe positioning/beam steering to obtain a satisfactory beam/vessel angle. Angles close to 90° will give ambiguous/unclear values. The beam/vessel angle should be 60° or less if velocity measurements are to be made
(5) Adjust the pulse repetition frequency/scale and baseline to suit flow conditions. The sonogram should be clear and not aliased
(6) Set the sample volume to correct size. Correct the angle to obtain accurate velocities. Use the B-mode and color flow image of the vessel to make the angle correction

INTERPRETATION OF WAVEFORMS

- The indices:A/B (or S/D) = Maximum systolic frequency (Least diastolic frequency), Resistance Index (PI) = (A-B)/A, Pulsatility Index (RI) = (A-B)/Mean
- End diastolic frequencies (EDF): End diastolic flow present, absent, reversed
- Notch – unilateral, unilateral (typical of uterine arteries)

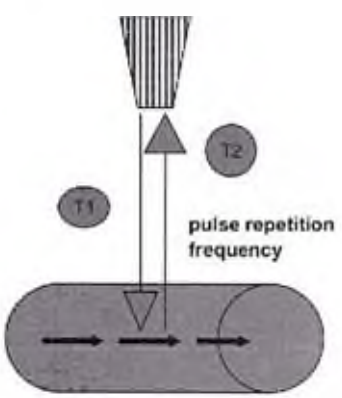
THE UMBILICAL ARTERY (UMA)

- Two arteries – carrying blood from the fetus to the placenta
- Flow in the arteries influenced by : The resistance in the placenta, Ejection cardiac pressure, Intra-abdominal vascular resistance, The length of the cord.
- High resistance to flow at the outset of pregnancy
- Resistance to flow falls with pregnancy
- Resistance is downstream (from fetus to placenta)

NORMAL DEVELOPMENT OF DOPPLER OF UMBILICAL ARTERY

UMA DOPPLER WAVEFORM

- Interpretation, Avoid using indices, End diastolic flow (Normal), Present irrespective of whether it is reduced or not(Abnormal), Absent, Reversed,

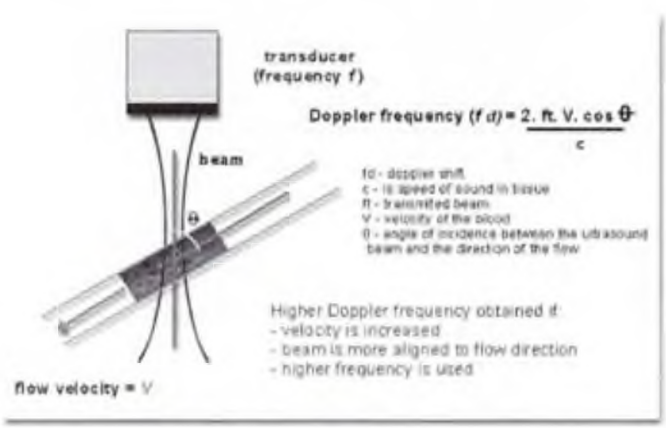


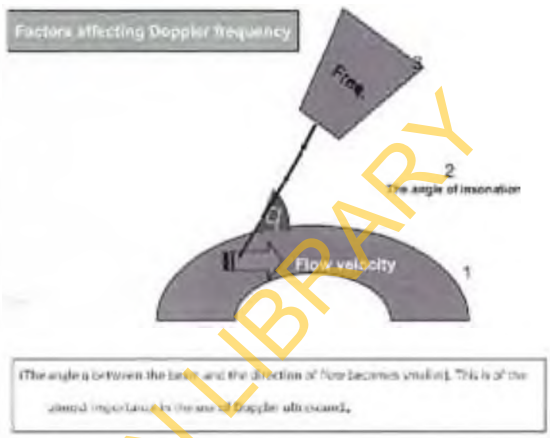
(T2 –T1) *phase shift* **with known** beam / flow angle **can calculate flow velocity .**

EFFECTIVENESS OF UMA DOPPLER IN MONITORING HIGH-RISK PREGNANCIES

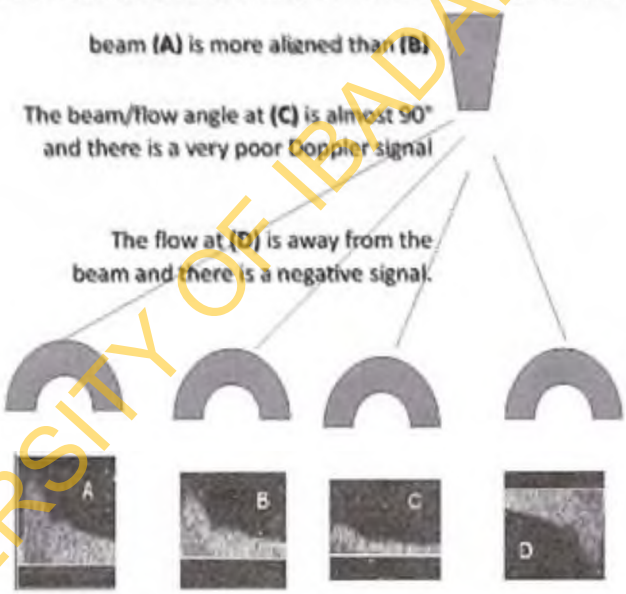
Meta-analysis of 11 randomised studies shows that Doppler in high-risk pregnancies is associated with a reduction in :

a. Antenatal hospitalisation (44% reduction)
b. Induction rate (20% reduction)
c. Emergency CS rate
d. Operative deliveries for fetal distress (52% reduction)
e. Admission into NICU
f. Perinatal mortality (OR=0.62)or 38% reduction *Konje et al. E J Perinatal Medicine 2008*





(the angle q between the beam and the direction of flow becomes smaller). This is of the utmost importance in the use of Doppler ultrasound.



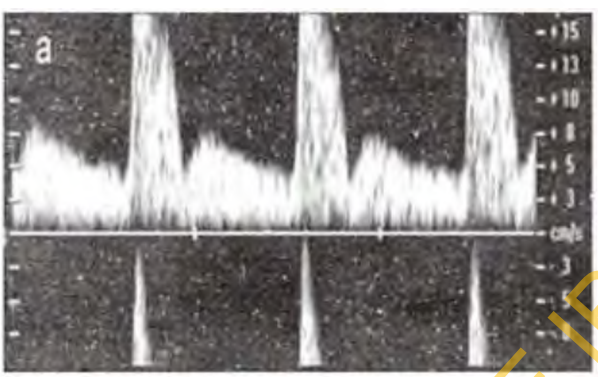
Aliasing

DOPPLER VELOCIMETRY

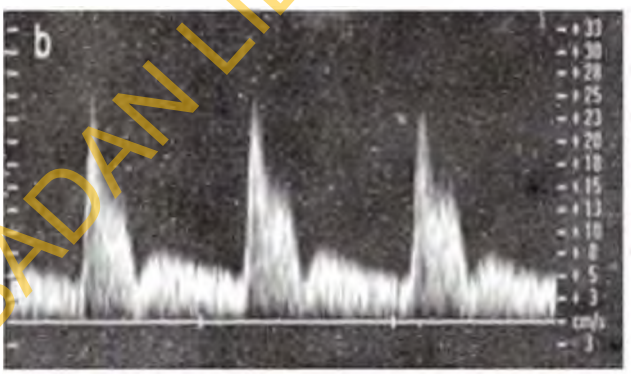
Tips on how to perform Umbilical Artery Doppler Ultrasound in monitoring of Fetal Growth Restriction

UMBILICAL ARTERY DOPPLER PROBLEMS

- Length of cord ~ 50cm, Waveform varies from intra-abdominal to placental insertion, Reproducibility of waveforms is poor, Depending on the site of interrogation, Ideal site(Reproducible, Easy to insonate)



Aliasing of color doppler Imaging and artefacts of color, Color image show region of aliased flow (yellow arrows



Reduce color gain and increase pulse repetition frequency

WHERE SHOULD UMA DOPPLER BE OBTAINED?

- Three sites :Free loop of the cord, Abdominal insertion of the umbilical cord, Placental insertion of the cord
- The fourth site (Khare, Paul & Konje, 2006):Around the bladder

Khare M, Paul S, Konje JC. Variation in Doppler indices along the length of the cord from the intra-abdominal to the placental insertion. Acta Obstet Gynecol Scand. 2006; 85(8):922-8

FREE LOOP ?

- Used for most studies and by most in clinical practice
- Unfortunately these studies do not report on the site of insonation – however, assumptions are made - free loop
- Easy to obtain – important to ensure that the angle is appropriate

WHERE SHOULD AN UMA DOPPLER BE OBTAINED?

Sonesson et al J clin Ultrasound 1993; 21:317-324

'Routine recordings for Doppler ...should take into account the recording site on the umbilical cord to reduce methodological sources of variance'

Abramowicz et al. J Ultrasound Med 1989; 8: 19-21

'When performing Doppler analysis of the umbilical artery, if abnormal values are obtained, one should be cautious and be certain that they originate from the placental insertion'

WHERE IS THE BEST PLACE TO OBTAIN DOPPLER WAVEFORM?

Possible sites: Placental insertion of the umbilical cord?, Free loop poorly defined?, Abdominal insertion of the cord?, Peri-vesical?

THE UMBILICAL ARTERY DOPPLER

- Best site: Perivesical
- Why?: Easy to identify (commonly used to defined, number of vessels in the cord), Vessels not tortuous, Single vessel on each side, Less likely to be affected by other factors

WHERE THERE ARE PROBLEMS WITH THE SAMPLING SITE OF THE UMA

- Severe FGR and difficulties locating the cord insertions , Free loop compressed because of oligohydramnios, Twins and uncertainty of which cord is being insonated (e.g. cords too close)

THE BLADDER SITE IS THE BEST OPTION

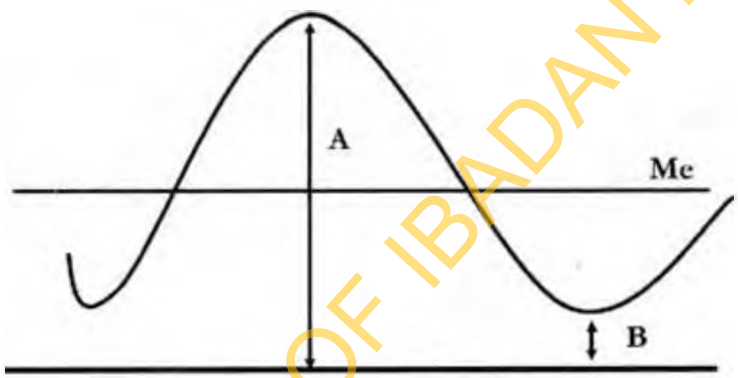
ABC OF PERFORMING A DOPPLER

- Site of insonation – best a well defined site
- Angle of insonation – should approach zero for the best results
- Sample size should include the whole diameter of the blood vessel (to acquire low flow velocities)
- Settings – Wall filter – lowest to pick up low signals (especially with AEDF/REDF)
- Setting the baseline – not too low or too high

WHEN USING UMA DOPPLER FOR MONITORING

- When and how often to perform –must be determined by clinicians

The Doppler Waveform



A=Maximum systolic frequency, B=End diastolic

- Each case must be individualised – taking into consideration, gestational age, fetal growth, liquor volume, cardiotocograph, proximity to delivery etc.

ABSENT/REDF – YES.

WHAT NEXT? : Ensure that the vessel wall filter is not set too high (best 50-60 Hz), Angle of insonation –too high?, Fetal movements and breathing? Record Doppler during fetal apnoea – uniform venous flow(to confirm this), Repeat Waveform from the bladder, AEDF or REDF Deliver if matured gestation, AEDF <34 weeks – perform MCAD &repeat >2-3 days, REDF – plan delivery

DOPPLER AS A SCREENING TOOL

- Umbilical artery Doppler : No supportive evidence (for FGR or other adverse pregnancy outcomes), In early and late gestation (Poor screening tool for FGR)
- Middle cerebral artery: No recognised role in screening
- Uterine artery Doppler : Most commonly used non-invasive screening test

THE UTERINE ARTERY (UA)

- In normal pregnancies:
- To increase blood supply to the uterus: Spiral arteries undergo complex morphological changes
  - Invaded by trophoblast which replace endothelium, muscular layer and neural tissue
  - This results in the conversion of uterine arteries from high resistance low capacity to low resistance high capacity vessels
- Transformation completed between 20-24 weeks[1]

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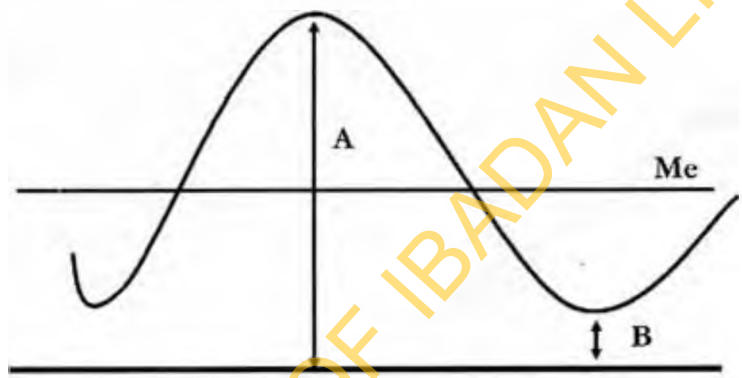

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- Transformation completed between 20-24 weeks[1]

- Initially described as 2 waves - but this has been challenged[2] *Bronsens et al. J Pathol Bacteriol 1967;93:569-579*
  Konje JC et al. AMJOG, 2002

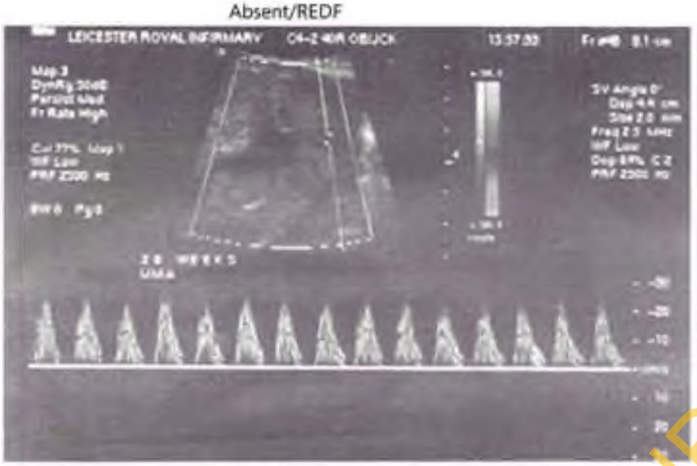
THE UTERINE ARTERY DOPPLER (UAD)

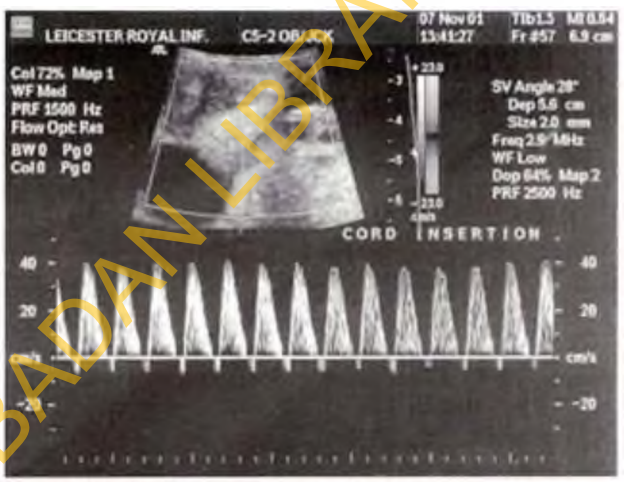
- Uteroplacental resistance decreases because of transformation[1]
- Means of assessing the physiological adaptation - transformation of sub-placental arteries (spiral arteries)
- There is failure or incomplete perivascular and endothelial vascular trophoblastic invasion of spiral arteries AND
- Invasion is confined to the decidual segment in of spiral arteries: Many vessels also become occluded by
- Fibrinoid material and exhibit foam cell accumulation and a perivascular mononuclear cell filtrate referred to as atherosis

THE UTERINE ARTERY DOPPLER (UAD)

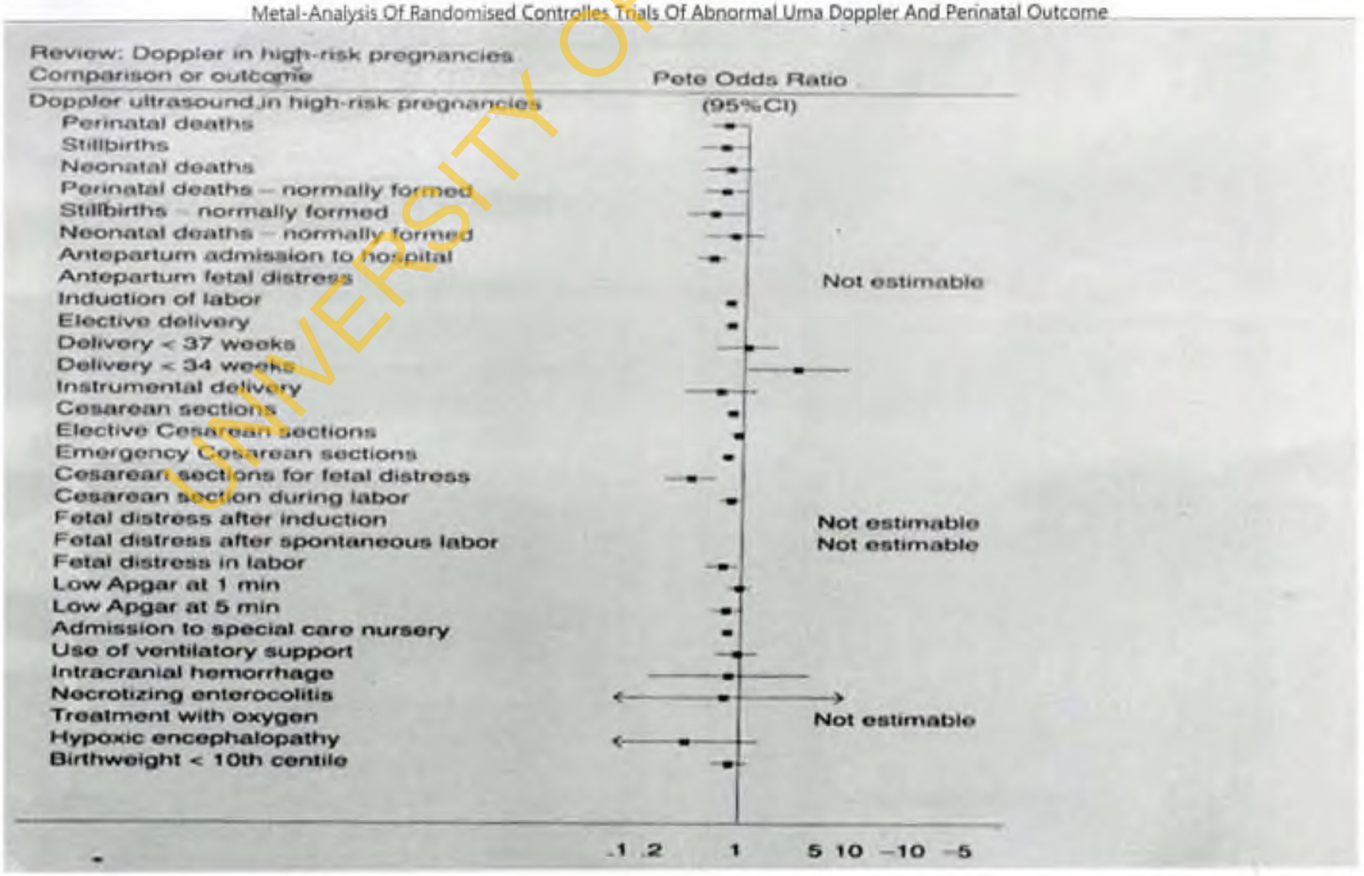
- Failure of invasion will manifest as abnormal resistance at 24 weeks:Pre-eclampsia[1] Fetal growth restriction[2]
- UAD can therefore be used for screening by identifying pregnancies with abnormal resistance by 24 weeks?

Absent/REDF





Metal-Analysis Of Randomised Controlles Trials Of Abnormal Uma Doppler And Perinatal Outcome



UTERINE ARTERY DOPPLER

- Abnormality defined as:Presence of notches[1] Raised RI>0.58[2] Raised PI >1.2[3] >95th centile for gestational age

SCREENING FOR PRE-ECLAMPSIA

- Pooled data - >20,000 women, In women with increased impedance @24 wks; Likelihood ratio of pre-eclampsia X6, In women with normal Doppler @24 wks; Likelihood ratio 0.5

SCREENING FOR PRE-ECLAMPSIA

Better predictor of Severe Disease

- *Steel et al. 1990:* Sensitivity for pre-eclampsia vs gestational hypertension, 63% vs 39%
- *Papageorghiou et al. 2001:* PET with FGR vs PET Only, 69% vs 24%
- *Harrington et al 1996:* Bilateral notching at 24 weeks, 55% develop pre-eclampsia, 81% require delivering <35 weeks

SCREENING FOR FETAL GROWTH RESTRICTION

- Pooled Likelihood ratio (LR) for FGR is:3.7 where the impedance is high and 0.8 when it is normal
- Sensitivity of abnormal Doppler is greater for more severe FGR

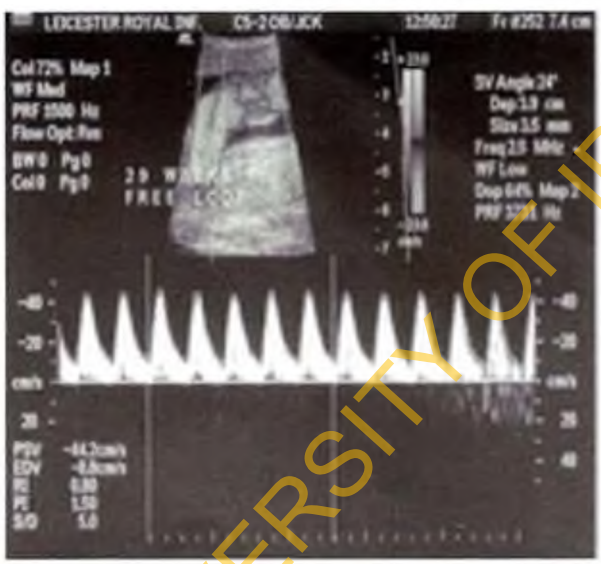
SCREENING FOR PERINATAL DEATH

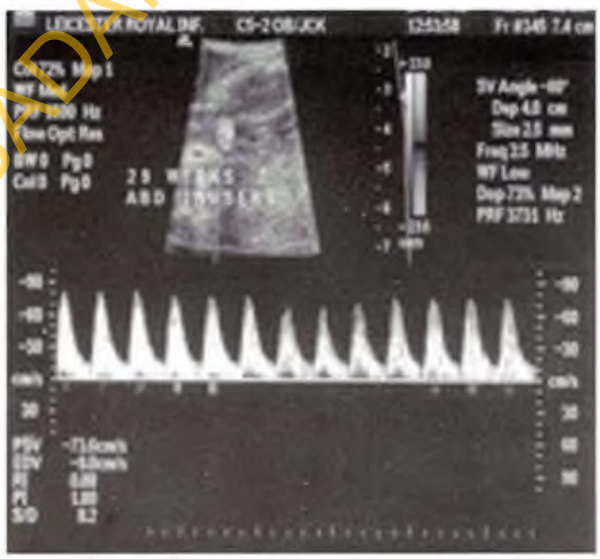
- Pooled LR for subsequent fetal or perinatal death: 2.4 for abnormal Doppler, 0.8 for normal Doppler
- Intimately related to: Pre-eclampsia, Fetal growth restriction, Prematurity

SCREENING IN THE FIRST TRIMESTER

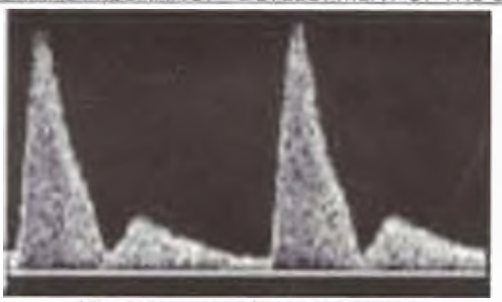
- Few studies available for 11—14 weeks

Effect of Site of insonation on Doppler Waveform Patterns and Indices

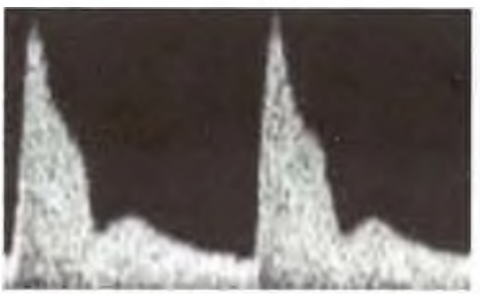




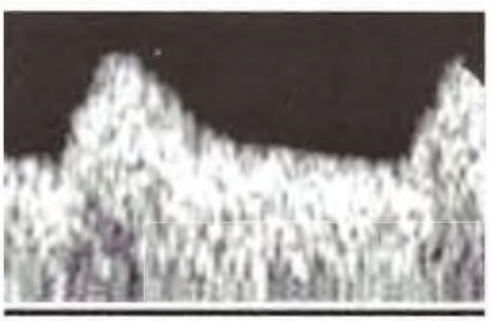
NORMAL PREGNANCY - DEVELOPMENT OF THE UTERINE ARTERY



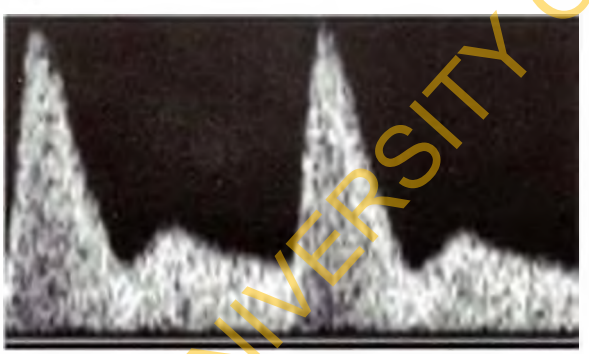
Normal Impedance in the 1st Trimester

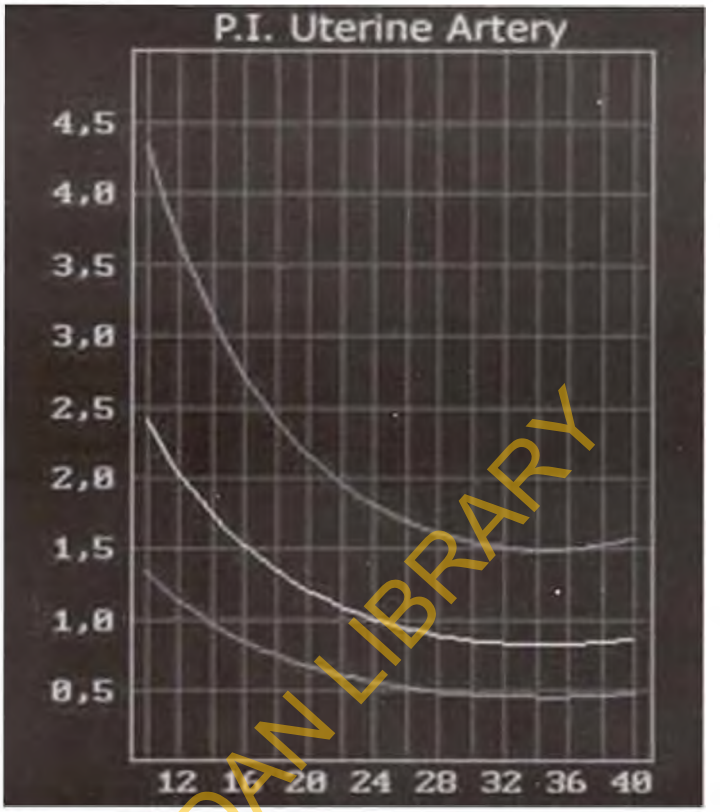


Normal Impedance in the 2nd Trimester



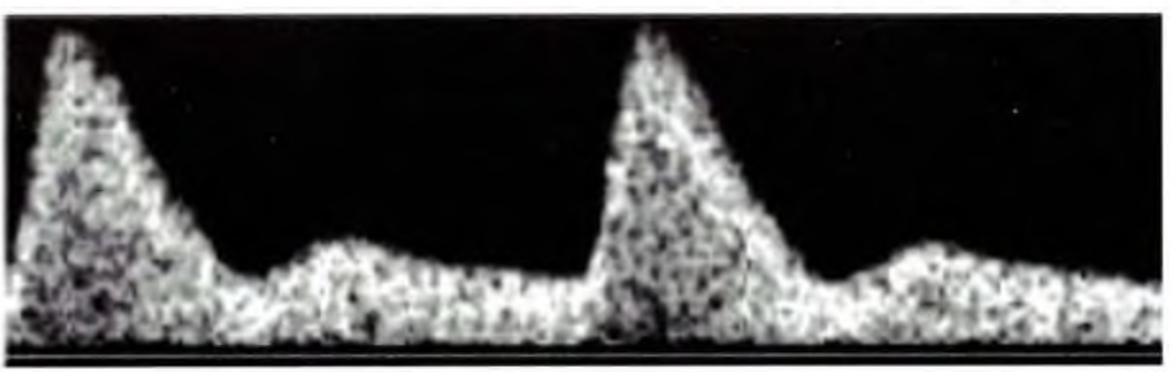
Normal Impedance in the 3rd Trimester



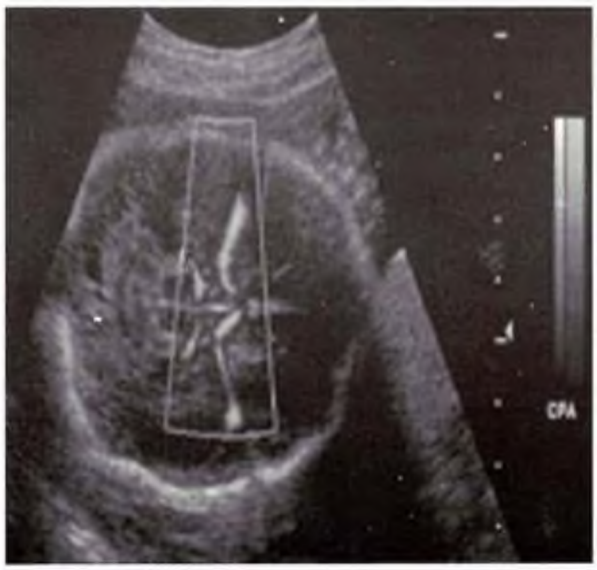


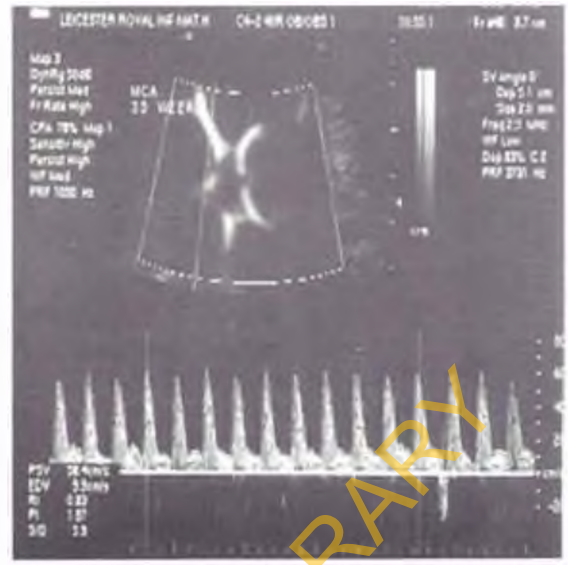
Uterine Artery Doppler Waveforms

1. *Bower et al. BJOG 1993; 100:989-994;*
2. *Steel et al. Lancet 1007; 335:1548-1551*
3. *Gudmundsson et al. 2003;82:807-812*



Middle Cerebral Artery

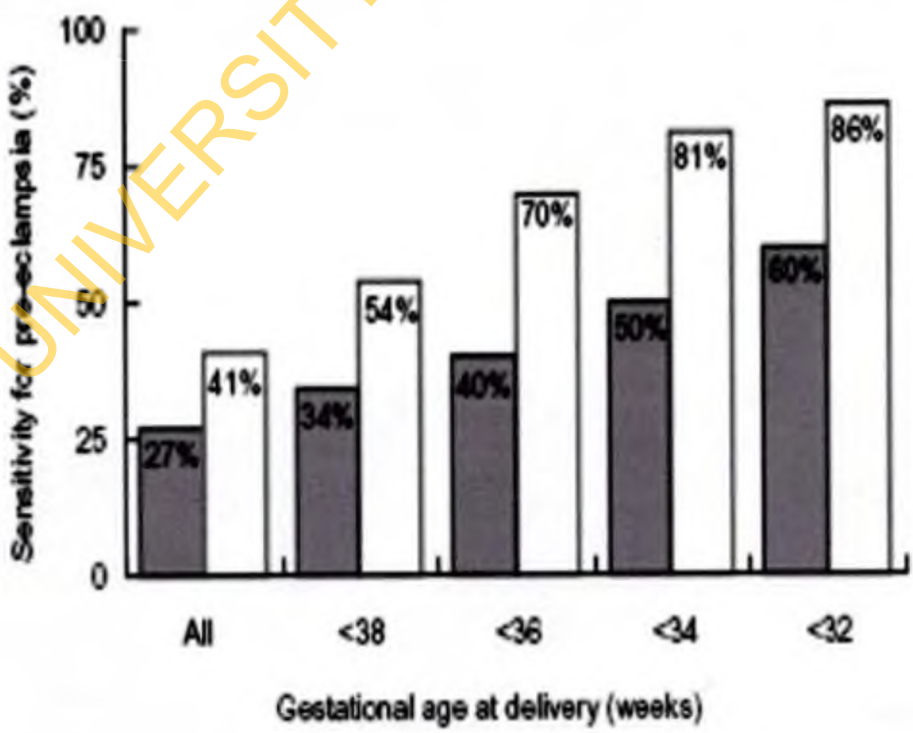




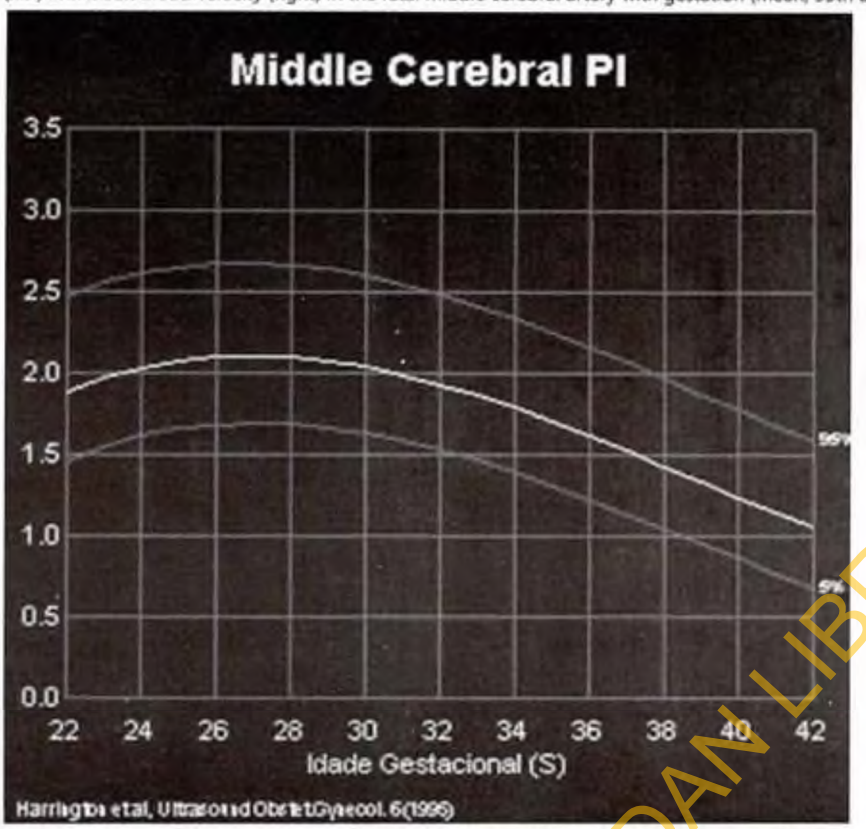
Prediction Of FGR

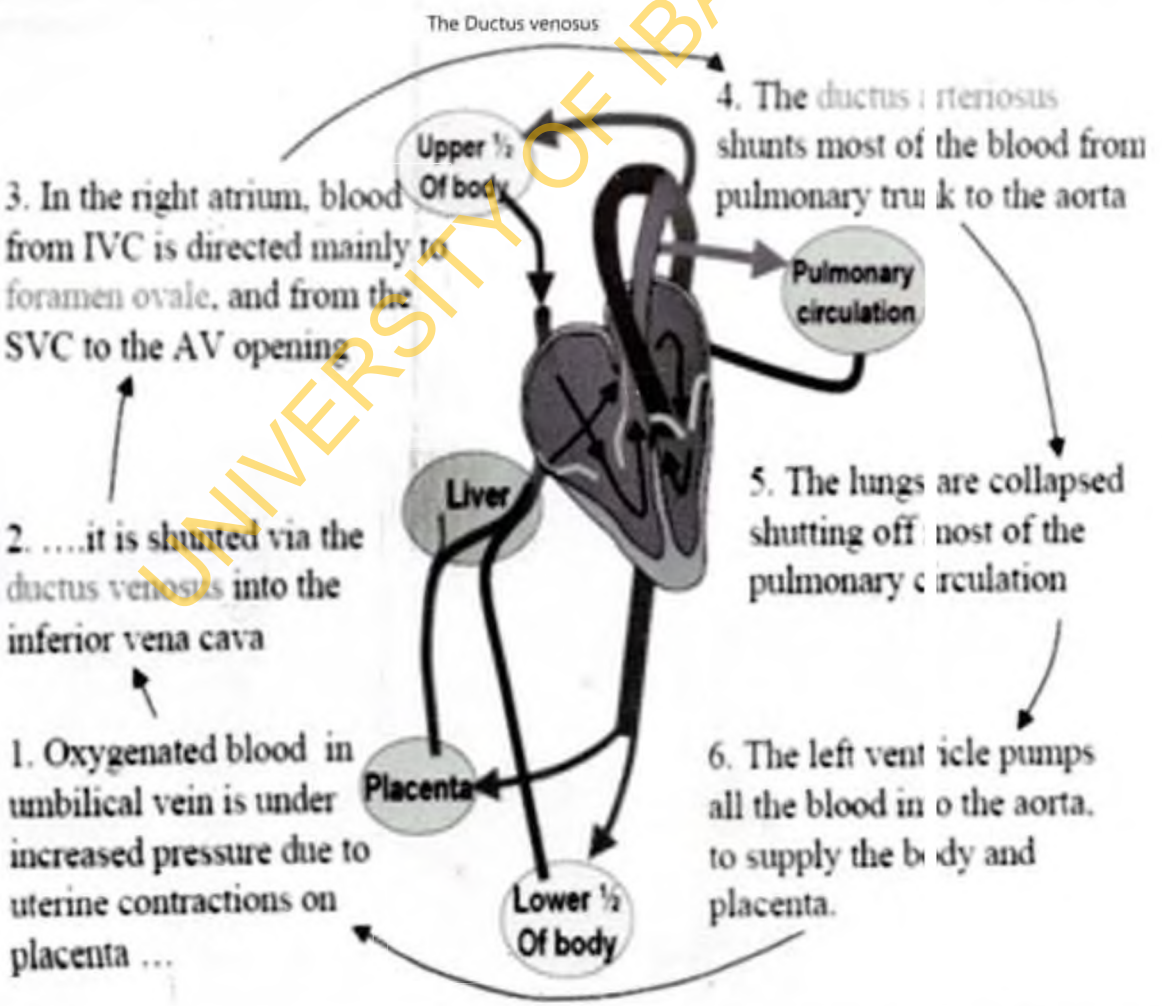
Study/Authors	Time of study	Definition of abnormal Doppler	Mild complication (Sensitivity)	Severe complication (Sensitivity)
Harrington et al. 1996	24 weeks	Bilateral notches	22% BWT<10th centile (overall)	55% for FGR delivered <35 weeks
Albaiges et al. 2000	23 weeks	PI > 95th centile	21% FGR overall	70% for FGR <10th centile and <34 week
Papageorghiou et al. 2001	23 weeks	PI > 95th centile	16% <10th centile (overall)	74% for FGR <32 weeks

Sensitivity of Predicting Pre-Eclampsia by PI>95th centile at 11-14 wks compared to values at 22-24wks



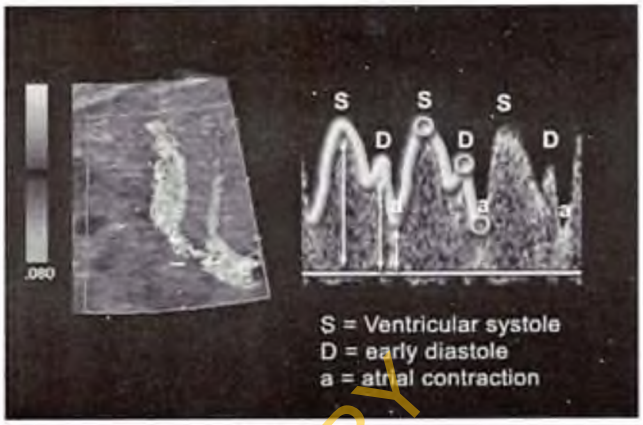
Pulsatility index (left) and mean blood velocity (right) in the fetal middle cerebral artery with gestation (mean, 95th and 5th centiles).



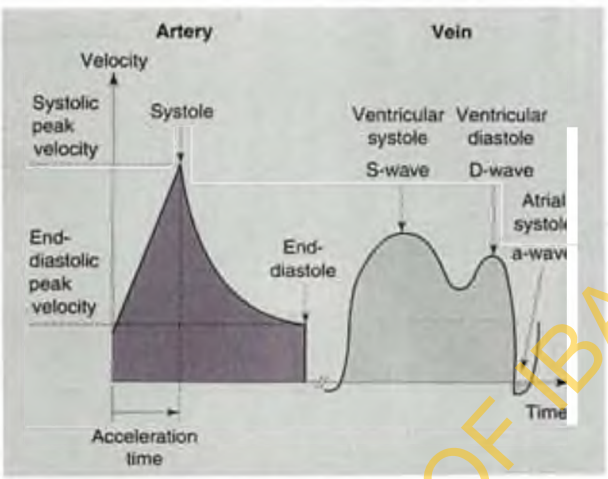


Normal ductus venosus waveform at 25 weeks of gestation with positive flow during atrial contraction.

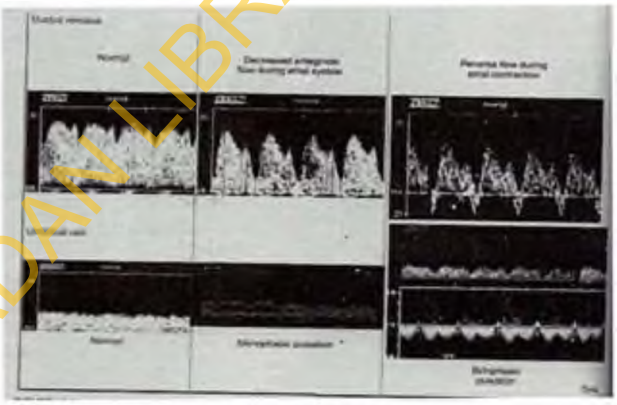
Normal Doppler of Ductus Venosus



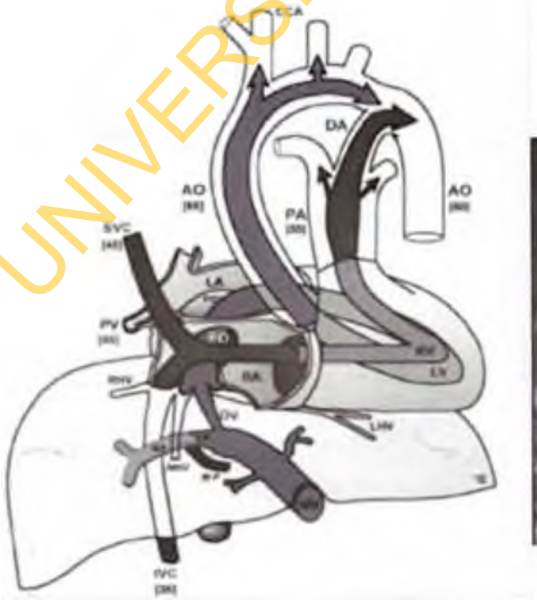
Normal Ductus venosus



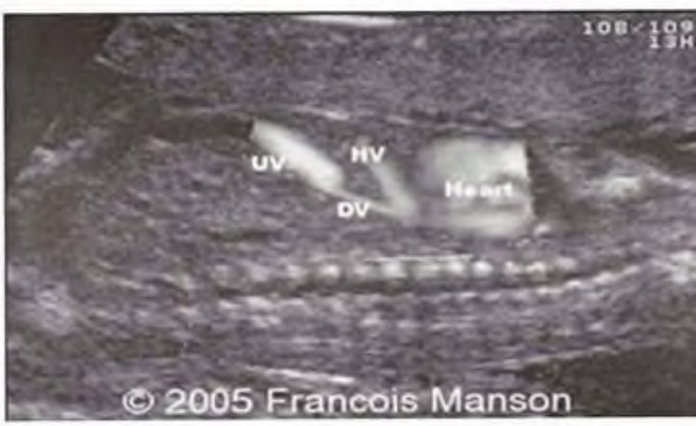
Changes in DV Doppler from Normal to abnormal



The Fetal Circulation



The Ductus Venosus



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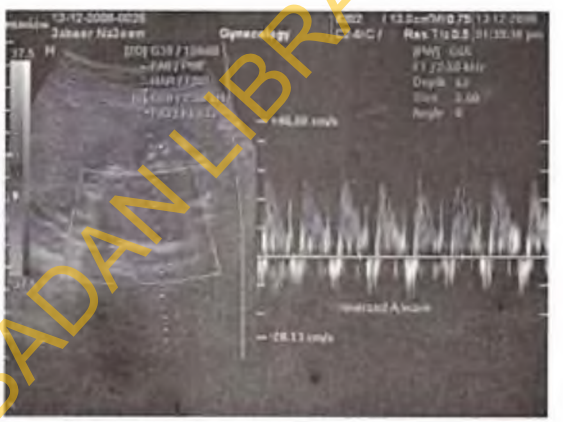

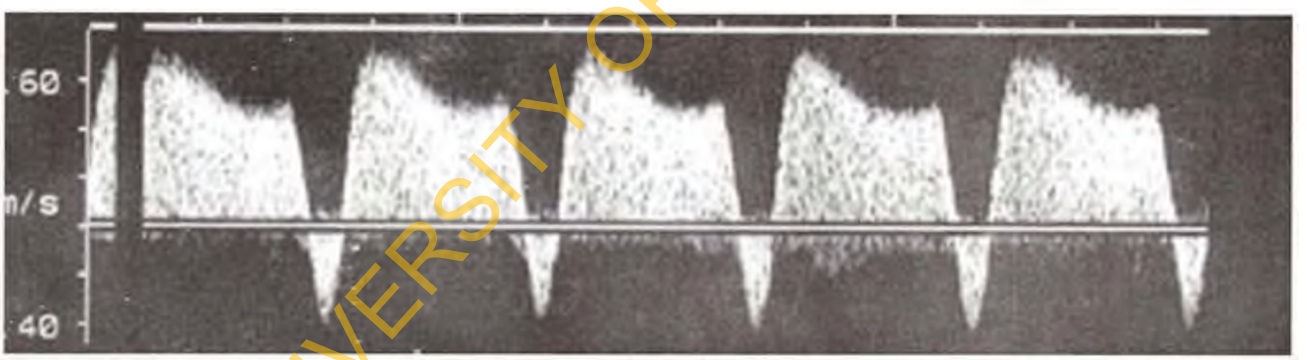

Renal arteries

CONCLUSIONS

- DV doppler velocimetry: Window on fetal CV homeostasis, May be used as a trigger for delivery of IUGR fetus., Useful > 29wks. in minority (37%) of cases., "too little, too late" ??, "a test in search of a purpose".
- No evidence that its' use improves outcome.
- Await TRUFFLE study results.

PL-011

THE PRINCIPLES OF ELECTRO-SURGERY IN ENDOSCOPIC SURGERY

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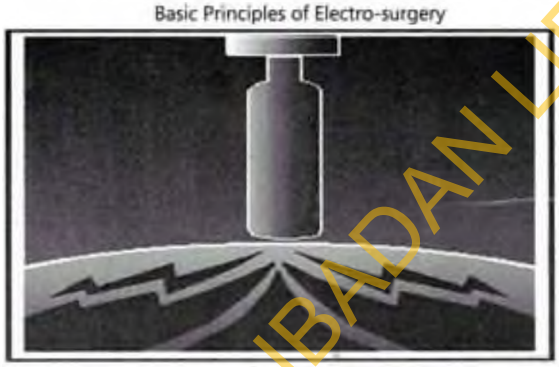
Consultant, Hon. Senior Clinical Lecturer (Sheffield)
Northern Lincolnshire and Goole NHS Foundation Trust Scunthorpe CMD EKO HOSPITAL

Electrosurgery has revolutionized the practice of surgery during the past 70 years. This technology has enabled surgeons to minimize operative blood loss and decrease operative time, thus positively affecting patient morbidity and mortality.

Basic Principles of Electro-surgery



Electrosurgery, however, remains one of the most hazardous surgical technologies available in the surgeon's armamentarium. This two hour program presents the basic principles of electrosurgery, identifies potential adverse outcomes related to electrosurgery, discusses how to identify patients at risk for electrosurgery injury, explores potential nursing diagnoses and expected outcomes related to electrosurgery, describes best practices to achieve favorable patient outcomes related to electrosurgery, discusses how to evaluate patient outcomes and suggests documentation protocols for electrosurgery.

PROGRAM CONTENT

- Basic principles and applications of electrosurgery
- Potential adverse outcomes related to electrosurgery
- Best practices to achieve favorable patient outcomes related to electrosurgery

At the completion of this program you will be able to identify the basic principles and applications of electrosurgery, describe the potential adverse outcomes related to electrosurgery, and discuss best practices to achieve favorable patient outcomes related to electrosurgery.

HISTORY OF HAEMOSTASIS

Cauterization was performed with heated rocks and metal. Hippocrates recorded the use of hot irons to control hemorrhage on the battlefield in the 4th century BC.

- Cautery (Prehistoric) - heated rocks and metal.
- Ligature (2nd Century)
- Staples (1826, France)
- Von Petz (1921) GI stapling device

Galen (130-200 AD) described that veins and arteries contain blood and recommended the use of linen ligatures. Pare (1509-1590) a French Army barber- surgeon, discontinued the use of boiling oil to stop bleeding and demonstrated the use of vessel ligatures. He was also the first to grasp blood vessels with a pinching instrument. Mention is made of sutures and ligatures in writings of the early 18th century. Coagulation was still believed to be a result rather than the cause of hemostasis. Infection of wounds was believed to be the result of sutures until the method of infection transmission was discovered in the mid 19th century.

Although described as early as 1826 in France by Antouine Lembert, staples were not really usable as a surgical device at that time. A more advanced device was developed by Holtl in Budapest in 1908. The von Petz instrument for GI tract stapling was introduced in 1921 and was used until more modern stapling devices were developed by the Russians in the 1940's-50's. The United States Surgical Corporation (USSC) introduced modifications of the Russian instruments in the late 1960' s and subsequently developed new stapling systems that are now part of every surgeons armamentarium..

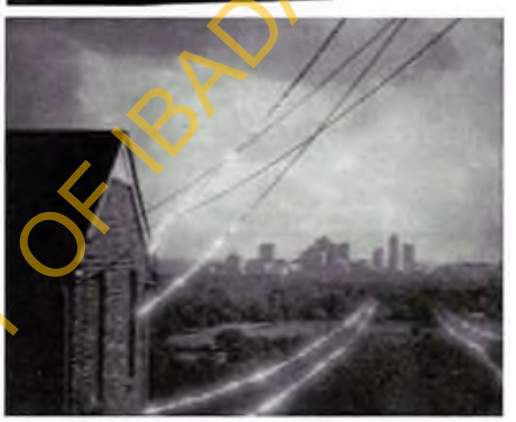
BASIC PRINCIPLES OF ELECTRO-SURGERY

PROPERTIES OF ELECTRICITY

- Electricity always.....
- Seeks ground as it attempts to return to earth
- Seeks path of least resistance
- When electrosurgical injury occurs, current takes pathway of least resistance.

Current: Flow of electrons during a period of time, measured in amperes.

Circuit: Pathway for the uninterrupted flow of electrons (must be complete to flow).



Cresistance: Obstacle to the flow of current, measured in ohms. (impedance = resistance)

Voltage: Force pushing current through the resistance, measured in volts

Review definitions on slide.

Additional commentary for each slide may include:

- Current - the generator is the source of the current
- Circuit - explain the difference between an open (broken or interrupted) and closed (completed or uninterrupted) circuit. Emphasize that the circuit must be closed or completed for the current to flow. Describe the flow of current in a monopolar electrosurgical circuit (ie.generator...active

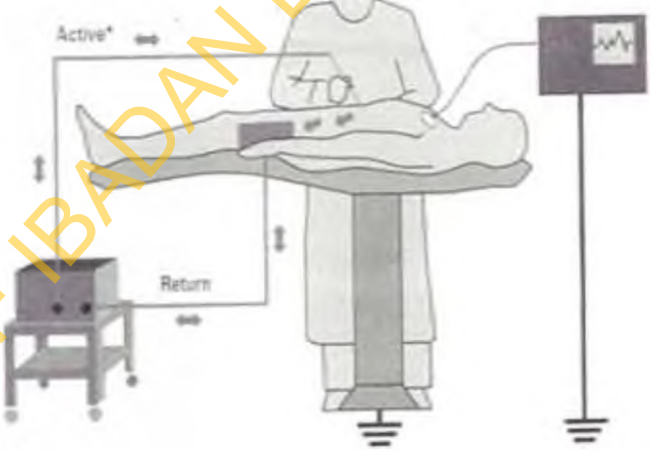
electrode...patient...return electrode...generator)

- Resistance - the patient's tissue provides the resistance to the flow of the current.
- Voltage - emphasize that as the voltage goes up the surgeon's control goes down. This is particularly important when including MIS in the program.

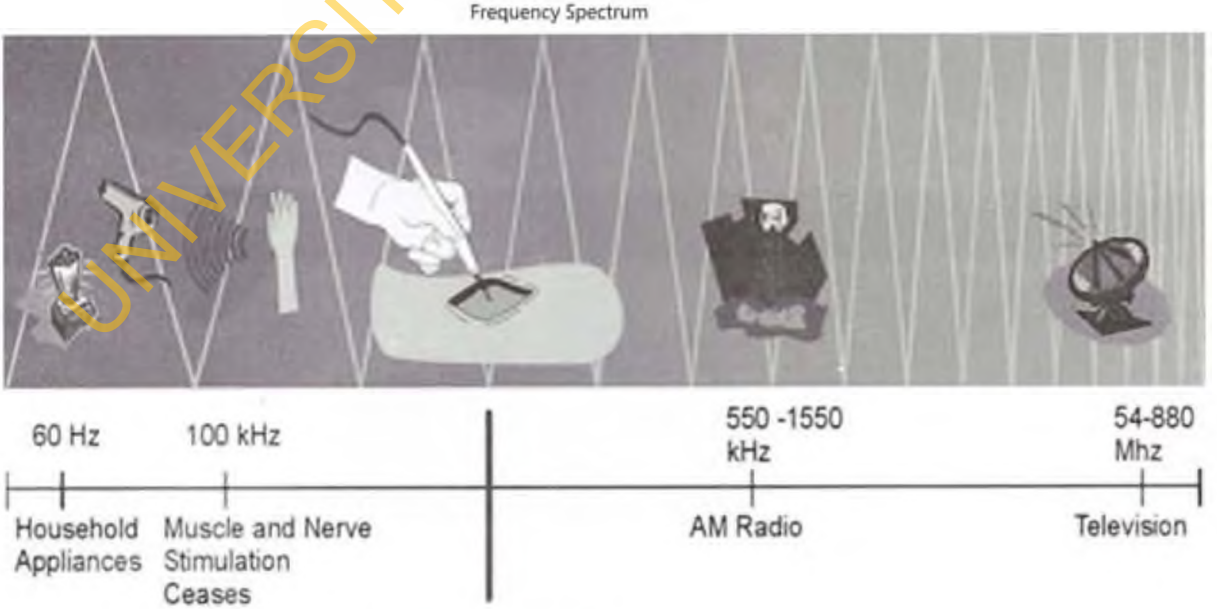
Suggested DEMO: Light the light bulb

- Electrocautery
  - DC generated
  - Current does not enter patient
  - Only heated wire comes in contact with tissue
- Electrosurgery
  - AC generated
  - Patient included in the circuit
  - Current enters patient

- Generator
  - Source of electron flow and voltage
- Circuit
  - Generator
  - Active electrode
  - Patient
  - Patient return electrode
- Ground pathway
  - OR table, stirrups, staff members, equipment
- Impedance
  - Patient tissue which produces heat as electrons overcome impedance



Frequency Spectrum



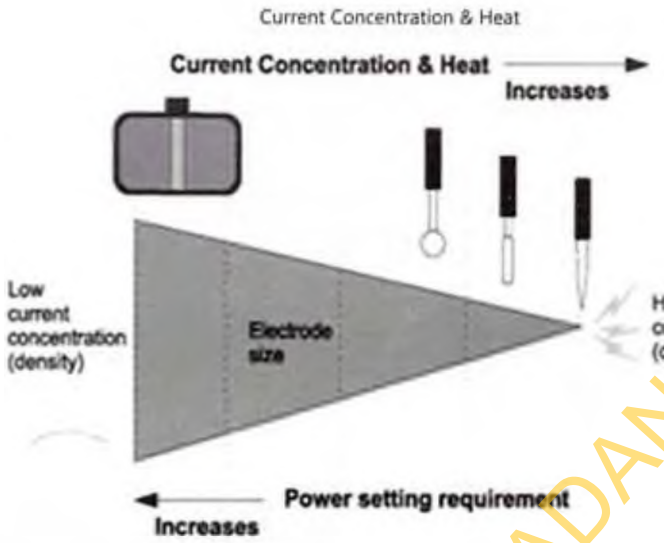
Electrosurgery
200 kHz - 3.3 Mhz

PRINCIPLES OF ELECTROSURGERY

It is common knowledge that if an individual sticks a finger into an electrical outlet, there will immediately be a shock, leading to a burn, and ultimately death by electrocution. The current coming from an electrical outlet is 110 volts oscillating at 60 Hertz, or cycles, per second from negative to positive poles causing neuromuscular stimulation.

If an electrosurgical generator can produce as much as 10,000 volts, why isn't the patient electrocuted during its use? (Pause and encourage audience response)

Dr. Bovie realized that nerve and muscle stimulation ceases at 100,000 cycles per second (100 KHz) and that if you increase the frequency above this level, the heat generated from that energy can be used with little or no muscular stimulation and no risk of electrocution. Today's electrosurgical generators operate safely at radio frequencies of 350 KHz or above.



GENERATOR

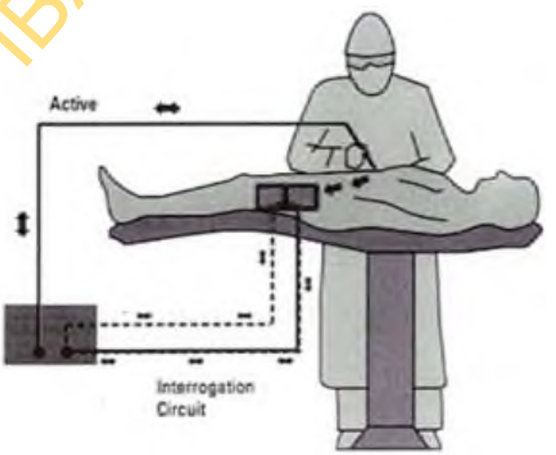
Active electrode

-in the wound

Patient

Patient return electrode is attached somewhere else on the patient

Current must flow through the patient to the patient return electrode



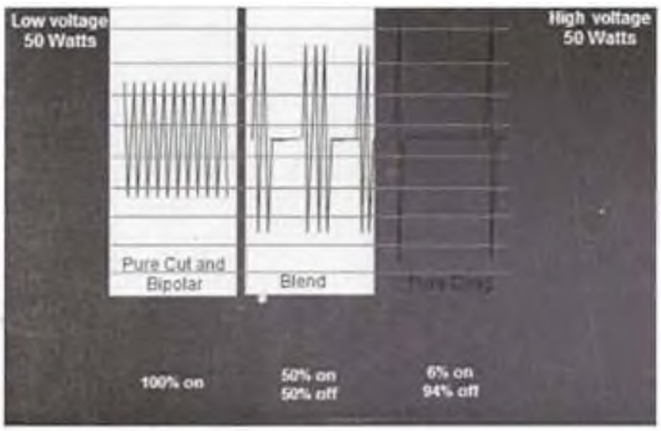
BIPOLAR

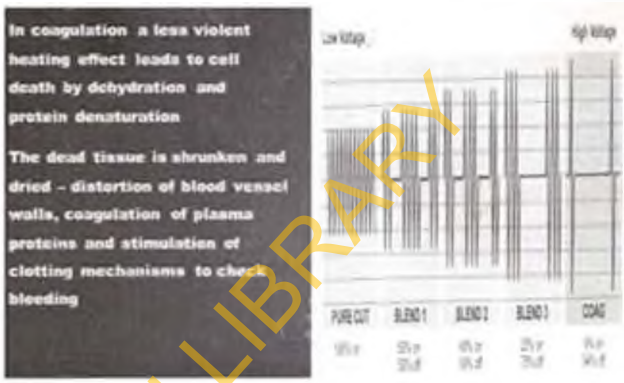
- Active and return electrodes in the instrument
- Current flow confined to tissue between electrodes

SUGGESTED DEMO: HIGH FREQUENCY LEAKAGE

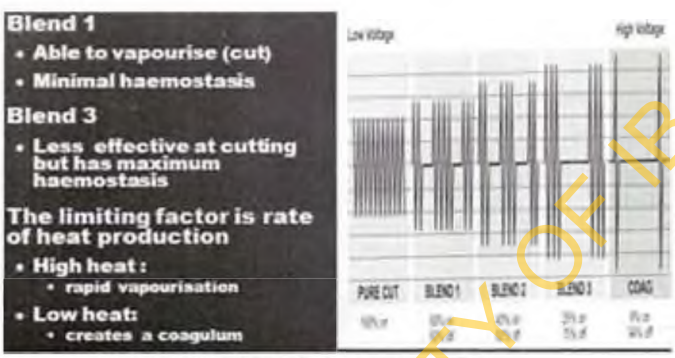
This slide shows a bipolar circuit. With the bipolar mode, the current flows between the tips of the bipolar forceps that are grasping tissue. Because the current flows from one tip (electrode), through tissue, to the other tip (electrode) the circuit is completed without entering any other part of the patient's body. A return electrode is not needed for a bipolar procedure. The tissue effect of bipolar electrosurgery is desiccation when forceps are used. Other instrumentation is available that allows cutting during bipolar procedures .

A benefit of bipolar electrosurgery is the use of lower voltage to push the current through the patient. Because the active electrode forceps grasps only a small amount of tissue, the amount of tissue resistance is also small. Consequently the amount of voltage will also be small. As an example, for a tissue response generator, maximum output voltage during open

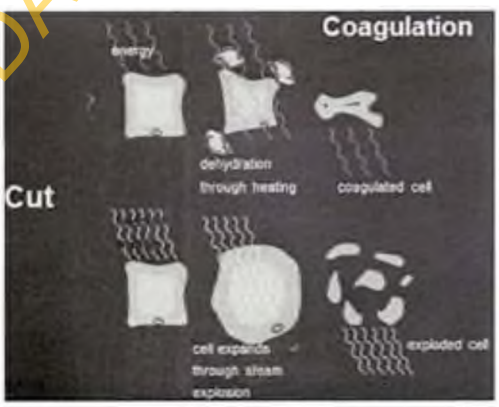




Tissue effect with change in waveform



Tissue effect with change in waveform



circuit activation can range from 217 volts to 700 volts.

- In literature one describes complicated mechanisms at the site of the active electrode
- Simplified message as follows :
- Coagulation = dehydration or shrinking of cellular material: generally takes more time
- Cutting = explosion of cellular material by rapid steam development

ELECTROSURGICAL TISSUE EFFECTS

DESICCATION

- Occurs when electrode in direct contact with tissue
- Efficient desiccation by "cutting current"
- Touching tissue with electrode results in reduced current concentration

VARIABLES IMPACTING TISSUE EFFECT

- Waveform, Power setting, Size of electrode, Time, Manipulation of electrode, Type of tissue, Eschar

GROUNDED ELECTROSURGICAL SYSTEMS

- Electricity seeks path of least resistance
- Many conductive objects from patient to ground
- Current selects the most conductive object to ground which may not be the return electrode

PATIENT RETURN ELECTRODE (PRE)

Low — Thermal Spread/Charring — High

Low — Voltage — High

Cutting & Fulguration

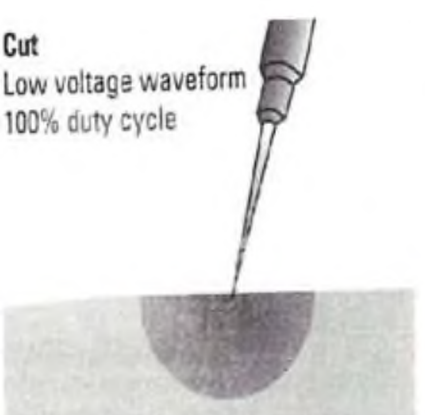
ELECTROSURGICAL TISSUE EFFECTS

Hold electrode slightly away from the tissue to cause a spark with vapourisation
Sparking with coagulation waveform

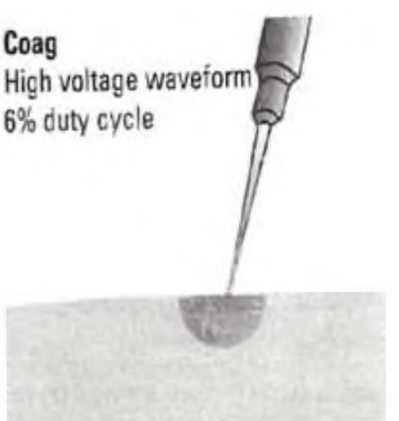
DESICCATION

- Occurs when electrode in direct contact with tissue
- Efficient desiccation by "cutting current"
- Touching tissue with electrode results in reduced current concentration

Cut
Low voltage waveform
100% duty cycle



Coag
High voltage waveform
6% duty cycle



-
  - Function of PRE is to remove current from the patient safely
  - A return electrode burns when the heat produced, over time, is not safely dissipated by the size or conductivity of the patient return electrode

POTENTIAL ADVERSE OUTCOMES RELATED TO ELECTROSURGERY

ELECTROSURGERY SAFETY CONCERNS

- Surgical Smoke, Pad site burn, Direct coupling, Insulation failure, Capacitive coupling

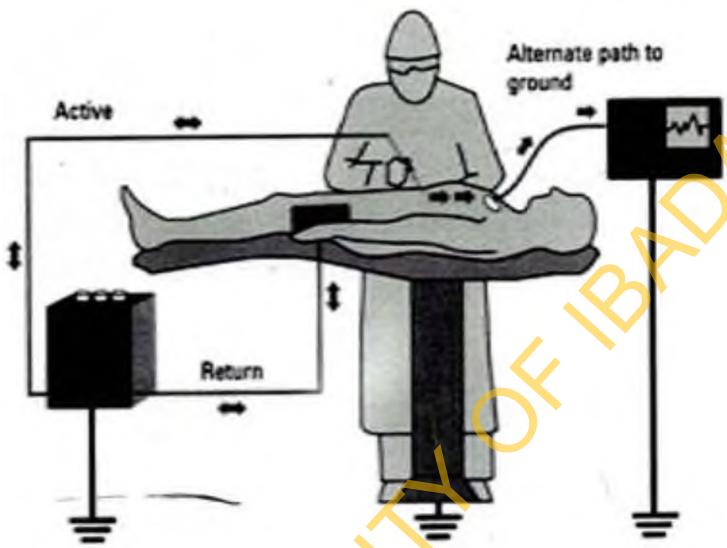
RESEARCH CONCLUSIONS

- Surgical smoke is not sterile
- Thermal energy (regardless of energy source) does not destroy viral DNA
- Known carcinogens have been identified in contents of smoke

EXAMPLES OF FIRES REPORTED TO ECRI

Flammable Agents – Best Practice

- Avoid pooling of prepping solutions, Drape patient after vapours from flammable agents have dissipated



$$\text{BURN} = \frac{\text{CURRENT X TIME}}{\text{AREA}}$$

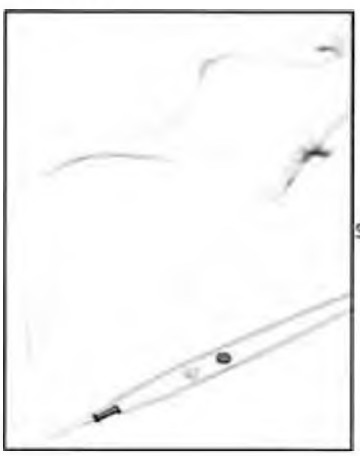
INJURIES DUE TO THE EFFECTS OF NON REM PADS

Burns occur when impedance increases at patient return electrode site resulting in high concentration of current.

RETURN ELECTRODE MONITORING

VESSEL SEALING TECHNOLOGY

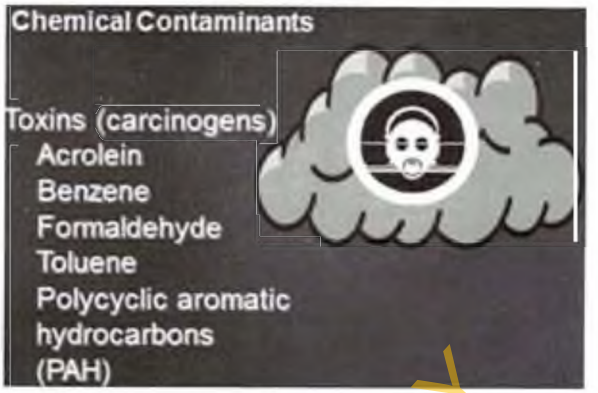
VESSEL OCCLUSION SYSTEM



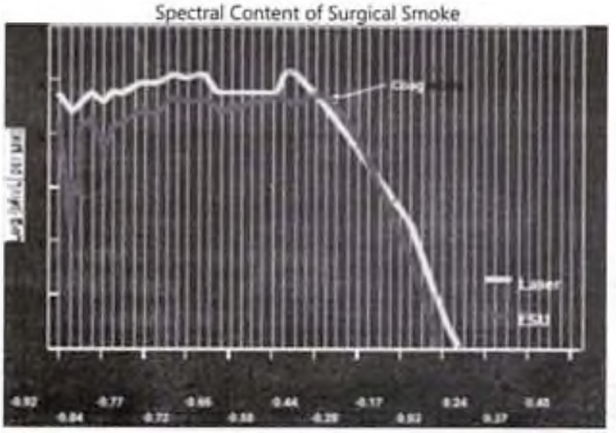
Surgical Smoke

Content of surgical smoke

Chemical Contaminants



Spectral Content of Surgical Smoke



Fire

Head and Neck

- Endotracheal tube
- Flash fire of eyelid
- Throat
- Facial hair

- Drapes and sponges
- Bowel explosion
- Incision site
- Flammable prep solution

LIGATURE

- Can be used on vessel up to 7mm, Seals tissue bundle without dissection and isolation, Minimal thermal spread, Little or no sticking, No foreign material left behind

SEAL SYSTEM

Mechanism

Uses body collagen to change the nature of the vessel walls by obliterating the lumen

The collagen and elastin within the tissue melt and reform to create the seal zone.

ASSESS PAD SITES

Choose: Well vascularised muscle mass

Avoid: Vascular insufficiency, Irregular body contours, Bony prominences

Consider:Incision site, prep area, Patient position, Other equipment on patient

AVOID THE FOLLOWING PATIENT PLATE LOCATIONS

- scar tissue, metal implants, pacemakers, bony structures, monitoring electrodes, area of moisture concentration

ASSESS PRESENCE OF METAL PROSTHESIS AND OTHER IMPLANTS

PATIENTS WITH PACEMAKERS

If the patient has an external or internal pacemaker, use electrosurgery with extreme caution

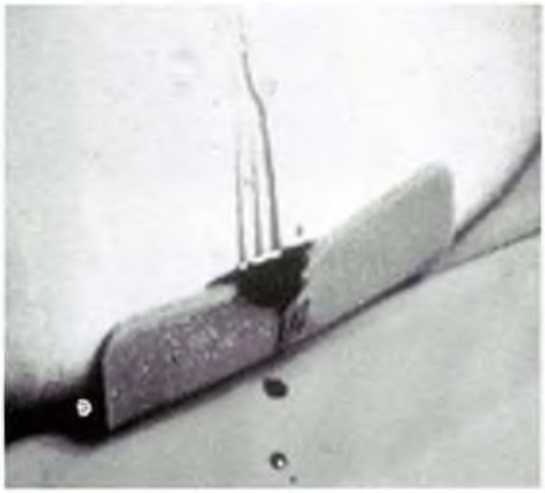
- Before using electrosurgery on a patient with a pacemaker, consult with the pacemaker manufacturer or facility cardiology department
- Use bipolar electrosurgery whenever possible
- Use lowest possible power setting

If the patient has an external or internal pacemaker, use electrosurgery with extreme caution. The electrosurgery generator can cause pacemakers "to enter an asynchronous mode or can block the pacemaker effect entirely." Before using electrosurgery on a

patient with a pacemaker, consult with the pacemaker manufacturer or facility cardiology department. Bipolar electrosurgery is the preferred modality for the patient with a pacemaker because of lower voltages needed to push the bipolar current through the patient's tissue. Monitor the pacemaker patient's ECG throughout the procedure when electrosurgery is being used.

PATIENT ASSESSMENT

Assess skin Condition: Oily/dry, Dermatitis/rash, Scar tissue, ...and Patient assessment begins with an examination of the patient's skin condition. Check the patient for the presence of oily and dry skin, dermatitis and rash, and scar tissue. Oily skin



Ideal

Dangerous

REM TECHNOLOGYRETURN ELECTRODE MONITORING

REM Technology

Developed to protect against inadequate contact of return electrode

Pad site burns due to decreased contact area of return electrode site

REM –equipped generators monitor amount of impedance at the patient/pad interface.

The system deactivates generator before injury occur if high impedance

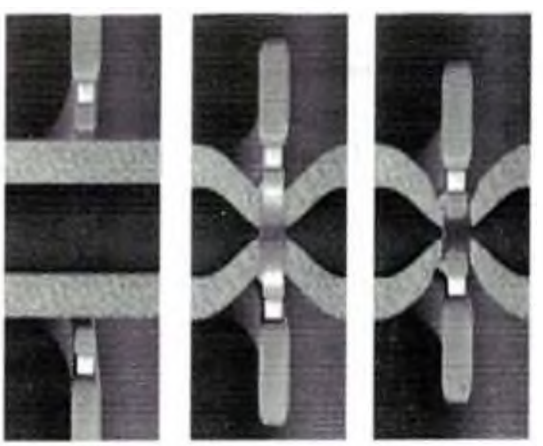
Vessel Sealing Technology

VESSEL SEALING TECHNOLOGY

Applies optimal pressure to vessel/tissue bundle

Energy delivery cycle

- Measures initial resistance of tissue and choose appropriate energy settings
- Delivers pulsed energy with continuous feedback control
- Senses that tissue response is complete and stops the cycle



makes it difficult for the return electrode to adhere to the patient's skin, particularly if the return electrode used is a dry adhesive return electrode. This of course, could lead to possible return electrode dislodgment during the procedure. Dry skin is low in moisture contact, thus increasing the patient's resistance at the return electrode site. Return electrodes should not be applied over areas of dermatitis and rash. The return electrode could exacerbate this type of skin impairment. Scar tissue is high in resistance and therefore should be identified prior to placing the return electrode. Excessive hair effects the patient's resistance and interferes with the ability of the return electrode to adhere to the patient. The decision to remove hair must be based on the amount of hair at the site and the manufacturers recommendation concerning hair removal.

VESSEL OCCLUSION SYSTEM

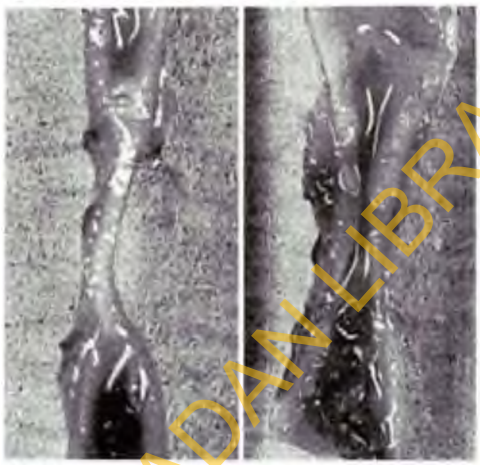
Ligature

- Can be used on vessel up to 7mm
- Seals tissue bundle without dissection and isolation
- Minimal thermal spread
- Little or no sticking
- No foreign material left behind

SEAL SYSTEM

Mechanism

Uses body collagen to change the nature of the vessel walls by obliterating the lumen
The collagen and elastin within the tissue melt and reform to create the seal zone.



PATIENT RETURN ELECTRODES

If necessary, shave, clean, and dry the return electrode application site. Shave excessively hairy patients. If using a contact quality monitoring system, shaving helps establish patient and return electrode interface, thus activating the system. On the other hand, if using a generator without a contact quality monitoring system, shaving is necessary to ensure good surface contact and conductivity. Always follow the manufacturer's directions concerning preparation of the return electrode site. Manufacturer directions must be followed completely to ensure good return electrode adherence. Also, failure to follow the manufacturer's recommendations increases liability should an adverse outcome occur at the return electrode site. Refer to package labeling and product inserts for "product conditions for use" documentation.

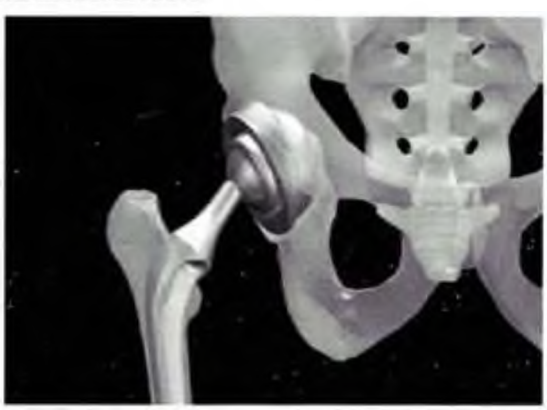
ASSESS RETURN ELECTRODE SITE LOCATION

During the assessment the nurse looks for a potential site for return electrode placement as well as for variables that may impact the return electrode-patient interface. Find a site that is a well-vascularized muscle mass. Avoid areas of high resistance such as a leg with vascular insufficiency, irregular body contours and sites with protruding bony prominence. Lastly, consider the incision site and prep area. The nurse should be able to access the return electrode site during the procedure. If it is too close to the incision site, accessing the return electrode during the procedure may not be possible. Determine if the return electrode will interfere with the prep site. If it does, prep first and then apply the return electrode. Finally, determine the type of other

ASSESS PRESENCE OF METAL PROSTHESIS AND OTHER IMPLANTS

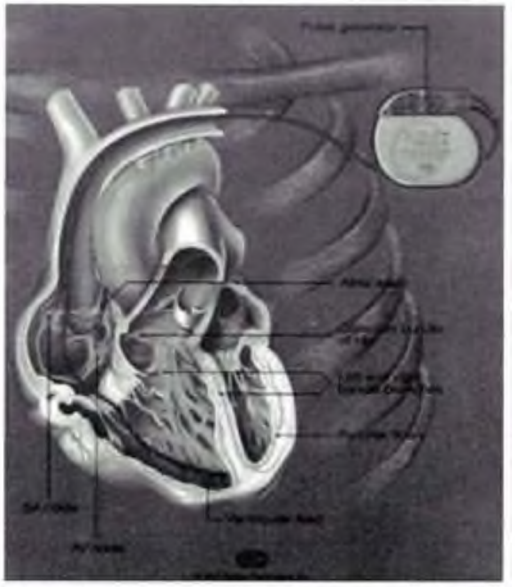
DETERMINE EXACT IMPLANT SITE

- Presence of scar tissue around prosthesis creates an area of increased resistance.
- Scar tissue is high resistance tissue and may cause current to concentrate at adjacent points of low resistance tissue



l Apply the return electrode so that the current will flow between the active electrode site to the return electrode avoiding the heart and pacemaker

l Do not lay the active electrode or cord across the pacemaker and its leads



Heart with leads and pacemaker

equipment that will be used on the patient. As an example, if a warming blanket is placed on the OR bed between the patient and the bed, the return electrode will come into contact with the blanket if the return electrode is placed on the patient's buttock. Heat generated from the blanket could be transferred into the return electrode, thus increasing the patient's risk for a thermal injury.

DIRECT COUPLING

When the electrode is activated in proximity or direct contact with a metal/ conductive instrument or object

- Laparoscope, ligating clip, etc.
- Contact site may be outside the field of vision
- Metal instrument may be in contact with tissue outside field of view

WHY DO OPERATING THEATRE TEAM MEMBERS SOMETIMES GET BURNED WHILE HOLDING HAEMOSTATS?

Why do surgical team members sometimes get shocked while holding a hemostat? A hole in their glove, frequently blamed for this occurrence, is actually a result of the current penetrating the glove and creating a pinpoint burn.

The current applied to the hemostat that is clamped to the bleeding vessel will travel to the tissue, seeking the return electrode and thus attempting to complete the circuit. As the tissue is desiccated, the resistance rises. When the resistance reaches a point where the path of least resistance becomes the person holding the hemostat, the current will take that path. Scrubbed members of the surgical team frequently are touching the patient and are therefore putting themselves in circuit.

HELPFUL HINTS TO AVOID HAEMOSTAT BURNS

- Use lowest power setting possible, Activate low voltage (cut) waveform, Avoid touching the patient, Hold hemostat with full grip, Do not activate in open circuit (avoid metal to metal arcing), Note: Surgical gloves do not insulate against RF current

The manufacturers of electrosurgical generators do not recommend that surgeons use the technique of "buzzing the hemostat". However, it remains a commonly employed method of achieving hemostasis and there are techniques that can reduce the potential for being shocked.

The techniques shown are for stainless steel electrodes.

Excessive Hair

Helpful hints:

- Grasp the hemostat with a firm grip over a large surface
- Do not activate in open circuit – the pencil should be in contact with the hemostat before activating
- Use the cut waveform because it is low voltage and will not produce large bursts of energy
- Use the lowest power setting possible
- Do not put yourself in the circuit.

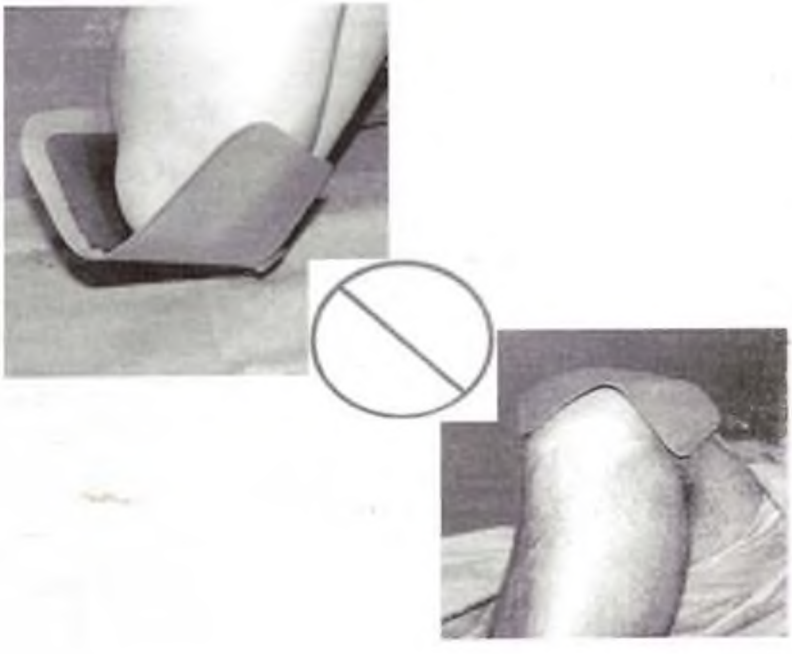
WHY INSULATION FAILURE INJURIES OCCUR

Depicted in this side is an example of the potential harm that could occur if the insulation on an active electrode is compromised, for example, cracked, worn down through frequent use, punctured by another sharp instrument, or compromised by high voltage. This small break in the insulation, regardless of cause, could result in current concentration and therefore an inadvertent injury to surrounding tissue. Of particular concern is that even perfectly intact insulation (regardless of whether the instrument is disposable or reusable) can be compromised by the high voltage associated with the coagulation current. In other words, high voltage can "blow holes" in what was originally intact insulation.

If necessary, shave, clean, and dry the return electrode application site
Avoid using flammable agents to clean the return electrode site.
Always follow the manufacturer's directions concerning preparation of the return electrode site

The chance for insulation failure increases if the generator is activated in "open circuit." Please notice on the slide that the tip of the active electrode is not touching or even in close proximity to the target tissue. The generator is trying to deliver energy to the target tissue. However, it is unable to do so because of the high impedance of air separating the active electrode from the target tissue. Consequently, there is an "open circuit" situation. Energy cannot travel through the intended circuit. When this "open circuit" situation occurs, the generator reaches maximum voltage for the wave form selected, as it tries to complete the circuit. This ramping to maximum voltage increases the chance that the current will take advantage of a break in the insulation or blow a hole in the insulation as it attempts to complete the circuit to the return electrode. Since the coagulation current has considerably more voltage than the other waveforms (2,000 volts for cut vs. as much as 10,000 volts for coag) the likelihood for insulation failure is greater when the coagulating current is selected.

- Choose:
- Well-vascularized muscle mass
- Avoid:
- Vascular insufficiency
- Irregular body contours
- Bony prominences
- Consider:
- Incision site/prep area
- Patient position
- Other equipment on patient



It is also important to remember that this may occur outside the field of vision and may not be observed during the surgical procedure. Many times these injuries go unnoticed until they present themselves as a post-op complications.
Suggested DEMO: Insulation Failure

CAPACITIVE COUPLING

Capacitor: Two conductors separated by an insulator

Capacitance: The property of an electrical circuit which enables it to transfer an electrical charge from one conductor to another even when separated by an insulator

Capacitive Coupling

CANNULA SYSTEMS

BURN HAZARDS IN MIS ELECTROSURGERY

- Burning the wrong structure, Inappropriate or inadvertent activation of electrodes out if view, Faulty insulation, Instrument to instrument coupling (Direct coupling), Retained heat, Capacitive coupling

ASSESS PATIENT SIZEObese

- Multiple return electrodes/adapter may be required Emaciated
- Site selection requires good nursing judgement Infant
- Less than 30 pounds
- Site selection requires good nursing judgement

The presence of obesity must be determined because adipose tissue is high in resistance and will most likely require higher generator power settings. For some very obese patients, it may be difficult to get the patient into circuit. When this occurs, follow the manufacturer's recommendations. Some manufacturers provide step-by-step instructions on how to troubleshoot a generator alarm caused by excessive resistance secondary to obesity. One potential solution for extreme obesity is the application of two contact quality monitoring return electrodes. For this, you will need a special adapter.

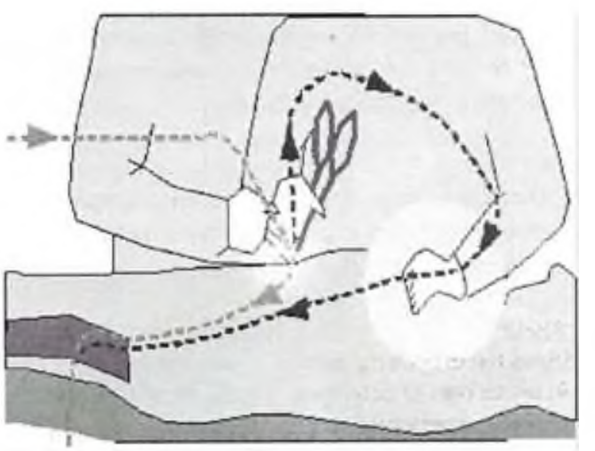
The emaciated patient presents a challenge because of the lack of good muscle tissue and the bony prominences. The nurse must use good judgment when dealing with this type of patient.

Only a dual-section pediatric electrosurgery return electrode made for use with an electrosurgery generator equipped with an adaptive contact quality monitoring system should be used on neonates, infants, and children less than 30 pounds. Because of the hydrophilic and superior adherence features, a low impedance hydrogel adhesive return electrode is always preferable to a water based gel return electrode or dry adhesive return electrode. Always use electrosurgery on infants and neonates with caution. Power settings should be low.

If the patient cannot be placed in circuit with a contact quality monitoring dual-section return electrode because tissue impedance is too low, the nurse should not use a single-section return electrode. A single-section return electrode does not activate the generator contact quality monitoring system, thus the generator is unable to shut down if impedance at the return electrode site falls outside acceptable ranges. Consequently, the use of a single-section return electrode is extremely hazardous and must not be used because of the possibility of a return electrode site burn if the return electrode-patient interface should become compromised. Also, a smaller return electrode is not a safer return electrode. The smaller the surface area of the return electrode, the more chance for current concentration and subsequent tissue injury. In such cases, use bipolar electrosurgery, rather than monopolar electrosurgery.

ACTIVE ELECTRODES

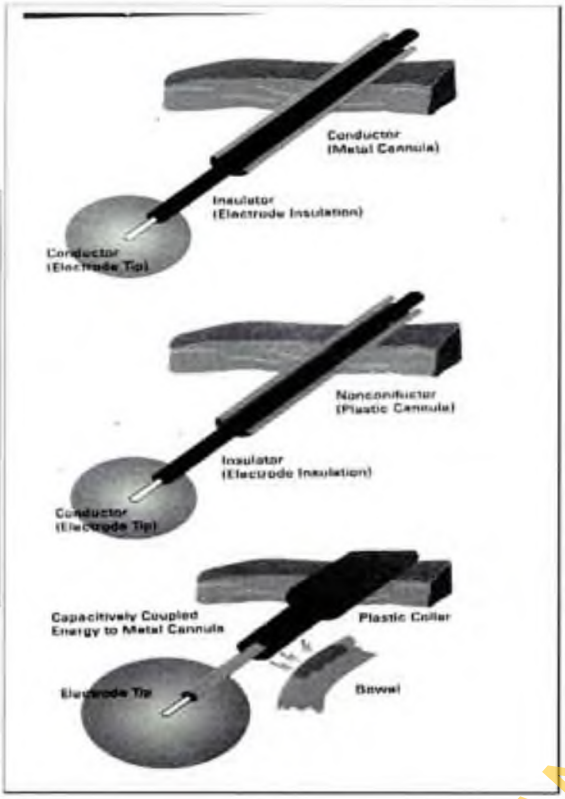
- Remove unneeded electrosurgical pencils/ electrodes from the sterile field immediately



Metal

Plastic

Hybrid



MECHANISM OF ADHESION

CAUSES OF ADHESION

- It happens after various injuries: Surgery, inflammation, infection, chemical treatment, cancer, radiological treatment and so on.
- Adhesion occurs in many cases of surgeries because of its invasive character

IN GYNAECOLOGY AND OBSTETRICS

PROCEDURES SUCH AS: Dilation and curettage, Caesarean section, Hysterectomy, Oophrectomy, Surgical treatment of endometriosis, Myomectomy, Other Ovarian surgeries, and Reconstructive tubal surgery

PROBLEMS OF ADHESIONS

- Adhesions occur in the majority of women who had pelvic surgery.
- Problems include: Infertility, Chronic pelvic pain, Dyspareunia, Vital organ damage, intestinal obstruction

SOLVING THE ADHESION PROBLEM

- Adhesiolysis: dangerous, expensive, may not be effective
- Preventive measures: Surgical technique, Barriers: Seprafilm, Gynacare Interceed, Guardix sol

GUARDIX SOL

- Contains Sodium hyaluronate and Carboxymethylcellulose, Viscous and lubricant solution, Residence time : 7~10 days(Remains until healing occurs), Biocompatible, Bioresorbable, Allows tendon movement, Good result of Anti adhesion

INDICATIONS

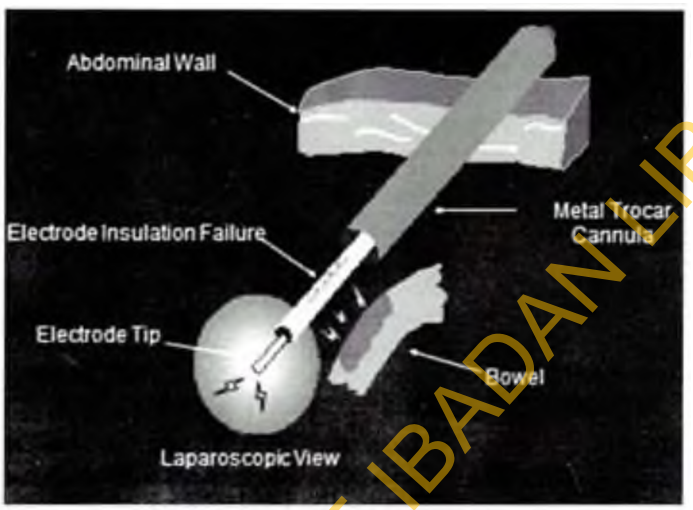
- Laparatomies:Abdominopelvic,Thoracic; Laparascopic adhesiolysis; Including procedures in Gynaecology(myomectomy, hysterectomy, oophrectomy,etc); ? ? Others: Total mastectomy, Thyroidectomy, Laminectomy,etc

HOW TO APPLY

- Using the provided pippette or moist guaze.....
- Apply to sites of potentially adhesiogenic tissues and organ structures.....
- to serve as temporary barrier separating opposing tissue surfaces.

- Use electrosurgery with caution in bowel or in body cavities
- Inspect all active electrode cords for frays, cuts, or loose connections
- Use the lowest possible power setting
- Use short activations of the electrosurgical generator
- Do not activate in open circuit when buzzing the hemostat (avoid metal to metal arcing)

Activate the ESU, ECU, or laser only when the active tip is in view, especially if looking through a microscope. Likewise, deactivate the ESU, ECU, or laser before the tip leaves the surgical site. Some surgeons may elect to buzz the hemostat during surgical procedure. It is not recommended, and the hazards of such a practice probably cannot be eliminated. Burns to the surgeon's hands are possible as well as metal to metal arcing, which in turn can become an ignition source. However, if the surgeon elects to buzz the hemostat, in order to avoid metal to metal arcing, do not activate in open circuit when buzzing the hemostat. Before activation, the electrode should be in contact with the hemostat. Activation using low wattage and the cut waveform will also reduce the potential for arcing. Also, firmly grasp as much of the hemostat as possible before activating the generator. This will disperse current over a larger area and minimize current concentration at the finger tips.



Activation of the ESU, ECU, or laser close to gauze or surgical drapes is extremely hazardous, particularly in an oxygen enriched environment. Coiling, bundling, and clamping of ESU active electrode cords should never be done. This practice may induce currents that could lead to shocks, fires, or injury to the patient or surgical personnel. Always check biomed stickers to ensure that they are current. A generator with an out-of-date sticker should not be used. Inspect all electrical cords for frays, cuts or loose connections. Frayed or damaged power cords or damaged outlets can result in excessive current being delivered to patients and/or staff members.

HINTS FOR SAFETY IN MIS

RECOMMENDATIONS IN MIS TO REDUCE ELECTROSURGICAL COMPLICATIONS

Inspect insulation carefully

Use : lowest possible power setting, low voltage waveform (cut), brief intermittent activation vs. Prolonged activation, Bipolar electro-cautery when appropriate

Do not : activate in open circuit, activate in close proximity or direct contact with another instrument

RECOMMENDATIONS IN MIS TO REDUCE ELECTROSURGICAL COMPLICATIONS

Select an all metal cannula system as the safest choice. Do not use hybrid cannula (metal with plastic)

Utilize available technology e.g. tissue response generator to reduce capacitive coupling or active electrode monitoring system to eliminate concerns about insulation failure and capacitive coupling

SAFETY PRECAUTIONS

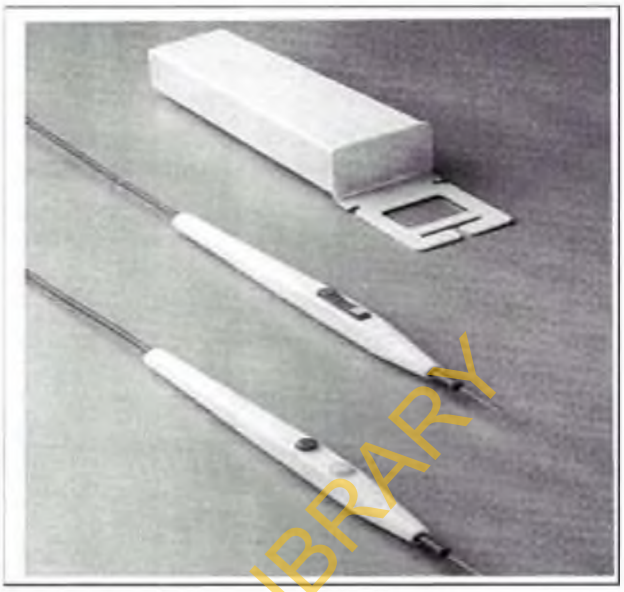
- The ESU should not be used in the presence of flammable agents (alcohol, and/or tincture based agents
- Avoid oxygen enriched environments
- Always use an insulated safety holster to store active electrodes when not in use

The active electrode should be places in a clean, dry, nonconductive safety holster, in a highly visible area when not in use

ADHESION

A band of scar tissues that forms an abnormal connection between two tissues.

Association of operating room nurses (AORN Denver) 1999



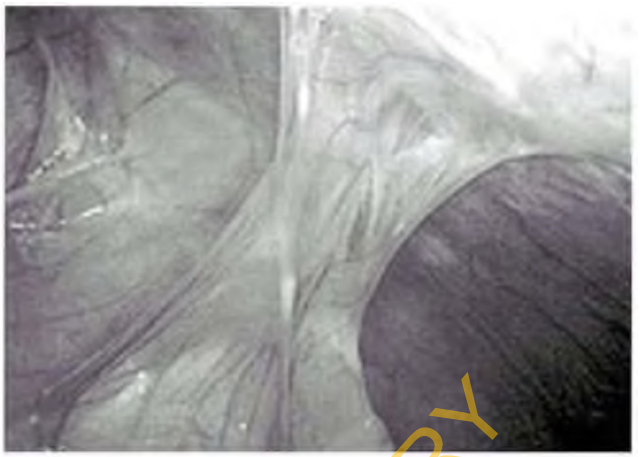
ALPHA – NEW APPROACH

ALPHA PHARMA

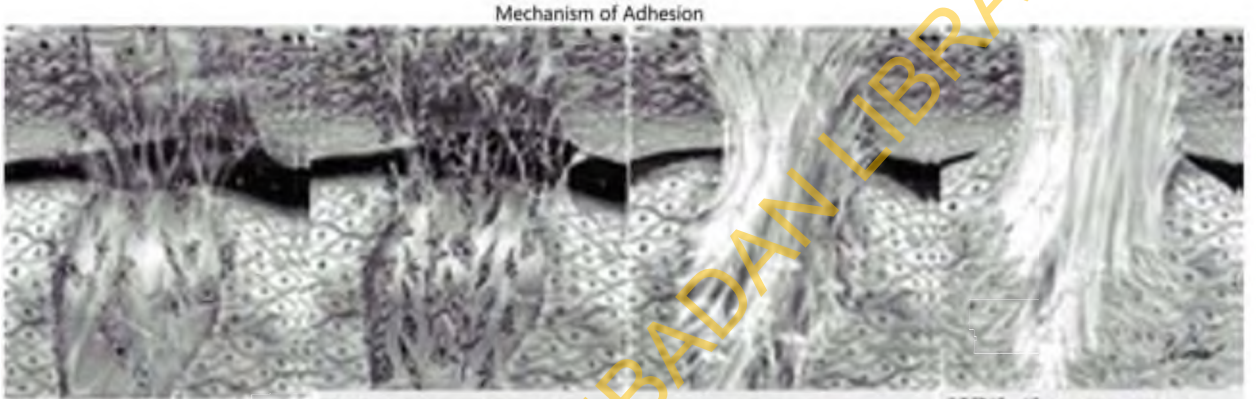
New approach to prevention of
Post-operative adhesion
Guardix-sol

ADHESION

A band of scar tissues that forms an abnormal connection between two tissues.



Mechanism of Adhesion

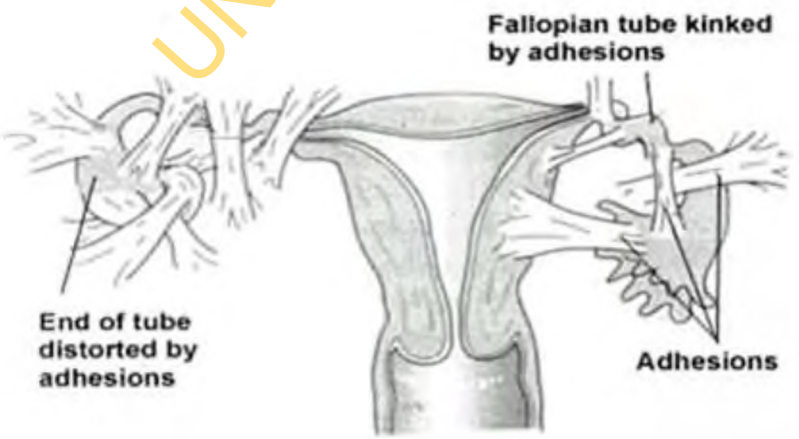


When tissue is injured, Macrophages, fibroblast and Fibrin matrix gather to the injured surface by inflammatory response

Microphages make the basement of adhesion, fibrin matrix is developed, and fibroblast grows up, and then the formation of the blood vessel starts

As adhesion develops, blood vessel increase and and get systematized

With the progress of adhesion formation, The separation b/w the tissues became insignificant, and form the dense bands



PL-012

A COMMUNITY BASED APPROACH FOR SCREENING FOR OBSTETRIC FISTULA (OF) IN EBONYI STATE, NIGERIA

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All from National Fistula Center, Abakaliki, Ebonyi State

OBJECTIVES

- This is a community based rapid assessment screening exercise meant to provide initial data on the magnitude of obstetric fistula in Ebonyi State.
- To raise awareness about the scourge of OF
- To help reduce stigmatization OF patients in the community

BACKGROUND

- Obstetric fistula is one of the most debilitating maternal health morbidities associated with enormous medical/psychological burden.
- The true prevalence/incidence remains difficult to determine because of the stigma associated with the condition.
- Recent National Demographic/Health Survey (NDHS) shows that estimated prevalence in the southern zones to be .3% compared to .5% in the northern zones.

OBSTETRIC FISTULA IN EBONYI STATE

- Ebonyi State is located in the southeastern part of Nigeria.
- It was created in 1996 and has an estimated population of about 3million.
- It is composed of 13 local government areas (LGAs).
- Data from 2008 Nigeria Demographic/Health Survey[3] show the following characteristics among women of reproductive health age in Ebonyi.
- Literacy levels are low(53%).
- 60% have heard of modern family planning method, 6% are using any method, 3% a modern method
- 76% attended antenatal care services with the last pregnancy, 40% delivered their last child in a health facility, and

Table 1. Number of women screened/diagnosed with fistula and number of fistula repairs conducted to date at the South East Regional VVF Centre, by LGA.

LGA	No screened	No diagnosed with fistula (%)	No who had surgery (April2011)
1	27	10(37.0)	16
2	40	26(65.0)	43
3	39	26(66.7)	32
4	36	22(61.1)	47
5	58	33(56.9)	84
6	40	24(60.0)	55
7	32	16(50.0)	17
8	30	11(36.7)	12
9	57	22(38.6)	40
10	34	23(67.6)	3
11	60	35(58.3)	49
12	78	43(55.1)	70
13	28	15(53.6)	9
Total	**559**	**306(54.7)**	**537**

Table 2. Characteristics of women diagnosed with fistula

AGE	NUMBER	PERCENTAGE
15-20	15	4.9
21-29	33	10.8
30-39	78	25.5
40-49	62	20.3
-	118	38.6
Total	306	100.0

Table 3. Parity

PARITY	NUMBER	PERCENTAGE
1	77	25.2
2	36	11.8
3	34	11.1
4	37	12.1
5+	122	39.9
Total	306	100.0

Table 4 Duration of fistula

Number of years with fistula	Number	Percentage
⩽1	16	5.2
1-5	50	16.3
6-10	60	19.6
11-15	34	11.1
16-20	47	15.4
21-25	39	12.7
26-30	32	10.5
>30	28	9.2
Total	**306**	**100.0**

46% reported a skilled birth attendant attended them to.

- The median age at first birth is 21 years.
- In 2003 Ebonyi State University Teaching Hospital(EBSUTH) established a fistula repair unit.
- Between 2003 and 2007 about 120 women from different parts of the state and neighboring states had **free** fistula repair surgery at this unit.
- About 80 other patients could not access care because of lack of funding of the unit

MOTHER AND CHILD CARE INITIATIVE

- In 2007 the Mother and Child Care Initiative (MCCI) Program was introduced by the wife of the governor of Ebonyi state.
- MCCI focuses on maternal mortality and morbidities (e.g. fistula), breast and cervical cancer,, orphans and vulnerable children, widows, HIV/AIDS, rural girl child education.
- In Dec 2008 the Southeast Regional VVF Centre was established by MCCI to provide free treatment for all fistula clients irrespective of state of origin
- South east Fistula Centre has become the National Obstetric fistula Centre Abakaliki
- MCCI collected baseline data on reproductive health related issues (including obstetric fistula) from 13 LGAS using structured questionnaire
- Conducted rapid community based Clinical assessment for Determination of the burden of OF in 13 LGAS
- These baseline data were collected before the establishment of the South East Fistula Centre, Abakaliki

METHODOLOGY

- Conducted by the Mother and Child Care Initiative between June and July 2008.
- Women with complaint of urinary incontinence were gathered at designated General Hospitals in each Local Government Area and a team of medical personnel conducted the clinical screening exercise.

CONDUCT OF COMMUNITY BASED ASSESSMENT

- Planning meetings for the community screening with various stakeholders including community leaders, religious leaders, media, women groups etc.
- Coordination with Local Government Area chairmen
- Elaborate community sensitization and mobilization
- Assembling the team (1 fistula surgeon, 1 doctor, 2 nurses, 2 health educators, 2 drivers, 1 maintenance worker).
- Assemblage of equipment and consumables needed for the excercise

RESULTS

- The team examined 559 women, 306(55%) women were identified with OF.
- The median number of women at each screening event was 39 years
- Eighty percent (80%) had been living with the fistula for more than five years.
- The associated fetal wastage was 61.4%.
- Patients with long standing OF have continued to present from previously screened areas
- The women without OF were diagnosed with uterine prolapse, cervical cancer and other reproductive health illnesses.

LESSONS LEARNED AND RECOMMENDATIONS

- Increase number of screening points (>1 session per LGA).
- Scheduling of Screening Events and more sensitization.
- Enlarged Screening teams.
- More effective Record keeping during screening.
- Shorter Interval between screening and repair(screening was june-july, repair started in Dec.
- Screening for other maternal morbidities like uterine prolapse may be useful.

CONCLUSION

- While the screening trips were successful in raising awareness and identifying women needing fistula repair, it is evident from current admissions to the Centre that many women did not come forward during the screening exercise.
- There is need to conduct a nationwide screening exercise to determine the magnitude of the scourge of OF in Nigeria.

PL-013

GROUP PSYCHOLOGICAL THERAPY IN OBSTETRIC FISTULA CARE: A COMPLEMENTARY RECIPE FOR THE ACCOMPANYING MENTAL ILL HEALTH MORBIDITIES?

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2. Ministry of Health, Juba, South Sudan

INTRODUCTION

- OF has been regarded as a neglected public health problem ravaging many women in silence and majority resides in developing countries
- Most women affected often present with twin tragedy of the morbidity and stillbirth as a consequence of prolonged, painful and sometimes catastrophic obstructed labour. *This scenario culminates in varying levels of psychological and emotional turmoil*
- Worst still, their suffering is further compounded by deliberate isolation and stigmatization by their immediate families as well as the community they live due to their current predicament

RATIONALE

- Previous researches have shown elsewhere that surgical correction of incontinence is not enough measure to manage any accompanying mental ill health precipitated by OF
- Evidence abounds that GPT has measurable therapeutic values in depressive illness, suicidal ideations, personality disorders and other mental illness irrespective of age and gender of the patients
- Previous researches have shown elsewhere that surgical correction of incontinence is not enough measure to manage any accompanying mental ill health precipitated by OF
- Evidence abounds that GPT has measurable therapeutic values in depressive illness, suicidal ideations, personality disorders and other mental illness irrespective of age and gender of the patients

RESEARCH QUESTIONS

1 Does Group Psychotherapy have any influence on mental ill health outcomes of OF patients?
2 To what degree is the impact of GPT on OF patients undergoing treatment?

Table 1: The pre and post-group psychotherapy mental health assessment among women wit obstetric fistulae (n = 60)

Mental ill health variables	Pre-GPT (%)	Post-GPT (%)	p-value+
Depression			
≥4	43 (71.7)	26 (43.4)	0.002
<4	17 (28.3)	34 (56.6)	
Self esteem			
very low self esteem	39 (65.0)	11 (18.3)	
Low self esteem	11 (18.3)	16 (26.7)	<0.0001
Moderate self esteem	10 (16.7)	33 (55.0)	
Suicidal ideation/self harm			
Severe	9 (15.0)	0 (0)	
Moderate	10 (16.7)	3 (5.0)	
Mild	15 (25.0)	13 (21.7)	0.001
None	26 (43.3)	44 (73.3)	

+ Fischer exact test used

MATERIAL & METHODS

- A pre and post design conducted among women with 60 obstetric fistulas.
- **Group Psycho-therapy** involves group discussion by participants (9-12) on their peculiar problems through sharing of their experiences and coping strategies. Specifically, they were prompted to discuss the cause of their health challenge, the initial reaction of their family members and community to their urine leakage and how they have been able to interact and live within their community
    - *GPT was offered in batches before the surgery and mental health assessment conducted before and after surgical procedure.*
- **Depression** - a validated 28-item General Health Questionnaire (GHQ) (19). **(<** 4 is normal & >4 is MIH).
- Self-esteem and suicidal ideation/self harm were measured on a scale of 1 to 10 where 0 is no symptom.
    - Suicidal ideation was interpreted as follows**:** score of 1-3 is mild, 4-6 is moderate and severe is 7-10
    - Self esteem was interpreted as follows: 0-2 as very low,3-5 as low, 6-8 as moderate and 9-10 is satisfactory
- Cross tabulation was performed to detect any changes in mental health indicators used before and after the procedure. The statistical significance was at 95% confidence level. Analysis performed with SPSS 16.0 software

RESULTS

- The age range of the participants was 14 -50 years with a mean of 24.6years.
- The range of duration of OF to the time of presentation was 3 months to 27 years with a median of 3.4 years.
- Regarding their marital history, majority 28 (46.7%) are still married and lives with their husband while 23 (38.3%) are either separated or divorced, 8 (13.3%) are single and one (1.7%) of them is a widow

CONCLUSION

- In our study, we observed that the group psychotherapy offers opportunity for all participants to share their experiences and coping strategies, this fellowship promotes confidence and hope for all even before the surgery is performed
- Group psychotherapy is useful in OF mental ill health care, we therefore advocate for its use while awaiting surgical repair as it has the potential to reduce their accompanying mental ill health and subsequently facilitate early integration.
- We recommend more rigorous studies that will investigate the real potential of group psychotherapy in fistula management

PL-014

PREVALENCE AND THE ASSOCIATED TRIGGER FACTORS OF URINARY INCONTINENCE AMONG 5,000 BLACK WOMEN POPULATION IN SUB-SAHARAN AFRICA: FINDINGS FROM A COMMUNITY SURVEY

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2. Department of Epidemiology, Medical Statistics, and Environmental Health, College of Medicine, Ibadan, Oyo state, NIGERIA.

INTRODUCTION

- Globally, it affects more than 50 million individuals and 25% to 30% of women (Boehringer et al, April 2004)
- It affects over 13 million adult women in the United States. It is estimated to affect 30-40% of American women during their lifetime. (Bush et al 2001)
- About 3.5 million adult women present with urinary incontinence in U.K. surveys show that 50-70% of sufferers are too embarrassed to seek advice (Granese et al 2008).

RATIONALE FOR THE STUDY

- At the moment, there is no data on non-fistulous incontinence
- Usually reported as part of complications of fistula repair or pelvic organ prolapse
- The first attempt of community survey in Nigeria that captures all forms of urinary incontinence using International Incontinence Survey Tools was **The Ibadan Household Urinary Incontinence Survey in 2009**

OBJECTIVES

1. *To determine the prevalence of urinary incontinence among adult women population*
2. *To describe possible trigger factors of urinary incontinence among same population*

MATERIALS & METHOD

- **The Ibadan Household Urinary incontinence Survey:** 5000 women (≥18years) in both rural and urban LGAs using multi-stage random sampling technique were enrolled

Table 5: Relevant questions on Urinary incontinence

Relevant questions used for the Ibadan Urinary Incontinence Survey (TIBUIS) – English translation

1. Have you ever experience leakage of urine before? (yes/no)
2. If yes, are you currently experiencing leakage of urine? (yes/no)
3. How long have you been leaking urine? _____
4. Is your current urine leakage associated with coughing, laughing, walking, lifting heavy object, sneezing, climbing/standing up, deep breath and whistling, urge to pass urine or before reaching bathroom (yes/no)
5. How frequent do you leak urine? _____
6. When did you first notice urine leakage? (before pregnancy, during pregnancy or delivery)
7. Kindly list other complaints that you noticed with your urine leakage? _____

RESULTS

Table 1: Sociodemographic characteristics of women studied

Variable	Frequency	Proportion
Age (years)		
<20	841	16.8
20-29	1589	31.8
30-39	1178	23.5
40-49	598	12.0
50-59	383	7.7
60+	416	8.3
Location		
Rural/Semiurban	2336	46.7
Urban	2665	53.3
Education		
None	645	12.9
Primary/Arabic	928	18.6
Secondary	2601	52.0
Tertiary	814	16.3
Non response	13	0.3
Marital status		
Never married	1483	29.7
Currently married	3069	61.4
Widowed	297	5.9
Cohabiting	63	1.3
Separated	59	1.2
Divorcing	7	0.1
Non response	23	0.5
Body mass index (kg/m²)		
<18.5	326	6.5
18.5-24.9	2655	53.1
25-29.9	1185	23.7
30+	745	14.9
Refused	90	1.8
Number of children		
0	1641	32.8
1	559	11.2
2-4	1901	38.0
5	886	17.7
Non response	14	0.3
Age at marriage/cohabiting		
<18	180	3.6
18-24	1901	38.0
25+	1367	27.3
Non response	70	1.4
Never married	1483	29.7
Mode of delivery		
Vaginal delivery only	3142	62.8
Any assisted delivery(no previous CS)	47	0.9
Ever had CS	114	2.3
Nulliparous	1641	32.8
Non response/Missing	57	1.1

Table 2: Percentage distribution of clinical features of urinary incontinence at different age group those who reported currently leaking urine

	Age (years)			
Clinical feature	15-24(%) (n=34)	25-44(%) (72)	45+ (%) (n=33)	Overall (%)
Precipitating factor				
Coughing	35.3	44.4	48.5	43.2
Laughing	61.8	29.2	15.2	33.8
Walking	0.0	4.2	9.1	4.3
Lifting heavy loads	5.9	1.4	9.1	4.3
Climbing	2.9	4.2	0.0	2.9
Sneezing	14.7	19.4	21.2	18.7
Deep breathing	2.9	0.0	3.0	1.4
Urine leaks only with full bladder	23.5	38.9	51.5	38.1
Moving from sitting to standing position	2.9	1.4	3.0	2.2
Whistling	2.9	1.4	0.0	1.4
Other features				
Urine leak a few drops	90.9	89.9	60.6	83.0
There's usually need to change underwear	8.8	15.3	24.2	15.8
No sensation of bladder fullness	2.9	1.4	0.0	1.4
Associated fecal incontinence	0.0	0.0	6.1	1.4
Associated frequent flatus	0.0	0.0	3.0	0.7
Skin excoriation	5.9	6.9	6.1	6.5
Urinates >7 times daily	8.8	5.6	6.1	6.5
Leaks urine before reaching the bathroom	14.7	11.1	18.2	13.7
Dysuria	26.5	11.1	9.1	14.4
Sensation of incomplete voiding	23.5	13.9	6.1	14.4
Able to hold urine till desire to urinate	85.3	79.2	45.5	72.7
Leaks urine during sex	0.0	2.8	0.0	1.4

- This is a household community survey conducted among 5001 women aged 18 years and above.
- A cluster multi-stage sampling was used to select eligible respondents.
- Information was obtained by an interviewer administered structured questionnaire on: *Sociodemographics, obstetric and gynaecological characteristics, leakage of urine and trigger factors*

SUMMARY OF KEY FINDINGS

- The mean age of the women was 33.2 years (SD=14.7).
- The proportion of women currently experiencing leakage was 2.8% (95% CI = 2.6 -3.0).
- The types of incontinence reported by women currently leaking include stress incontinence (2.3%), urge incontinence (1%) and mixed (0.6%).
- Severe incontinence was reported in 0.5% of the women, 0.1% had moderate while 2.2% had mild incontinence.
- Women with history of vaginal delivery only were about twice more likely (95% CI OR = 1.11 – 3.02); and those who delivered by other modes over four times more likely (95% CI OR =1.96 – 9.27) than nulliparous women to report currently leaking urine.

Table 3: Relationship between current urine leakage and selected characteristics

Variables (n)	Bivariate		Multivariate*	
	% currently leaking	p value	Odds ratio	95% CI OR
Age(years)				
<20 (841)	2.0	0.096		
20-39 (2763)	2.63.8			
40-59 (981)	3.4			
60+ (416)				
Number of children				
0 (1641)	2.0	0.018	0.63	0.33 – 1.21
1 (559)	2.5		0.78	0.51 – 1.20
2-4 (1901)	3.04.1		1.58	
5+ (886)				
Body mass index				
<18.5 (326)	2.5	0.912		
18.5-24.9 (2655)	2.7			
25-29.9 (1185)	2.9			
30+ (745)	3.1			
Education				
None (645)	2.2	0.704		
Primary (928)	2.8			
Secondary (2601)	2.8			
Tertiary (814)	3.2			
Location				
Rural (2336)	2.5	0.232		
Urban (2665)	3.0			
Marital status				
Currently married (3069)	3.1	0.097		
Single never married (1483)	2.0			
Cohabiting, separated, widowed or divorced (426)	3.3			
Age at marriage				
<18 (180)	2.8	0.207		
18-24 (1901)	3.1			
25+ (1367)	3.1			
Never married (1483)	2.0			
Mode of delivery				
Vaginal delivery only (3142)	3.0	0.001	1.83	1.11 – 3.02
Others (161)	6.8		4.26	1.96 – 9.27
Nulliparous (1641)	2.0			
Diabetes				
Yes (19)	15.8	0.001	4.43	1.21 – 16.27
No (4982)	2.7			
Hypertension				
Yes (149)	6.0	0.014	1.58	0.75 – 3.32
No (4852)	2.7			

*Variables significant at 5% on bivariate analysis were entered into the logistic model

CONCLUSION & RECOMMENDATION

- This survey is the first and largest among indigenous black African population
- It revealed a lower prevalence of UI compared to other settings, and that the commonest type is stress UI.
- Mode of delivery is an important correlate of UI amongst Nigerian women.
- We recommend more epidemiological studies in sub-Saharan African for better understanding of this disorder

Table4: Relationship between incontinence types and severity and variables

Variable	Stress	Urge		Mixed		Severe	
	Bivariate % (p values)	Bivariate % (p values)	Logistic regression OR (95% CI OR)	Bivariate % (p values)	Logistic regression OR (95% CI OR)	Bivariate % (p values)	Logistic regression OR (95% CI OR)
Age(years)							
<20	2.0(0.067)	0.6(0.002)	0.31(0.08 – 1.24)	0.2(0.033)	0.26(0.05 – 1.43)	0.1(0.063)	
20-39	2.1	0.9	0.48(0.20 – 1.13)	0.4	0.45(0.14 – 1.40)	0.4	
40-59	3.4	1.8	0.68(0.31 – 1.49)	1.1	1.15(0.36 – 3.64)	0.6	
60+	1.4	2.6		1.0		1.2	
Number of children							
0	2.0(0.408)	0.9(0.008)	0.27(0.06 – 1.28)	0.6(0.257)		0.4(0.803)	
1	1.6	0.4	0.85(0.43 – 1.67)	0.0		0.4	
2-4	2.5	1.3		0.6		0.5	
5+	2.7	2.1		0.8		0.7	
Body mass index							
<18.5	2.8(0.719)	0.9(0.315)		0.6(0.357)		0.6(0.935)	
18.5-24.9	2.2	1.1		0.7		0.4	
25-29.9	2.0	1.3		0.3		0.5	
30+	2.7	1.9		0.8		0.5	
Education							
None	0.9(0.093)	1.9(0.440)		0.6(0.978)		0.8(0.415)	
Primary	2.6	1.1		0.6		0.2	
Secondary	2.4	1.1		0.6		0.5	
Tertiary	2.7	1.1		0.5		0.6	
Location							
Rural	2.0(0.235)	0.7(0.002)	**0.49(0.22 – 0.73)**	0.3(0.005)	**0.33**(0.12-0.75)	0.4(0.620)	
Urban	2.5	1.7		0.9		0.5	
Marital status							
Currently married	2.4(0.690)	1.3(0.053)		0.6(0.231)		0.5(0.353)	
Single never married	2.0	0.7		0.5		0.4	
Cohabiting, separated, widowed or divorced	2.6	2.1		1.2		0.9	
Age at marriage							
<18	2.8(0.773)	0.6(0.227)		0.0(0.273)		0.0(0.681)	
18-24	2.3	1.3		0.5		0.6	
25+	2.6	1.5		0.9		0.4	
Never married	2.0	0.7		0.5		0.4	
Mode of delivery							
Vaginal delivery only	2.4(0.347)	1.3(0.034)	2.66(0.71 – 9.92)	0.6(0.986)		0.5(0.362)	
Others	3.7	3.1		0.6		1.2	
Nulliparous	2.0	0.9	1.29(0.48 – 3.44)	0.6		0.4	
Diabetes							
Yes	5.3(0.383)	10.5(<0.001)	4.53(0.95 – 21.54)	0.0(0.739)		5.3(0.003)	0.21(0.02 – 1.94)
No	2.3	1.2		0.6		0.5	
Hypertension							
Yes	4.0(0.147)	2.7(0.001)		1.3(0.213)		2.7(<0.001)	5.56(1.79 - 16.67)
No	2.2	1.2		0.6		0.4	

*Variables significant at 5% on bivariate analysis were entered into the logistic model

ACKNOWLEDGEMENTS:
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PL-015

INTRACERVICAL FISTULA (ICF): A PREVENTABLE SCOURGE

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INTRODUCTION

- Obstetric Fistula (OF) is the product of prolonged obstructed labour in majority of cases and timely caesarean section is panacea for its prevention.
- Regrettably the incidence of Obstetric fistula following caesarean section appears to be on the increase in Nigeria.

Figure 1: age group of patients with intracervical fistula

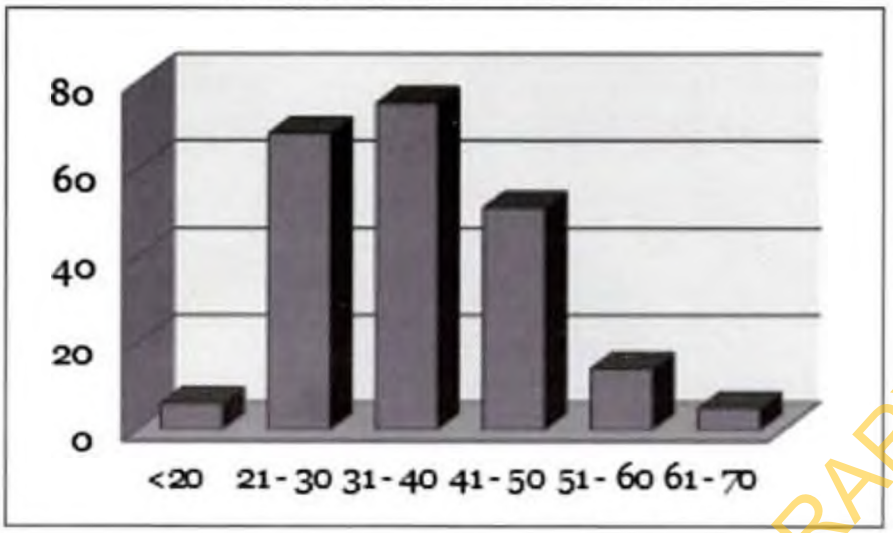
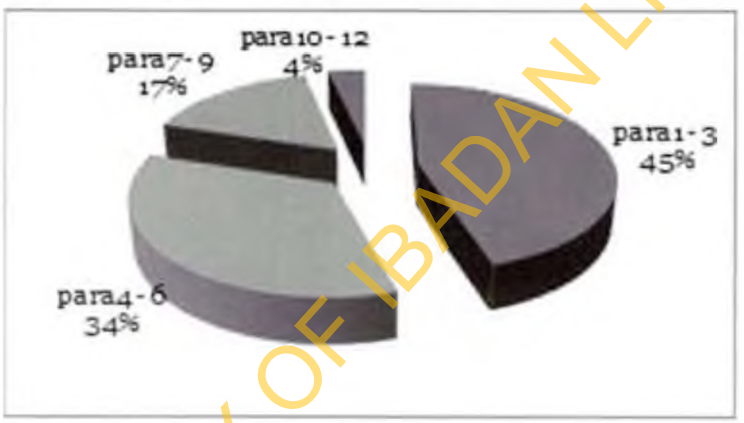


Figure 2: Parity of patients with ICF



- About 20,000 new cases of OF is reported to occur annually in Nigeria
- ICF is a subtype of female urogenital fistula, an abnormal connection between bladder and cervix and it is a supposedly rare and uncommon UGF

OBJECTIVE

- To document the profile of women with ICF at National Obstetric Fistula Centre, Abakaliki

MATERIALS AND METHOD

- A prospective study conducted between Dec 2008 – June 2011
- 875 patients with OF were treated during the period at National Obstetric Fistula Centre, Abakaliki.
- The relevant sociodemographic and clinical data were collected for 219 ICF patients and analysed

RESULTS

- Prevalence of ICF was 25%, Mean age and height of the clients were 36yrs and 1.49m respectively, Forty -six percent (46%) of study population had formal ANC, Forty- one percent (41%) had their initial labour process at home, Labour lasted less than 24 hours in 58%

RESULTS

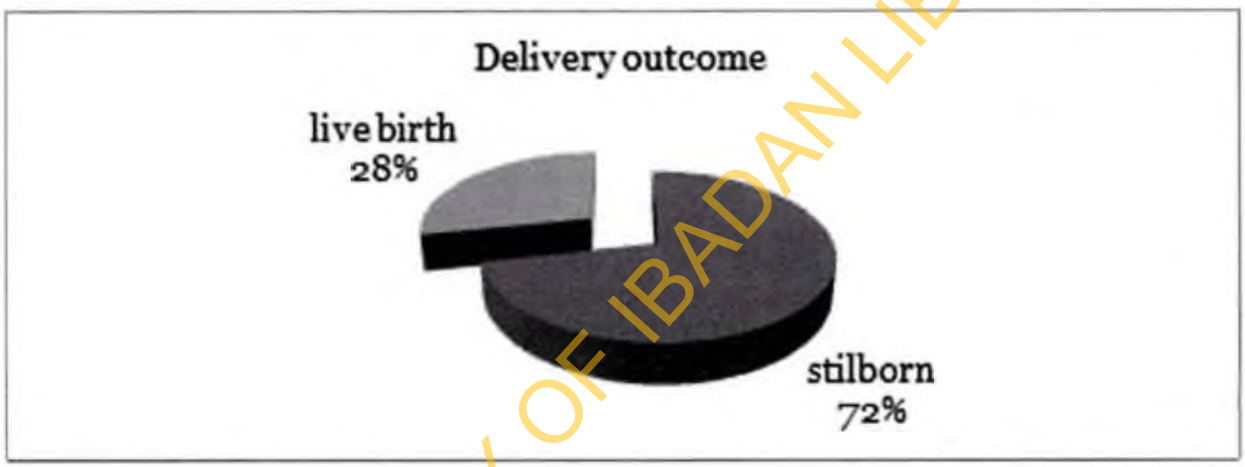
- The entire 219 patients had abdominal delivery, Fetal outcome: Stillbirth 157(71.7%), Live birth 62(28.3%), Despite catheterization, 81% leaked urine within 72 hours of operation, Fistula repair was successful in 84% at first attempt

DISCUSSION

- Was the pathology the result of C/S or Prolonged obstructed labour?, All 219 ICF patients had abdominal delivery,

Figure 3: Places ICF patients laboured

Figure 4: Delivery outcome



Labour was less than 24 hours in majority of patients, Majority started leaking within 72 hours of surgery, Pointing possibly to poor operative skill

CONCLUSION

- The prevalence of Fistula following C/S in this study is worrisome and calls for more proactive measures to stem the tide.
- The activities of quacks, charlatans and other untrained personnel should be curtailed.
- SOGON should prescribe some minimal training and certification for medical practitioners who wish to perform caesarean section

PL-016

THEORIES OF URINARY INCONTINENCE CAUSATION: AETIOLOGICAL DESCRIPTIONS BY SUB-SAHARAN AFRICAN WOMEN

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INTRODUCTION

- Urinary incontinence (UI) is a common urologic disorder among women worldwide that afflicts more than 150 million individuals with wide range of associated morbidities (1, 2)
- Untreated UI can adversely affect women's work, daily lives, recreational and social activities, interpersonal

relationships, and physical and psychological health (3-5)

- Yet, many women underreport this highly sensitive medical morbidity. Studies have also shown few women that have UI seek medical attention, despite awareness that treatment is available (6-8).
- Reasons for underreporting include: women's perception of causes of incontinence, lack of opportunities for treatment, negative implication of such complaints on their social and matrimonial relationship (9-11).

Furthermore, the use of different case description of UI, study designs and methods of data collection also determines the level of reporting of this disorder within a given population.

RATIONALE

- Many Nigerian women present with UI concerns, as either a chief complaint or secondary concern.
- Recently, Ojengbede et al reported a UI prevalence of 2.8% among 5000 adult women participating in a large community-based household survey. UI was found to be associated with previous history of vaginal birth(12).
- However, there is paucity of data on women's understanding of the cause of UI from a social and cultural perspective

OBJECTIVE

- *To describe perceptions of the etiology of UI among women in a Nigerian community and correlate these perceptions with demographic, social and biologic variables.*

MATERIAL & METHODS

- It was part of a multi-stage community survey conducted among 5001 women population in Nigeria tagged Ibadan Urinary Incontinence Household Survey (IUIHS).
- Analysis on perception of aetiological causes was conducted among 1955 respondents that knew that women could experience UI.
- The data were collected using Epidata software to verify accuracy of skip patterns and data entry. Subsequently data were cleaned and exported into SPSS version 15 for analysis. Responses to the respondents' perceived aetiology of

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (n=1955)	%
Location		
Rural	809	41.4
Urban	1146	58.6
Age (years)		
15-24	465	23.8
25-34	639	32.7
35-44	419	21.4
45-54	212	10.8
55-64	126	6.4
65+	94	4.8
Mean (SD)	34.8 (14.2)	
Education		
No formal education	189	9.7
Arabic Quranic	2	0.1
Primary	366	18.7
Secondary	952	48.7
Tertiary	441	22.6
No response not indicated	5	0.3
Marital status		
Currently married	1318	67.4
Single never married	485	24.8
Cohabiting	22	1.1
Separated	12	0.6
Divorced	4	0.2
Widowed	109	5.6
Missing not indicated	5	0.3
Number of children		
1	207	14.7
2	250	17.7
3	283	20.1
4+	670	19.6
Missing not indicated	545	27.9

Table 2: Distribution of perceived causes of urinary incontinence

Perceived cause	Frequency (n=1955)	%
Pelvic floor/ bladder related	**401**	**20.5**
Stress incontinence triggers (coughing, laughing, sneezing etc)	238	12.2
Bladder problems Urinary tract infection	87	4.5
Other pelvic organ problems	79	4.0
Incomplete voiding	2	0.1
	1	0.1
Uncontrollable factors	**286**	**14.6**
Medical co-morbidity	179	9.2
Age	70	3.6
Prior surgery	24	1.2
Abortion other intervention	17	0.9
Hereditary	4	0.2
Medication	2	0.1
Part of being female	**173**	**8.8**
Pregnancy childbirth	164	8.4
Female gender Normal	5	0.3
Hormonal postmenopausal	2	0.1
Menstrual cycle related	2	0.1
Personal lifestyle attributes	**134**	**6.9**
Waiting too long to void	95	4.9
Excessive fluid intake	24	1.2
Increased stress anxiety fear	13	0.7
Decreased physical activity	2	0.1
Related to sex	**133**	**6.8**
Multiple sexual partnering prostitution	56	3.0
Frequent sex	46	2.4
Having experienced sexual abuse	23	1.1
Early coitarche	8	0.4
Other perceived causes	**99**	**9.3**
Early marriage onset of childbearing	50	2.6
Spiritual attack	26	1.3
Others	23	1.1
Don't know No response	933	47.7

Table 3: Relationship between perceived causes of urinary incontinence and selected variables

Variable(s)	Pelvic floor Bladder related	Uncontrollable factors	Part of being female	Personal lifestyle attributes	Related to sex	Don t know
Age(years)						
Less than 30(818)	20.0	12.1	6.7	8.7	5.8	46.1
30-44(705)	21.0	15.3	9.9	6.0	6.5	47.0
45-59(330)	23.5	17.8	11.5	6.3	6.7	44.1
60+(142)	18.0	19.1	10.5	2.9	8.0	50.0
P value	0.520	0.026	0.037	0.017	0.934	0.456
Education						
None(189)	16.9	13.8	6.3	3.7	3.4	52.4
Primary(368)	22.0	16.0	9.5	4.6	4.9	47.3
Secondary(952)	18.2	13.1	7.9	7.5	7.2	51.2
Tertiary(441)	25.6	17.2	11.6	8.8	7.3	38.5
P value	0.006	0.188	0.079	0.028	0.447	<0.001
Location						
Rural(809)	22.5	11.4	8.0	5.2	4.8	51.4
Urban(1146)	19.1	16.9	9.4	8.0	8.2	43.1
P value	0.068	0.001	0.287	0.015	0.005	0.006
Number of children						
<3(457)	22.1	12.5	11.8	7.2	7.4	44.4
3-5(735)	20.9	15.1	11.7	6.1	6.5	48.9
5+(755)	19.2	15.4	4.3	7.3	6.7	50.5
P value	0.460	0.326	<0.001	0.624	0.825	0.107
Ever leaked urine						
Yes(755)	18.9	10.6	11.0	10.6	5.5	44.5
No(1700)	24.5	15.2	8.5	6.9	7.2	48.2
P value	0.107	0.050	0.199	0.011	0.572	0.242
Currently leaking urine						
Yes	20.5	10.3	10.3	9.4	2.6	53.0
No	20.5	14.9	8.8	6.7	7.1	47.4
P value	0.999	0.167	0.580	0.261	0.060	0.239

Table 4: Logistic regression analysis of perceived causes on selected variables

Outcome	Odds ratio	95% CI OR	P value	Outcome	Odds ratio	95% CI OR	
Pelvic floor/bladder related				Personal/lifestyle attributes			
Education				**Education**			
None	0.561	0.361 – 0.871	0.010	None	0.671	0.268 – 1.676	0.393
Primary	0.777	0.558 – 1.082	0.135	Primary	0.591	0.322 – 1.082	0.088
Secondary	0.629	0.479 – 0.825	0.001	Secondary	0.822	0.543 – 1.244	0.354
Tertiary(ref)				Tertiary(ref)			
Location				**Age**			
Rural	1.274	1.017 – 1.597	0.035	< 30	3.322	1.077 – 10.245	0.037
Urban(ref)				30-44	2.187	0.707 – 6.771	0.175
				45-59	2.470	0.776 – 7.860	0.126
				60+			
Uncontrollable factors				Part of being female			
Location				**Age**			
Rural	0.641	0.491 – 0.838	0.001	< 30	0.488	0.246 – 0.968	0.040
Urban				30-44	0.486	0.254 – 0.939	0.029
Ever leaked				45-59	0.726	0.366 – 1.438	0.358
Yes	1.547	1.013 – 2.361	0.043	60+			
No				**Education**			
Age				None	0.378	0.181 – 0.791	0.010
Less than 30	0.601	0.384 – 0.938	0.025	Primary	0.643	0.401 – 1.030	0.066
30-44	0.777	0.498 – 1.211	0.265	Secondary	0.681	0.463 – 1.003	0.052
45-59	0.940	0.568 – 1.555	0.810	Tertiary			
60+				**Number of children**	3.096	1.944 – 4.929	<0.001
				<3	2.944	1.839 – 4.714	<0.001
				4-5			
				6+			
Sex related				Don't know/no response			
Location				**Location**			
Rural	1.756	1.195 – 2.581	0.004	Rural	0.801	0.666 – 0.962	0.017
Urban				Urban			
Currently leaking				**Education**			
				None	0.597	0.422 – 0.844	0.597
Yes	0.351	0.110 – 1.120	0.077	Primary	0.733	0.552 – 0.973	0.733
No				Secondary	0.611	0.485 – 0.770	0.611
				Tertiary			

urinary incontinence were grouped following a classification previously reported (13).

- Response categories included: pelvic floor/bladder related, uncontrollable factors, part of being female, personal/lifestyle factors and 'don't know'. Many women associated UI with sexual behaviors (e.g., many sexual partners, frequent sexual intercourse), therefore, we created a separate category for this response. History of miscarriage (reported mostly as induced?? abortions) was also prevalent and was grouped as an uncontrollable factor.
- Some other reported causes (early marriage, superstitious beliefs) could not be grouped under any of the existing categories and were reported as 'Other perceived causes'. Three members of the research team examined all responses to achieve consensus on categorization for each statement.
- Chi square tests were used to test associations between perceived aetiology and variables. Logistic regression analysis was used to determine significant predictors of the perceived causes of urinary incontinence.

CONCLUSION

- This study shows that despite the low level of awareness, Nigerian women expressed similar myriads of beliefs about possible causation of UI that has been previously reported. Poor knowledge exhibited could constitute a major obstacle to their health seeking behaviour.
- We recommend that practitioners seek information from clients on their perception of ill health as it may determine their disposition to care. Mass mobilization of the populace to improve the awareness level and also to dispel any misconceptions of this burdensome disorder is critical to holistic care.

PL- 017

HELP SEEKING BEHAVIOR AMONG WOMEN CURRENTLY LEAKING URINE IN NIGERIA: IS IT ANY DIFFERENT FROM THE REST OF THE WORLD?

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INTRODUCTION

- The international incontinence society recently defined incontinence as "any form of urine leakage" which captures the entire population who had either complained or is currently having urine leakage.
- The prevalence of UI from previous studies was reported to be in the range 3-58% in the community.
- Recently, the perspective of an African community published by Ojengbede et al revealed that 7.2 percent of women ever leaked and 2.8 percent are currently leaking urine with stress UI being the commonest variety.
- Previous studies have shown that women with UI manifest their help seeking behaviors in different ways like any other medical morbidity. Reasons advanced for such behavior include fear of surgery, embarrassment or humiliation, poor knowledge and apathy of health worker.
- lack of convincing information and assurances that their health plight will be resolved, belief that the condition is not life threatening but a part of ageing process, failure of previous treatment, impact on quality of life and so on
- Help seeking pattern of women towards medical morbidities is influenced by several factors and these include: the general understanding and interpretation of the disease itself; type and severity of medical condition itself, the available information on treatment opportunities, economic reasons, and the type of health care financing system that operates in such settings. The prevailing socio-cultural implications of a medical condition
- Nevertheless, the predictors for help seeking by women for UI complaints are educational level, severity of the complaint, and impact of symptoms.
- It is thus an irony that MDCS is reported in the African subregion.
- In developed countries while fear of birth, increasing maternal age at marriage and first pregnancy, fear of pelvic floor damage and genital prolapse in later years are implicated reasons, in developing countries on the other hand, the view that CS was the surest way to a live birth is believed to be a critical factor underlying their choice.

JUSTIFICATION

- This is necessary because, there are some health seeking behaviors peculiar to this setting. For instance, lack of specialist, 'out of pocket' health care financing, socio-cultural taboos, poor access to quality service and flourishing traditional medicine practice amongst others. In addition, the triage of poverty, ignorance and disease still rages in our setting.
- Health seeking behaviour with respect to UI in Africa may differ from that in other parts of the world.

OBJECTIVES

AIM:The study therefore aims to determine the help seeking behaviors of women currently leaking urine in the community

SPECIFIC OBJECTIVES:

1. The possible predictors that will influence seeking hospital care services.
2. To describe reasons why women with UI will not want to seek help.

MATERIALS & METHOD

- A large scale community based survey of 5001 women known as the Ibadan Household Urinary Incontinence survey (IHUIS) was carried out to determine the pattern of urinary incontinence among women in the city.
- Study Area – Ibadan. The third largest city in Nigeria by population and the largest in geographical area located

Table 1: Sociodermographic Variables			
Marital Status	N=139	**Location of Residence**	
Married	95 (69.3%)	Rural	56(40%)
Never married	30 (21.6%)	Urban	83 (60%)
Separated or divorced	14 (10.1%)		
Parity		**Age** (Mean 35.7 years (SD=15.8)	
1	14 (10.1%)	<40 years	88
2-4	57 (41%)	>=40 years	51
5 and above	36 (25.9%)		
Educational Status			
No formal Education	14(10.1%)		
Primary	26(18.7%)		
Secondary	73 (52.5%)		
Tertiary & Above	26(18.7%)		

Figure 1: Proportion of those that sought help

in the southwestern state of Oyo. Its population is 25550593 according to 2006 census results including 11 local government areas.

- Study instrument/ data collection: Interviewer administered questionnaire containing questions on birth history; obstetrics and gynecological history, knowledge and history of urinary incontinence associated symptomatology and care and support.
- [Questions were]: Have you ever leaked urine? Are you currently leaking urine for those who said yes. The women

Table 2: reasons for failing to seek care

REASONS	FREQUENCY	PERCENTAGES
Normal and not life threatening	62	51.2%
Unaware of treatment options	22	18.2%
Too shy to disclose	3	2.5%
Afraid of complications during treatment	2	1.7%
No Reason	27	22.3%

Figure2: Where they seek care

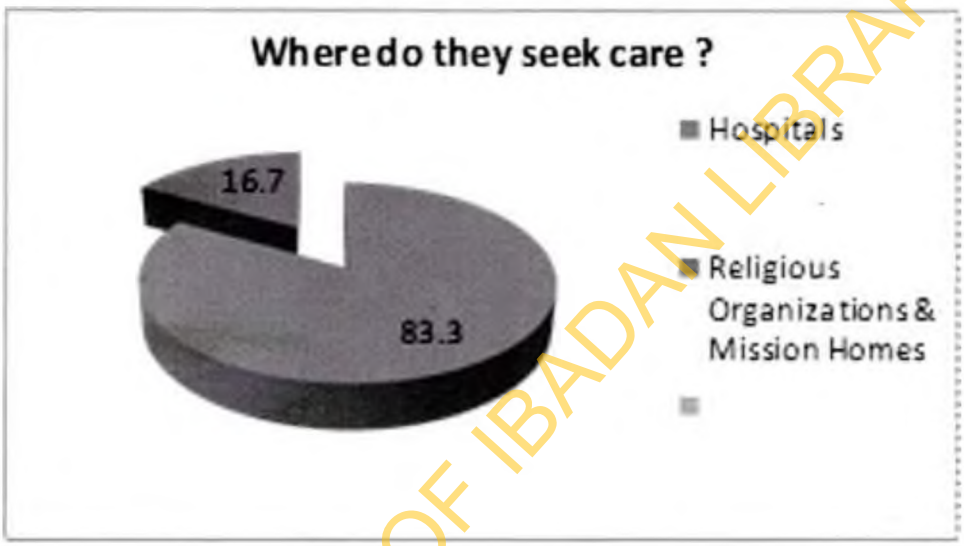

Table 3: Bivariate and Regression analysis

VARIABLES					
Variable	Sought Care	Chi-Square	P-value	OR (Odds Ratio)	CI (Confidence
Age					
<=40	6.8	3.933	0.047	0.6	0.176 – 2.04
>=40	17.6				
Level of Education					
Primary or lower	22.5	7.998	0.005	4.049	1.174 - 13.88
Secondary or Higher	6.1				
Type of Incontinence					
Severe Incontinence	25	6.083	0.014	4.202	1.238 – 14.2
Mild incontinence	7.8				
Location					
Rural	8.6	0.487	0.485		
Urban	12.3				

reporting urinary leakage were asked the following questions: *'Have you ever sought help for the leakage of urine?' 'If yes, where did you seek treatment'* and *'What treatment was given to you?'* Those women who reported they never sought help were asked the following: *'What was the reason why you have not received any care?'*

- The household response rate was 95.7% while individual response rate was 98.9 %.

DATA ANALYSIS:

Secondary data analysis was done into SPSS version 15 .Summary statistics such as means, frequencies and proportions were used to summarize variables. Chi square tests were used to test associations between categorical variables. Logistic regression analysis was done to determine significant predictors of outcomes. Ninety five percent confidence intervals were reported for estimates.

Eighteen (12.9%) of the women had ever sought help, 15(10.8%) at hospitals and 3(2.2%) at mission homes or religious organizations. The only treatment modality was drugs given to the women. In one of the cases that visited a hospital she reported the doctor told her *'it was normal'*.

DISCUSSION

- Summarily, the findings in this study suggest that only a small proportion of women with UI seek care. [Only 12.9% have ever sought any form of help while 10.8 % did so amongst women that currently complain of UI. Other studies have reported rates of 20-50%.
- The lower rates may be a general reflection of the poor help seeking behaviour from medical personnel among women from Sub-saharan Africa. The studies have shown that Nigerian women do consult spiritualists and herbalists for their medical problems and this practice has been documented for other morbidities.They may in the process suffer severe morbidities or even mortality before the eventually seek medical help.
- A single participant shared the experience that a health worker reassured her that UI is a normal condition! . Though, a single participant shared this experience but it has far reaching implications on the general perception of the end-users on medical service. Poor professional knowledge could have catastrophic consequences that may limit opportunity for cure afterward. On the contrary to findings elsewhere, this study shows that women with lower or no education are more likely to seek help compared to those of higher education. The strong association of severity of UI with help seeking is in tandem with other studies.
- That UI is not life threatening being the commonest reason in this environment being that UI is not life threatening may either reflect a poor insight to the disease or is a reflection of the prevalent disposition to medical consultation in Nigeria. The misconceptions exhibited by this group of women needs to be addressed with adequate mobilization and education on the cause, implications and treatment of UI with a view to reorienting them towards hospital consultation.
- Furthermore, it is possible that the reason why some women mentioned lack of funds may be due to the poverty line below which many live and the "out of pocket" health care financing system that Nigeria currently operates among the majority of the populace. This approach has limited the access of the average woman in the country who lives below poverty line to qualitative health care service.
- This study has attempted to add more information on this subject. It is a community-based study and so reflects truly what obtains in the populace. In addition, this study is probably the first in sub-Saharan Africa and the perspective of this population of women has filled a gap in global knowledge in the literature.
- We advocate cautionary interpretation of the results presented because of skewed population towards younger age group> elderly. Further questions needed on reasons mentioned by those did not seek care. We do not have information on the outcome of care amongst those that have sought medical treatment. Represents the help seeking behavior of women in southwestern Nigeria. A CLARION CALLS FOR RESEARCH IN OTHER PARTS OF NIGERIA.

CONCLUSION & RECOMMENDATION

- The outcome of this study shows that very few women about 1 in 10 with current UI have sought medical care and the barriers mentioned were similar to other settings except lack of funds.
- We suggest more research in this area to fully understand the context of these women's disposition to medical service.

PL-018

SEEKING AN EARLY INTEGRATION FOR FISTULA SUFFERERS THROUGH AN ADVENTURE: IS DAY CASE SURGERY A REALISTIC APPROACH?

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SUMMARY

- This is a case series of two vesico-vaginal patients that were successfully managed on outpatient care as an alternative approach, to ensure early access to care and integration to their family.
- The Two patients had simple uncomplicated mid-vagina fistulae managed with local infiltrative anaesthesia.
- We suggested the selection criteria and clinical guideline that can easily facilitated successful treatment by this choice of care.

CASE 1

- A 22-year-old Nulliparous student was referred to the gynaecology clinic of the University College Hospital (UCH), Ibadan, Nigeria, on account of 4-year history of total urinary incontinence secondary to poly-trauma sustained from a road traffic accident (RTA).
- There was no faecal incontinence. While on admission for the trauma, her bladder was catheterized for 6-weeks then, and thereafter, she noticed involuntary leakage after its removal till presentation. She had no other systemic illness.
- General physical examination was essentially normal except the limping gait noticed – residual morbidity from RTA. Pelvic examination shows a wet perineum with ammonical odour and normal vulva. The vaginal length was normal with a defect on the anterior wall that admits a tip of finger. The cervix, uterus and both adnexea were normal.
- The speculum examination in lithotomy position revealed a mid-vaginal VVF measuring 2 by 2cm with minimal scaring of the edges. The cervix was visualized and appears healthy. A diagnosis of simple mid-vaginal fistula was made.
- The pelvic X-ray shows a healed fracture site of the left superior rami and the intravenous urogram was normal. Other routine preoperative investigations were performed, and all the results were normal.

CASE 2

- A 26 year old married para 2, 1 alive woman was seen at gynaecological clinic with 2 year history of involuntary leakage of urine following prolonged obstructed labour. There was no morbidity and there was no previous attempt at repair.
- Positive findings were in the pelvic examination (speculum and digital) which revealed a mid-vaginal 1cm by 2 cm with no fibrosis. The vaginal capacity was normal, cervix was central and the uterus was ante-verted and normal size. A diagnosis of simple mid-vaginal fistula was made.
- She was counseled for surgery and the preoperative investigations were essentially normal.

MANAGEMENT PROTOCOL

- We obtained a written consent from both patients after a full explanation of the concept of day care management with an opt-out opportunity for conventional in-patient care. The protocol included presentation of the consent to patient on the morning of surgery in the theatre.
- A peri-operative nurse takes the vital signs and this is re-checked by the physician. The consent was revalidated before the operation is commenced. Local infiltrative anaesthetic technique was used for both cases.
- A detail description of this anaesthesia and approach of surgical repair has been published elsewhere[10]. After the surgery, the urethral catheter was strapped to the thigh using 4-cm wide plaster and patients were observed at the recovery room for 4-hours. Thereafter, intravenous infusion discontinued and they were commenced on oral fluid intake initially clear water and later fluid diet
- They were counseled to drink minimum of 4-litres of fluids (water, tea, or pap) a day for the first 48-hours and later to start normal diet. They were also trained on how to empty the urine bag connected to the catheter and measurement of her urine using 50-ml size syringe.
- Adequate output was described as at least 2 full syringes per hour. After 2 successful trials by the patient, they were discharged home with oral medications - 1000mg of paracetamol 6-hourly for 48-hours, 625mg of Augmentin and 100 mg of vitamin C thrice a day.
- The patients were also counseled to report to the hospital if they noticed any of the followings: abdominal pain,

reduction in urine volume per hour despite normal intake, leakage of urine or fever. They were given a week follow-up appointment at the gynaecological clinic.

- At the first follow-up clinic, both patients had uneventful recovery with no complaints. The urethral catheter was normally placed with clear urine. The perineum was dry. Thereafter, they were seen again at a week time. The urethral catheter was removed after bladder training at the clinic during the second visit.
- After a fortnight appointment and they were discharged from the clinic following routine fistula counseling.

DISCUSSION

- To the best of our knowledge, this is the first reported experience of day case management of VVF using conventional surgical repair. Elsewhere, Shah has reported a favourable experience of day case endoscopic repair of fistula repair, an art that is not readily available in most developing countries where fistula is endemic[11]. The two patients presented attended a clinic session prior to surgery and their next visit was on the operation.
- The approach of 'one time visit' used has been previously advocated for simple cases of mid-vaginal VVF to reduce backlog challenges in busy centres[10]. In addition, it also reduces the financial burden of transport, payment for clinic consultations and other consumables.
- The two cases reported by our team were successful and this is indication that day case management of VVF is feasible.
- However, the caveat is that the patient to be managed with this type of protocol would have to be carefully selected and we suggest the following criteria based on our experience; first, the fistula should be simple mid vagina fistula with no evidence of moderate to severe fibrosis.
- Second, the patient should be well motivated and not be coercised and lastly, there should be a facility for a 24-hour service to respond to any emergency from such patient.
- Contrary to the inpatient admission care of fistula patient for 10 to 21 days post-surgery, this patient was managed as a day case. The immediate postoperative recovery was not demanding because of the anesthetic technique that was used.
- Although, postoperative nursing care could be tasking, as it is usually the benchmark of the surgical outcome. However, a well motivated patient with no other morbidities could perform this responsibility. This will require training the patient in the skills of emptying the urine for measurement.
- Furthermore, emphasis should be placed on early reporting of symptoms that suggest an impending complications such as reduced urine flow (<100mls per hour), abdominal pain, fever, and leakage suggesting urine flow obstruction, infection and failed repair respectively. The two patients did not develop any complication and was continent of urine after catheter removal.
- Early integration with family member right from the operation day seems feasible in well selected simple fistula cases. The precautionary measure is to ensure that patient is willing, has support of her family and that there is available opportunity for medical assistance when the need arises.
- Apart from the elimination of incidental bills – admission fees, feeding, and bed space charges, the patient is saved from the ordeal of cancelation of surgical operation after admission, a peculiar problem of public health centres in Nigeria.
- From the client perspective, we sought the view of these patients during their second visits. Excerpts of their statements were as follows: "I am usually scared of surgery, I was happy that I did not pass through the other side of the world. I feel elated hearing the surgeon speaks with his colleagues in the theatre and his occasional songs. I felt more involved in finding solution to my health problem. I shall recommend this approach to anybody. The only challenge I had was during the first few days of emptying the catheter but, parent supported me throughout my trying period"
- The second patient was full of praises and said: "I feel satisfied with this approach that has human face, I cook, eat and laugh with my families at home though I had some discomfort initially but it was not so serious. I am happy that I sleep in my house after the surgery"

CONCLUSION

Judging by the volume of fistula patient waiting to be repaired, poor funding and commitment to its eradication, fistula surgeon may explore this alternative option for a well selected patient to reduce the financial burden, waiting time and ensuring unhindered integration to their family.

PL-019

ANTEPARTUM HAEMORRHAGE AND PREGNANCY OUTCOME IN LAUTECH TEACHING HOSPITAL, OSOGBO, SOUTHWEST, NIGERIA.

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INTRODUCTION

- Obstetric haemorrhage-leading cause of maternal death in Nigeria (APH)
- Prevention, early detection and prompt management.
- Reduce significantly morbidity and mortality associated with obstetric haemorrhage.

MATERIALS AND METHOD

- Retrospective case-control study, 3-years review of 36 cases (APH) and 76 control.

RESULTS AND DISCUSSION

- 2,358 deliveries,Incedence of 1.5%., Mean age- 30.5±6.8 years, 29.2±5.2years($p > 0.05$), Mean parity- 1.9±1.4, 1.5±1.3 ($p > 0.05$).

Table 1: Demographics

VARIABLES	NUMBER	PERCENTAGES
AGE(YRS)		
⩽ 24	17	15.0
25 – 29	45	39.8
30 - 34	29	25.7
⩾ 35	22	19.5
PARITY		
NULLIPARA	28	24.8
PARA 1 - 4	81	71.7
PARA ⩾ 5	4	3.5
BOKING STATUS		
BOOKED	56	49.6
UNBOOKED	57	40.4
MODE OF DELIVERY		
SVD	53	46.9
CS	60	53.1

Table 2: Comparative analysis between cases and control

VARIABLES	CASES N=36	CONTROL N=77	TEST STAT	DF	P-VALUE
PRE DEL PCV POST PCV	27.6±5.0 27.5±5.7	30.9±5.3 29.5±5.4	t = 3.06 t = 1.83		< 0.01 > 0.05
LTH-BOOKED	12(33.3%)	44(57.1%)	X^2 = 5.56	1	< 0.05
UNBOOKED	24(66.7%)	33(42.9%)	OR- 2.7		95%CI 1.2-6.1
BLD TX +	9(25.0%)	5(6.5%)			
BLD TX -	27(75.0%)	72(93.5%)	FISHER'S EXACT OR-4.8		< 0.05 95%CI 1.5 -15.6
SVD CS	13(36.1%) 23(63.9%)	47(61.0%) 30(39.0%)	X^2 = 6.12 OR-2.8	1	< 0.05 95%CI 1.2-6.3
HOSP STAY(DYS)	72.4	49.8	M-W U		< 0.01

Table 3: Comparative analysis between cases and control

VARIABLES	CASES N = 36	CONTROL N = 77	TEST STAT	DF	P VALUE
Mean Apgar 1 min 5 min	4.9±2.7 7.0±3.4	6.2±1.7 8.8±1.5	t = 4.04 t = 3.90		< 0.001 < 0.01
Apgar Score 1 min ⩽ 6 ⩾ 7	 22(61.1%) 14(38.9%)	 30(41.7%) 42(58.3%)	 X^2 = 3.64	 1	 > 0.05
5 min ⩽ 6 ⩾ 7	14(38.9%) 32(61.1%)	6(8.3%) 66(91.7%)	OR-7.0 X^2 = 14.85	1	95%CI 2.4 -20.4 < 0.001
Mean BWT (kg)	2.6±0.7	3.2±1.4	t = 2.16		< 0.05
BTW < 2.5kg ⩾ 2.5kg	 9(25.0%) 27(75.0%)	 9(12.3%) 64(87.7%)	 X^2 = 2.81	 1	 > 0.05
ICU ADMISSION YES NO	 12(33.3%) 24(66.7%)	 16(20.8%) 21(79.2%)	 X^2 = 2.07	 1	 > 0.05
BABY ALIVE **BAY DEAD**	**28(78.8%)** **8(22.2%)**	**72(93.5%)** **5(6.5%)**	Fisher's exact OR - 4.4		**< 0.05** **95%CI 1.3-13.6**

Table 4: Multivariables analyses

VARIABLES	. .	S.E	WALD	P VALUE	OR	95% CI
Age	0.025	0.043	0.331	0.565	1.025	0.942 – 1.115
Unbooked/ Booked(ref)	0.893	0.441	4.112	0.043	2.443	1.030 – 5.794
Abortion Yes/ No(ref)	0.336	0.425	0.623	0.430	1.399	0.608 – 3.220
Parity	0.102	0.184	0.310	0.578	1.108	0.773 – 1.589
PCV < 30% / ⩾ 30% (ref)	0.333	0.433	0.585	0.443	1.395	0.596 – 3.260

CONCLUSION

- Antepartum haemorrhage was found to be associated with poor maternal and neonatal outcome in this study and the major predictor was booking status.

PL-020

ASSESSING THE KNOWLEDGE OF RISK FACTORS FOR CONGENITAL ABNORMALITIES AND PRENATAL DIAGNOSIS AMONG PREGNANT WOMEN ATTENDING ANC IN SOUTH WESTERN NIGERIA:UCH, 2011.

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INTRODUCTION

- A congenital abnormality is a defect present at birth of a baby.
- Congenital abnormalities account for 20-25% of perinatal deaths[1]. About 2-3% of babies born have some type of major birth defect[2].
- Prenatal diagnosis involves antenatal diagnosis of lethal handicapping conditions in utero, and prenatal therapy of such which may entail selective termination or in utero therapy depending on the individual case.

RISK FACTORS FOR CONGENITAL ABNORMALITIES

- Maternal age(>35years), Blood group/genotype of the parents, Inherited family traits, Maternal exposure to teratogens during pregnancy, Maternal disease before or during pregnancy, Mode of conception of the pregnancy, Mothers with previous history of birth of babies with congenital abnormality.

OBJECTIVES OF THE STUDY

- To assess the knowledge of risk factors for congenital abnormalities in pregnant women attending ANC
- To evaluate the pregnant women with risk factors for congenital anomalies.
- To determine the number of pregnant women who have given birth to babies with congenital anomalies in the past.
- To find out the number of pregnant women with risk factors or have had babies with congenital anomalies willing to undergo prenatal diagnosis and treatment for congenital anomalies.

JUSTIFICATION FOR THE STUDY

- The magnititude of distress women who give birth to abnormalities go through.
- Ignorance of risk factors and available treatment options for women .
- Level of awareness of women of congenital abnormalities and prenatal diagnosis basis to introduce and intensify training of trainees in prenatal diagnosis skils.

LITERATURE REVIEW

- A study done in Greece by Mavrou et al[3] revealed that the prevention of genetic diseases through prenatal diagnosis depends to a large extent on the *awareness and acceptance of available methods by the public*.
- In Texas,US[4]. It showed that while 89% were aware that such tests are available, *younger, black and less educated women* were less likely to know about prenatal tests for birth defects.
- Kitsiou-Tzeli et al[5] in Greece in study found that women of *higher education* were over twofold more likely to attain a higher level of knowledge of prenatal diagnostic procedures as were those reported reading the popular press..

MATERIALS AND METHOD

- It was a cross-sectional among consenting pregnant women attending the antenatal clinic of UCH, Ibadan between April to July 2011.
- Sample size is 384,calculated from Conchran Sample size formula.95% confidence interval.
- Data was collected by simple random sampling from pregnant women who meet the inclusion criteria via self administered open/close-ended questionaires.
- There were 326 respondents (making it 85% respondent rate).

CONCLUSION

- The study showed that majority of the pregnant women knew about congenital anomalies and some of the risk factors to having babies with birth defects
- Many are also willing to undergo prenatal diagnosis which agrees with similar studies done in several other countries.
- The level of education,professionals,older women and the married are more willing to undergo prenatal diagnosis.
- The number of women who would allow selective termination/induced abortion for abnormal babies are few
- Women are unwilling to support or join an advocacy group to legalise abortion but will be willing to pay for prenatal screening.
- The research also shows good knowledge of prenatal diagnosis among the women influenced their decision to undergo prenatal diagnosis.

RECOMMENDATIONS

1. The need to set up preconception care/prenatal screening clinics to cater for women with risk factors who are comtemplating conception
2. Education of the pregnant women is neccesary about risks for congenital anomalies
3. Physicians should develop skills of various prenatal diagnostic procedures and learn more on genetic counselling in order to offer these women help.
4. The Feto-maternal medicine physicians should acquire equipments in their institutions and train young obstetricians in various prenatal diagnostic procedures and in-utero treatment.
5. Public awareness on the dangers,burden, socio-cultural and economic implications of having a baby born with debilitating and disfiguring congenital anomalies so as to make informed decisions about their reproductive health.
6. The need to set up advocacy groups to influence the government ,policy makers and law makers on the need to legalise selective termination of babies with severe life-threatening conditions that will affect the life of the mother and impair the socio-cultural and intelectual health of the baby.

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PL-021

BARRIERS TO UTILIZATION OF MODERN METHODS OF FAMILY PLANNING AMONGST WOMEN IN A COMMUNITY SOUTH-SOUTH NIGERIA.

Utoo, BT , Swende, TZ , Utoo, PM

INTRODUCTION

- Family planning is an important component of reproductive health that affects the lives of women, their family members and the nation as a whole.
- Studies have shown that high parity, short inter pregnancy intervals and extremes of age are associated with poor pregnancy outcome.
- Furthermore, the use of contraceptive methods by the women in the reproductive age contributes to the prevention of unwanted pregnancies and subsequent induced abortion.
- The development of more effective and acceptable modern methods of contraceptives that have fewer side effects has resulted to the improvement in contraceptive prevalence rate worldwide.
- The story is however not very encouraging in Nigeria [4]
- Several women who use any method of family planning depend on natural and traditional methods which have high failure rates.
- Studies done in different parts of Nigeria have enumerated several barriers to the utilization of modern methods of family planning.

OBJECTIVE OF THE STUDY

- This study is aimed at determining awareness, acceptability and barriers to the utilization of modern methods of family planning amongst the women in a community south-south of Nigeria.

MATERIALS AND METHOD

- This was a cross-sectional study using structured interviewer administered questionnaires to 145 pregnant women at the antenatal booking clinic in Sacred Heart Hospital, Obudu, Cross-Rivers State, Nigeria from June to September 2010.
- The antenatal booking clinic for new attendees is held twice in a week.

Results

table 1: socio-demographic data

	Frequency	Percentage
Age		
20-25	52	16.0
26-34	191	58.6
35 and above	83	25.5
Total	326	100.0
Marital status		
Married	298	91.4
Single	28	8.6
Total	326	100.0
Tribe		
Yoruba	242	74.2
Igbo	35	10.7
others	49	15.0
Total	326	100.0
Occupation		
Proffesional	71	21.8
Civil servant Business	66	20.2
Artisan	111	34.0
Unemployed	31	9.5
Total	47	14.4
	326	100.0
Religion		
Christianity	240	73.6
Islam	86	26.4
Total	326	100.0
Level of education		
No Formal	18	5.5
Primary	12	3.7
Secondary	72	22.1
Tertiary	224	68.7
Total	326	100.0

Table 5: Willingness to accept prenatal diagnosis

	Frequency	Percentage
Willingness to do prenatal diagnosis		
Yes	199	61.0
No	93	28.5
No response	34	10.4
Total	326	100.0
Willingness to undergo induced abortion if baby is abnormal		
Yes	100	30.7
No	179	54.9
No response	47	14.4
Total	326	100.0
Willingness to support selective termination of abnormal pregnancy		
Yes	96	29.4
No	178	54.6
No response	52	16.0
Total	326	100.0
Willingness to pay for prenatal diagnosis		
Yes	170	52.1
No	104	31.9
No response	52	16.0
Total	326	100.0

Table 2:Risk factors for congenital abnormalities

Variables	Frequency	Percent
Past delivery of Abnormal babies		
Yes	28	8.6
No	238	73.0
No response	60	18.4
Total	326	100.0
Smoking and Alcohol intake		
Yes	9	2.8
No	81	24.8
No response	236	72.4
Total	326	100.0
History of abnormal babies in the family		
Yes	7	2.1
No	276	84.7
No response	43	13.2
Total	326	100.0
Illness before pregnancy		
Yes	31	9.5
No	269	82.5
No response	26	8.0
Total	326	100.0

Table 4:Knowledge of congenital abnormalities & Prenatal diagnosis

	Frequency	**Percentage**
Knowledge of congenital anomalies		
Yes	201	61.7
No	96	29.4
No response	29	8.9
Total	326	100.0
Knowledge of environmengal toxins, drugs affecting pregnancy		
Yes	191	38.6
No	96	29.4
No response	39	12.0
Total	326	100.0
Knowledge of prenatal diagnosi		
Yes	168	51.5
No	125	38.3
No response	33	10.1
Total	326	100.0
Knowledge of inherited diseases/traits		
Yes	186	57.4
No	104	31.9
No response	36	11.0
Total	326	100.0
Knowledge of maternal age affecting baby		
Yes	125	38.3
No	169	51.8
No Response	32	9.8
TOTAL	326	100.0

- Approximately forty clients are attended to per clinic visit. The maternity unit records more than 1000 deliveries annually.

RESULTS

- Of the 145 respondents, 38.8% were aged 21-25 years.
- Most (39.3%) had secondary and post-secondary (30.3%) level of education.
- Distribution by occupation showed that civil servants constituted 22.8%, traders 22.1%, students 19.3% among others.
- Most (44.1%) were of parity 1 to 2.
- Majority (98.6%) of the respondents knew at least one method of family planning
- Majority (62.2%) heard of the methods from medical personnel in the hospital.
- The commonest known methods included; Condom (35.2%), periodic abstinence (26.2%) and oral contraceptive pills (16.6%).
- Those who accepted the usage of family planning were 118(81.4%).
- Out of this, 85(72.0%) have ever used any method while 33 (28%) had not.
- Barriers to usage of modern methods of family planning were: concern of safety to health (25.9%), Husband's opposition (24.2%), desire for more children (17.2%), Religious prohibition (13.8%), lack of money (10.3%) and fear of side effects (8.6%).
- There was a significant relationship between acceptability and utilization ($p < 0.05$).

DISCUSSION

- Access to safe, effective and affordable contraception is recognized by the world health organization (WHO) as a universal human right.
- Most (33.8%) of the women in the study were aged 21-25years.
- This makes the need for utilization of family planning methods more eminent.
- Majority (98.6%) of the women knew at least one method of family planning.
- This finding is similar to several studies done in different parts of Nigeria [2,4,6,9,10].
- The intensity of family planning enlightenment campaigns as well as integration of family planning into the strategy of HIV/AIDS/STI prevention and control could have accounted for the high awareness [8].
- The commonest methods known were the condom, periodic abstinence and oral pills.
- The extensive marketing of the condom in response to the HIV pandemic might have been responsible for the increase awareness of the condom [4,9,10].
- The oral pills like the condom are readily available over the counter at patent medicine stores, Pharmacy shops, health facilities and as such are the second contraceptive method of choice for women of reproductive age, particularly young married or unmarried females and students alike.
- The natural and traditional methods of family planning are popular most probably due to the concern of women about the safety of modern methods as well as the fear of side effects of such methods on their health and future fertility.
- The finding of medical personnel in hospital been responsible for most of the information about family planning method is similar to findings in other studies in Nigeria [6,9,11].
- There is need to sustain efforts in training and retraining of all cadre of health personnel towards building their capacity in offering family planning enlightenment and services to the communities.
- The acceptability of family planning methods in this study was high ((81.4%).
- This finding is similar to that of other studies in the country [1,6].
- The high level of education of the respondents could have accounted for this.
- Studies have shown that well educated African couples are more likely to accept modern methods of contraceptives than less educated couples living in remote areas[1].
- The myth that Family planning methods are not good for health of users needs to be corrected through client education and enlightenment.
- Uncertainty about safety and side effects of contraception may be tackled by adequate screening of clients for pre existing health risk factors before the choice of contraceptive method is made.
- The opposition of male partners to the use of family planning methods by the women again makes male involvement inevitable.
- Improving access to family planning services can not be tackled successfully without poverty reduction and economic empowerment of women.
- Advocacy to religious leaders and faith-based organizations towards improving acceptability and allay fears by couples in using family planning methods due to religious prohibition is a crucial necessity.
- Also, family planning counseling aimed at promoting reproductive health of the woman as well as extending services beyond family planning clinics, antenatal care clinics and VCT centres to involving postnatal /child ware fare clinics is recommended.

CONCLUSION

- The study finds numerous barriers to utilization of family planning methods despite high awareness and acceptability

by the women.

- These barriers were; concerns of the safety of the methods to health, husband's opposition, religious prohibition, lack of money, desire for more children and fear of side effects.
- Overcoming these barriers should be the concern of all stakeholders.
- Strategies to improving access to family planning methods should therefore include; the involvement of male partners as well as traditional/religious leaders, economic empowerment of women and continuous research aimed at improving safety and reducing side effect profile of the methods among others.

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PL-022

BREASTFEEDING KNOWLEDGE AND ATTITUDE AMONGST GRASS ROOT HEALTH WORKERS IN A MISSION HOSPITAL IN NIGER-DELTA, NIGERIA

Utoo, BT , *Ochejele S, Obulu MA*

INTRODUCTION

- Childhood nutrition is essential to healthy growth and development into adult life .
- Human milk is recognized worldwide as the ideal nutrient for the human newborn child .
- It is highly nutritious providing all the necessary elements needed for infant health during the first six months of life and thereafter
- Breastfeeding is beneficial both for the child and mother.
- It is cheap, clean, accessible and safe.
- It promotes newborn immunity and enhanced survival .
- Breastfeeding has also been shown to promote protection against pregnancy, development of breast cancer and encourages mother- infant bonding .
- The 1990 Innocenti declaration states that all governments should create an environment enabling women to practice EBF for the first 6 months of life and to continue breast feeding with adequate supplement foods for up to 2 years.
- Provision of crèches, human milk bank and rooming-in facilities improve breastfeeding and bonding between mother and infant
- The knowledge or otherwise of medical and paramedical personnel could affect breastfeeding practice.

- There is paucity of studies done to assess the knowledge and attitude of health workers on breast feeding in Nigeria especially among health workers in secondary health care facilities.

OBJECTIVE OF THE STUDY

- This study was therefore designed to assess the breastfeeding knowledge and Attitude of grass root health workers in a Mission Hospital in Niger-Delta, Nigeria.

MATERIAL & METHODS

- This cross sectional study was done at the Holy family Joint Hospital, Ikom, Cross River State, Nigeria from August to October 2010.
- A total of 36 health workers were randomly selected.
- The data was entered into SPSS statistical package version 15.0 and analyzed.

RESULTS

- Out of the 36 respondents, 28(77.8%) were females and 8(22.2%) were males. Their average age was 25.56 ± 5.7 years. One (2.8%) was a doctor, 10 (27.8%) were Nurses/Midwives and 25(69.4%) were Community Health Officers/Community Health Extension Workers.
- All of the respondents were Christians with the Yala tribe as the most popular (36.1%) ethnic group. Human milk was approved by 97.2% of the respondents as the ideal nutrient for the newborn while 2.8% approved artificial milk. All the respondents agreed that colostrum and exclusive breastfeeding was beneficial to the baby. However, 8.3% gave <4 months as the duration of exclusive breastfeeding, another 8.3% gave > 6 months and 83.3% gave 4 – 6 months.
- Only 36.1% knew that breastfeeding should last for a period of 2 years. One third of the respondents could not name more than 2 compositions of breast milk and 75.1% did not know more than 3 advantages of breastfeeding. Some mentioned mental retardation (11.1%), diarrheal disease (2.8%)and failure to thrive (16.7%) as dis- advantages of breastfeeding. Also maternal anemia (11.1%) and Stress(11.1%) were mentioned.

DISCUSSION

- The study showed a high approval for human milk over artificial milk. Similarly, exclusive breastfeeding of infants and acceptability of colostrums as a good source of nutrient for the newborn was 100%. This finding is encouraging considering the erroneous impression some people have that breast milk alone do not provide sufficient nutrients for the newborn within the first 4 to 6 months. It is therefore not surprising that as high as 83.4% of the respondents knew the correct duration of exclusive breastfeeding. This finding was similar to other studies on this topic . Again the acceptability of colostrums defeats the myth of its harmfulness to the newborn.
- It was however surprising that only 36.1% of the health workers knew that breastfeeding should be continued up to 24 months. Similar knowledge gap has been identified by previous studies .
- One third of respondents could not name more than two composition of breast milk. Interestingly, 88.9% knew that breast milk contain water. This is in contrast to the erroneous belief by opponents of exclusive breast-feeding.
- If the health workers translate this knowledge to educating the mothers, the danger of diarrhea disease from contaminated water given to breastfeeding newborns would be averted. Among the several advantages of breastfeeding, 75.0% could not mention more than three. However, 63.9% acknowledged that breast feeding encourages bonding between mother and child
- More than one third of the respondents agreed that breast-feeding was cheaper than artificial milk and 25.0% agreed that it was clean/safe and always available.
- Although not many of the health workers acknowledged these benefits, these facts should be emphasized to mothers so that they would be encourage appreciating the advantages of breastfeeding over artificial milk. It has been acknowledged that in the early weeks it can be a painful experience by some mothers.
- In this study only 16.7% of the respondents acknowledged this problem. Similarly, only 36.7% knew that viral infections such as HIV could be transmitted from mother to child through breast-feeding.
- This paucity of knowledge on transmission of infection to the infant is unacceptable in this era of HIV pandemic if the strategy of PMTCT of the infection in the post partum period could be effectively achieved.
- Some health workers showed concern about the cosmetic effect of breast-feeding. Thus, 22.2% mentioned sagging of the breast as a disadvantage to breastfeeding mothers. However, none of the respondents mentioned cracks/engorgement of the breast as a disadvantage.
- As true as these problems may be, the health workers need to be educated so that they can properly counsel breast feeding mothers on care of the breast.
- The ignorance of the health worker in this regard may impact negatively on the mothers thereby affecting the practice of effective breast-feeding.
- Surprisingly, some of the respondents mentioned mental retardation, failure to thrive, and diarrhea disease as effects of breastfeeding on the baby.

TABLE: Respondents knowledge of breast milk composition, advantages and disadvantages of Breastfeeding.

Composition N /36(%)	Advantages of bfg N /36(%)	Dis-advantages of bfg N /36(%)
Water 32(88.9)	Bonding 23(63.9)	Pain 6(16.7)
Protein 22(61.1)	Family planning 24(66.7)	Cracks 0(0)
Fat 16(44.4)	Prevention of diarrhea 6(16.7)	MTCT HIV 13(36.1)
Antibodies 12(33.3)	Cheap 15(41.7)	Sagging breast 8(22.2)
Minerals 22(61.1)	Availability 9(25.0)	Mental retardation 4(11.1)
Carbohydrate 7(25.0)	Cleanliness 9(25.0)	Failure to thrive 6(16.7)
	Others 11(30.0)	Diarrhea 1(2.8)

- While, anemia, stress and change in lifestyle was mentioned as the negative impact of breast-feeding on the mother. Some of these concerns obviously do not have a scientific basis. Studies have shown that medical and paramedical personnel who are not adequately trained to counsel mothers on breastfeeding may not enhance the optimal practice of breastfeeding due to knowledge gaps. The reportedly decline in breastfeeding prevalence demonstrated by some studies done in different parts of the world may be as a result of this knowledge gaps [5,9].

CONCLUSION

- In conclusion, the study showed that there were some knowledge gaps about breast-feeding amongst the health workers.
- There is therefore the need to train and retrain all cadres of health workers about breastfeeding.
- This effort will improve and promote breastfeeding practice which is a necessary strategy for child survival

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PL-023

COMPARISON OF PREGNANCY OUTCOME OF BOOKED AND UNBOOKED WOMEN AT UNIVERSITY OF NIGERIA TEACHING (UNTH), ENUGU

Aniebue, U U, and Ezenkwele, E P

INTRODUCTION

- Maternal mortality is a public health problem. Maternal mortality ratio in Nigeria exceeds 1000 per 100,000 live births.
- MDGs were set up to improve the lives of the world's poorest citizens. MDGs 4, 5, 6 directly related to health. MDG 5 aims to improve maternal health
- MDG 5 health indicators: MMR and proportions of births attended by skilled health personnel
- The four pillars of safe motherhood: Antenatal care, Clean and safe delivery, Emergency obstetric care and Family planning
- Three years after the MDG, the NHDS showed
  - High MMR-from 300-1,200 per 100,000 live births.
  - 60% received antenatal care
  - 2/3 of births occurred at home.
  - 17% of women had no assistance during delivery
  - Untrained persons assisted 26%.

Maternal complications and poor perinatal outcomes are highly associated with non-utlisation of antenatal and non-utilisation of delivery care services.

OBJECTIVE

- To determine the effect of sociodemographic characteristics on the booking status of women
- To compare the maternal outcome between booked and unbooked mothers
- To compare the perinatal outcome between booked and unbooked mothers

MATERIALS AND METHOD

- A case-based observational study from 2003 to 2006 in UNTH, Enugu
- 315 mothers who were delivered of their babies and followed up to 48 hours postpartum
- Their sociodemographic characteristics and maternal and perinatal outcomes were gathered

MEASUREMENTS

- Preterm Premature Rupture of Membrane, Antepartum haemorrhage, Multiple pregnancy, Antepartum IUFD, Pre-eclampsia, Mode of delivery, Preterm birth, 5th min Apgar score and Stillbirth

ANALYSIS

- Graphpad prism software (version 5) and Epiinfo (version 3.5.1) were used for data analysis. Chi-squared test and students' T test were used as tests of statistical significance and Statistical significance was set at $P<0.05$

RESULTS

CONCLUSION/RECOMMENDATIONS

- The study demonstrated the link between unbooked status and adverse pregnancy outcomes.
- Health education of women through mass media using radio and television (airing interviews, jingles)
- Free antenatal care and delivery services and all that is required to make this work.
- Provision of medical supplies and training and retraining of skilled health personnels to deliver EMOC to women.

PL-024

SOFTWARE FOR DIAGNOSIS OF BLEEDING IN LATE PREGNANCY

ADELAIYE, S. M[1]; Oladapo S.O[1]; Dr Obiniyi A.A[2]; and S. B. Junaidu[2]

O & G Dept ABUTH and Maths Dept.ABU

INTRODUCTION

- There are 2+ billion web users, and over 4 billion people use mobile phones (increasingly these are web-equipped). Increased access to computers and the Internet provides new opportunities. Computer-based diagnosis has the

potentials of: facilitating correct patient management, enhancement of referral for expert caredata storage, retrieval, analysis & reporting

- Central to these computer related value in clinical practice are: Appropriateness of software developed; Its simplicity of use; and Its ease of deployment to the Internet

•Nigeria has one of the highest maternal mortality ratios in the world currently at 545 per 100,000 live births (NDHS, 2008).

- Obstetric hemorrhage contributes 23% of these deaths, one of which is bleeding in late pregnancy
- Increasingly majority are first seen by traditional birth attendants, midwives or doctors who are not conversant with the causes, severity and the consequence of these bleeding and are ill equipped to manage them

Consequence of: Misdiagnosis of cases result in increased:, Cases of caesarean section, Number of premature births and its consequences, Use of blood transfusion and its consequences, Cost of Medical care, Maternal mortality,

- Poor health indices of the country: This initiative explores increased role for ICT in clinical practice, with a view to improving accuracy of diagnosis, which will enhance promptness & effectiveness of treatment; among the paramedics who are increasingly being used in the bid to reduce maternal mortality. This interest was generated by the presenter's recent training in computer science

MATERIAL AND METHOD

Programs used to develop the software

- Fireworks, Visual basic

The serial no is automatically generated and can be used to search and retrieve patients records.

Fig 1: Booking Status

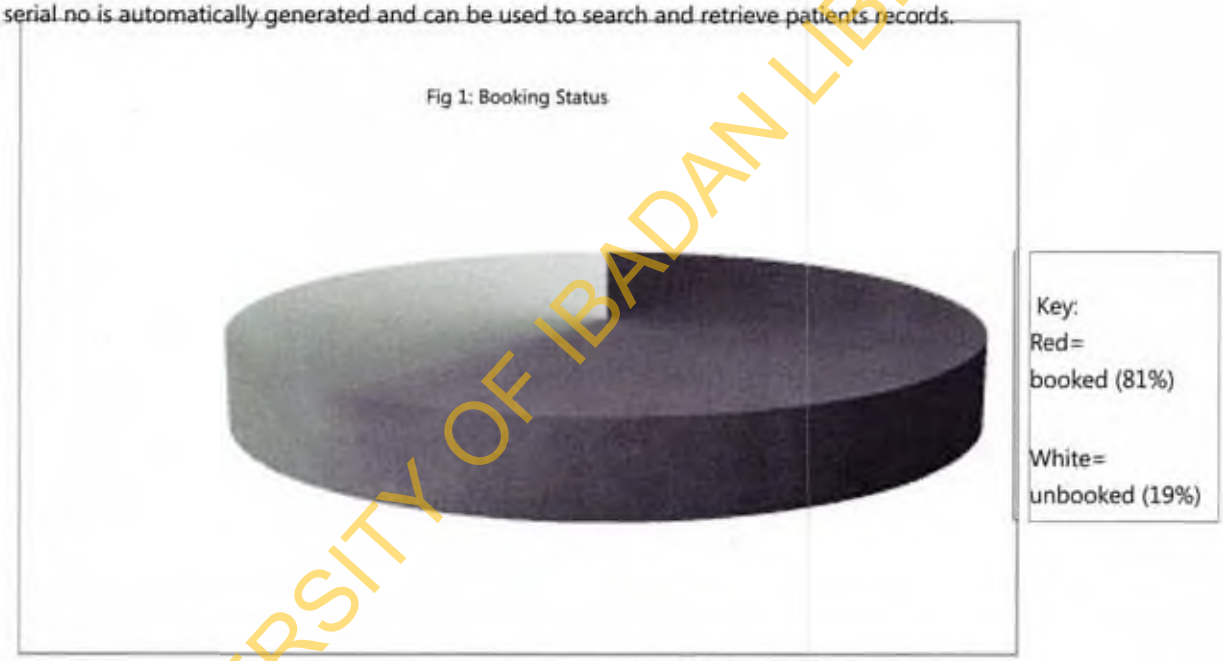


Fig 2: Age

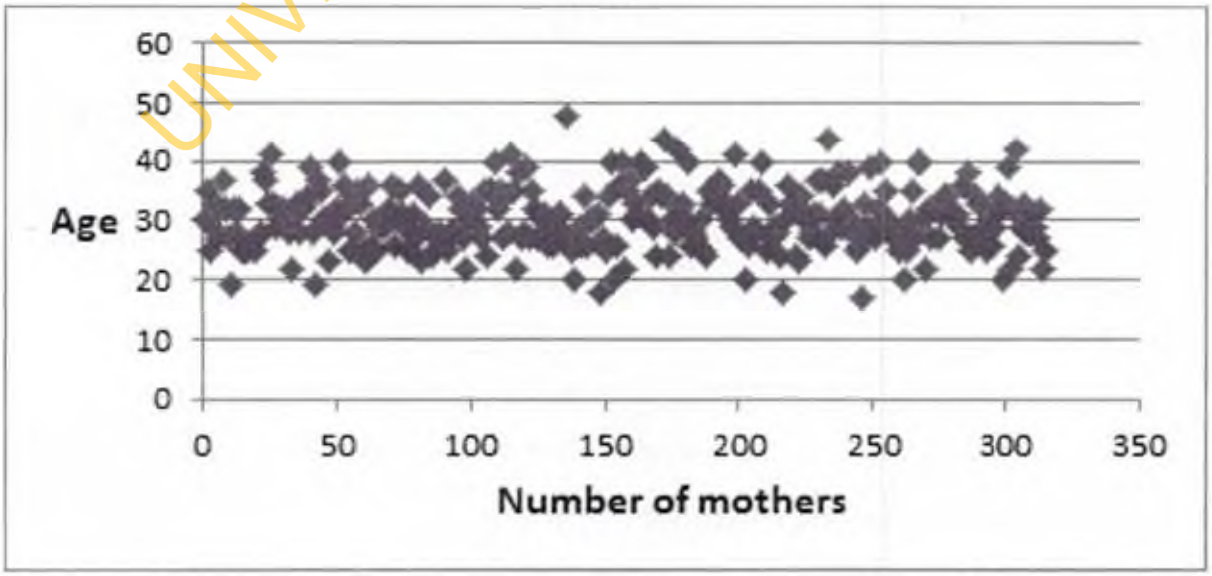


Fig 3: Educational Status

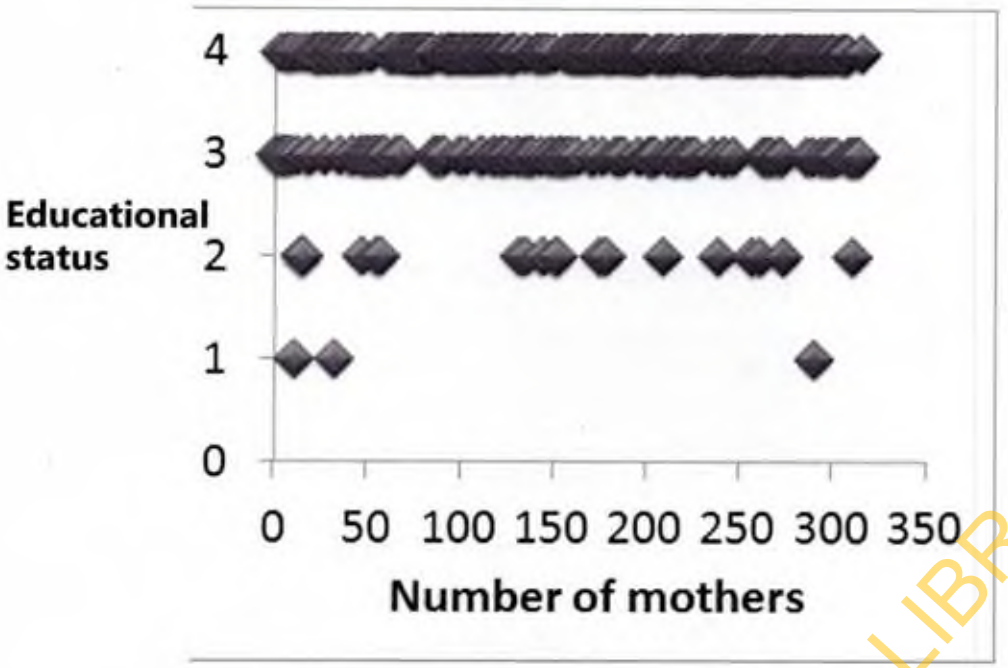


Fig 4: Marital Status

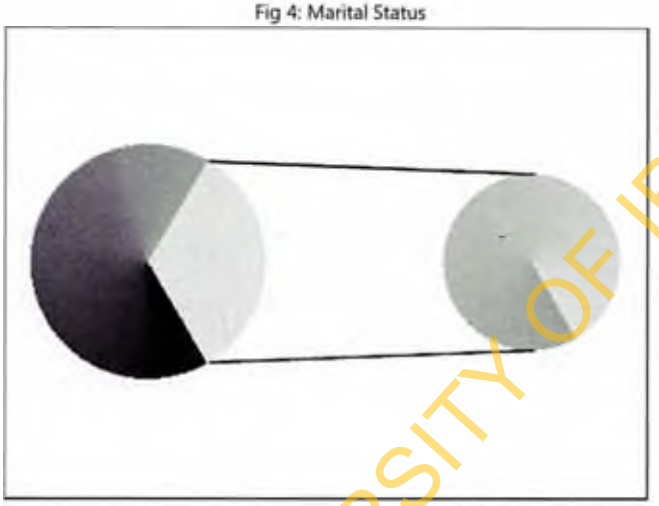


Fig 5: Occupational Status

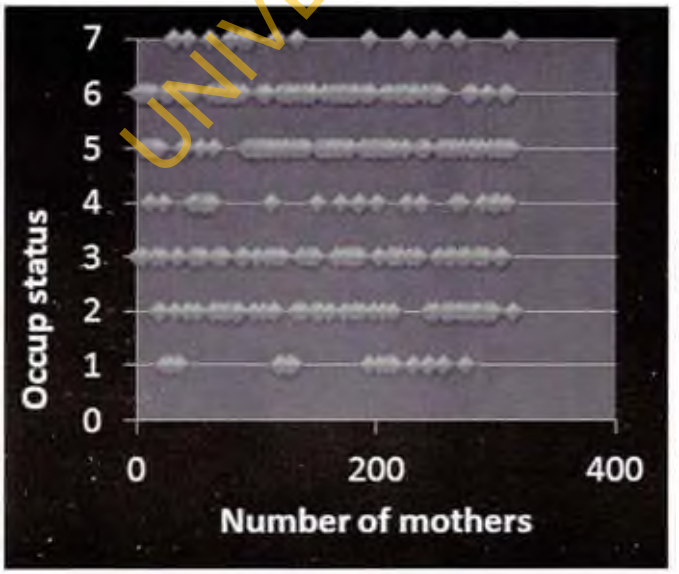


Fig 6: Parity

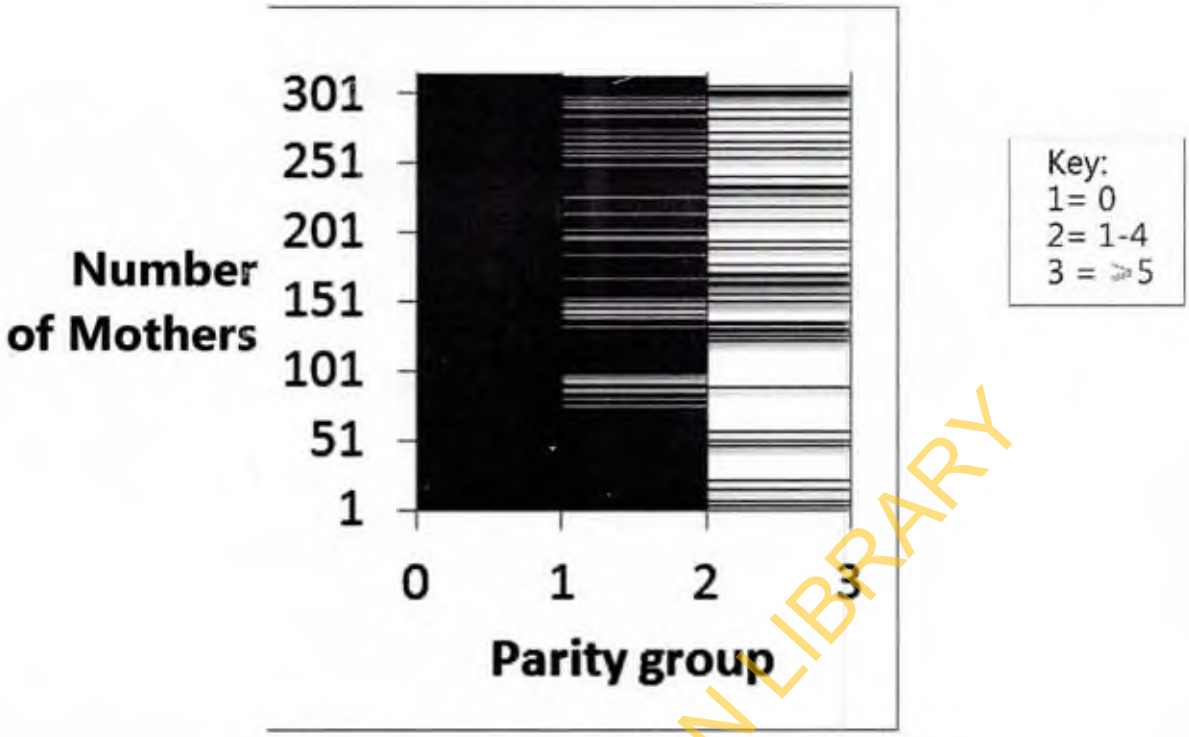


Table I Sociodemographic characteristics of booked and unbooked mothers

Variable	Booked mothers(%) n=255	Unbooked mothers(%) n=60	P value
Age group			
15-24	24(9.4)	6(10.0)	
25-29	92(36.1)	22(36.7)	
30-34	85(33.3)	22(36.7)	
>35	54(21.2)	10(16.6)	0.88(ns)
Educational status			
None and primary	10(4.0)	12(20.0)	
Secondary	66(26.2)	28(46.7)	
Tertiary	176(69.8)	20(33.3)	<<<0.01
Marital status			
Married	233(91.7)	49(81.7)	
Single/ Widowed/ Engaged	9(3.6)	6(10.0)	
Cohabiting	12(4.7)	5(8.3)	0.05

Table 2:

Variables	Booked mothers (%) n=255	Unbooked mothers (%) n=60	P value
Occupational status			
Unskilled	16(6.3)	1(1.7)	
Skilled worker	16(6.3)	11(18.3)	
Student/ housewife	83(32.7)	18(30.0)	
Semi-skilled	61(24.0)	19(31.7)	
Skilled/big business/ Professional	78(30.7)	11(18.3)	<<0.01
Parity			
0	75(29.5)	20(33.3)	
1-4	148(58.3)	28(46.7)	
≥5	31(12.2)	12(20.0)	0.17(ns)

Tables 3 maternal and perinatal complications and outcomes in booked and unbooked mothers

Variables	Booked mothers(%) n=255	Unbooked mothers(%) n=60	P value
Pregnancy complications			
Preterm PROM	4(1.6)	4(6.7)	0.04
Antepartum haemorrhage	4(1.6)	5(8.4)	0.01
Multiple pregnancy	6(2.4)	6(10)	0.03
Antepartum IUFD	2(.08)	7(11.7)	<<0.01
Pre-eclampsia	3(1.2	2(3.3)	0.24(ns)
Mode of delivery			
SVD	175(68.6)	32(53.3)	0.03
Pregnancy outcomes			
Preterm birth	9(3.5)	12(20)	<<<0.01
5th min Apgar score≤6	20(7.9)	9(16.1)	0.09(ns)
Stillbirth	10(3.9)	20(35.7)	<<<0.01

Default/Home

Bleeding in Late Pregnancy

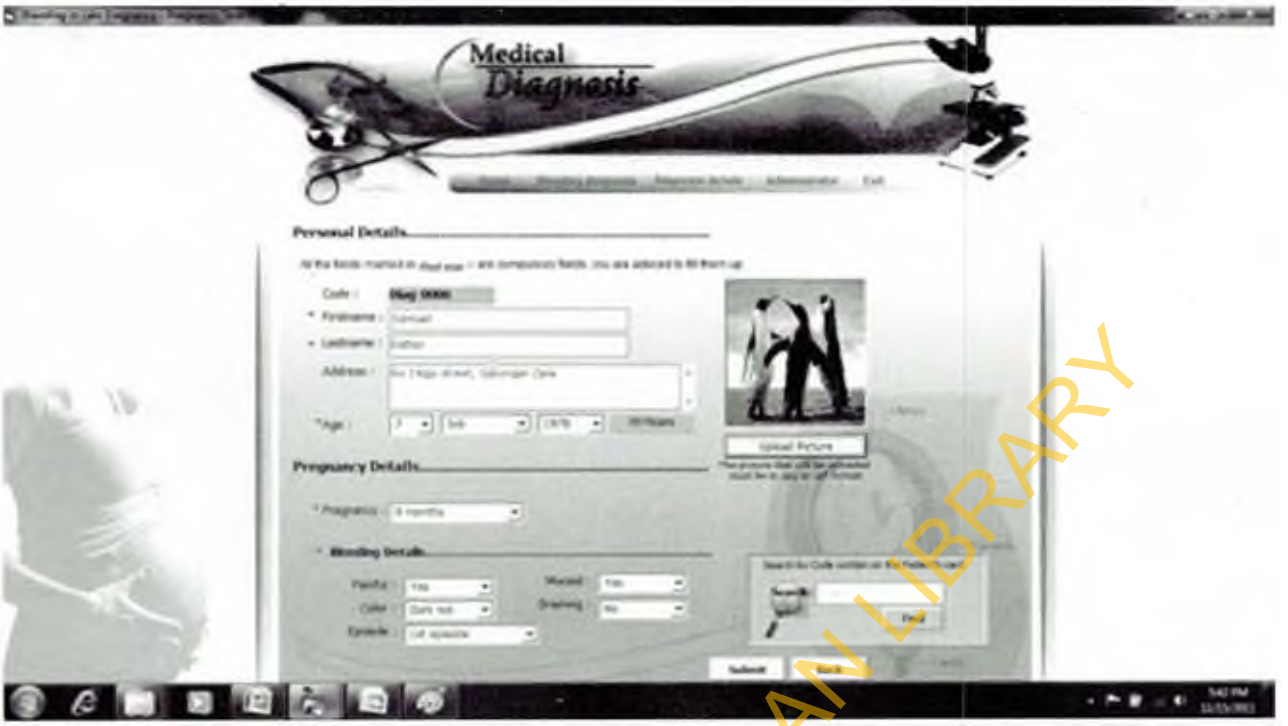
The Computerized based Diagnosis on Bleeding in Late Pregnancy offers specialists, primary care physicians, and other health professionals the web's most robust and integrated medical information and educational tools.

It also help to access desired information faster and print out your card after filling your details in the form and by clicking on the submit button. Please you are adviced to print out your card for future use.

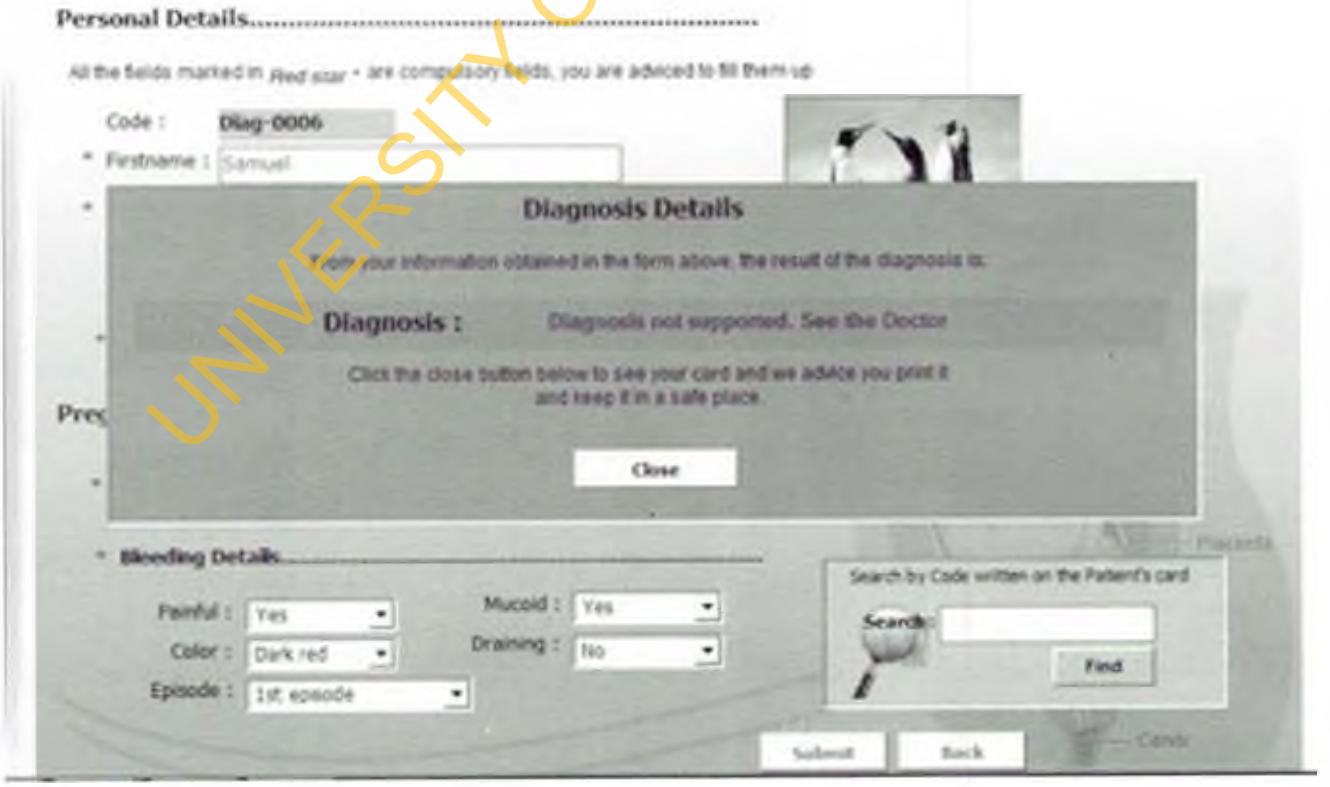
Mission Statements

- To provide clinical and other healthcare professionals with the most timely comprehensive and relevant clinical information to improve patient care.
- To make the clinician's task of information gathering simpler, more fruitful, and less time-consuming.
- To provide physicians with the educational tools needed to stay current in their practice.

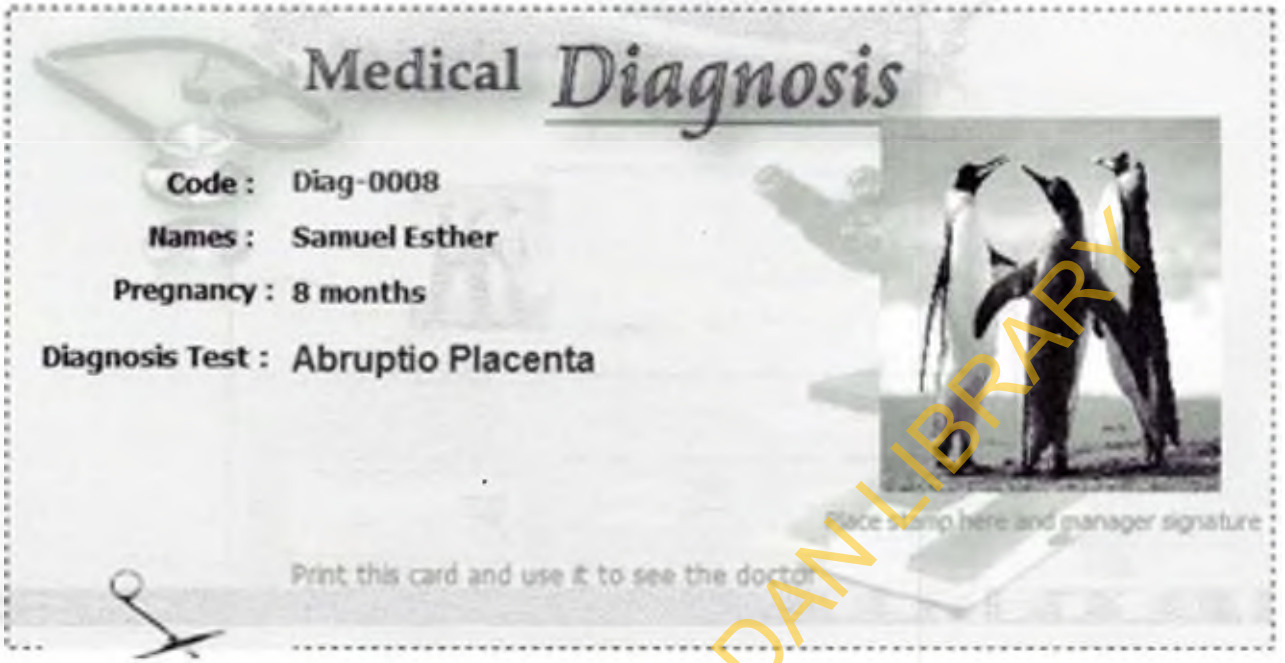
This slide shows the filled form and uploaded picture after clicking submit it is processed and the diagnosis generated



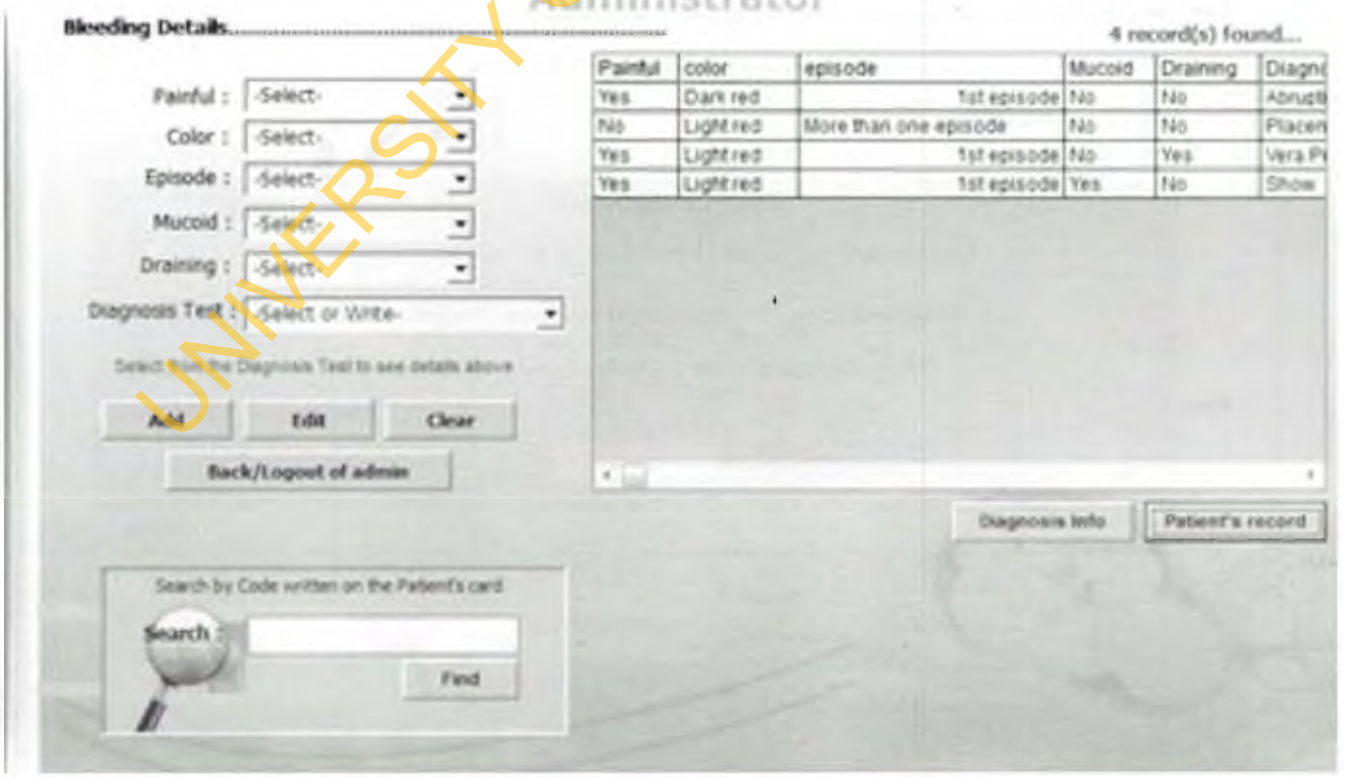
This is the diagnosis from the information given above after clicking on submit it would generate the diagnosis



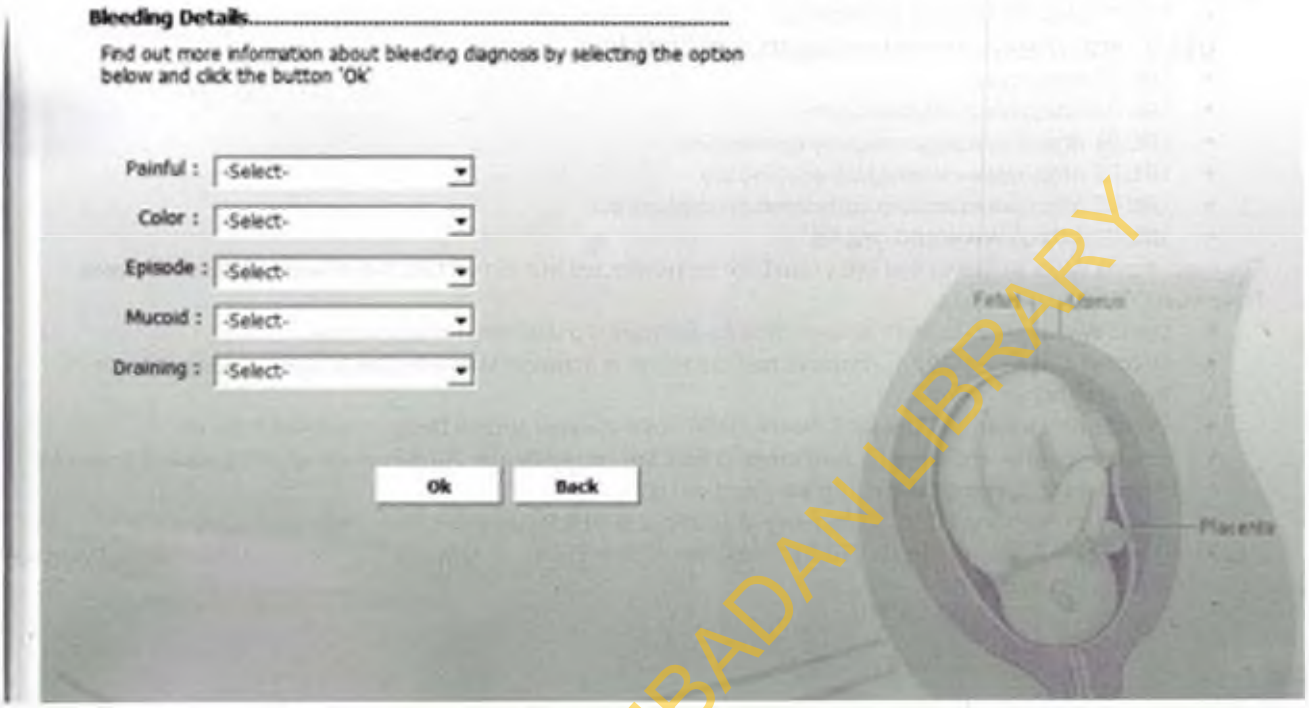
This is a card with the diagnosis and picture of the patient which can be printed out and given to the patient when you click close



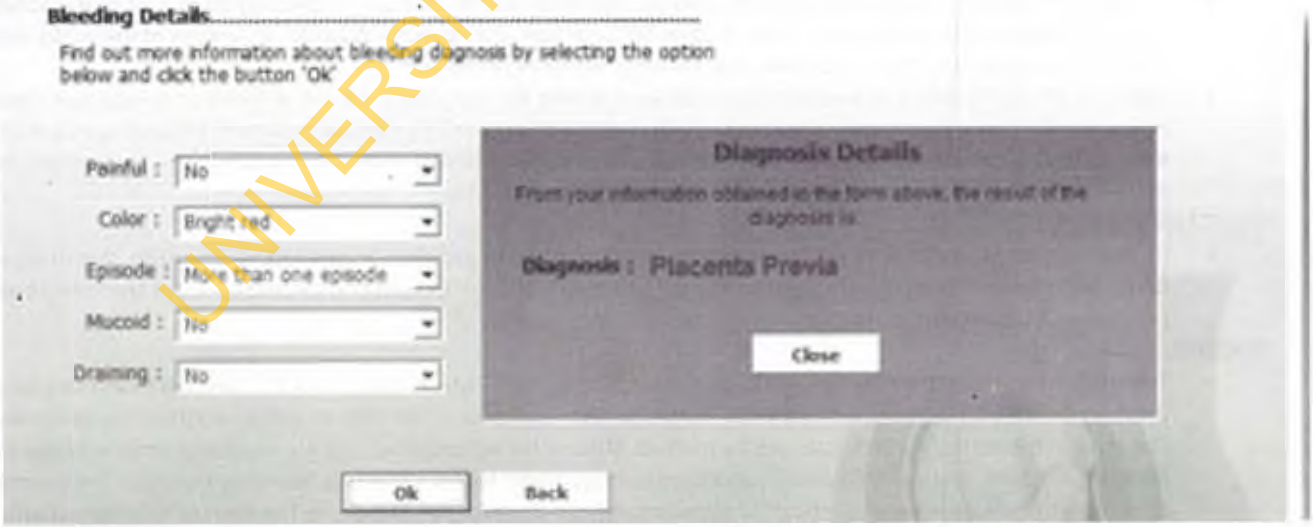
This is where you can edit and search details of patients and diagnostic information



This can be deployed on the Internet.



By simply answering yes or no to the options and clicking ok a diagnosis is given as seen below



CONCLUSION

- This is a novel software that is designed for use on a computer system or the Internet; It could be used by a computer-literate person to have an idea of the likely cause of bleeding.
- Obstetricians must take advantage of the opportunities presented by computer /Internet in their effort to reduce maternal and perinatal mortality

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- URL 03: *http://wwu-.wikipedia.com/*
- URL 04: *http://www.pragmaiicprogrammer.com*
- URL 05: *http://www.extremeprogramming.org*
- URL 06: *http://wnvw.itan.org.ng/ncsmembershipform.doc*
- URL 07: http://www.cpn.org.tig

The exact access dates to these cited URLs could not be recollected but it is certain that all were accessed between November 2010 and June 2011.

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PL-025

MATERNAL MORBIDITY AFTER CHILDBIRTH AT A SECONDARY HEALTH CARE FACILITY IN SOUTHERN NIGERIA

Utoo B T , Musa J , Karshima JA

INTRODUCTION

- Maternal health indices remain poor in developing countries despite efforts at improving them. Out of the 585,000 women who die each year during childbirth, over 98% are from the developing world. In regions of the world where maternal mortality ratios are low, SAMM is increasingly becoming important [1].
- Maternal morbidity refers to complications that arise during the pregnancy, labour, delivery or postpartum period. Although MM is not uncommon, it has not been the subject of emphasis by medical experts in developing countries of the world. And yet for each woman that dies, 16 others suffer different forms of morbidity. The fact remains that maternal morbidity occurs much more frequently than maternal deaths.

OBJECTIVE OF THE STUDY

- In view of the scarcity of data on the extent of this public health problem in developing countries, this study was designed to review the incidence, types and determinants of maternal morbidity after childbirth in a secondary health care facility in southern Nigeria.

MATERIALS & METHOD

- The study was done at the Holy Family Hospital, Ikom, Cross- River State, Nigeria. This 256-bedded health care facility provides health care delivery services in the central senatorial district of the state as well as neighboring Cameroon's. The maternity unit has 40 beds manned by medical officers, nurse/midwives, CHEWs, mission trained auxiliary staff. Recently, resident doctors in Obstetrics and Gynaecology from the Jos University Teaching Hospital. The antenatal clinic, which holds twice weekly, attends to approximately 25 clients per booking visit. The hospital is equipped with an ultrasound machine, basic laboratory facilities and a functional operating theatre. Approximately 500 deliveries are recorded annually. Patients are sometimes referred from the primary health care facilities, maternity homes and occasionally from the numerous private hospitals to the health facility for treatment.
- **Study design:** This was a retrospective analysis of medical records of patients who were treated at the hospital from January 2004 to December 2010. Patients who where treated at the health facility for one form of post delivery complication or the other were included in the study. Data was extracted from the delivery and admission register at the

maternity unit. And where necessary, the general outpatient records were accessed. The Hospital management gave approval

- **Data analysis:** Data collected include; initials, hospital numbers, age, occupation, religion, educational status, booking status, parity, mode of delivery, morbidity and duration of hospital stay. Data was analyzed using EPI INFO 3.2.2 (CDC Atlanta, Georgia USA) and presented as simple percentages in a tabular format. Chi-square was used as a test of statistics with p-value of ≤0.05 at 95% confidence interval considered statistically significant.

RESULTS

- A total of 3,068 deliveries occurred within the 7 year under review. Out of these number, 124 (4.04%) suffered various forms of morbidities. Most (31.5%) of the women were aged 26 to 30 years. Most (49.2%) of them had secondary level of education. Housewives constituted 37.9%, Farmers 29.0%, Students 12.9%, Traders 11.3% and Civil Servants 8.9%. Majority (53.2%) were unbooked for antenatal care. Para 3-4 constituted 54.0%, 1-2 (28.3%) and primi-parous (17.7%). Hospital deliveries were 61.3%, Home deliveries 25.0% and others 13.7%. Most (83.9%) had spontaneous vaginal delivery, 4.0% assisted vaginal breech delivery, 4.0% destructive operations, 3.2% vacuum extraction and 1.6% laparatomy. Nurses/Midwives were responsible for 50.8% of the deliveries, TBA 22.6%, CHEWs 14.5%, M/O 12.1%.
- The leading morbidities were PPH (33.9%), retained placenta (25.0%), Hypertensive disorders (14.5%) and genital sepsis (13.7%). Women with formal education were more likely to book for antenatal care (p=0.000) and to deliver in orthodox health facility (p=0.007). The morbidities were significantly related to the level of skill of the birth attendants (0.001) and place of delivery (0.045). Majority (85.5%) of the patients were managed as in-patient for a week.

DISCUSSION

- The incidence of maternal morbidity after childbirth in the study was 4.04%. This is higher than the reported 0.38% in Scotland, but lower than the 6.45% in Niger Republic and 7.5% in Senegal[11,12]. This variation is a reflection of the differences in quality as well as utilization of reproductive health services in the developed and developing countries. Women who suffered morbidities were aged 26 to 30 years, multiparous and with low level of education. These were similar to findings of other studies[13]. More than half of the women were un-booked for antenatal care.
- The booking status of patients and place of delivery was significantly related to their level of education. Sustaining the campaign for women education and economic empowerment will promote utilization of reproductive health services including delivery in orthodox health facilities. Leading maternal morbidities following child birth were; Post-partum haemorrhage, retained placenta, hypertensive disorders and genital sepsis. The rate of occurrence of retained placenta in the study is extremely higher than the findings in a study done at Ibadan, Southwestern Nigeria, where the incidence was 1.74% in unscarred uterus and 5.3% in scared uterus[17].
- This could have been as a result of poor management of the third stage of labour which is possibly a reflection of the low level of knowledge of some of the accouchers about this concept. Placenta retention is a known cause of post-partum heamorrhage[18]. The incidence of genital sepsis was higher than the reported 1.7% in Ife, Nigeria[19]. Although, the study at Ife was done at a tertiary health facility. Supervised delivery where appropriate antibiotic usage is achieved should be encouraged. The incidence of wound infection following caesarean section that was 1.6% is lower than the reported 6.7% and 12.5% at two tertiary health facilities in Nigeria [20, 21]. It is possible that the higher number of surgical operations done at this referral centres could have accounted for this variation.
- Post partum psychosis is said to typically occur around the time of delivery and affects less than 1% of women [22,23]. The incidence in the study was however 1.6%. Episiotomy breakdown rate was 4.8%. The restrictive rather than routine use of this obstetric procedure will help in reducing the incidence of complications associated with it [24-27]. The significant relationship between maternal morbidity after childbirth, and accoucher observed in the study calls for intensive efforts in training and retraining of birth attendants. The employment of qualified medical personnel in public hospitals at all levels of health care delivery should be pursued with vigour. The midwifery service scheme (MSS) of the Federal Ministry of Health (FMOH) in Nigeria to provide skilled birth attendants at the grassroots should be given the desired speedy attention. It has been shown that midwives in health facilities appear to detect more obstetric complications than TBAs. Immediate detection leads to immediate Care and low fatality rates[1,28].
- Barriers to the utilization of antenatal and obstetric services which could involve, illiteracy, low socio-economic status, culture and wrong perception of their health by women in our environment should be adequately tackled by all stake holders in the health sector[29,30]. This measure will discourage the attitude of women who book for antenatal care and yet prefer to deliver outside orthodox facilities[2]. It is also worthy to mention that, health problems after childbirth should be anticipated and careful attention should be given to prevent them from occurring or reducing the severity of morbidity[31].

CONCLUSION

- The incidence of maternal morbidity after childbirth observed in this study is high. The leading morbidities were haemorrhage, retained placenta, hypertensive disorders and genital sepsis.
- Sustained campaigns towards promoting women education, economic empowerment, and utilization of reproductive health services offered by skilled birth attendants will reduce the incidence of morbidities especially in developing countries.

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PL-026

THE WOMAN TRIAL: OVERVIEW AND PROGRESS

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MATERNAL MORTALITY

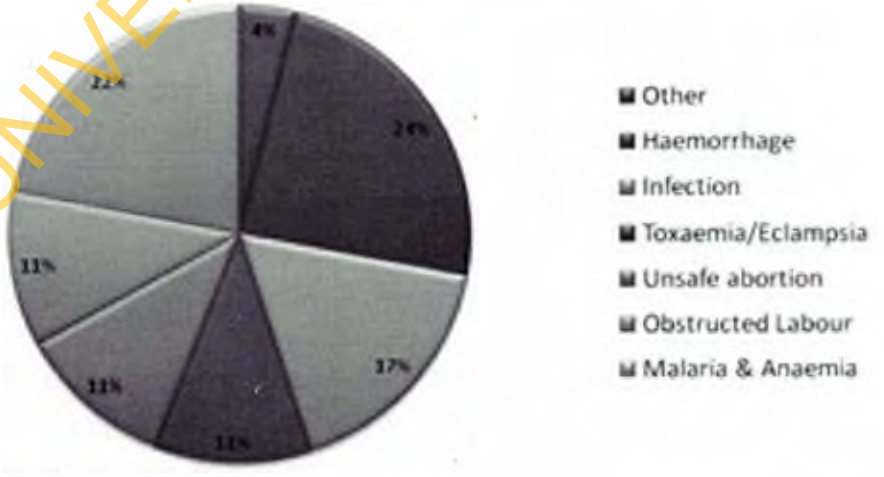
Each year, world-wide about 530,000 women die from causes related to pregnancy and childbirth

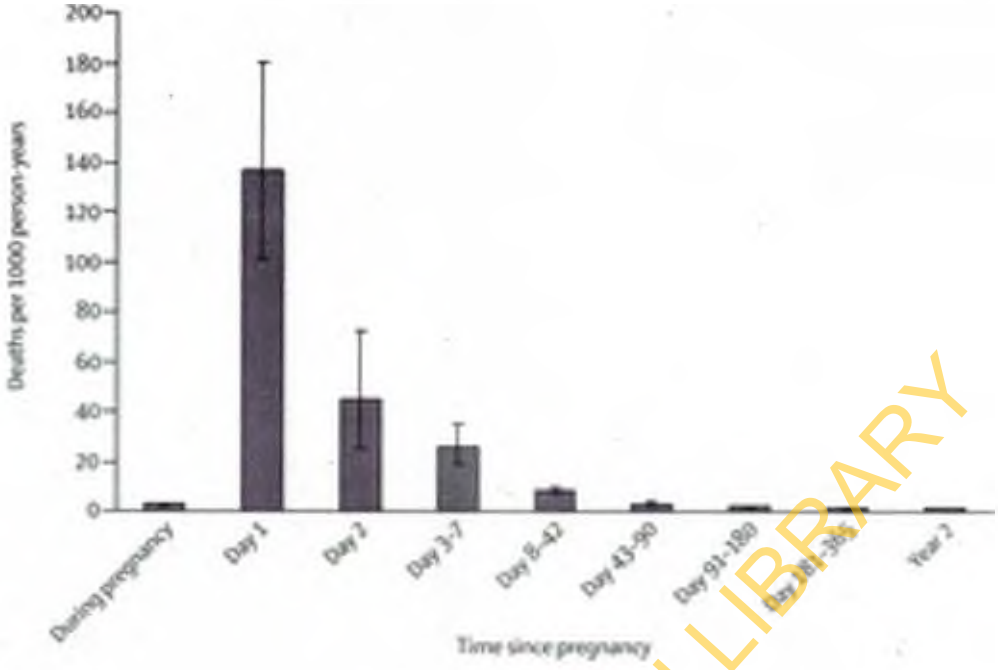
MATERNAL MORTALITY

MATERNAL MORTALITY:

Most deaths occur soon after delivery.

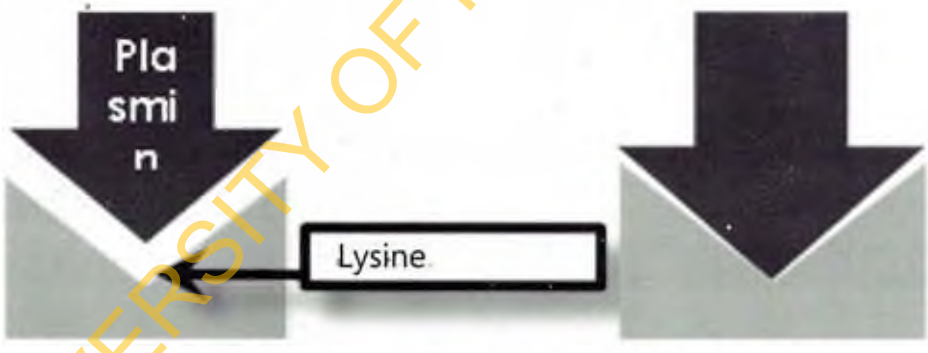
Causes of Maternal death



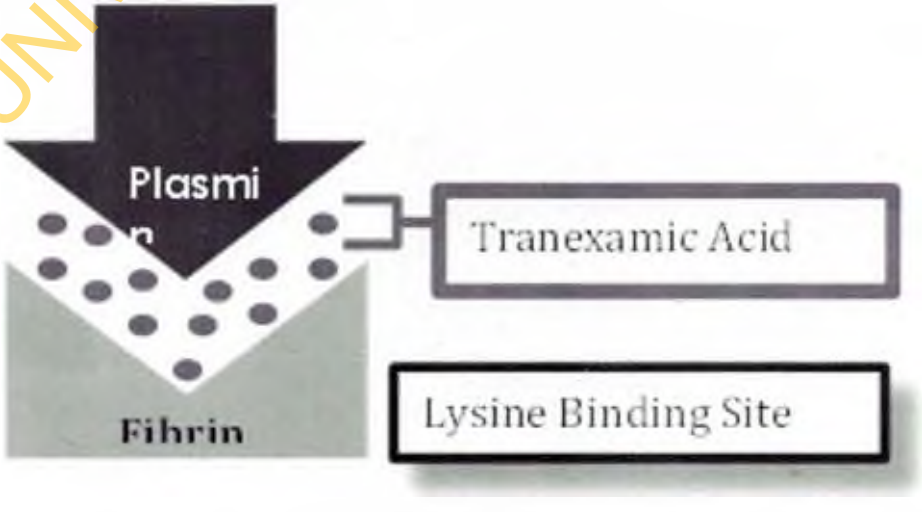


FIBRINOLYSIS

- Coagulation occurs rapidly at the site of a damaged vessel. At the same time the fibrinolytic system removes the fibrin deposits that could cause permanent vascular occlusion. The coagulation and fibrinolytic system are believed to be in a state of dynamic balance, which maintains an intact vascular system. During fibrinolysis, plasminogen is converted into plasmin by tissue plasminogen activator. Plasmin binds to fibrin via its lysine binding sites to cause fibrinolysis.
- Tranexamic Acid (TXA) is a synthetic derivative of the amino acid lysine. It has a very high affinity for the lysine binding sites of plasminogen. It blocks these sites and prevents binding of activated plasminogen to the fibrin



Inhibition of fibrinolysis by TXA



surface, thus exerting its antifibrinolytic effect.

TXA IN ELECTIVE SURGERY

- Antifibrinolytic agents are widely used in surgery to prevent fibrinolysis and reduce blood loss. A systematic review of randomised controlled trials of antifibrinolytic agents in surgical patients identified 211 randomised controlled trials including
- 20,781 randomised participants. The review showed that TXA reduced need to transfuse, and may reduce need for re-operation and mortality, with no evidence of adverse effects

Henry DA, Carless PA, Moxey AJ, O'Connell D, Stokes BJ, McClelland B, Laupacis A, Fergusson D Antifibrinolytic use for minimising perioperative allogeneic blood transfusion (Cochrane Review). In: **The Cochrane Library**, Issue 3, 2008. Chichester, UK: John Wiley & Sons, Ltd.

RATIONALE FOR THE WOMAN (WORLD MATERNAL ANTIFIBRINOLYTIC) TRIAL

- Bleeding is a leading cause of postpartum mortality. Blood transfusion can be dangerous. Antifibrinolytics reduce blood loss after surgery
- CRASH-2 trial of 19,500 patients: no unexpected adverse events associated with TXA reported. Trials in PPH too small to confirm or refute moderate effects. A simple, relatively cheap intervention like TXA could prevent deaths and morbidity associated with PPH

AIMS

- **Primary outcomes: To quantify the effect of tranexamic acid (TXA) on death and hysterectomy in women with clinician diagnosed PPH**
- **Secondary outcomes: To quantify the effect of TXA on**
  - Surgical Interventions
  - Blood transfusion
  - Health status measured using the EQ-5D scale
  - Thromboembolic events
  - Other relevant medical events
  - Length of stay at hospital/time spent in an intensive care unit
  - Receipt of mechanical ventilation
  - Status of breastfed baby/ies
  - Cost-effectiveness

MATERIALS AND METHOD

- A multi-centre blinded randomized controlled clinical trial, involving 111 centres. Co-ordinated by the London School of Hygiene and Tropical Medicine
- Consenting women with primary postpartum haemorrhage are randomized to receiving either an intravenous injection of 1g of tranexamic acid or placebo. Outcome is monitored.

WOMAN TRIAL: status at Sept 2011

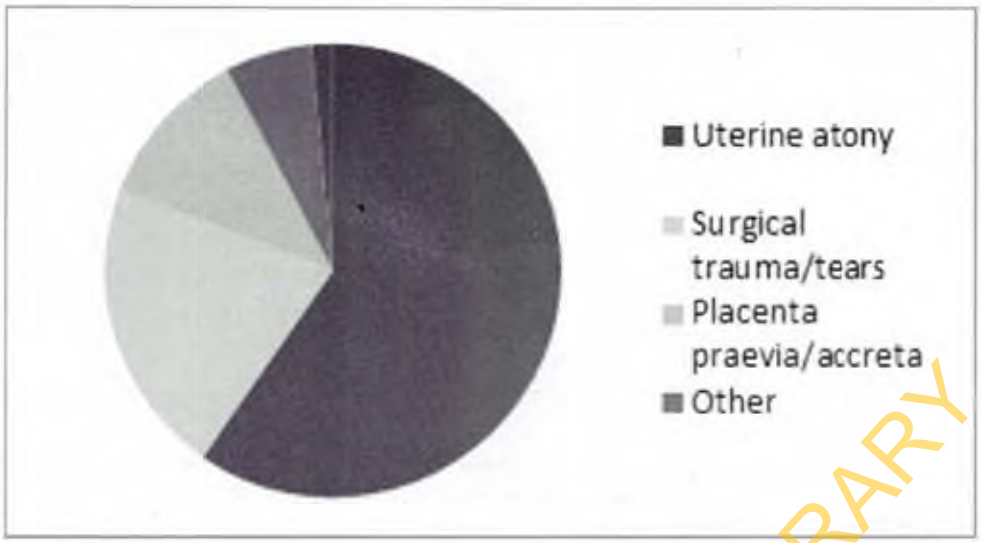
EVENT RATES

ADVERSE EFFECTS

- Less than 1% of women developed myocardial infarction, stroke or pulmonary embolism. No one had deep venous thrombosis. The data has not been unblinded or statistically-analyzed, however, thromboembolic phenomenon (an

Total Randomised	1916
Sites with Ethics Committee Approvals	111
Nigerian sites	42

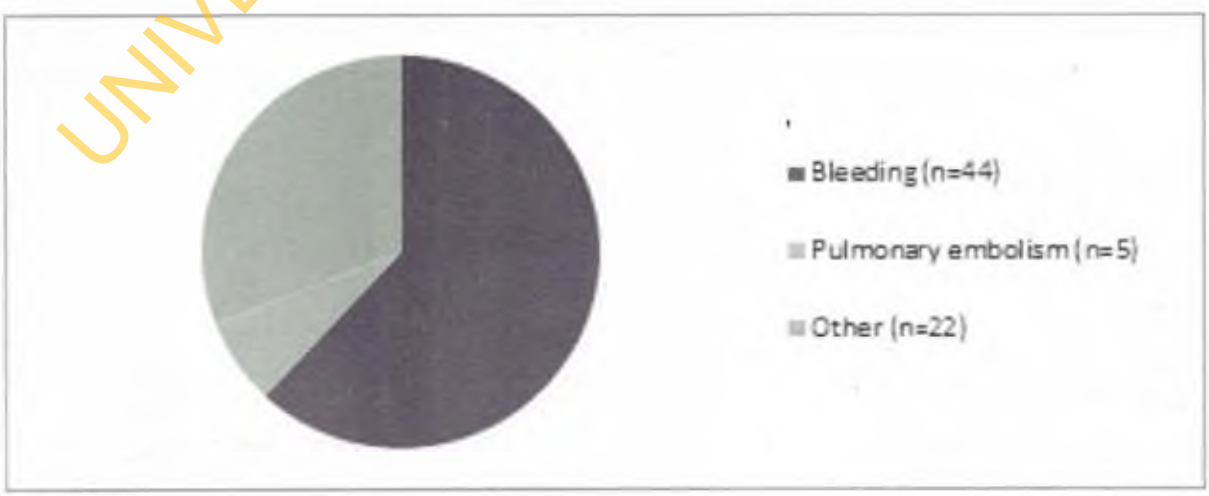
Primary cause of haemorrhage



Total Women with Follow-up = 1846

EVENT	TOTAL	%
Women who died	71	3.8%
Women with Hysterectomy	91	4.9%
Women who died after Hysterectomy	14	0.7%
Overall event rate		8.0%

Cause of death



anticipated complication of anti-fibrinolytic use) does not appear to feature much in this series.

CONCLUSION

- The results and outcome of this study may proffer an affordable, safe treatment option for the management of postpartum haemorrhage. This may limit use of blood transfusion, hysterectomy and mortality in these patients. Result analysis is awaited with interest.

REFERENCE

Women trial site: http://www.womantrial.lshtm.ac.uk/

PL-027

QUALITY IMPROVEMENT OF ANTENATAL CARE SERVICES THROUGH THE USE OF STANDARD BASED MANAGEMENT AND RECOGNITION APPROACH IN SELECTED HEALTH FACILITIES IN AKWA IBOM STATE OF NIGERIA

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[1]Jhpiego Nigeria, [2]Community Partners for Development (CPD), [3]Bloomberg School of Public Health, Johns Hopkins University

BACKGROUND

- According to the 2008 Nigeria DHS: 58% of women receive some antenatal care (ANC) services from a skilled provider, Most commonly from a nurse or midwife (30%) or a doctor (23%). Only 31% of women in the Northwest zone receive any ANC from a skilled provider compared with 87% of women in the Southeast and Southwest zones and 69.8% from Southsouth. More than one-third of women (36%) received no antenatal care.
- Quality of care received during ANC visits has remained sub-optimal : Only 54% of women took iron tablets or syrup during their last pregnancy; 10% took intestinal parasite drugs. 61% were counseled about the danger signs in pregnancy and childbirth. Only about half of women's most recent births were protected against neonatal tetanus
  - Jhpiego-EM project is **strengthening delivery of MIP services** at 15 ANC clinics in 4 LGAs of Akwa Ibom State. Project **started in 2007**
  - Jhpiego is using a **2-pronged approach**: Community directed interventions (CDI), and Use of standards based management and recognition approach (SBM-R) to improve quality of services in project ANC clinics

QUALITY IMPROVEMENT PROCESS:

What is SBM-R

METHODS

15 PHCs were selected from 4 LGAs

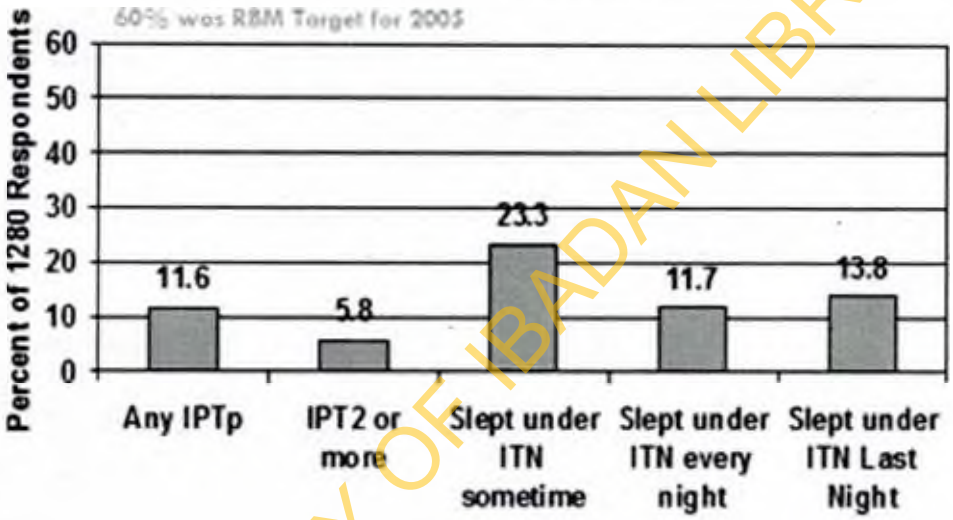
- The National EmONC performance standards for PHCs was used to determine institutional compliance with set standards. 16 of those standards are related to Focused ANC, and each of **the 16 standards had between 2 and 23 verification criteria, which** had to be met before the standard could be described as achieved.
- After each assessment, **performance gaps were identified; analyzed and appropriate solutions were**

Akwa Ibom State, Nigeria: Year Round Malaria Risk

Jhpiego-ExxonMobil Project
Use ANC as a Delivery Platform for MIP

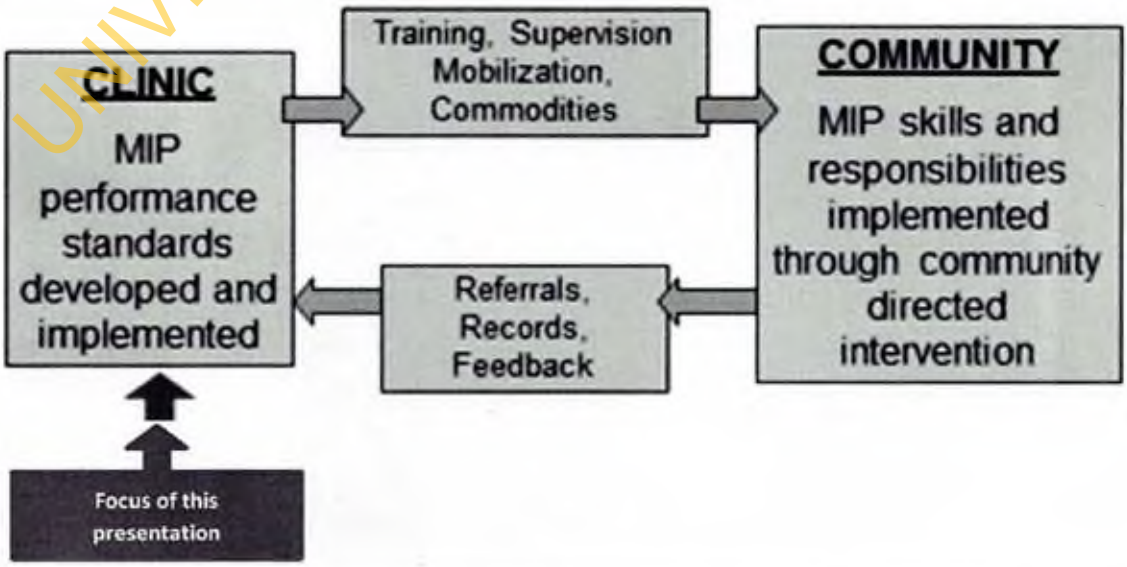
Akwa Ibom State has 31 LGAs, Jhpiego works in 4

Baseline in 2007: MIP Indicators during Last Pregnancy in Akwa Ibom State



All Local Governments

Nigeria MIP Partnership Concept and Project Design



implemented as needed. In all, 1 baseline and 5 follow-up assessments were conducted at 3-monthly intervals between 2009 and 2011.

RESULTS

Findings: Compliance with Total EmONC and ANC Standards in Intervention Sites

- At baseline, only 2 out of 16 standards were achieved. These were: Asking clients for personal and social history

Standards Based Management and Recognition Approach

- SBM-R is a collaborative process
- Assessments are both external and internal assessments
- Assessments lead to action plans
- Plan implementation leads to measurable progress

- **SBM-R is a practical management approach** for improving the performance and quality of health services.
- **It consists of systematic, consistent** and effective utilization of **operational performance standard** as the basis for the organization and functioning of these services, and the **rewarding of compliance** with standards through recognition mechanisms.

National Performance Standards for Emergency Obstetric and Newborn care

THEMATIC AREAS	PHC	Hospitals
1. Focused Antenatal Care	16	16
2. Pregnancy Complications	20	25
3. Labor, Delivery, Postpartum, and Newborn Care	27	27
4. Postnatal Care for Mother and Newborn	23	23
5. Support Services	13	24
6. Information, Education, and Communication	10	10
7. Human, Physical, and Material Resources	26	26
8. Management Systems	14	14
9. Infection Prevention	25	34
Total Number of Standards	**173**	**199**

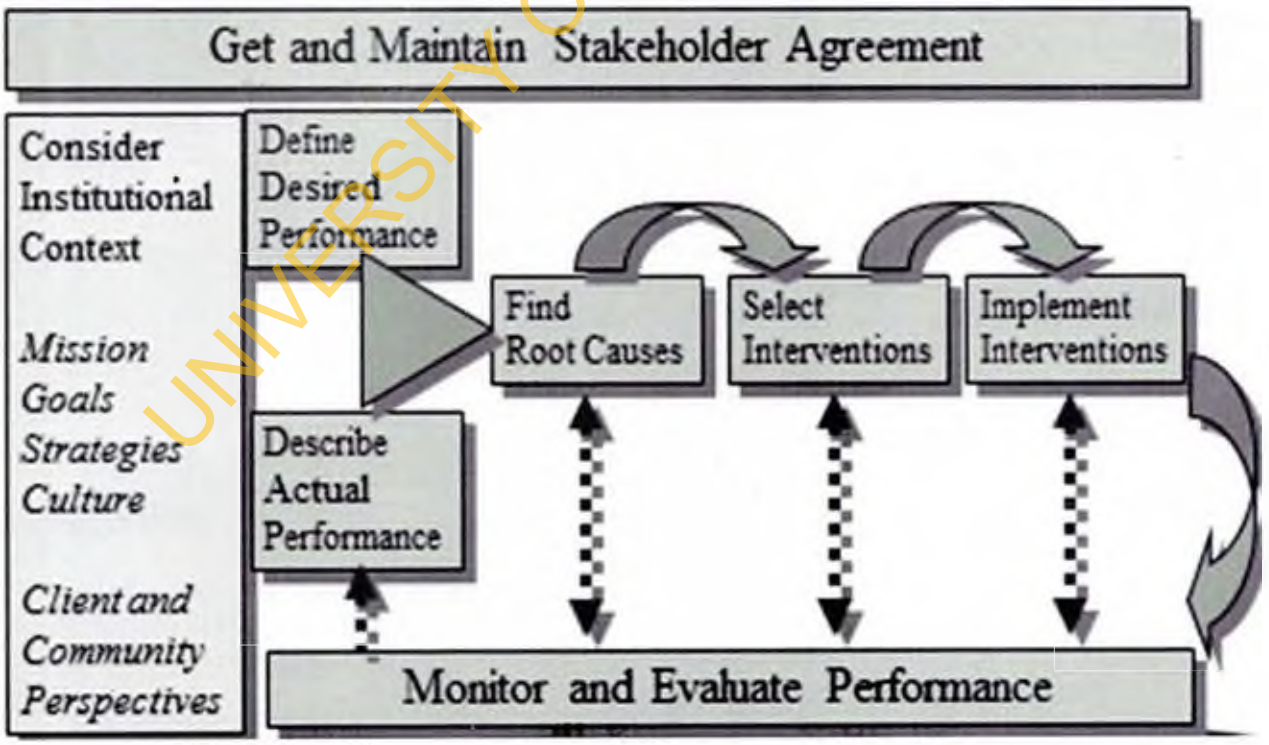
Example of an ANC Standard: Standard for cleanliness

Performance Standard	Verification criteria	Scoring (Y, N, NA)
1. The antenatal clinic is clean.	**When visiting the ANC, observe for the absence of stains of blood, vomiting, sputum, dust, soil, trash and cobwebs in the following sites:** • Floors • Walls • Windows • Examination tables • Countertops • Shelves • Trolleys • Bathrooms	 — — — — — — —

EXAMPLE #2:
Standards for ANC equipment and infrastructure

The physical structure and furniture/ **equipment in the ANC meet set standards.**	**Verify in the ANC clinic if:** • There is a sink with running water for hand washing by providers • There are working toilets for providers • There are working toilets for patients/clients • There are plastic containers with 0.5% chlorine solution for decontamination of soiled instruments in the procedure areas • There are puncture-resistant containers to dispose of sharps in the procedure areas • There are containers with leak-proof plastic bag for medical waste • There is an instrument "clean-up" area with a sink with running water

Performance Improvement Framework



and Obtaining obstetric history

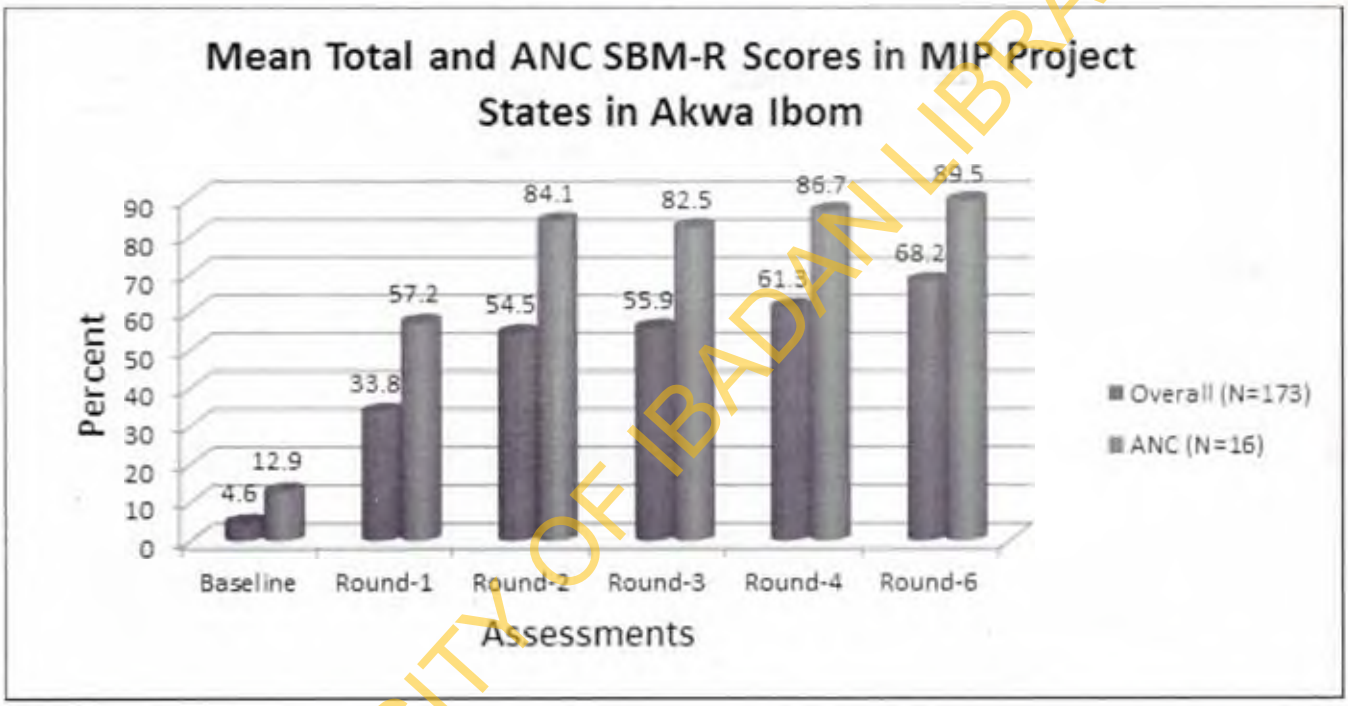
- Standards that were consistently met overtime included conducting: A rapid initial evaluation of pregnant women at the first contact, Receiving and treating pregnant woman cordially and respectively and taking medical history

OTHERS STANDARDS MET INCLUDE:

- Conducting a general physical and an obstetric examination, Properly conducting an individualized care based on findings and protocols, evaluation of care and planning return visits. Managing uncomplicated, and moderate anemia according to the national guidelines while referring clients with severe malaria and severe anemia to the hospital for specialist care.

SAMPLE INTERVENTIONS

- Orientation of staff to focused antenatal care (FANC), procurement and distribution of HemoCue blood analyzers, VDRL and urinalysis test kits to facilities, Procurement of RDTs for malaria. Training of staff to use the test kits
- Identification, training and deployment of volunteers as community directed distributors (CDDs) to distribute ITNs,



Note: All project inputs were focused on strengthening ANC as a platform for the control of malaria in pregnancy (MIP).

provide IPTp medications and refer clients to the ANC for other services

CONCLUSION

- The systematic application of the national EmONC performance standards can lead to an improvement in the quality of antenatal care services over time. Identified performance gaps are analyzed and used to develop action plans in conjunction with facility managers and other stakeholders leading to implementation of solutions that address the gaps. The authors recommend that more health facilities should use the standards as a management tool for quality improvements of their facilities. Governments at all levels should use the tool for their oversight functions.

Examples Of Persistent Gaps Across Health Facilities

- Standard: The provider provides HIV testing and counseling according to the national protocol:
- Standard: Assessing and managing clients according to HIV and Syphilis test results.
  - Causes of gap
    - No HIV testing and counseling or VDRL done due to
    - *Lack of HIV test kits*
    - *Lack of VDRL test kits*

- Standard: The provider requests laboratory tests according to the national ANC package
  - Causes of gap
    - *Lack of:*
      - *Equipment to estimate hemoglobin (HemoCue Blood Analyzers)*
      - *Rapid diagnostic test kits (HIV, Malaria)*
      - *Urinalysis test kits for albumin*
      - *VDRL kits to determine syphilis status*

PL-028

MEDICAL STUDENTS' CHOICES OF POSTGRADUATION SPECIALTY IN THE GAMBIA: THE NEED FOR CAREER COUNSELLING

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INTRODUCTION

- Need to understand medical students' specialty preferences. Can affect their learning and academic performance. Helps ensure optimal spread of personnel across faculties. Factors affecting preferences are country – specific, occur through medical socialization (Linzer et al 1994, Apker and Eggly 2004, Wright et al 2004), social and societal values (Gorenflo et al 1994, Lambert et al 1998, Saigal et al 2007), personality (Pawelczyk et al 2011), sex (Dorsey et al 2005) . These preferences exhibited by medical school applicants also (Colwill 1992, McManus 1996)
- Specialties differ by demands and long term commitment, intellectual ability, manual skill and work environment. Individuals vary by aptitudes, interests, abilities, and personalities. Choices are first negatively derived – careers rejected due to lack of desired attributes (Stern and Lint 2011). Second stage is that of compromise (Schwartz 2004). Early choices important (Colwill; Zeldow et al 1992). Guidance and counseling at this stage averts later time wasting (Edwards et al 1997, Stern and Lint 2011). Only few medical schools in developing countries have these services

AIM AND OBJECTIVES

- To determine career preferences of medical students at SMAHS, University of The Gambia (UTG), To determine factors influencing career decisions and to inform on the need for career counseling

MATERIALS AND METHOD

- University of The Gambia, Banjul established in 1999. Has graduated 3 batches. Most lecturers are expatriates.
- Study population – 202 students in premedical, preclinical and clinical classes. Response rate 52.4%. Self-administered, structured questionnaire requesting sociodemography, specialty choice, factors affecting choice (in Likert ranking order) and opinion on establishment of career counseling services. Done between June and July 2011. Ethical approval from Joint Research & Publication committee of SMAHS, UTG.

RESULTS

Sociodemography. **Table 1.**

1.	Mean age	24.1±5.0 years	
2.	Female: Male	54.7%:45.3%	
3.	Muslims: Christians	72.7%:27.3%	
4.	Gambians: Non Gambians	77.0%:23.0%	p = 0.4136
5.	Mean age of respondents' fathers	58.5±8.7 years	
6.	Mean age of respondents' mothers	49.2±9.3 years	
7.	Have a physician father	3.8%	
8.	High school attended		
	Public: Private	Female 40.8%:66.7%	
		Male 59.2%:33.3%	p = 0.0077
9.	Mothers' educational level	Female: Male	
	Nonformal	38.1%:61.9%	
	Less than High school	83.3%:16.7%	
	High school	63.2%:36.8%	
	More than High school	60.6%:39.4%	p = 0.0217

DISCUSSION

- The Gambia needs to have own lecturers / specialists. UTG medical students prefer surgery, obstetrics and gynaecology, internal medicine and paediatrics. Preference of females differs from that of males (Avgerinos et al 2006, Mariolis et al 2007, Khade et al 2008). Female choice of OBGYN similar to a study in Jordan (Khade et al 2008), different from that in Kenya (Mwachaka and Mbugua 2010)
- Male's lack of preference for OBGYN similar to study in Kenya (Mwachaka and Mbugua 2010), different from that in Nigeria (Makama and Ameh 2010). Long standing Public Health school may account for the unusual third choice by males. Factors influencing choice are diverse (Zarkovic et al 2006, Saigal et al 2007) and gender – specific (Khade et al 2008). Surprisingly, high income was not important. Mentor emulation very important to males

CONCLUSION

- Need for early career counselling and guiding of students to ensure even distribution of specialists. Need for

Specialty Choices **Table 2.** Specialty Preferences Among Medical Students by Gender and Ranking of Choices

	Female (n=58 54.7%)								Male (n=48 45.3%)							
Total (n=106)	Total		First Choice		Second Choice		Third Choice		Total		First Choice		Second Choice		Third Choice	
Variable	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Surgery	33	56.9	13	21.4	9	15.5	11	19.0	33	68.8	17	35.4	9	18.8	7	14.6
Obstetrics and Gynaecology	43	74.1	21	36.2	14	24.4	8	13.8	22	45.8	3	6.3	11	22.9	8	16.7
Paediatrics	34	58.6	12	20.7	16	27.6	6	10.3	21	43.8	2	4.2	11	22.9	8	16.7
Internal medicine	24	41.4	6	10.3	9	15.5	9	15.5	39	81.3	17	35.4	12	25.0	10	20.8
Psychiatry	2	3.4	0	0.0	1	1.7	1	1.7	4	8.3	2	4.2	0	0.0	2	4.2
Orthopaedics	3	5.2	0	0.0	0	0.0	3	5.2	4	8.3	0	0.0	0	0.0	4	8.3
Ophthalmology	4	6.9	0	0.0	0	0.0	4	6.9	1	2.1	0	0.0	0	0.0	1	2.1
Dermatology	4	6.9	0	0.0	2	3.5	2	3.5	2	4.2	1	2.1	0	0.0	1	2.1
Anaesthesiology	4	6.9	1	1.7	0	0.0	3	5.2	2	4.2	0	0.0	1	2.1	1	2.1
Radiology	3	5.2	2	3.5	0	0.0	1	1.7	3	6.3	1	2.1	1	2.1	1	2.1
Public Health	15	25.9	3	5.2	5	8.6	7	12.1	8	16.7	4	8.3	2	4.2	2	4.2
Family Medicine	4	6.9	0	0.0	2	3.5	3	5.2	3	6.3	1	2.1	1	2.1	1	2.1
Basic sciences	0	0.0	0	0.0	0	0.0	0	0.0	2	4.2	0	0.0	0	0.0	2	4.2
Ear, Nose, and Throat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Factors Influencing Career Selection **Table 3.**

Factor (top three)	**Female**	**Male**	**p value**
1. Focus on urgent care	65.5%	50.0%	0.1884
2. Intellectual content	56.9%	60.4%	0.5619
3. Interest in research	53.5%	45.8%	0.8909
4. Physician/patient interact	53.5%	33.3%	0.2233
5. Individual's competencies	48.3%	50.0%	0.7394
6. Lack of specialist there	43.1%	45.8%	0.5427

Factor (significant, p)	**Female**	**Male**	**p value**
Duration of residency (being significantly not contributory)	25.9%	6.3%	0.0050
Mentor emulation	24.1%	35.4%	0.0383

Table 4. Distribution of responses on the need for career counseling among students

		Female Yes	Male Yes
1.	Do you have career counselling unit in your university?	3.5%	6.3%
2.	Do you think there is a need for career counselling in your medical school?	100%	100%
3	Have you ever received career counselling	29.3%	22.9%

students to avoid time wasting in choosing careers. Encouragement of students by the government of The Gambia to choose less preferred areas.

PL-029

IDIOSYNCRASIES IN OBSTETRIC PRACTICE: ETHICAL ISSUES AND LITIGATION

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BACKGROUND

Ethics: Medical doctors have the obligation to enhance the wellbeing of persons by acting positively on their behalf and, moreover, to maximize the benefits that can be obtained. (Beneficence). They are also obliged to minimize harm resulting from their care. (Non- Maleficence

Litigation: History taking is a fundamental step in the management of patients and a history of allergic reactions is a part of a patient's past history. Violation of non-maleficence is the subject of medical malpractice litigation.

Contact dermatitis: Contact dermatitis is part of everyday life and medical practice. Plaster reactions are seen in patients,

however information on health care givers steps to mitigate the effects of this plaster reaction is rather scanty. Cutaneous reactions to plaster even though not life threatening constitute morbidity and causes undue discomfort. The issue of litigation in these cases should not be neglected; since the patient has every right to demand proper care and seek redress.

OBJECTIVE

- To present the case of a multiparous parturient with cutaneous reactions (allergic contact dermatitis) to plaster and highlight the ethical and medico-legal issues thereof.

MATERIALS AND METHODS

- Report of a rare case of severe allergic reaction to adhesive plaster seen in a booked patient who had elective repeat caesarean section. Pictures of the cutaneous reaction to plaster and review of the literature. University of Port Harcourt Teaching Hospital (UPTH).

CASE REPORT

- Mrs MJ, 35-year-old para4 horticulturist, a B Ed graduate, who had an elective repeat caesarean section & bilateral tubal ligation for 3previous Caesarean sections at term. Good fetal outcome; 3.4kg female; Apgar Scores of 9 & 10.All previous caesarean delivery were at the UPTH
- On the first Post op day, she complained of a rash, itching, and discomfort along areas of her body in contact with plaster. This was the 3rd episode of such a reaction, the others were in 2007 & 2009; on the 5th & 3rd post op day respectively.
- On examination, an erythematous rash with blisters/bullae involved areas that had contact with adhesive plaster used in wound dressing, securing intravenous access & spinal needle puncture site.

MANAGEMENT

- She was re- evaluated, all offending plaster materials were thus removed from her and the use of topical corticosteroid and anti inflammatory creams were commenced. She subsequently did well and she was discharged home on the 4th postoperative day.
- Allergic contact dermatitis (ACD) is a delayed type of induced sensitivity (allergy) resulting from cutaneous contact with a specific allergen to which the patient has developed a specific sensitivity. Causes inflammation of the skin

Figure 1: Plaster reaction on Mrs. M J's hand

Figure 2: Plaster reaction on Mrs. M J's hand

Figure 3: Plaster reaction on Mrs. M J's hand

Figure 4: Plaster reaction at site of CS Wound

Figure 5: Plaster reaction at site of CS Wound

Figure 6: Deliberate eliciting of reaction

Figure 7: Deliberate eliciting of reaction

Figure 8: Site of spinal needle puncture

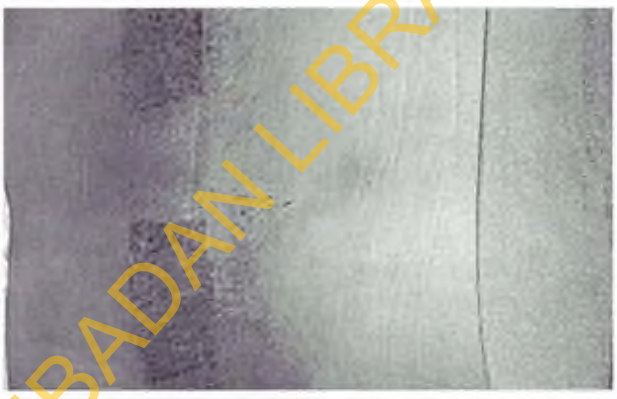

Figure 9: Site of spinal needle puncture

manifested by varying degrees of erythema, edema, and vesiculation

- Adequate and detailed history taking is essential for the proper management of patients. This was the 3rd episode of Mrs MJ's reaction. It could have been more than a debilitating cutaneous reaction.
- Alternatives to Plaster dressing: No dressing, gauze dressing (crepe bandage), Use of staples and transparent dressing / Hypo – allergenic plasters
- Avoiding Medical litigation: Maintenance of high standards in daily practice, continuous training, clear communication and a signed Patient's Informed Consent Form. Appropriate documentation of any procedure carried out

CONCLUSION

- Cutaneous skin reaction, though rare, is a possibility; Doctors should endeavor to listen to their patients. The necessity of a proper history taking can never be overemphasized. Medical ethics and possible litigations can be a bedrock for proper patient management.

REFERENCES & FURTHER READING

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PL-030

INTRODUCING MODCAL CTS: A SELF PACED E-LEARNING COURSE FOR TRAINERS

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BACKGROUND

- The great meta-analysis on online learning done by the U.S. Department of Education (http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf) showed that blended learning led to better learning outcomes than purely online or face-to-face approaches. Hypothesized that the effects could be due simply to the fact that, being online, learners could access the material several times as opposed to a classroom setting where they would be exposed to the material only once
- In Nigeria, formal training in teaching skills has not been a pre-requisite for appointment to a pre-service education faculty position. Hence, many faculty staff have struggled to develop their own teaching skills, with varying results. This paper introduces a new Jhpiego e-learning product designed for self-paced learning by new or older pre-service school faculty.

MATERIALS AND METHODS

- As part of ongoing effort to maximize the flexibility, efficiency and effectiveness of training systems, Jhpiego has developed and introduced a new Training Skills course which uses a combination of self-paced learning, delivered via *ModCAL® (Modified Computer Assisted Learning) for Training Skills*, and **individual coaching by a master trainer**.
- **ModCAL® for Training Skills** uses an interactive multimedia format to help learners become more effective pre-service faculty or in-service trainers.
- ModCAL provides knowledge updates, training skills demonstrations and exercises to develop training competencies.

LEARNING PLATFORM

- One (1) introductory module and eight (8) primary modules. Has been field-tested in several countries across Africa and Asia, and may be used as a complement to both traditional and innovative training models.
- **Primary Modules**: Principles of training, Effective facilitation skills, Developing competency, Facilitating in the classroom, Facilitating in the clinical setting, Assessing competency, Supporting the learner and Managing training

Module One: Principles of Training (Definition of competency (Slide 4), Types of learning activities (Slide 6),

Apprenticeship theory (Slide 9), Cognitive apprenticeship (Slides 11 and 12), Group dynamics, Additional information on job performance factors and use of standards with training (Slides 14 to 16), Overview of the training process (Slide 17), Training approaches (Slide 21), E-learning or use of technology in learning (Slides 22 to 25)

Module Two: Effective Facilitation Skills (Positive learning environment, Use of audiovisuals, Facilitation process and Planning and organization)

Module Three: Developing Competency (Summary of how knowledge, skills and attitudes are developed during training (Slides 3 and 4); Summary of common process for developing different types of skills (i.e., the same basic process applies to all) (Slide 10); Video demonstrations (Slides 13, 15); Hyperlinks to tips for developing each type of skill (Slide 17) &Clinical decision-making, includes video mini-lectures and tips for developing this critical skill (Slides 20 to 28))

Module Four: Facilitating in the Classroom (Includes a review of tips for types of activities and video demonstrations)

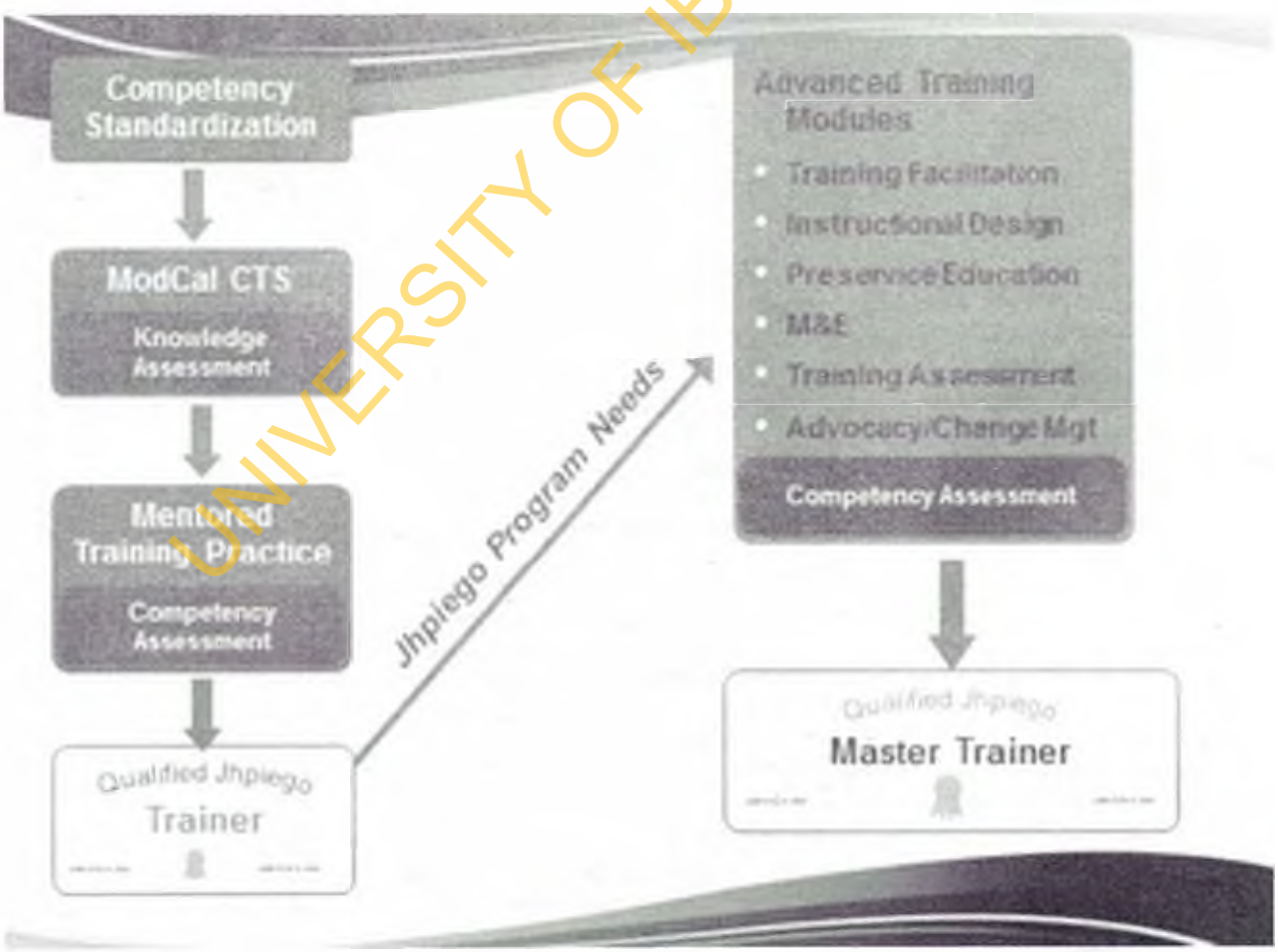
Module Five: Facilitating in the Clinic (Information on planning for clinical practicum, facilitating in the clinic for preceptors, documenting clinical experiences for training or in pre-service settings. Incorporates content from the WHO's Effective Teaching Skills manual. Video demonstrations and mini-lectures.)

Module Six: Assessing Competency (Information on formative and summative assessment (Slides 5 and 6); Information on use of case logs/logbooks, portfolios, record review, etc.; more detail on determining qualification; Assessment in clinical training (Slide 13) and Includes tools used for skill assessment in pre-service settings (Slide 18 to 25))

Module Seven: Supporting the Learner (Focus on using standards, performance factors, etc.; more on transfer-of-learning).

Module Eight: Managing Training: Preparing for components of training (Slide 5); Video demonstrations for getting started on Day One (Slide 14); Information on post-training debriefs (Slide 19) and Roles in training (Slide 20))

Practice and Assessment: After completion of ModCAL for Training Skills, practice and assessment may be provided in a variety of ways using the *Training Skills for Health Care Providers, Facilitator's Guide* for guidance. Key training resources are also provided in the resources section of ModCAL. ModCAL® for Training Skills is available on flash drive or may be downloaded at: http://modcal.jhpiego.org/



What does a 'blended learning' approach mean? A blended learning approach combines a mix of training delivery methodologies. Such as reading a manual, completing exercises and then attending a group-based course. Or completing some type of technology-assisted learning combined with another form of training or practice. Let's what exactly is involved in a blended learning approach to the CTS, and how ModCAL fits into it. *(provide handout of training pathway overview and talk through the following points)*. Trainer selection requires candidate trainers to be clinically proficient, motivated to train others and afforded the opportunity to use their new training competencies. *(review competencies)*. Competency standardization (standardization of the related CLINICAL competencies-such as IUD insertion, or male circumcision...)is the first step on the trainer development process. Although standardization can be implemented in a variety of ways, its goal is always the same—to ensure that candidate clinical trainers are "on the same page" about how to TEACH skills. This is especially important for psychomotor and clinical decision making skills.

Candidate trainers complete the Jhpiego Clinical Training Skills using a self-directed Modified-Computer Assisted Learning (ModCAL®) via flash drive. The ModCAL CTS provides flexible, high quality training via the computer promoting the knowledge, skills and attitudes associated with the desired trainer competencies. After completion of ModCAL, practice and feedback in training skills is provided. It may be provided in a group, on-the-job, or during co-training.

Mentored Co-Training is the final step in trainer qualification. Candidate trainers who have completed the ModCAL CTS are assigned to train with an advanced or master trainer, who will demonstrate and coach them in essential training skills. The candidate and mentor will work together to assess the candidate's training competency. New trainers having mastered the Jhpiego training core competencies will be qualified by Jhpiego.

This process of competency standardization, completing ModCAL CTS, having an opportunity for practice, feedback and assessment of competency is Jhpiego's version of a training of trainers, commonly called a TOT. The CTS course is the entry level process required in trainer development. Effective training systems need many clinical trainers, and fewer advanced or master trainers who have additional skills.

Qualified trainers who have completed any advanced training module in any order will be considered an advanced trainer. Advanced trainers will be expected to mentor new trainers in the skills that they have mastered, while taking progressive technical leadership for training related projects. Once qualified, depending on interest and program needs, trainers may complete all the advanced training skills modules and qualify as a Jhpiego Master Trainer. *(use a flipchart to graph out how the trainer focuses on training the provider, the client-provider interaction, and client safety, and how the trainer of THAT trainer, mentors and focuses on the new TRAINER, and their interaction with the provider, and with the client-provider and trainer interaction, and client safety)*

Let's look at more detail at how practice opportunities might be provided with the CTS.

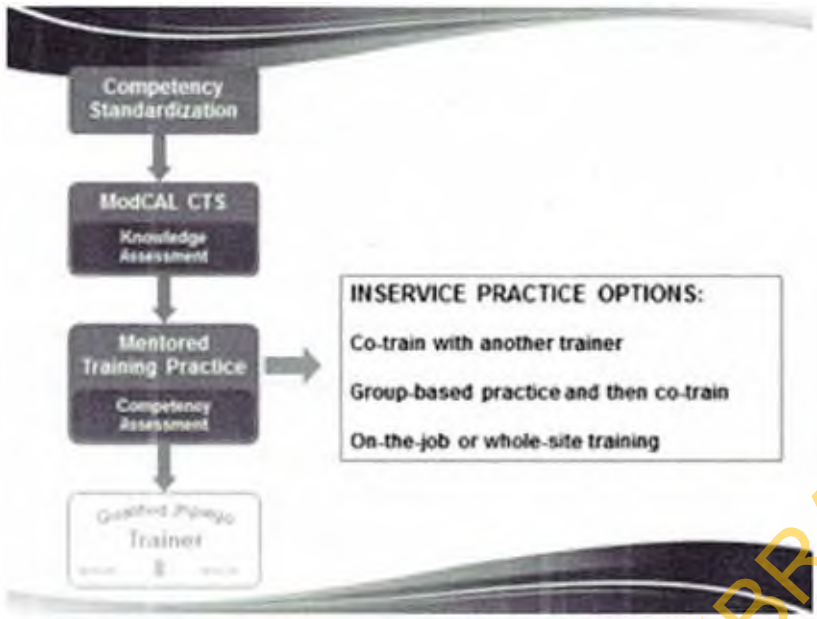
	Knowledge	Skills	Attitudes
Facilitation	• Reading • Exercises • Lectures	• Video demo • Live demo	• Reading • Self-reflection or professional ethics exercises
Formative Assessment	• Quizzes • Case studies • Exams	• Practice on anatomic models • Assessment in simulation	
Application and Summative Assessment	Co-training, behavior modeling, assessment with clients		

Let's look at this another way...no matter which approach is used in trainer development, this table outlines the process of competency development, and the different ways to facilitate learner development, assessment and application of knowledge, skills and attitudes.

Grey shaded-may be met through technology-assisted learning-or in a group-based, traditional course. In Pakistan, faculty completed ModCAL on their own, in Tanzania, they used a group-based approach, and learner's completed ModCAL at computer stations (with headphones) and would complete a module, then have a practical activity. If your program decides to use ModCAL in this way, ensure you apply the Jhpiego approach-knowledge transfer, then immediate application, rather than having learners complete all of ModCAL and then practice.

Formative assessment-whether done in a group-based practice session, or in a one-day prep session before a co-training (if group-based practice not provided), training skills and learning needs should be assessed in simulation before trainers co-train

Application and summative assessment-your decision about if the trainer has achieved the competencies, occurs during co-training. This is also the critical time to model behavior, a power way to impact attitudes and behaviors.



LET'S LOOK IN MORE DETAIL AT THE OPTIONS FOR PROVIDING PRACTICE AND FEEDBACK FOR IN-SERVICE TRAINERS.

- Co-Train a skills course with another trainer: Preferably you will have the opportunity to directly apply your skills and be mentored by an advanced or master trainer. Additional guidance on this experience is provided in your Learner's Guide. We are testing this in Swaziland, and are interested in obtaining additional input on what is required programmatically and in which type of circumstances this is effective.
- Attend a group-based practice session and then co-train a course. In some programs, you may come together for a group-based session to practice your skills and receive feedback before you co-train a course. This is the approach we are advocating until we obtain more input on moving directly to co-training.
- Co-train a whole-site or on-the-job training course with the mentoring of an advanced or master trainer. This is always a part of it.

If your program is interested in targeting co-training, and not conducting a group-based course before co-training, there are some important considerations. You need some means to assess training skills and the candidate trainers' readiness in simulation before the co-train. Suggested tips are to: (*review bullets*). Please let GLO know if you are interested in testing this methodology, we would like to gather additional information on how to make this approach successful. Now that we've talked about INSERVICE trainer development, let's look how you can use ModCAL CTS for Preservice faculty and tutors.

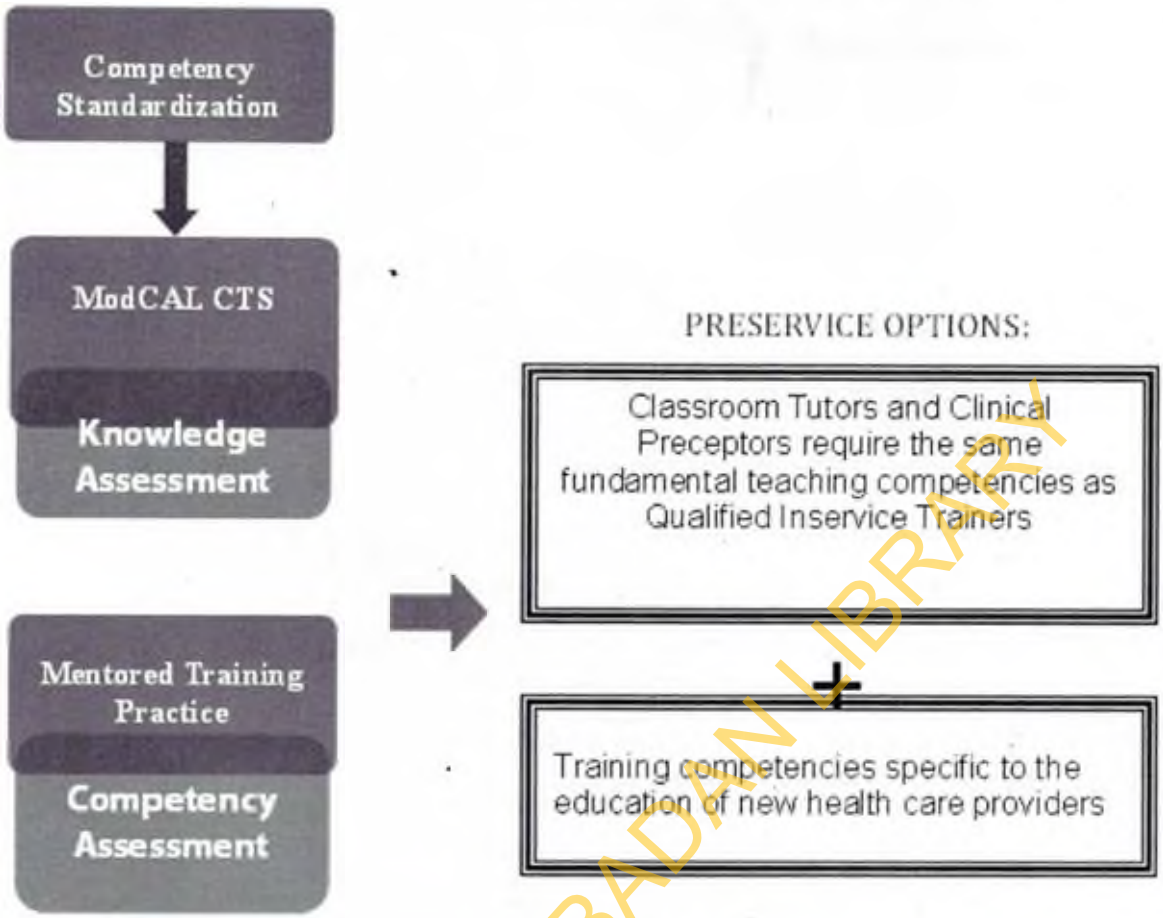
The classroom tutor educating physicians, nurses, midwives or any other cadre of health care provider share the need for the same fundamental set of competencies as the qualified inservice trainer. The SAME ModCAL CTS used to prepare your trainers can be used to prepare or strengthen these essential preservice providers. Once tutors have successfully completed the ModCAL and completed a period of mentored practice working with students in the classroom, skills lab and clinical setting, they can then be more fully prepared for their role using specific preservice learning resource packages such as Effective Teaching Skills, Student Performance Assessment or Learning Technology Development. Likewise, preceptors who are responsible for facilitating the development of competencies in the clinical facilities can also use the same combination of the ModCAL CTS and mentored training practice with students for this purpose.

CONCLUSION:

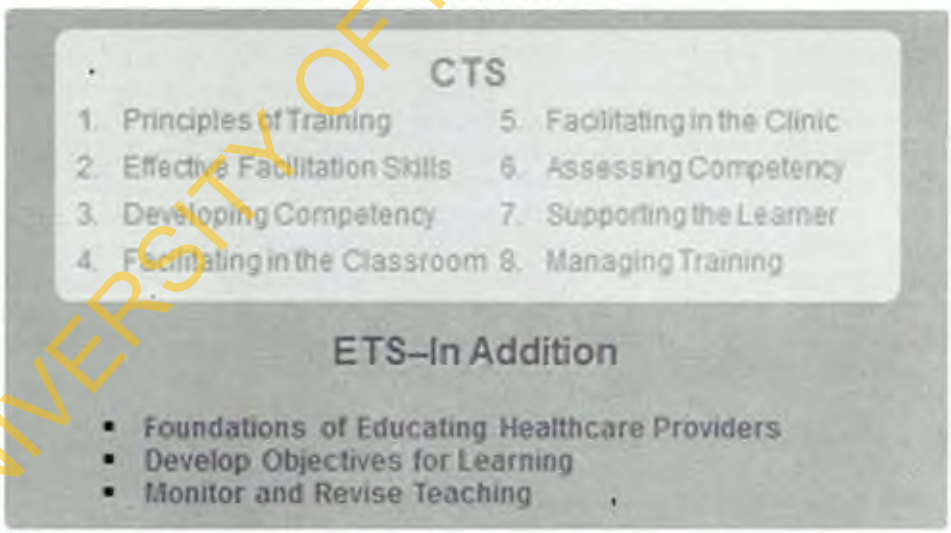
Jhpiego's *ModCAL® for Training Skills* is a convenient learning resource package for the average pre-service school faculty who is in need of a self-paced update of training skills. The course can be taken online or downloaded for offline use. Candidates who successfully complete the course will be awarded a Certificate of Completion.

NO GROUP-BASED PRACTICE PLANNED?

1. Plan a one-day prep session with group of candidate clinical trainers
2. Assess training skills in simulation
3. Review learning plan and identify learning needs
4. Divide up the schedule



ModCAL CTS with ETS



PL-031

INCREASING ACCESS TO MNCH/FP SERVICES AT THE PRIMARY CARE LEVEL – BUILDING ON THE MIDWIVES SERVICE SCHEME IN SOKOTO

SHORETIRE K A FWACS,
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SOKOTO MATERNAL & NEONATAL HEALTH SITUATION (NDHS 2008)

Maternal mortality rate =545/100,000 (national) higher than 800/100,000 in NWZ states. Skilled birth attendance =4.4%. Percentage of newborn who started BF in 1hr= 38%. Percentage of pregnant women with iron supplement= 13%. Percentage of postnatal care (PNC) @ HF = 8.4%, SBA @ PNC-70%, CHEWs-14%, TBA-10% and Percentage of tetanus toxoid coverage=

Figure 2: Antenatal attendance in the facilities

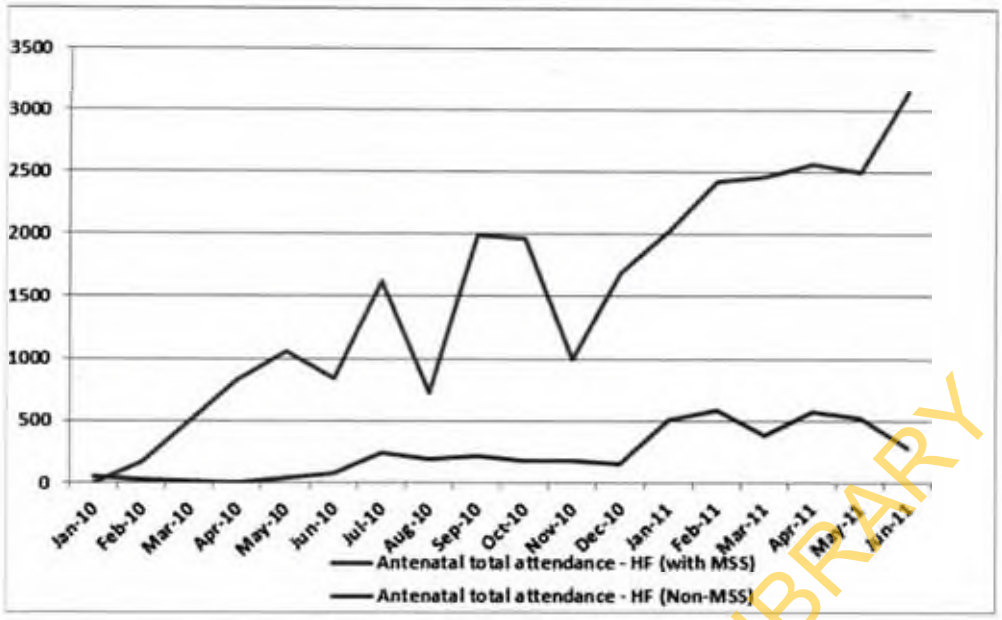
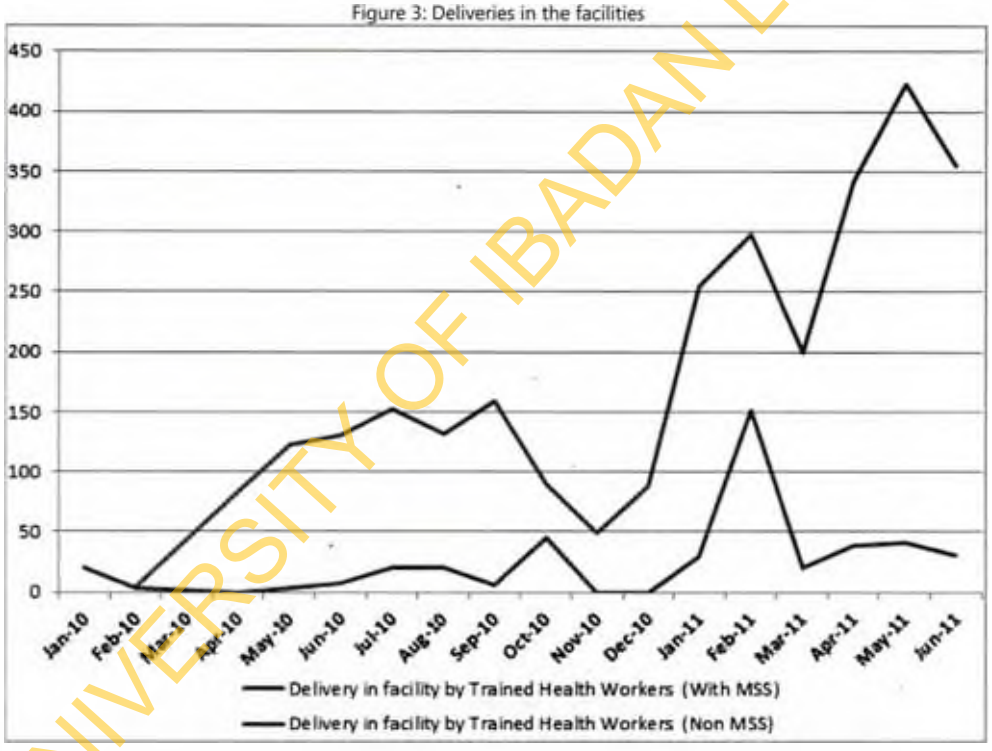


Figure 3: Deliveries in the facilities



7%.

MSS IN SOKOTO STATE:

Commenced in December 2009. About 140 midwives and 60 CHEWs posted to 9 LGAs, each LGA with a cluster of one General hospital and 4 PHCs. A PHC has at least 4 midwives/CHEWs.Trained on life saving skills in maternal and newborn health, family planning. Supportive supervision and mentoring provided through NPHCDA, SMOH, SPHCDA, TSHIP etc. Supplies and commodities fairly regular **and** community mobilized for service utilization

OBJECTIVES

To compare the antenatal attendance and delivery pattern in MSS facilities and Non-MSS facilities in the 9 LGAs of Sokoto

MATERIALS AND METHODS

Data collected over 18 month period from 39 MSS facilities and 39 Non-MSS facilities in same LGAs with similar structures, training and support. Community sensitization and education is also similar. Comparisons made on antenatal attendance, deliveries and modern contraceptive uptake in these facilities

RESULTS

- The facilities with the midwives have delivery rates approaching 400/month with a regular increase over time and that of Non MSS facilities remain less than 130 deliveries/month, which is declining over time.
- Skilled attendance in the PHCs have boosted antenatal attendance as more pregnant women in MSS communities utilize ANC (3000 vs 400) and FP (400 vs 200) services.
- There is evidence that the availability of committed midwives at the PHCs could lead to reduced morbidity as less home deliveries would occur in such community hence reducing the rate of unattended/poorly attended complications

CONCLUSION

- MSS should be supported and expanded in all rural communities to make SBA readily available. Training of more midwives should be a high priority as more LGAs and the General hospitals serving as the referral centres need more skilled attendants to provide MNH services

Figure 4: modern contraceptive uptake in these facilities

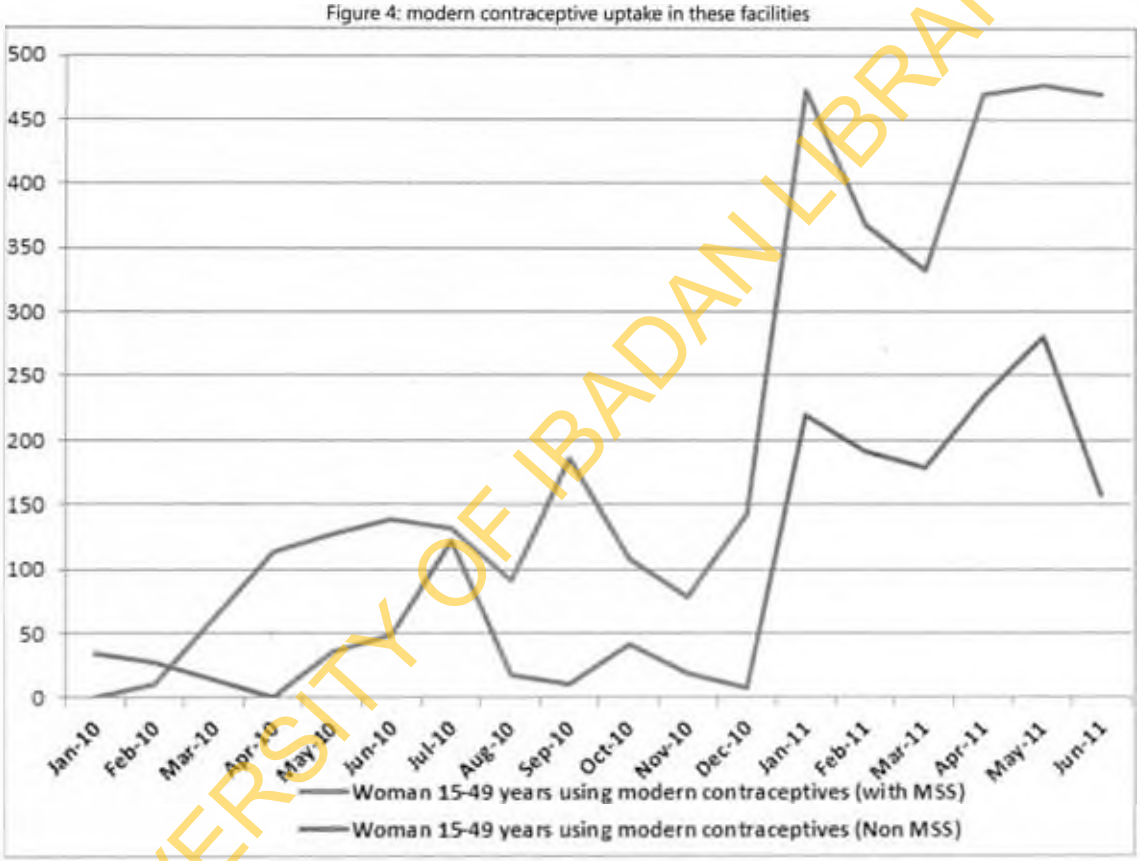


Figure 1: MSS midwives during training

PL-032

NEWBORN TRACKING BY TRADITIONAL BIRTH ATTENDANTS (TBA) IN SOKOTO: A ROLE IDENTIFICATION

SHORETIRE K A, FWACS

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TARGETED STATES HIGH IMPACT PROJECT (TSHIP)

Is a five-year project funded by the United States. Funded by agency for International Development (USAID) and implemented in Bauchi and Sokoto States. TSHIP's objective is to increase use of high impact interventions in two the states of Bauchi and Sokoto. Within the Project Objective, there are four Sub-Objectives. Strengthen state and local government capacity to deliver and promote use of high impact Maternal, Newborn and Child Health (MNCH)/Family Planning (FP)/ Reproductive Health (RH) interventions; Strengthen delivery and promotion of high impact MCH/FP/RH interventions at the primary health care facilities and establish essential referral levels; Strengthen roles of households and communities in promotion, practice, and delivery of high impact MCH/FP/RH interventions; and Improve policies, programming, and resource allocation at the state and federal levels.

SOKOTO MATERNAL & NEONATAL HEALTH SITUATION (NDHS 2008)

Neonatal mortality rate is 40/1000 (national) higher in NW and NE, Skilled birth attendance is 4.4%. Percentage of newborn who started BF in 1hr is 38%. Percentage of pregnant women with iron supplement is13%. Percentage of postnatal care (PNC) @ HF = 8.4%(SBA @ PNC-70%, CHEWs-14%,TBA-10%). Percentage of tetanus toxoid coverage= 7%. Three out of 5 sick newborns likely to die in Sokoto. There is Poor HMIS

SOKOTO NEONATAL HEALTH SITUATION

Two third of neonatal deaths in Nigeria are caused by prematurity, infections and asphyxia (NDHS 2008,Save the Children 2010). About 23,000 newborns die yearly in Nigeria (NDHS 2008,Save the Children 2010). Incubator care mainly in 2 Tertiary centres. Functional incubators in Sokoto -11 (10-UDUTH, 1-SSH). Neonatal complications **can only** be managed in UDUTH. Sokoto is yet to domesticate and implement the IMNCH Strategy developed for the country by save the children/Access, launched in 2007

OBJECTIVES OF THE INTERVENTION

To increase the coverage of immunization of children and postnatal visits soon after birth (within 72hrs) using the TBAs in LGAs with very poor statistics

To access the relevance and identify roles for the TBAs in promoting maternal and newborn health in these LGAs

Participants: Traditional birth attendants (TBAs), service providers from PHCs, and ward polio monitors

MATERIALS AND METHOD

TBAs (82) were identified by the ward development committees and recruited from the wards of 8 local government areas of the state with poorer health statistics. Training on maternal, newborn and child health needs in the community conducted: danger signs in newborn, cord care, importance of antenatal care and facility-based delivery, complication readiness and referrals. Coloured-tracking cards cards for referral of newborns and mothers to health facilities given to the TBAs. Each TBA is linked to at least one primary health care facility for referral, supervision and mentoring. Transport allowance of N2000 given monthly

RESULTS

- Over a period of 9 months, about10% of the expected newborns in these communities were tracked and the referral rates for newborns for immunization has increased and the postnatal care visits by nursing mothers have directly increased in these LGAs compared to the previous years when there was no data for such.
- TBAs are essential resource for improving newborn and maternal health in communities lacking skilled attendant when properly trained and guided as mobilisers for health. The number of labour cases referred to the facilities by the TBAs also increased and less number of deliveries are delayed or conducted by the TBAs in these wards.

CONCLUSIONS

- While home delivery remained the norm, early postnatal visits to the health facility have increased the detection of newborn problems, immunization coverage and postpartum complications. TBAs are essential resource for tracking the nursing mothers and newborns for access and utilization of MNCH services.
- Low resource states can define new roles for the TBAs to be a partner in MNCH especially in mobilization of newborns and nursing mothers

Figure 1: Causes of neonatal deaths

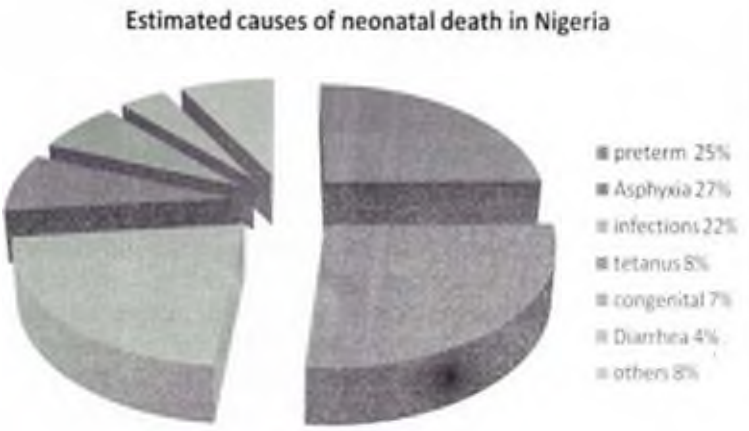
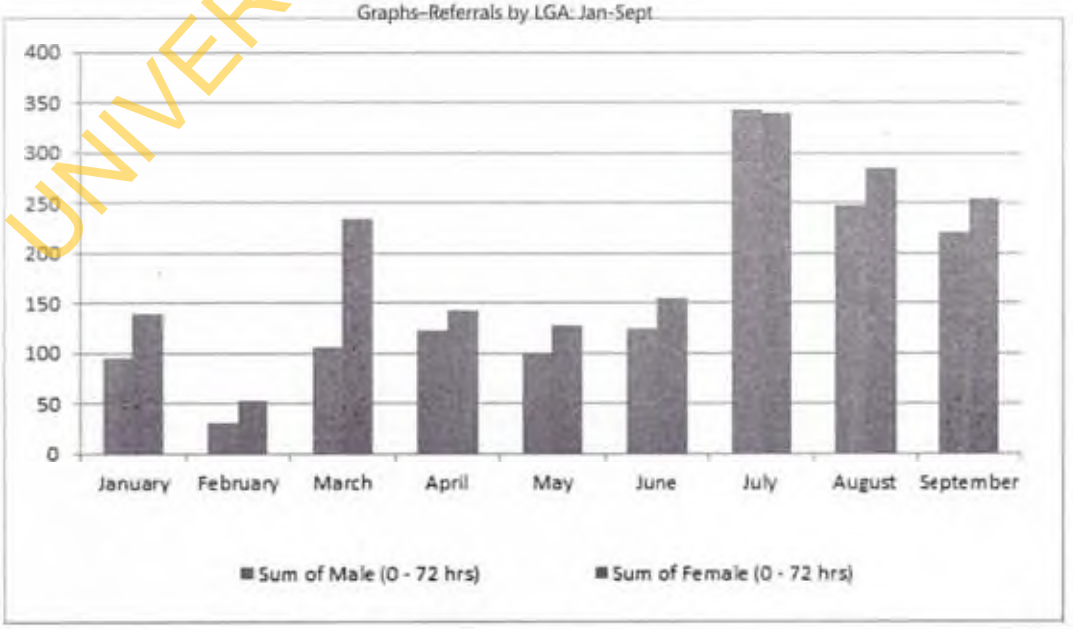


Table 1: Referred neonates from the 8 LGAs

Months	Number of newborns referred
January	234
February	84
March	340
April	266
May	226
June	279
July	682
August	534
September	475
Total for nine months	**3120 (all delivered at home)**
Estimated number of newborns	**33810 (69% of all newborns)**

Graphs–Referrals by LGA: Jan-Sept



PL-033

PERCEPTION AND ATTITUDE OF PEOPLE TOWARDS CAESAREAN SECTION IN ILE-IFE

Loto OM, Fasubaa OB, Odebiyi AI

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INTRODUCTION

- CS is often performed to save either the life of mother , baby or both.
- However is plagued by several challenges which inlcude aversion to the procedure.
- Several reports has documented that CS aversion is common in our environment (Briggs 1988, Okonofua 1992, Ezechi et al 2000)
- However majority of these studies in Nigeria are Hospital based studies thus lack generalisablity .
- As the influence of the larger society on the decision of a woman to accept or not to accept CS was not considered.
- This study was thus conducted to assesses the factors within the society that influences the non acceptance of at community level.

METHODOLOGY

- The study was carried out in Ile-Ife, with population of 355,818.
- Ile Ife provides a rich mix of culture and religion that will help to explore the effect of these on the people's attitude to CS
- A cross sectional research design using a multi-stage sampling technique was used
- Interviewer administered questionnaire (644 adults), FGD (8 sessions among pregnant women in both mission house and health facilities) and IDI (staff of health facilities and women with previous) were used to collect data from sampled population .
- While quantitative data was analysed with SPSS vs. 16, qualitative data was analysed using the ZY index tables and thereafter triangulated with quantitative data.

RESULTS

- Caesarean rejection rate : 49.8%, CS rejection rate among females: 59.4%, CS rejection rate among Males: 40.1%
- Factors associated with CS rejection: Low level of education : 87.5% , Polygynous type of marital relationship: 57.3%, Younger women not willing to accept CS when compared to older women, ($X^2 = 15.7$, $p < 0.05$).
- Factors associated with CS rejection: Muslim women were more likely to reject CS compared to Christians, ($X^2 = 6.1$, $p < 0.05$), Within christian denominations, Pentecostals and protestants are more likely to reject CS than Catholics.
- Though women of lower socioeconomic status are more likely to reject CS than more affluent counterpart , but the difference was not statistically significant $P>0.05$

CONCLUSION

- This study confirms the finding of previous studies and traced its root to the community.
- Factors associated with CS rejection include low level of education, low socioeconomic class religion and polygyny.
- The rejection were as a result of fear of death, postoperative pain, hospital cost, reduced no of children and its not being natural.

RECOMMENDATIONS

- Community Education and enlightenment, Female education, Free maternal health services, Improved counseling services during and after

ZY Index tables

Reason for not accepting CS	Pregnant women at Orthodox Medical Facilities	Pregnant Women in Spiritual Birthing Homes
Pains associated with CS	+++++	+++++
Cost of Operation	+++	++++
Fear of Death	++++	+++++
Reduced number of Children	++++	+++++
Scar in The abdomen	++	+++
It is not Natural	+++++	+++++

PL-034

HEPATITIS IN PREGNANCY: A WAKE UP CALL

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Department of Clinical Chemistry, Federal Medical Centre, Owerri

HEPATITIS

- Caused by hepatitis viruses A, B, C, D, E, Delta
- Transmission via sexual contact, blood transfusions, re- use of contaminated needle& syringes, and vertical transmission from mother to child during childbirth.
- Hepatitis B virus is more highly infectious than the HIV virus (50 to 100 times more infectious)
- The risk of vertical transmission -20%-90%
- Mother-to-infant transmission of HBV is largely responsible for the pool of chronic cases worldwide, although this route can be effectively and efficiently interrupted by the newborn HBV vaccination programme (EUROGIN 2003)
- Without intervention, a mother who is positive for HBsAg confers a 20% risk of passing the infection to her offspring at the time of birth
- More than 95% of people who become infected as adults or older children will stage a full recovery and develop protective immunity to the virus.
- However, this drops to 30% for younger children, and only 5% of newborns that acquire the infection from their mother at birth will clear the infection.
- This population has a 40% lifetime risk of death from cirrhosis or hepatocellular carcinoma.[53
- Infection is drastically reduced to 5%-10% by administering to the newborn hepatitis B vaccine (HBV 1) and hepatitis B immune globulin (HBIG) within 12 hours of birth, followed by a second dose of hepatitis B vaccine (HBV 2) at 1-2 months and a third dose at and no earlier than 6 months (24 weeks)
- With appropriate hepatitis B immunoprophylaxis, breast-feeding poses no additional risk for transmission from infected hepatitis B virus carriers

OBJECTIVES

- This study was to determine the seropositivity of hepatitis B and C viruses among antenatal attendees at the Federal Medical centre, Owerri and by extension the need for improved management options.

STUDY DESIGN

- This was a three year retrospective review of results obtained from hepatitis B and C screening among antenatal attendees within the period January, 2008 and December, 2010.

RESULTS

- Within the study period, of the 14,332 women who booked for antenatal care 32.1% screened for hepatitis B and C virus infection.
- Out of those screened, a seropositivity of 6.2% and 1.2% were found for hepatitis B and C respectively.

DISCUSSIONS:

- Uptake of screening for hepatitis viruses in pregnancy was low and this may stem from inadequate awareness created about the infection.
- Hepatitis B virus infection has been adduced more virulent than the Human immunodeficiency virus. The later is getting a lot more attention in view of maternal to child transmission despite the lower seropositivity of 4.4% at the centre during the study period and the higher virulence of hepatitis
- Screening programmes presuppose that confirmation and some treatment is possible
- HB immunoglobin and HBV vaccine is recommended(level A) yet the former costs over N80,000 for a dose and is not readily available
- Routine prenatal screening of all pregnant women by hepatitis B surface antigen (HBsAg) testing is recommended.
- Yet in this study only about a third of ANC attendees availed themselves of the test
- Concerns about stigmatization and spousal rejection should be considered while offering the tests
- Hepatitis B infection is a preventable disease, and all at-risk individuals, particularly health care workers, should be vaccinated
- Routine prenatal HCV screening is not recommended; however, women with significant risk factors for infection should be offered antibody screening
- Route of delivery has not been shown to influence the risk of vertical HCV transmission, and cesarean delivery should be reserved for obstetric indications in women with HCV infection.(level B)

RECOMMENDATIONS

- Practitioners must create adequate awareness about hepatitis infection in pregnancy
- Advocacy for VCT of HBSag in pregnancy
- Adequate counseling and management preparedness
    - To include vaccination of spouse and counselling to reduce spousal rejection
    - Advocacy for provision and subsidization of HBIg as was done for ARVs
    - Develop protocols for follow up of Hepatitis B positive mothers
    - Consider antiviral therapies like lamivudine , tenofivir to reduce viral load.
    - Follow up multicentre prospective study to see the outcome of the pregnancies so complicated by hepatitis B

PL-035

OUTCOME OF AN INTERVENTION TO IMPROVE CASE MANAGEMENT OF ECLAMPSIA IN TERTIARY HOSPITALS IN NIGERIA

Safe Motherhood Committee of the Society of Gynecology and Obstetrics of Nigeria (SOGON)
SOGON Safe Motherhood Committee
Friday E Okonofua, Adetokunbo O Fabamwo, James T Akuse Innocent O Ujah, Hadiza S Galadanci, Eric I Archibong, Calvin M Chama, Hyacinth E Onah ,Rosemary N Ogu

OBJECTIVE

- To present the findings of a multicentered research to investigate the effectiveness of an intervention aimed at improving the case management of eclampsia in six tertiary hospitals in Nigeria.

INTRODUCTION

- National statistics indicate that eclampsia is the second most common cause of maternal mortality in Nigeria, accounting for more than 20% of maternal deaths.
- The improved and standardized case management of eclampsia is one of the current unmet needs for emergency obstetrics care in Nigeria.
- A review of treatment methods usually employed by Nigerian clinicians indicates that many still use diazepam as first line regimen for the treatment and prevention of eclampsia even though magnesium sulphate has been reported to lower the risk of maternal mortality as compared to other drugs

DESIGN & SETTING

- The study was a multi-centre intervention conducted by the Society of Gynecology and Obstetrics of Nigeria (SOGON)
- Design of the study: Prospective intervention study
- Number of human subjects studied: 219
  At a clinical significant effect of 10 percent or more over 12 months would be of interest. Assuming a survival rate of 60 percent after treatment, with a significance of 0.05 and a power of 0.8, it was established that a sample size of 132 patients would be required. However, 219 eclamptic women were recruited during the period, which further increased the power of the study.
- Location: Six teaching hospitals located in the six geo-political zones of Nigeria
    - Jos University Teaching Hospital, Jos,
    - Aminu Kano University Teaching Hospital, Kano,
    - Lagos State University Teaching Hospital, Ikeja,
    - University of Calabar Teaching Hospital, Calabar,
    - University of Maiduguri Teaching Hospital, Maiduguri,
    - University of Nigeria Teaching Hospital, Enugu.

TYPES OF STATISTICAL ANALYSIS

- Simple statistics (Means, median, mode, standard deviation and percentages)
- Chi square test (with Yates correction) were used to compare proportions and percentages, with the level of significance set at $P<0.05$.

POPULATION & METHODS

- Midwives & doctors in the hospitals were re-trained to more effectively manage obstetric emergencies, and to administer magnesium sulphate in accordance with the Pritchard protocol for the management of eclampsia.

Table 1: Socio-demographic characteristics of women treated for eclampsia in the participating hospitals

	Kano	Jos	Maiduguri	Calabar	Lagos	Enugu	Total
Number of patients	45 (20.5)	22 (10.1)	57 (26.0)	46 (21.0)	31 (14.2)	18 (8.2)	219
Pregnancy duration	32 (30-38)	34 (22-40)	37 (26-43)	35 (20-40)	36 (30-40)	36 (34-42)	35 (20-43)
Eclampsia incidence, No & (%)	45/3,800 (1.2)	22/3,008 (0.7)	57/3,500 (1.6)	46/2,080 (2.2)	31/1,726 (1.8)	18/1,850 (1.0)	219/15,964 (1.4)
Age	18 (14 - 28)	24 (18 - 40)	20 (15 - 35)	24 (15 - 36)	26 (17 - 35)	24 (20-34)	24 (14-40)
Parity:							
Para 0	36 (80.0)	8(36.4)	43 (75.4)	0 (0.0)	23 (74.2)	8 (44.4)	118(43.3)
Para 1	3 (6.7)	4 (18.2)	6 (10.5)	25 (54.3)	5 (16.1)	5 (27.8)	48(21.9)
Para 2 – 4	5 (11.1)	7(31.8)	3 (5.3)	18 (39.2)	3 (9.7)	5 (27.8)	41(18.7)
Para 5–	1 (2.2)	3 (13.6)	5 (8.8)	3 (6.5)	0 (0.0)	0 (0.0)	12(5.5)

*Results are presented as numbers and percentages

TABLE 2: Mode of delivery and dosage/duration of use of magnesium sulphate

Parameters	Kano 45	Jos 22	Maiduguri 57	Calabar 46	Lagos 31	Enugu 18	Total 219
Delivery mode: Vaginal delivery (No and %)	28(62.2)	13(59.1)	45(78.9)	12(26.1)	10(32.3)	14(77.8)	122(55.7)
C/Section (No and %)	9(20.0)	6(27.3)	11 (19.3)	32(69.6)	21(67.7)	4(22.2)	85(38.8)
Delivery before Arrival in hospital	8 (17.8)	3 (13.6)	1 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	12 (5.5)
Vacuum/Forceps	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.1)	0 (0.0)	0 (0.0)	2 (0.9)
Dosage of MgSO4 (Grams)	34 (24-44)	34 (24-44)	19 (12-30)	14 (14-44)	34 (24-44)	34 (12-44)	24 (12-44)
Duration of use of MgSO4 in hours (median & range)	32 (18-42)	24 (6-48)	8 (8-26)	6 (4 -48)	30 (20-40)	24 (8-48)	24 (4-48)

Table 3: Associated maternal and perinatal outcomes

Parameters	Kano 45	Jos 22	Maiduguri 57	Calabar 46	Lagos 31	Enugu 18	Total 219
No & % of maternal deaths (Case fatality)	3(6.7)	0(0.0)	0(0.0)	3(6.5)	1(3.2)	0(0.0)	7(2.7)
Perinatal mortality ratio/1000	215	94	113	152	129	76	129.8
Infant birth weight (median & range)	3 2.6-3.8)	2.9 (1.5-4.0)	2.8 (0.7-3.6)	3 (1.2 – 4.4)	2.9 (1.4-3.9)	3.2 (2.2-4.4)	3.0 (0.7-4.4)
Incidence of low birth weight (< 2.5kg)	0/44 (0.0)	11/43 (25.6)	6/52 (11.5)	9/62 (14.5)	9/42 (21.4)	1/30 (3.3)	36/267 (13.5)
Duration of hospitalization in days (median & range)	7(4-14)	5 (1-19)	5 (2-12)	7(2-19)	6 (2-13)	4(2-8)	5.5(1-19)

Table 4: Maternal, perinatal and eclampsia deaths in study hospitals before and after intervention

Parameter	Kano 45	Jos 22	Maiduguri 57	Calabar 46	Lagos 31	Enugu 18	Total 219
Eclampsia case fatality before intervention% (1)	27.2	5.6	22.3	6.8	21.0	7.5	15.1
Eclampsia case fatality after intervention % (2)	6.7	0.0	0.0	6.5	3.2	0.0	2.7
P values (cf. 1 vs. 2)	<0.001	<0.05	<0.05	n/a	<0.001	<0.05	<0.001
Hosp maternal mortality ratio before intervention /100,000 (3)	1790	710	545	831	1,919	1400	1199.2
Hosp MMR after intervention/1000 (4)	940	204	486	940	2155	998	954
P values (cf. 3 vs. 4)	<0.000	<0.000	n/a	n/a	n/a	P<0.000	n/a
Associated perinatal mortality rate before intervention /1000 (5)	216	125	134	150	130	94	141.5
Associated perinatal mortality ratio after intervention /1000 (6)	215	94	113	152	129	76	129.8
P values (cf. 5 vs. 6)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

- Clinical records were collated in all cases of eclampsia treated in the hospitals one year after the commencement of intervention and compared with data before the intervention.

MAIN OUTCOME MEASURES

- Eclampsia case fatality rates, maternal and perinatal mortality rates before and after the intervention.

RESULTS

- 219 cases of eclampsia were treated in the six hospitals over a 12-month period.
- Six maternal deaths occurred in three centers, with none in the remaining three centers.
- The mean case-fatality rate of 2.7% was significantly less than the rate of 15.1% before the intervention ($P<0.001$). Case fatality declined in five of the six participating hospitals.
- Overall maternal mortality ratio in the hospitals declined from 1199.2 to 954 per 100,000 deliveries, while perinatal mortality declined from 141.5 to 129.8 per 1000 births. However, these later differences were not statistically significant.

DISCUSSION

- The study evaluated the effects of magnesium sulphate in improving the clinical outcomes and reducing maternal mortality in the cohort of eclamptic women.
- Case fatality rate associated with eclampsia declined in five out of the six centres, and declined significantly overall.
- No deaths occurred in Jos, Enugu and Maiduguri, while only one maternal death was seen in Lagos.
- Despite the intervention, six maternal deaths occurred in Calabar and Kano. The women who died in these two states had not received antenatal care, and had been brought from the churches and their homes where they had intended to deliver.
- All were admitted in late labour with severe complications of eclampsia, and severe organ damage.
- Thus, we believe that interventions need to focus on increasing women's access to evidence-based intrapartum care and high level specialist care that would ensure earlier diagnosis of pre-eclampsia and eclampsia, with resulting improved outcome and more effective clinical management.

CONCLUSION

- An intervention to build the capacity of care-providers to use evidence-based protocol for the treatment of eclampsia in Nigeria was successful in reducing associated case fatality rate.
- Attention to high-level integrated clinical care is required to optimize the best available clinical practices for women suffering complications of eclampsia and to reduce maternal mortality in the country.

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PL-036

DECISION-DELIVERY INTERVAL (DDI) FOR EMERGENCY CAESAREAN SECTION IN UNIVERSITY COLLEGE HOSPITAL, IBADAN

By
T. A. Tsele And F. A. Bello

INTRODUCTION

- Caesarean Section (CS) - surgical procedure with incisions on abdominal and uterine walls to deliver baby and placenta for safety and or emergency reasons.
- WHO recommends maximum CS rate as 15%1 per country
- Most countries exceed this rate2.
- High rates are associated with controversies in obstetrics3.
- Rates in US - 19704 = 5.5%, 1988 = 24.7%, 19905 = 30%,
- 2009 = 34% i.e. an increase of almost 500%

REASONS FOR INCREMENT IN CS RATE

- Repeat CS, Infertility and low parity, Medical conditions e.g. DM, PIH, Decrease in the rate of vaginal breech delivery, Decreased maternal and perinatal mortality, Non-reassuring CTG tracing, Fear of litigation, CPD from increasing birth weight, Society's low tolerance for pain, Maternal request.

DECISION-DELIVERY INTERVAL (DDI) » time between decision and delivery.

- Internationally recommended interval is '30 mins'6.
- The '30 minute' rule originated from American Academy of Paediatrics and American College of Obstetricians and Gynaecologists7.
- Controversies are associated with this rule.
- DDI for EMCS useful for auditing and clinical governance of obstetric practice.
- The American Society of Health Care Risk Management (ASHRM) » EMCS be performed quickly, dependent on institutional capabilities using a smart and diligent obstetric team8,9.

OBJECTIVES

- To determine DDI for EMCS in UCH, Ibadan.
- To determine effect of DDI on perinatal outcomes (especially if longer than 30mins).
- To determine factors causing delays in intervention.

METHODOLOGY

- Prospective Observational Study
- All EMCS performed at the UCH, Ibadan between 01/09/2010 and 30/11/2010.
- Data entry pro-forma filled byan observer not working in labour ward

MAIN OUTCOMES MEASURED WERE:

- Indication for the caesarean section, The decision-baby delivery interval. Presence of Paediatric resident , 1-min and 5-min Apgar scores, Newborn admission to special care baby unit ,Perinatal death, Type of anaesthesia, Grade of the surgeon, Time of the day and day of the week when surgery was performed, Reasons for delay in decision - delivery interval beyond 30 min.

RESULTS OF STUDY

During the period of study, 01/09/2010 to 30/11/2010

- Total of 662 deliveries, with 327 cases (49.4%) of caesarean sections. EMCS were 250 cases (76.45%) and 77 cases (23.55%) were ELCS.

Demographic Characteristics (Table 1)

- Mean age 29.8 ± 0.64 (range 16 – 42 years)
- Mean parity 1.4 ± 0.18 (range 0 – 6).
- Mean gestation age at delivery 37.7 ± 0.5 (range 28 – 42 weeks).
- Booked patients were 98 (39.2%), 152 (60.8%) were unbooked.

Table 1: Summary of the frequency of the demographic variables

TYPE OF ANAESTHESIA

Table 1: Summary of the frequency of the demographic variables

	Characteristics	Frequency	Percentage
Age (years)			
	< 20	10	4
	21 - 25	41	16.4
	26 – 30	86	34.4
	31 – 35	78	31.2
	36 – 40	33	13.2
	> 41	2	0.8
	TOTAL	**250**	**100%**
Parity			
	0	118	47.2
	1	51	20.4
	2	37	14.8
	3	24	9.6
	4	13	5.2
	5	6	2.4
	6	1	0.4
	TOTAL	**250**	**100%**
Gestation Age (wks)			
	⩽28	5	2
	29 – 32	10	4
	33 – 36	45	18
	37 – 40	120	48
	>40	70	28
	TOTAL	**250**	**100%**
Booking status			
	Booked	98	39.2
	Unbooked	152	60.8
	TOTAL	**250**	**100%**

- 51 cases (20.4%) had general anaesthesia, 199 cases (79.6%) had spinal anaesthesia.

GRADE OF SURGEON

- Senior Registrars performed 125 cases (50%), Registrars 116 cases (46.4%) and Consultants 9 cases (3.6%).

PAEDIATRICIAN ATTENDANCE

- Paediatric Residents attended the 241 live cases (97.6%)

ADMISSION TO SPECIAL CARE BABY UNIT

- 39 babies (15.6%) - admitted, 211 babies (84.4%) - discharged to their mothers.

MAJOR INDICATIONS FOR ADMISSION

- Birth Asphyxia – 13 (33.3%), prematurity - 19 (48.7%), congenital anomaly 1 (2.6%)

PERINATAL MORTALITY (TABLE 2)

- Intrauterine fetal death – 9 cases and 12 perinatal deaths. Perinatal Mortality Rate of 48/1000 for EMCS.

TIME OF DAY & DAY OF THE WEEK

- Both did not influence DDI.

Table 2:Indications for Caesarean Section and distribution of Perinatal Death according to indications.

Indications	No. of Cases	Percentage	Perinatal Death	PNMR
Failure to Progress/Prolonged Labour	29	11.6	1	35.71
Failed vaginal birth after CS	16	6.4	-	-
⩾2 Previous C/S	6	2.4	-	-
Suspected Fetal Distress	34	13.6	-	-
Severe Pre eclampsia/Eclampsia	42	16.8	3	71.43
APH	34	13.6	2	58.82
Obstructed Labour	37	14.8	5	108.11
Malpresentation	14	5.6	-	-
Failed Induction of labour	12	4.8	-	-
Multiple Gestation	6	2.4	1	166.67
Others	20	8	-	-
TOTAL	**250**	**100%**	**12**	**48**

Fridays were busiest days with 42 cases (16.8%). Mondays were quietest with 26 (10.4%).

DISCUSSION

- DDI, important for auditing and clinical governance of obstetric units.
- Study assessed clinical performance and feasibility of '30min DDI rule' in UCH.
- DDI ranged between 5mins and 810mins (mean= 120.4mins). Only 8 cases (3.2%) met the standard, smaller than that of Livermore et al 200610, where 11.1% of 1000 EMCSs met the standard

DISCUSSION

- Onah 200511, Helmy 200212 and Mackenzie 200213, DDI of 30mins, difficult to achieve in practice.
- DDI of 120mins, may not be incompatible with good perinatal outcome and not major factor for adverse neonatal outcome in EMCS.
- Tufnell 2001, no significant difference in admissions of babies born within 30mins compared to 50mins. 15.6% required SCBU admission and 48.7% admitted for prematurity.
- No significant correlation between DDI and Perinatal outcome using Apgar scores, SCBU admission and Perinatal mortality.
- The highest number of Perinatal death occurred at a DDI of 30-60mins

MAJOR CAUSE OF DELAY WAS LOGISTIC REASONS (72.8%):

- unavailability of CS pack, lack of drugs, difficulty in procuring essential materials, power outage, shortage of water supply, shortage of theatre consumables, faulty anaesthetic equipments, incomplete surgical instruments, shortage of

Table 3: Decision – Delivery Interval in UCH and distribution of perinatal death according to DDI

DDI (mins)	No. of Cases	Percentage	No. of Deaths	PNMR/1000
≤30	8	3.2	-	-
30–60	39	15.6	5	128
61–120	126	50.4	2	16
121–180	37	14.8	4	108
181–240	17	6.8	1	59
241–300	8	3.2	-	-
301–360	8	3.2	-	-
361–420	2	0.8	-	-
> 420	5	2	-	-
TOTAL	**250**	**100%**	**12**	**48**

Mean DDI in UCH = 120.4 minsRange of DDI = 5 mins – 810 minsS.D. = 102.8
CI = 120.4 ± 12.74
X2 = 3.3, df = 8, P = 0.34

anaesthetic drugs, gases and consumables.

OTHERS ARE

- difficulty in procuring blood for surgery (12.8%),lack of theatre space (5.2%).

RECOMMENDATIONS

- Provision of essential materials and consumables.
- Efficient blood transfusion services and voluntary blood donation be encouraged.
- Efficient and coordinated team work targeted at abolishing and minimizing delay.
- Health talks in the antenatal period on the possible need for a rapid recourse to operative delivery.
- Timely recognition of a complication is the key element.

CONCLUSION

- The DDI for UCH, Ibadan is 120.4 mins, recommended DDI of '30mins' currently not feasible.
- However, this study has not looked into whether categorising the level of urgency of the CS affected the mean DDI.
- Consequently, DDI of '30 mins' may not be applicable to all EMCSs but when faced with acute and catastrophic fetal or maternal conditions, expedited delivery is warranted and any purposeful delay is unjustified.

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Table 4 Mean DDI according to the Main indications for CS

Indication	No. of Cases	Range of DDI	Mean DDI
Failure to Progress/Prolonged Labour	29	38 – 250	103.3 ± 17.3
Failed vaginal birth after CS	16	60 – 750	187.9 ± 91.5
≥2 Previous C/S	6	70 – 206	140.7 ± 54.8
Suspected Fetal Distress	34	43 – 195	100.6 ± 15.2
Severe Pre eclampsia/Eclampsia	42	39 – 667	126.0 ± 33.8
APH	34	15 – 810	132.2 ± 55.0
Obstructed Labour	37	10 – 170	79.2 ± 12.32
Malpresentation	14	65 – 428	166.2 ± 71.7
Failed Induction of labour	12	53 – 355	122.3 ± 52.1
Multiple Gestation	6	20 – 345	149.5±122.1
Others	20	5 – 499	159.6 ± 64.4
Total	**250**		

Table 5 Mean DDI according to 1-min Apgar Scores and Neonatal outcome at 5-mins

APGAR Scores	1-min			5-mins	
	No. of Cases	Percentage	Mean DDI	No. of Cases	Percentage
0	9	3.6	166.4	9	3.6
1 – 3 **(severe)**	11	4.4	71.9	2	0.8
4-5 **(moderate)**	19	7.6	101.4	7	2.8
6 – 7**(mild)**	60	24.0	121.8	7	2.8
8 – 10**(normal)**	154	61.6	143	228	91.2
TOTAL	**250**	**100%**		**250**	**100%**

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PL-037

WHAT DO WOMEN KNOW ABOUT INDUCTION OF LABOUR?AN EVALUATION OF AWARENESS AND KNOWLEDGE AMONG ANTENATAL ATTENDEES IN IBADAN

Dr. O.O. Enabor

INTRODUCTION
- Induction of labour (IOL) and cervical ripening(CR) remain important in obstetrics and research has focused on the efficacy of different methods e.g: misoprostol
- Limited information on women's awareness and knowledge about these methods which can be used for health education and communication with patients

OBJECTIVE
- An assessment among antenatal attendees at the University College Hospital(UCH), Ibadan:
- Awareness and knowledge about methods of CR & IOL

MATERIALS AND METHODS
- Study duration: 1st March-30th April 2009
- Cross sectional survey of antenatal attendees of UCH
- Sample size estimation using the Kish formula with prevalence of 21% for IOL used.
- 265 women recruited consecutively following informed consent
- Structured questionnaire(interviewer and self-administered)

MATERIALS AND METHODS
- Socio-demographic variables
- Obstetric variables
- Level of awareness and knowledge of indications and specific methods for CR & IOL
- Information given about CR&IOL in previous pregnancies
- Data analysis
- Frequency tables for socio-demographic and obstetric variables.
- Cross tabulations and χ-square test for significant associations between categorical variables.
- Logistic regression for significant variables on χ-square test
- $P<0.05$

RESULTS

Socio-demographic & obstetric
- Mean age: 31.4±4.4yrs, 67.8% in 26-34yrs age group
- 56.4% were nulliparous
- Mean gestational age was 25.1±9.3 wks
- 44.8% -gestational age of 27-40 weeks
- 26% had previous CR or IOL

RESULTS

Knowledge and awareness-CR& IOL
- Awareness in 71% of respondents, Knowledge of method use-, Intra-cervical Foley's catheter: 13%, Intra-vaginal

TABLE 1: SOCIODEMOGRAPHIC VARIABLES

VARIABLE	PERCENTAGE
Age group(yrs)	
20-25	8.4
26-34	67.8
⩾35	23.8
Total	100.0
Tribe	
Hausa	2.3
Yoruba	79.3
Igbo	11.9
Others	6.5
Total	100.0
Religion	
Christian	80
Muslim	20
Total	100.0
Occupation	
Not highly skilled	57.0
Highly skilled	43.0
Total	100.0
Education	
Primary	3.9
Secondary	12.5
Tertiary	83.6
Total	100.0
Marital status	
Married	
Unmarried	4.7
Total	100.0

misoprostol: 25.2%, Intravenous Oxytocin-84%, Membrane sweeping: 21.7%

RESULTS

Knowledge:

- Low: (1method): 70.4%, High(⩾2methods): 29.6%

REASONS:

- Safe vaginal delivery: 35.7%, Prevention of fetal death: 38.6%, Prevention of cesarean delivery: 11%, Reduction of patient load: 5%, Preparation for cesarean section: 3.9%, Prevention of postpartum hemorrhage: 2.9%

ADVERSE EFFECTS:

- Fetal compromise: 16.0%, Increased labour pain: 51.3%, Prolonged labour: 5.9%

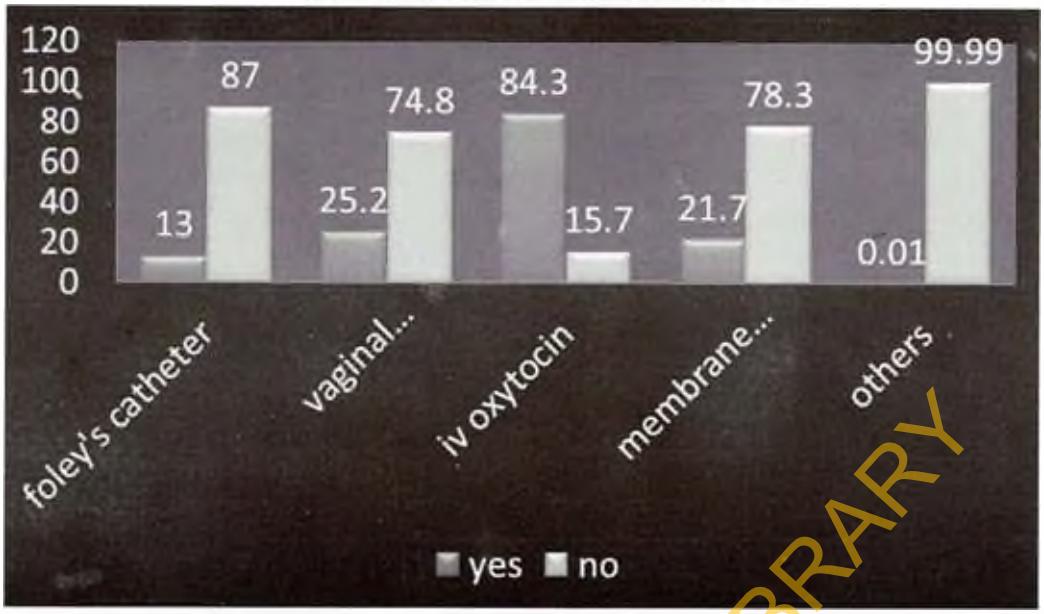
POSITIVE PREDICTORS OF AWARENESS OF CR& IOL:

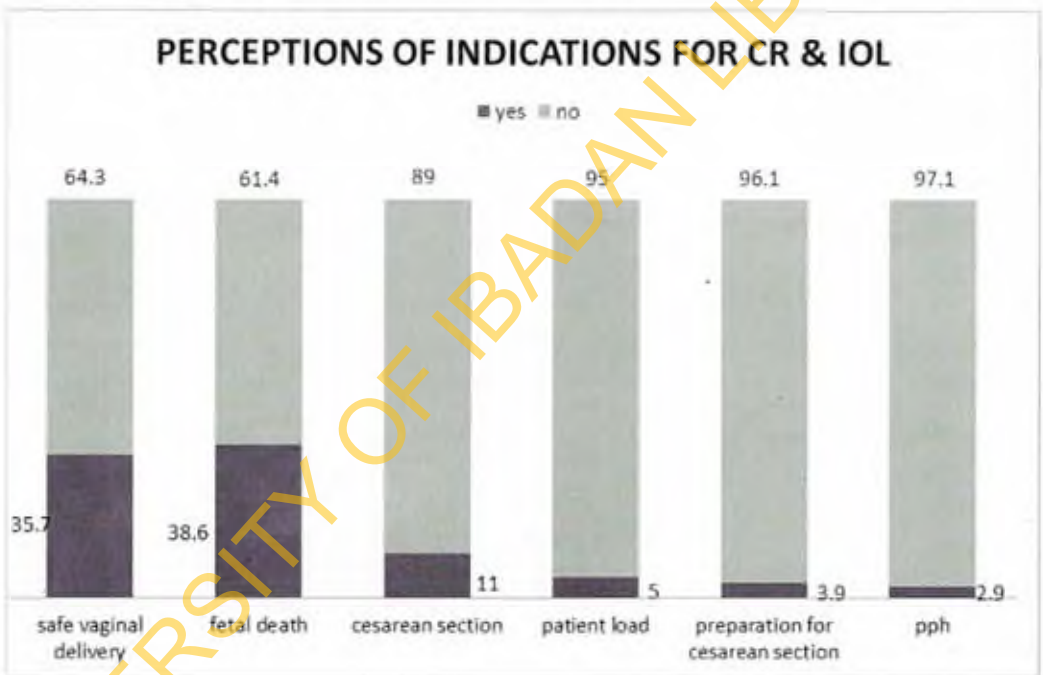
- Previous induction, OR: 6.70(1.41-31.88), p=0.02
- No significant predictor of knowledge of CR&IOL
- In 39.2% of respondents with IOL, information given by health provider regarded as insufficient.

LIMITATIONS

- Sample size

FIGURE 1: KNOWLEDGE OF METHOD USED FOR CR & IOL





- Non-randomization
- Appropriate translation of terms for non-English speakers

CONCLUSION

- Awareness of CR&IOL is high among pregnant women in Ibadan
- Knowledge of specific methods is sub-optimal
- Additional counseling during antenatal sessions may help with increased understanding and satisfaction with the birth process.

PLENARY 1

TRAINING OBSTETRICS AND GYNAECOLOGY RESIDENTS IN THE 21ST CENTURY

PL-038

TRAINING THE OBSTETRICS AND GYNAECOLOGY RESIDENT IN THE 21ST CENTURY – THE ROYAL COLLEGE PERSPECTIVE

Justin C Konje
Head of School, East Midlands, South Deanery
Endocannabinoid Research Group, Reproductive Sciences Section, University of Leicester

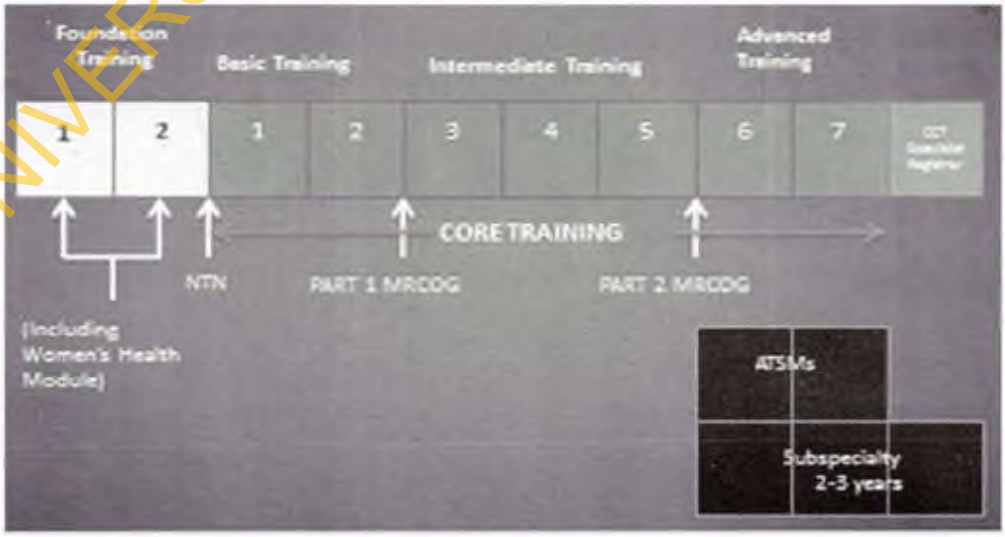
OUTLINE OF PRESENTATION

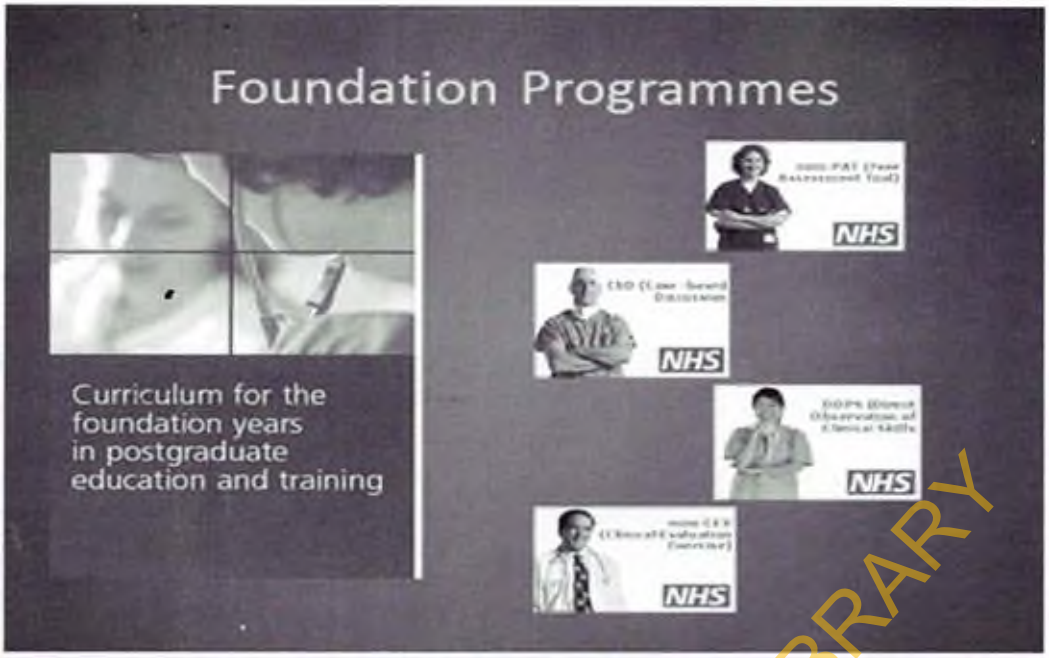
- Training from the past to the present
- How Deaneries are organised
- Training process and supervision
- Trainees in Difficulties
- Limitations of Training Programme
- How will all this apply to Nigeria and the wider world?

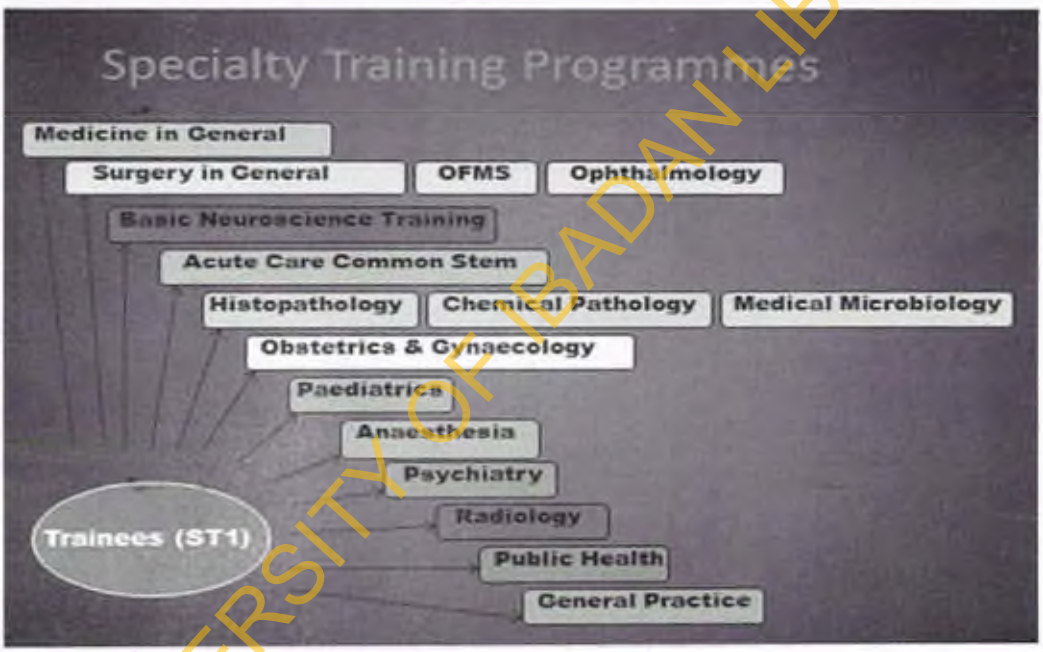
THE GOLD GUIDE DEFINES ROLES IN TRAINING

- Trainees, Educational Supervisors, Clinical Supervisors, Training Programme Directors, Employers

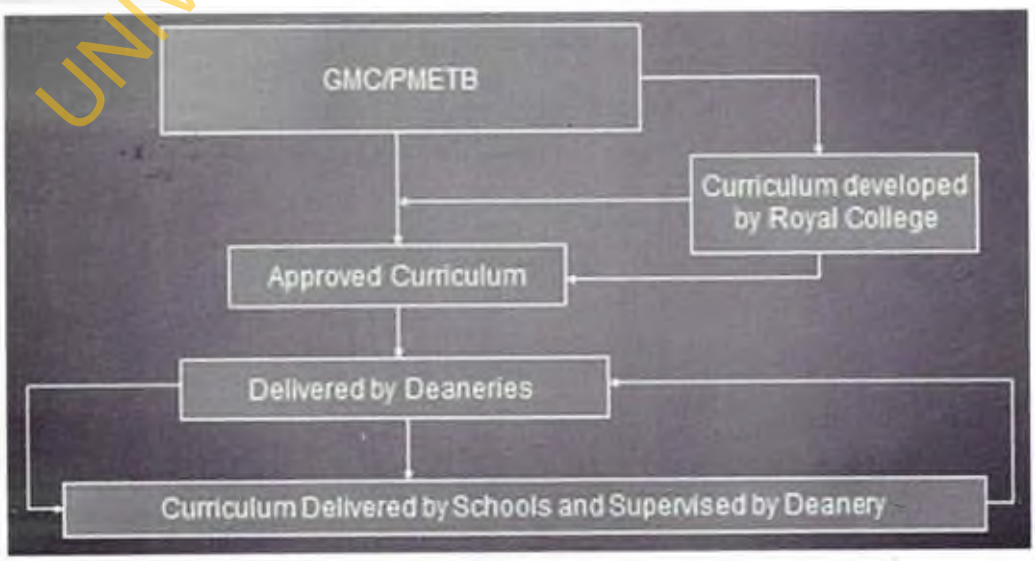
Postgraduate Training in Obstetrics & Gynaecology







Curriculum Development and Delivery



SUMMARY

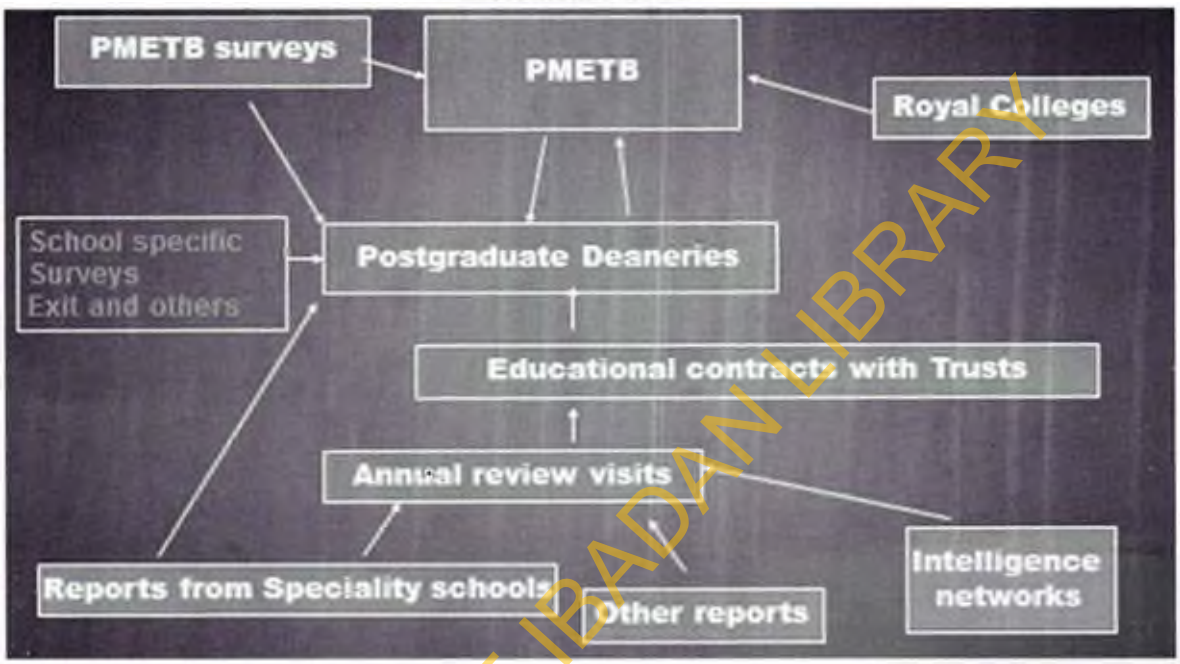
Focus is on

- High quality training and robust assessment, Speciality curriculae, portfolios, PDPs etc,High quality supervision, Supervisor training, appraisal and feedback skills, Educational governance, Quality assurance in all aspects.

Basically, Current changes are all about quality assuring education and training.

Regulatory bodies set the standards but have devolved the responsibility to Deaneries to check that local education providers meet the standards. Deaneries therefore need to have robust monitoring and reporting systems - a QA process

Quality assurance of training



know as quality management. Currently Deaneries have different policies but this may change in the future .

Deaneries collect information from different sources about the quality of training posts- seeking triangulation

PMETB trainee and trainer surveys

Annual review visits to trusts

Exit questionnaires

TRAINEES

- Take overall responsibility for their own training.
- Be familiar with speciality curriculum, assessments and documentation
- Maintain a learning portfolio
- Engage in process of clinical and educational supervision
- NHS performance review and ARCP process

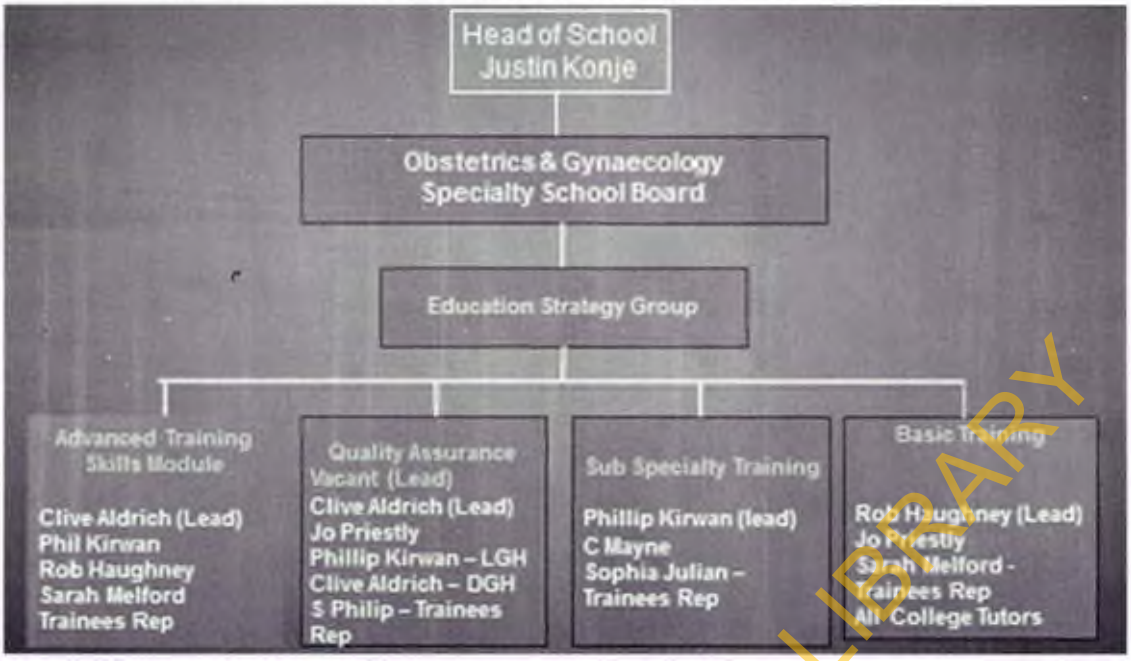
POSTGRADUATE SPECIALITY SCHOOLS

- Advise Postgraduate Dean on Speciality Postgraduate training
- Provide leadership in the Speciality
- Establish and oversee structures to deliver training
- Ensure quality of education and training meets PMETB/GMC standards
- Recruitment and selection role
- Organise ARCPs

TRAINING PROGRAMME DIRECTOR

- Works in partnership with Deanery, College and NHS Trusts to deliver educational contracts
- Organises the specialty training rotation and sets global educational objectives
- Oversees quality control of the programme
- Arranges trainee specialty induction
- Appoints and supports AES / ACS for each placement
- Implements the ARCP

Obstetrics & Gynaecology Postgraduate Specialty School East Midlands Deanery South Structure



- Facilitates remedial training
- Career management
- Responsible to the HoS/Postgraduate Dean

THE ROLE OF THE CLINICAL AND EDUCATIONAL SUPERVISOR

Pivotal to Postgraduate Education

CLINICAL SUPERVISOR

- The Clinical Supervisor is:
- Responsible for ensuring that appropriate clinical supervision of the trainees day-to-day clinical performance occurs at all times, with regular feedback.

A GUIDE TO POSTGRADUATE SPECIALTY TRAINING IN THE UK

(the "Gold Guide")

Clinical Supervisor

- The Clinical Supervisor should:
- Offer a level of supervision necessary to the competences and experience of the trainee and tailored for the individual trainee
- Be appropriately trained to teach, provide feedback and undertake competence assessment to trainees in the specialty
- A Guide to Postgraduate Specialty Training in the UK (the "Gold Guide")

Key areas of responsibilities. This links to next part of the session about the structure of the programme
This session is not about 'how' to appraise or assess- assumption made that this has already happened?? If not- Teaching Improvement, Assessment Course etc. etc

WHAT DO TRAINEES WANT FROM THEIR CLINICAL SUPERVISOR?

- Approachable, Accessible/available, Spends time observing, Provides feedback, Show an interest in your career, Focused on education

WHAT QUALITIES ARE MOST IMPORTANT TO YOU IN A CLINICAL SUPERVISOR?

- To be approachable and able to give the trainee some freedom in their clinical decision making.
- In a clinical supervisor I value feedback, time spent observing me, and approachability for me to ask questions.
- Being accessible and understanding the job application system and what I am trying to achieve.
- A clinical supervisor should be approachable, enthusiastic & take an active interest in furthering career development.

EDUCATIONAL SUPERVISOR

- An Educational Supervisor is responsible for overseeing training and documentation
- Confirm appropriate inductions
- Develop a learning agreement and educational objectives including plans for study leave
- Meet the trainee at the beginning, middle and end of a placement
- Conduct appraisal and to provide feedback

The revised PMETB definition of educational supervisor is:
"A trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements. The educational supervisor is responsible for the trainee's educational agreement

EDUCATIONAL SUPERVISOR

- The Educational Supervisor is:
- Responsible for making sure that the trainee receives appropriate training and experience through developing clear objectives based on the relevant specialty curriculum.
- Responsible through the Postgraduate Dean's Educational contract both for educational appraisal of trainees and also for the review of their performance based on Good Medical Practice.

A Guide to Postgraduate Specialty Training in the UK (the "Gold Guide")

BASELINE STATEMENT FROM GOLD GUIDE.

Comment from AS- I think it would be worthwhile highlighting the differences between ed and clinical supervision. We could highlight the role of a year-long ed sup v. 4/12 clinical supervision and the ability to stay impartial to the clinical demands of the posts. Ed sup is special in the sense that all senior doctors are (by default if they have junior staff) clinical supervisors.

EDUCATIONAL SUPERVISOR

- The Educational Supervisor should:
- Undertake regular formative appraisal with trainees
- Provide support in developing the learning portfolio
- Ensure that the trainee understands and engages in assessment
- Be the first point of call for trainee concerns/issues about training
- Ensure that appropriate training opportunities are available for the trainee to gain competencies and learn.

THE ROUGH GUIDE TO THE FOUNDATION PROGRAMME

- Produce a structured report at the end of the year to inform ARCP (including workplace appraisal)

- Provide career advice
- Contact the TPD if concerns regarding training
- Role recognised in their job plan

How to be a good teacher, including teaching methods, Certified to have attended Training the Trainers Course, Feedback – evidence from teaching and supervision

PL-039

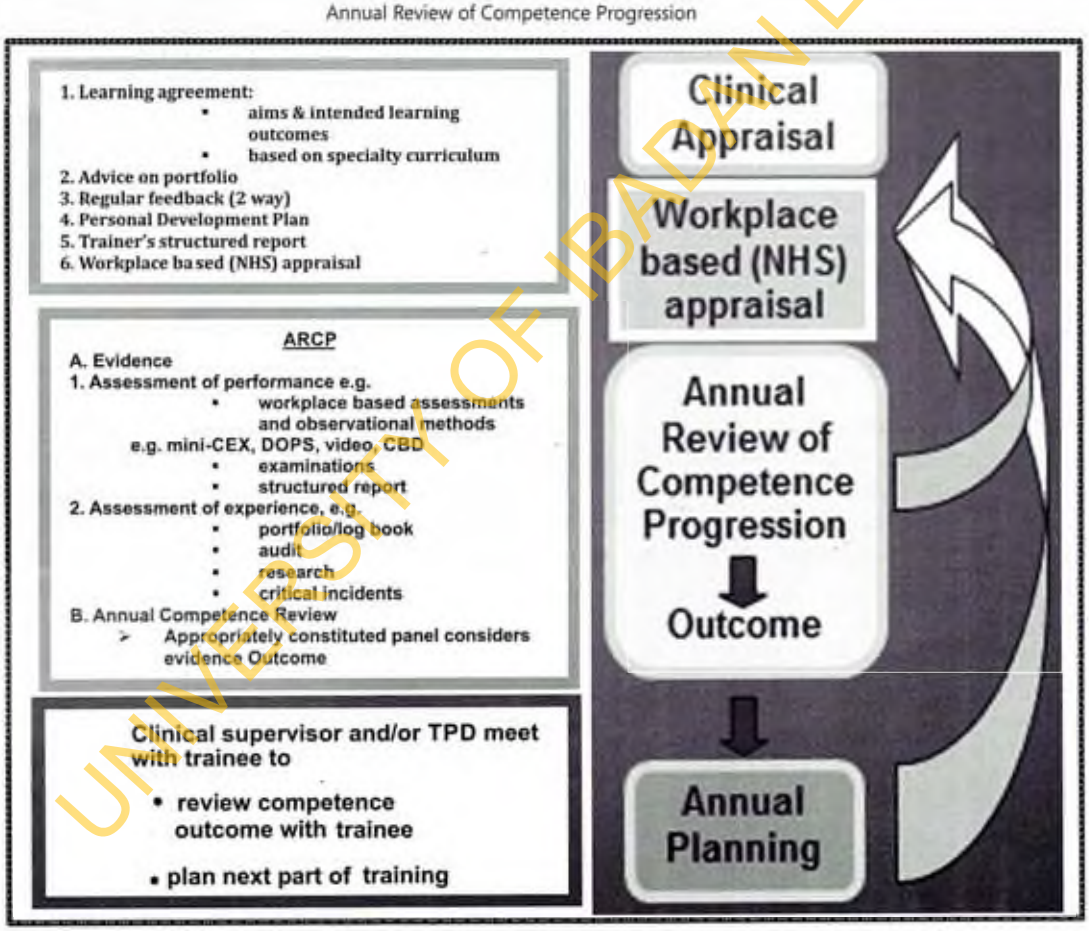
METHODS OF ASSESSMENT IN OBSTETRICS AND GYNAECOLOGY

Case based discussions (CBD)
Direct observation of practical procedures (DOPPS),OSATS
Nini-CEXs, Reflective Practice, e-portfolios and assessment – what they are and how best to use them (RCOG specific)
Electronic recording of training

THE ARCP PROCESS

ARCP Annual Review of Competence Progression
Applicable to:

Annual Review of Competence Progression



- Speciality trainees, LATs, FTSAs, Trainees OOP, Academic trainees, Clinical Lecturers, Academic clinical fellows

OUTCOMES FOR ARCP

- Satisfactory progress
- Further development needed but additional training time not required
- Inadequate progress additional training time required
- Released from training programme NTN relinquished

- Incomplete evidence submitted

SPECIAL CIRCUMSTANCES

- Gained all competencies, FTSTAs, Time out of programme (OOP), Research, Career Break, Approved clinical training, Top up training (11/14)

PREPARATION FOR ARCP

- Documentation - I, Curriculum vitae, PMETB Survey – evidence of completion, Clinical experience – logbook, Record of attendance at teaching in the last 12 months, Audits in the last 12 months, Evidence of attendance at the Trent Training Days, Documentation – II, Education supervisor's report, 360 degrees appraisal – Team observations (minimum of 10), Maximum unsatisfactory entries), OSATs (minimum of 3/procedure), CbDS, MiniCEX, Reflective practice, Preparation for ARCP, Documentation – III, Clinical Lecturers and Academic Fellows, Research – progress, publications, MD, Presentations

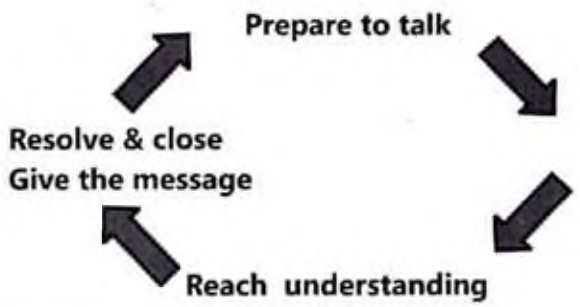
FEEDBACK

- An integral part of Teaching and Training!!
- Trainee and Trainer
- Should be honest, constructive, and provide advice for future development.
- What do students value when receiving feedback?

BARRIERS TO FEEDBACK

Receiving

GIVING FEEDBACK



GIVING FEEDBACK

- Uncomfortable with criticism, Self worth may be diminished, Previous negative experience

Giving

- Think the feedback is negative, Personality, Other person cannot take feedback, Previous negative experience, Not worth the risk

FEEDBACK– PREPARE TO TALK

- Prepare message, Time and place, Signal message, Create atmosphere

FEEDBACK – GIVE THE MESSAGE

- Ask the person for their view. They may already be aware of problems/issues.
- Try to comment only on things you have seen for yourself.
- Be clear and concise. Start with positives, then move to areas of concern. State clear objectives which are achievable.
- Avoid a character analysis.
- Don't go over the same material.

POSITIVE FEEDBACK MODEL

- Ask trainee what went well
- Agree if appropriate and add other observations of good practice
- Ask trainee what could be better
- Agree if appropriate, add other improvements and refer back to 'misguided strengths' if necessary
- Agree next steps/ actions for improvements. End on a positive note

POSITIVE FEEDBACK MODEL

- Ask trainee what went well
- Agree if appropriate and add other observations of good practice AND
- Ask trainee what could be better
- Agree if appropriate, add other improvements and refer back to 'misguided strengths' if necessary AND
- Agree next steps/ actions for improvements. End on a positive note

FACTS, FEELINGS, FUTURE

- State the facts
- Ask the learner how they feel (or what they think) about this feedback
- Offer the learner your perspective (feelings and/or thoughts)
- Ask the learner to consider the feedback from a 3rd person perspective (patient, colleague, junior etc)
- Agree plans for the future

FEEDBACK – REACH AN UNDERSTANDING

- Listen to response, If clarification is needed, try to use different words., Check the person understands., Check you understand them

FEEDBACK – RESOLVE AND CLOSE

- Find ways to resolve issues, Offer suggestions, but wherever appropriate let the other person decide their own method of resolution., Summarise discussion, Document the session.

FEEDBACK – FOLLOW UP

- If possible, see the person practising that particular skill again, If it is not possible, ask how they are getting on with it,

Change may not always be immediate.

SUMMARY
- Honest, constructive and provide advice, 2 way process, Framework, Follow up

FEEDBACK
- "Feedback is the breakfast of champions.", Ken Blanchard, Management and Leadership Consultant, Ken Blanchard is a global management and leadership author and presenter

TRAINEES IN DIFFICULTY

Doctors in difficulty-real or imagined?
- More recognition-360 deg assessments, More reporting of serious events, Better record keeping, Loss of team structure, Less pastoral support, Increase in complaint culture and patient dissatisfaction

EARLY WARNING SIGNS
- never there', Low/inefficient work rate, Aggression/tears when confronted, Lack of flexibility, Lack of insight, Career/exam problems, Non/poor engagement with WBA, High sickness rates

COMMON THEMES
- Ill health, Life events, Personality problems, Clinical performance issues, Poor relationship with other staff, Poor organisation, Substance abuse, Chaotic personal lifestyle, Lack of insight, All of the above

BULLYING
- 9/140 responders to end of Foundation survey, 1 trainee moved, Nurses – esp ward sisters, Other trainees / senior colleagues, No awareness of trust policies

THE INTERVIEW
- May be self-referral, Usually complaint from clinical supervisor or a result of assessments, Gather evidence, ?Location, ? Chaperone/observer, Make accurate and comprehensive records, Keep copies of all letters and e mails, Manage it yourself or refer on?

RESOURCES
- Referral to Occupational Health, Involve Head of School/TPD/Deanery, Referral to Training Support Unit, Junior Doctor Administrator, but please remember.., Confidentiality is key!,

CASE HISTORIES – What would you do as a panel member?

CASE 1
- Attended only 20% of formal teaching despite written advice 3 months previously
- Progress satisfactory
- Further development of specific competencies – additional training time not required
- Inadequate progress – additional training time required
- Released from training programme – NTN relinquished
- Inadequate evidence presented

8CASE 2

Did not complete all WBAs – most of the assessments were completed in last 2 months of the year-long programme
Did not complete all WBAs – most of the assessments were completed in last 2 months of the year-long programme.
- Progress satisfactory
- Further development of specific competencies – additional training time not required
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CASE 3

On 'paper', all the competences have been met by the trainee, but a corridor conversation with the clinical supervisor highlights concerns over the trainee's abilities.
On 'paper', all the competences have been met by the trainee, but a corridor conversation with the clinical supervisor highlights concerns over the trainee's abilities.
- Progress satisfactory
- Further development of specific competencies – additional training time not required
- Inadequate progress – additional training time required

- Released from training programme – NTN relinquished
- Inadequate evidence presented

CASE 4

Did not engage with the appraisal process despite advice from the TPD advising the doctor to meet with their Educational Supervisor

- Progress satisfactory
- Further development of specific competencies – additional training time not required
- Inadequate progress – additional training time required
- Released from training programme – NTN relinquished
- Inadequate evidence presented

SUMMARY

- Role of ARCP and importance of appraisal as part of the process
- Case histories highlight need for early intervention!

PL-040

TRAINING THE OBSTETRICS AND GYNAECOLOGY RESIDENT IN THE 21ST CENTURY – WEST AFRICAN COLLEGE OF SURGEONS PERSPECTIVE.

Bissallah Ekele,
Chair,Faculty of Obstetrics and Gynaecology,
West African College of Surgeons

OUTLINE

- History, Vision and Mission, Past Program and Assessments (O & G), Present Program and Assessments (O& G), Future Program and Assessments (O & G), Challenges and Conclusion.

THE COLLEGE

- Association of Surgeons of West Africa,1960 ,(UCH, Ibadan). Initiative of Prof Victor A. Ngu, WACS 1969 (Accra, Ghana), ASWA →→ WACS 1973 (Benin, Nigeria)

'To promote, organize and conduct postgraduate education and training in Surgery, related disciplines and specialties in West Africa'

- First College examination = 1979, First Fellows (by examination)

Dr Oladele Olusanya (Oct 82); Dr A.E Ehigiegba (April 83);

PAST PROGRAM AND ASSESSMENTS

(Before 1990)

- Very few training centres (< 12),
- Only one examination centre = Ibadan, Primary = Paper 1 (MCQs),
- Paper 2 (essay), PART 1 = Written,
- Clinical, Oral (all candidates),
- PART 2 = Casebook defence, General Oral

PRESENT PROGRAM AND ASSESSMENTS

(1991-2011)

- More Training Centres (40), 35 Nigeria, 3 Ghana, 1 Gambia,
- 1 Sierra Leone [Implication for Examiners],
- More Examination Centres (5), 3 Nigeria, 1 Ghana, 1 Sierra Leone
- Training more structured with two additional outside postings, Radiology, istopathology
- Emphasis on the use of Logbook for appraisal and evaluation'Validity, Reliability, Fairness/Equity'
- Primary – All MCQs (More coverage of syllabus*) 2002
- Part 1: Written Papers; conference marking; proceed ≥70/150 - 2004, Clinical (Examiners not Trainers) - 2007, Structured Oral - 2010
- Part 2: Dissertation - 2010

Casebook, General Oral (structured) - 2010

FUTURE TRAINING PROGRAM AND ASSESSMENTS (POST 2011)

- New curriculum with core modules and subspecialist modules,
- MANDATORY pre-part 1 Basic Surgical Skill courses,
- Leadership/Management courses post part 1,
- Work-base assessment + LOGBOOK, College (Faculty) Centre coordinators

THE EXAMINATION PROPER

- Part 1: MCQ, Essay Questions (SAQs)
  Objective Structured Clinical Examination 'OSCE' Membership Award
- PART 2: Strengthen the dissertation
  3-station exam -Dissertation, - Case book, - General oral, Fellowship Award

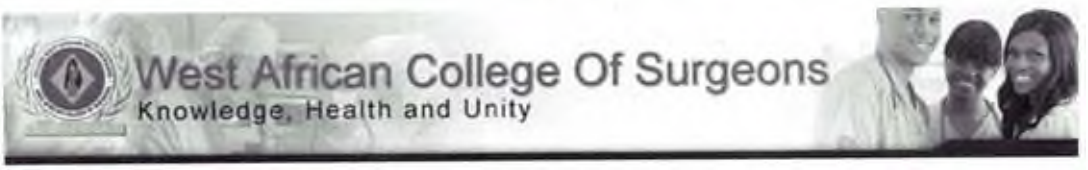
CHALLENGES

- TRAINEES – Poor foundation,
  Poor exposure, Voluntary & involuntary breaks (?strike actions), Counselling; Mandatory courses; Facilitators [NLG]
- TRAINERS - Little or no supervision of trainees,
  Trainers need update too!, Late submission of Dissertation reports, Rededication; Examiners workshops [NLG], Train-the-Trainers courses, Gentle reminders' / Sanctions

TRAINING CENTRES – Infrastructural decay,

- Unfriendly training policies, New Scoring system for accreditation;Involve CMDs in College Activities + Advocacy
- REGULATORY BODIES & WAGES COMMISSIONS OF MEMBER COUNTRIES

New Fellows at Convocation
(Feb 2008; Freetown, Sierra Leone)



Important stakeholders, Appropriate placement of awardees

CONCLUSION

- Program has been revised both in content and in structure to produce a 'complete' specialist.
- An expert in Obstetrics and Gynaecology; also strong in research and in the management of men and materials.
- With commitments from all the stake holders we can overcome the identified challenges.
- We have started the process and sure to deliver the 21st century specialist.

ACKNOWLEDGEMENT

- Dr Alfred Ehigiegba , FWACS
- Prof Yao Kwawukume, FWACS
- Prof O Fakeye, FWACS; Prof OA Omigbodun, FWACS
- Mr Bolarinde Ola; RCOG - NLG (Chair: Mr V Chilaka)
- Ajayi OO, Quartey JKM, Adebonojo SA. Eds.
- Knife in hand -The History of the West African College of Surgeons (1960-2010) BookBuilders, Ibadan, 2010.

PLENARY 2

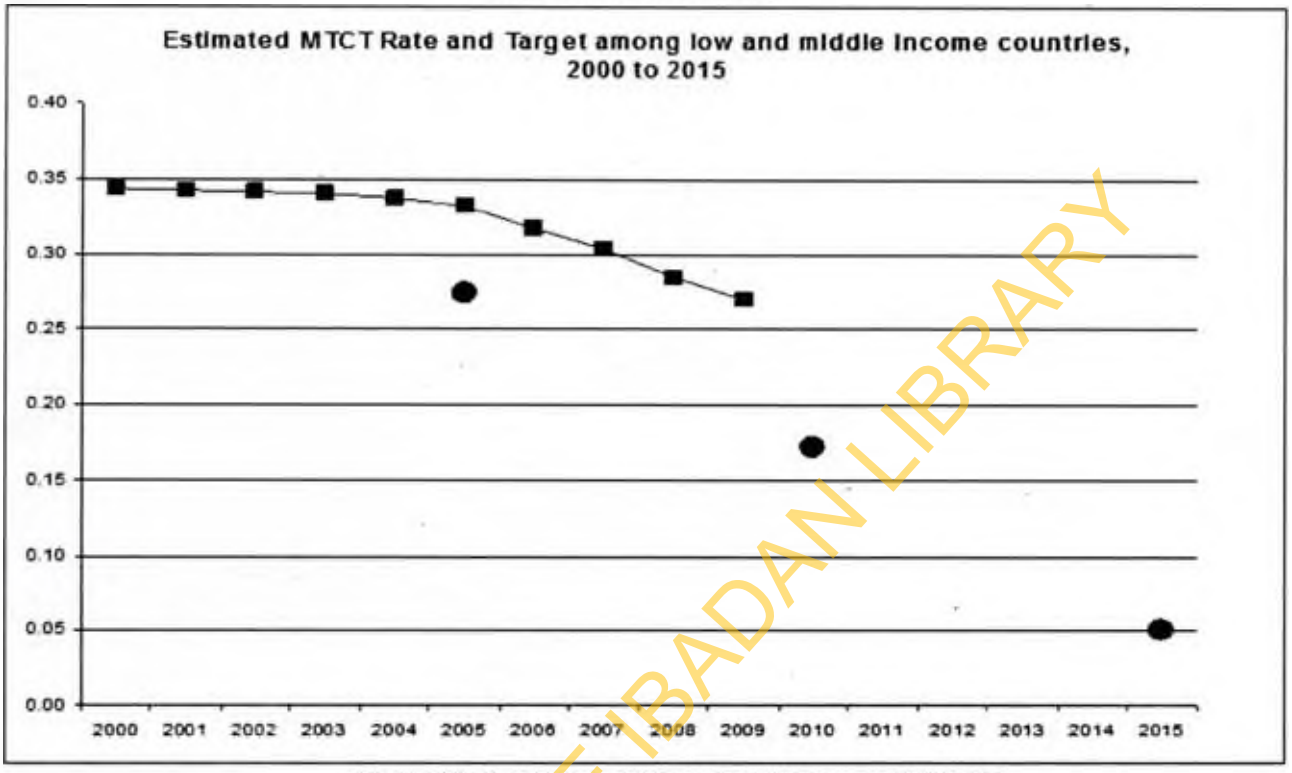
ELIMINATING MTCT OF HIV BY 2015

PL-041

HIGHLIGHTS OF 2010 NATIONAL PMTCT GUIDELINES

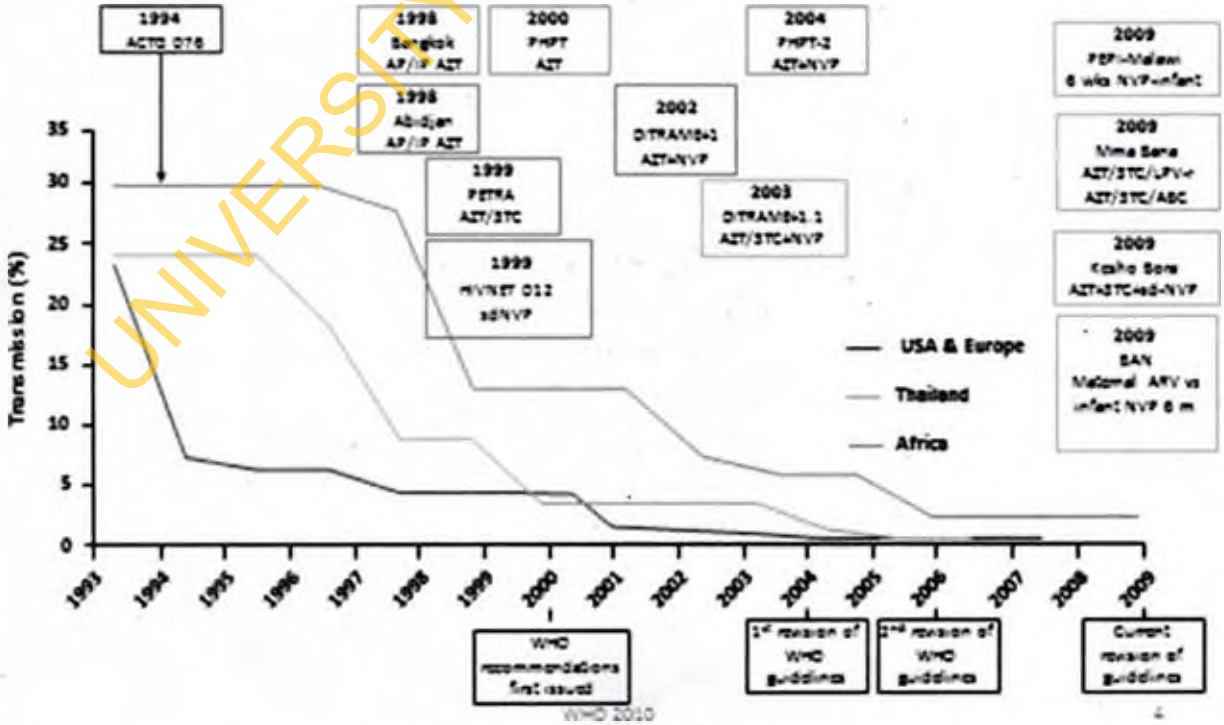
Outline : Global trends in PMTCT, Nigeria's efforts in PMTCT, Current national burden of mtct, WHO 2009 Advice, Highlights of Nigeria's 2010 Guidelines

Where are we with MTCT Globally?



Chika Ha Chika Hayashi, Strategic Information, HIV Department, WHO. 2011

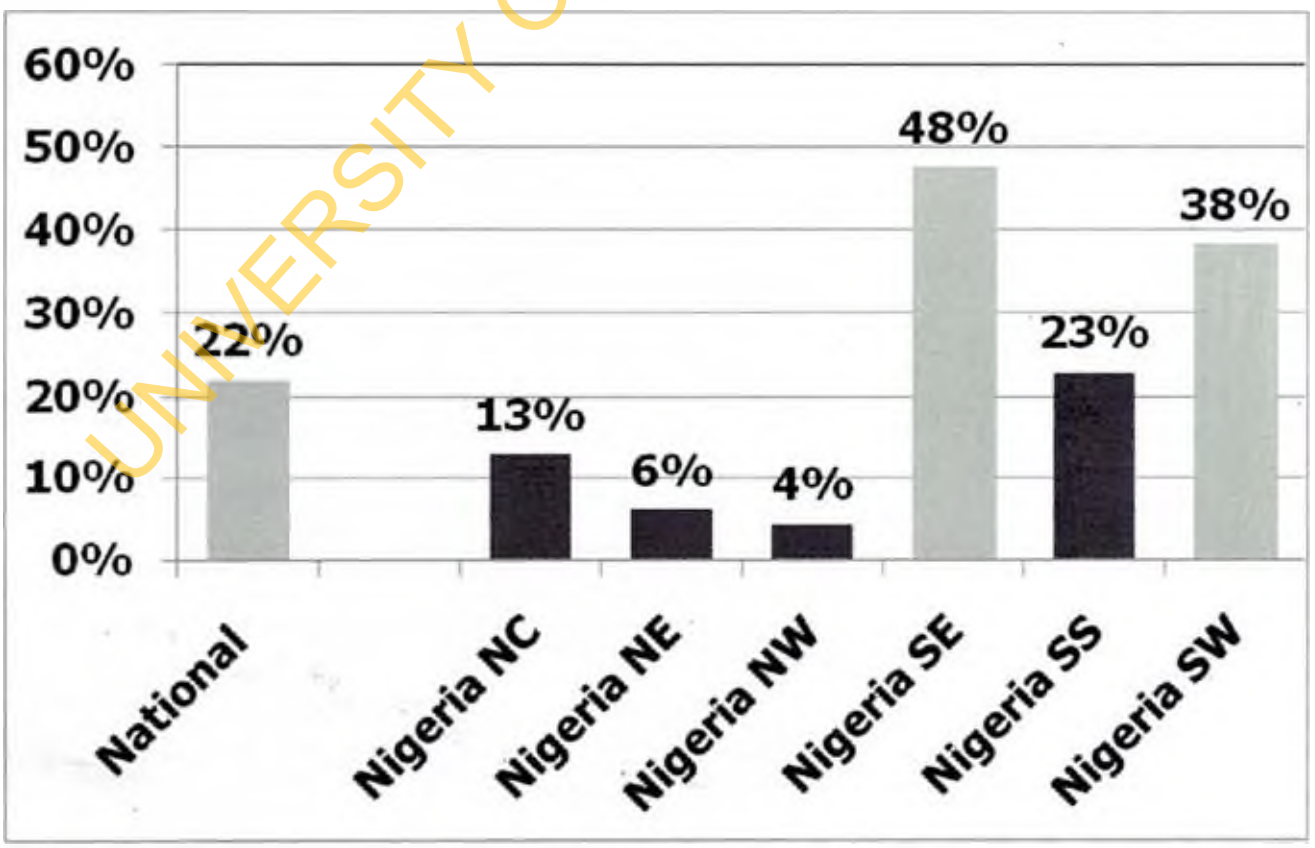
PMTCT Study Results and Guidelines Revisions



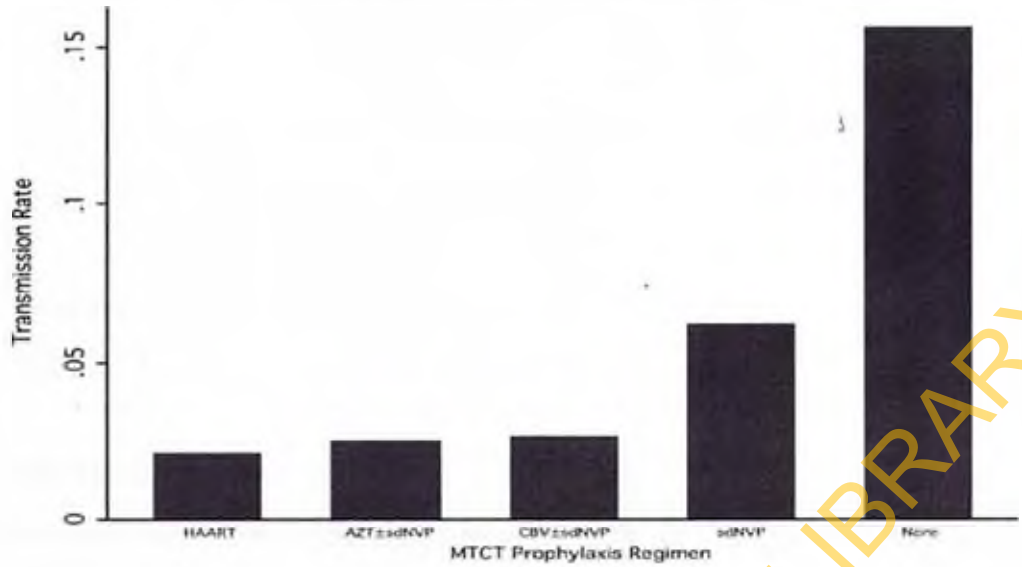
NIGERIA'S PMTCT GUIDELINES: 2001, 2005, 2007 & 2010

- 2001 National PMTCT Guidelines: Mother: Sd NVP early in labour;Newborn: sd NVP <72 hours
- 2005 National Guidelines:
- 2007 National Guidelines: Mother: AZT from 14 weeks (sdNVP)(AZT+3TC, for 7/7), Mother: CBV > 34 wks (CBV+sdNVP) (CBV, for 7/7), Mother: (sdNVP) (CBV, for 7/7), Newborn: sdNVP + (AZT, for 6/52)

Zonal Disparities in Nigeria



Rate of Mother-to-Child Transmission by Prophylaxis Regimen



Rapid advice: Use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants
WHO web site:
http://www.who.int/hiv/pub/mtct/advice/en/index.html

KEY POINTS OF WHO 2009 GUIDELINES

Key points of the new WHO guidelines

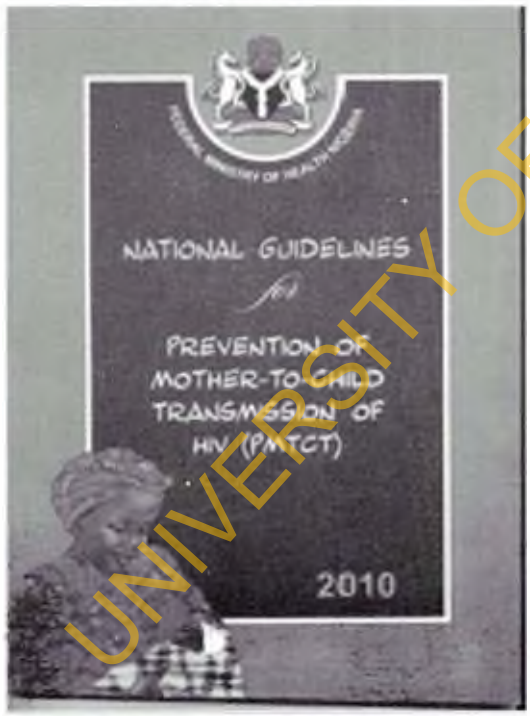
- Everyone diagnosed with HIV infection should start treatment when their CD4 count falls below 350 cells/mm³.
- Everyone with TB should start treatment with an efavirenz-based regimen regardless of CD4 count.
- Everyone with hepatitis B coinfection that needs treatment should start treatment with a regimen based on tenofovir and either 3TC or FTC, regardless of CD4 count.
- Countries should plan to phase out the use of d4T in first-line treatment as soon as feasible, and use either AZT or tenofovir instead.

- About 40% of HIV+ pregnant women
- Account for > 75% of MTCT risk
- Account for >80% of postpartum transmission
- Account for 85% of maternal deaths within 2 years of delivery
- Have strong benefit from initiating ART for maternal health and PMTCT during pregnancy, labour/delivery and breastfeeding

KEY POINTS OF WHO 2009 GUIDELINES

- **All pregnant women with CD4 counts below 350, or WHO stage 3 or 4 HIV disease, should start ART without delay, for life.**
- **Pregnant women who don't need ART for their own health should start taking prophylaxis as soon as possible after week 14 of their pregnancy.**
- **Either three-drug ART or infant prophylaxis should be given throughout the breastfeeding period if mothers do not need ART for their own health.**
- **HIV-positive mothers should breastfeed for one year if their child is HIV-negative or of unknown status, and for at least two years if their child is also HIV-positive, in order to maximise the benefits of breastfeeding.**

What is in the 2010 Guidelines?



COVERAGE OF 2010 GUIDELINES

- Goal and Targets of the 2010 - 2015 National PMTCT scale up plan
- Comprehensive approach to primary prevention of MTCT
- Benefits of prevention of mother to child transmission of HIV
- Implementation Strategies for the National PMTCT Programme
- Integration of PMTCT into MCH services and Linkages with other Services
- Process of setting up PMTCT services
- Minimum Capacity Requirements for a PMTCT site
- Management and Coordination of the PMTCT Programme
- Management of HIV in Pregnant Women and PMTCT
- The Use of Anti-Retroviral Drugs in PMTCT
- Management of HIV Exposed Infants
- Standard Precautions
- Community-Based PMTCT Services
- Communication for PMTCT
- Monitoring and Evaluation for PMTCT
- Logistics and Distribution

PRE- & POST-TEST COUNSELING

- Unchanged: based on "opt-out" approach.

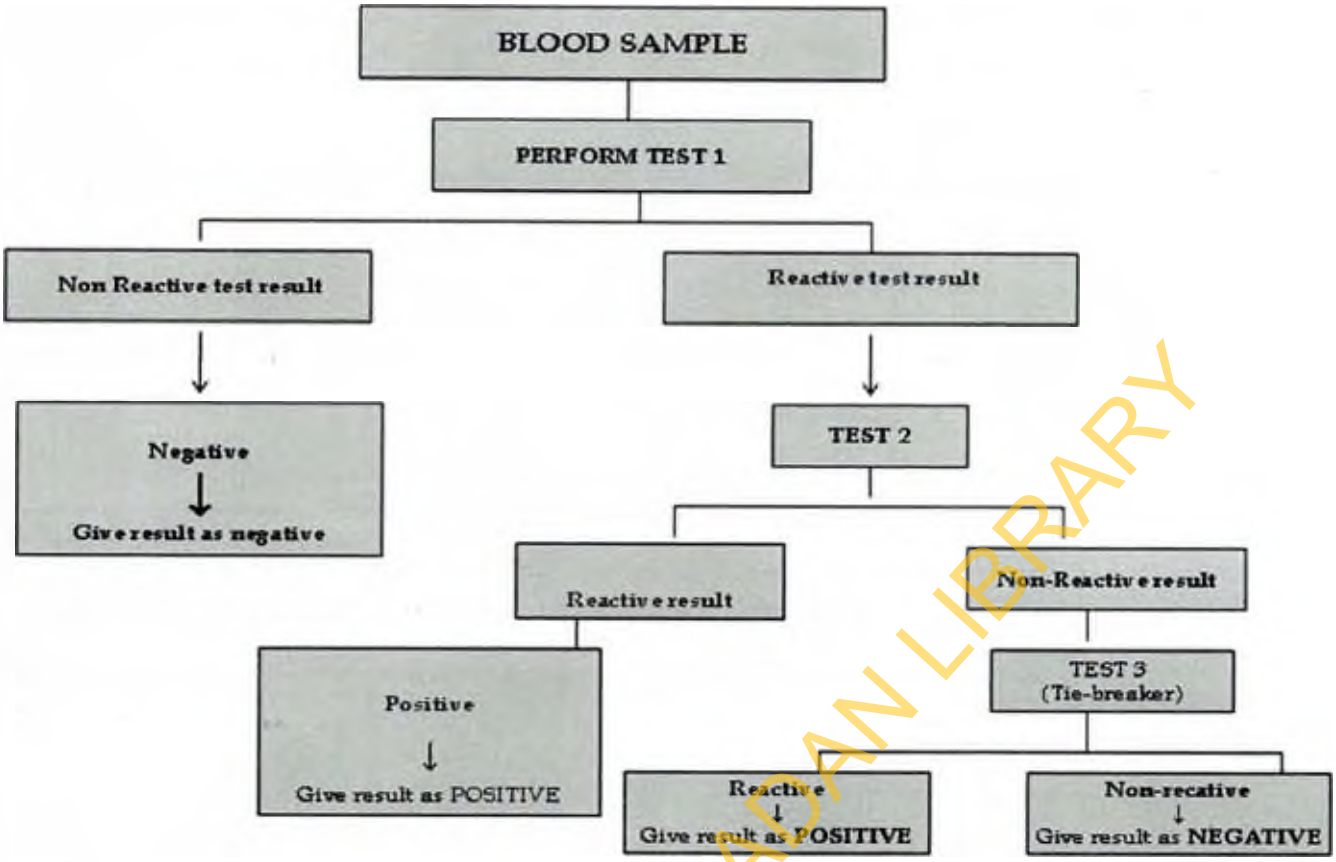
PRE-CONCEPTION CLINIC

- Achieving safe conception, Family planning messages in the context of HIV, Couple counselling and HIV testing, Couple education, Partner disclosure, ART adherence promotion, ART safety, Diagnosis and treatment of OIs such as TB, STI diagnosis and treatment, Discordant couple management, Management of abnormal menstruation/infertility, Information on support groups, Sex education.

LABORATORY TESTS FOR FULL PMTCT SERVICES: Baseline & Follow-up

- Hepatitis B and C, Full blood count (FBC), Blood film for malaria parasites, Tests for sexually transmitted infections e.g. gonorrhoea and chlamydia, Liver function test, Renal function test, Lipid profile, CD4 cell counts, Viral load.

HIV TESTING: Serial Rapid Testing



RECOMMENDED RAPID TEST KITS

1. Screening test	Determine	Unigold	Determine
2. Confirmatory test	Unigold	Statpak	Statpak
3. Tie-breaker test	Statpak	Determine	Unigold

Eligibility criteria for ART or ARV prophylaxis in HIV infected pregnant women (Ref: WHO 2009)

CD4 cell count available	
CD4 ≤350 cells/mm³	CD4 >350 cells/mm³
ART Regardless of clinical stage	ART If symptomatic (Stage 3 or 4)

WHO clinical stage	
Stage 1	ARV prophylaxis
Stage 2	ARV prophylaxis
Stage 3	ART
Stage 4	ART

If facility for CD4count is not available, the client should be referred or client's specimen sent to the nearest centre with such facility.

CLINICAL SETTING I

Pregnant woman who is HAART- eligible but not currently receiving ARV prophylaxis

MOTHER

- Initiate ART soonest, irrespective of gestational age.

- Include ZDV in the regimen whenever possible (avoid ZDV if haemoglobin is ≤ 8g/dl or PCV < 24%)*
- If CD4 count is ≤350 cells/mlregardless of WHO clinical stage
- WHO Clinical Stage III and IV regardless of CD4 Count

PREFERRED REGIMEN:

- AZT+3TC+(NVP or EFV**)

ALTERNATIVE REGIMEN:

TDF+ (3TC or FTC) + (NVP++ or EFV**)

- *(Patients with HB≤ 8g/dl or PCV ≤ 24%),
- Hepatitis B co infection
- **EFV based regimen should NOT be used in the first trimester
- Closely monitor for hepatotoxicity and systemic toxicity ESPECIALLY women on NVP based regimen.

CLINICAL SETTING I CONTD.

Use of Antiretroviral drugs in first trimester of pregnancy

CAUTION :

The use of antiretroviral drugs in first trimester of pregnancy requires caution:

Women already commenced on HAART; ZVD, 3TC and NVP and found to react to NVP in first trimester pregnancy:

- Stop the NVP and replace with PI ***
- ***PIs include : Lopinavir/r, Saquinavir/r, Nelfinavir, Indinavir/r.
- **EFV use in early pregnancy is associated with congenital malformations [Potential risk (probably <1%) of neural tube defect with EFV use in first month of pregnancy (before 6 weeks of gestation)]
- ** Women on EFV based combination should be counselled and offered effective contraception after delivery to avoid conception while on EFV.

CLINICAL SETTING I CONTD.

Special considerations on ART in PMTCT

Previous clinical or virological failure on NNRTI- containing regimen

- PI* + 2 NRTIs, ZDV + 3TC + Abacavir, ZDV + 3TC + Tenofovir

PREVIOUS SINGLE-DOSE NEVIRAPINE

- < 6months : PI* + 2 NRTIs
- > 6 months :NVP + 2NRTIs, EFV + 2 NRTIs, ZDV + 3TC + Abacavir, ZDV + 3TC + Tenofovir

All infants should receive daily NVP from birth until six (6) weeks of age (Irrespective of infant feeding practice).

Dose of daily NVP:

- Birth weight < 2,500g : NVP 10mg(1ml) daily
- Birth weight ≥ 2,500g : NVP 15mg(1.5ml) daily

PROPHYLAXIS FOR PMTCT

Clinical Setting II :

Pregnant mother not eligible for HAART for her own disease

1. For facilities with capacity (on – site or by linkage) to provide and monitor Triple ARV medication:

- Triple ARV prophylaxis is the preferred regimen:
- Triple ARV prophylaxis should be started from 14 weeks gestation or as soon as possible when the woman presents during pregnancy, until one week after ceasation of breastfeeding.

Any of the these regimens may be used as appropriate

- AZT + 3TC + LPV/r, AZT + 3TC + EFV, AZT + 3TC (or FTC) + EFV, AZT + 3TC + ABC, TDF + 3TC (or FTC) + EFV

All HIV exposed infants must receive daily NVP for 6 weeks irrespective of infant practice

Prophylaxis for PMTCT

Clinical Setting II :

Pregnant mother not eligible for HAART for her own disease CONTD.

2. For facilities with limited capacity (on – site or by linkage) to provide and monitor triple ARV medication

The following ARV prophylactic regimen is recommended:

- Zidovudine from 14 weeks gestation, Sd NVP at onset of labour, AZT+3TC during labour and delivery, AZT+3TC for 7 days post partum

A) For breastfeeding infants:

- Commence daily NVP until one week after ceasation of breastfeeding.

B) For non-Breastfeeding infants:

- Give daily NVP for 6 weeks only

DOSAGE OF DAILY NVP FOR THE INFANT

From birth to 6 weeks of age:

- Birth weight < 2,500g : NVP 10mg(1ml) daily, Birth weight ≥ 2,500g : NVP 15mg(1.5ml) daily

From 6 weeks to 6 months of age: NVP 20mg(2ml) daily
From 6 months to 9 months of age: NVP 30mg(3ml) daily
From 9 months to 12 months of age:NVP 40mg(4ml) daily

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING III:

Mother receiving HAART at the time of current pregnancy

- HIV infected women receiving HAART who become pregnant should continue with the therapy.

Zidovudine should be a component of the regimen whenever possible [avoid if haemoglobin is < 8 g/dl or PCV < 24%; In this case use TDF + 3TC (or FTC) + NVP (or EFV) as applicable]

- Efavirenz is contraindicated in the first trimester and it should be replaced with NVP.

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING IV:

HIV-infected mother who presents in labour

1. For facilities with capacity (on – site or by linkage) to provide and monitor Triple ARV medication:

Mother

- Commence triple ARV prophylaxis during labour and continue until one week after all exposure to breast milk has ended.
- For details of regimen see clinical setting II.
- Clinically assess the mother for WHO staging of maternal disease
- Determine maternal CD4 count as soon after birth as practicable.

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING IV:

HIV-infected mother who presents in labour contd.

2. For facilities with limited capacity (on – site or by linkage) to provide and monitor triple ARV medication.

Mother:

- Intrapartum: sdNVP + ZDV + 3TC as soon as diagnosis is made in labour.
- Post partum: ZDV + 3TC for 7 days
- Determine if mother is eligible (within 5 days of delivery) for HAART for her own disease, and follow appropriate guidelines including referral to ART Care programme

ARV Prophylaxis for PMTCT Clinical setting IV:

HIV-infected mother who presents in labour contd.

Infant: Mother breastfeeding, not commenced on HAART:

- Give daily NVP to infants from birth until one week after all exposure to breast milk has ended.
- Mother breastfeeding (eventually commenced on HAART)
- Give daily NVP to infants from birth and continue until six weeks after maternal commencement of HAART.
- Mother not breastfeeding:
- Give daily NVP to infants from birth until 6 weeks of age.

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING V:

HIV-infected mother who presents after delivery

Mother

- Determine if Mother is eligible for HAART for her own disease, and follow appropriate guidelines including referral to ART /Care programme

Infant:

- Mother breastfeeding, not commenced on HAART: Give daily NVP to infants from birth until one week after all exposure to breast milk has ended.
- Mother breastfeeding (eventually commenced on HAART): Give daily NVP to infants from birth and continue until six weeks after maternal commencement of HAART
- Mother not breastfeeding: Give daily NVP to infants from birth until 6 weeks of age.

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING VI:

HIV-infected woman with active TB

- Delay ARV treatment until second trimester, if possible.

Treatment regimens: These are in decreasing order of preference:

- If treatment is initiated in second trimester, EFV (800mg) + 2NRTIs , ZDV + 3TC + Abacavir, 2 NRTIs + Ritonavir-boosted PI* (Saquinavir/r or Lopinavir/r), ZDV + 3TC + Tenofovir

Change rifampin to low dose rifabutin

Avoid ZDV if haemoglobin is < 8 g/dl or PCV< 24%

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING VI:
HIV-infected woman with active TB
Infant
- Give daily NVP to infant from birth until 6 weeks of age.
- Prophylactic INH from birth (5mg/Kg once daily) until six (6) months of age.

Dosage of NVP: See Clinical Setting IV above.

ARV PROPHYLAXIS FOR PMTCT CLINICAL SETTING VII:
HIV-infected women with indication for ART but required drugs are not available.
All efforts should be made to ensure that all HIV pregnant women who need ART have access to it either on site or by referral.
Prophylaxis for Opportunistic Infections
- Co-trimoxazole Preventive Therapy (CPT):Prevents Bacterial & Parasitic infections (PCP, Toxoplasmosis, Malaria), Indications:
- CD-4 ⩽ 350 c/ml
- WHO Clinical Stages 2,3,& 4 disease
- All HIE Infants ages ⩾ 6 weeks, Adult dose = 960 mg daily, Alternatives:
- Dapsone
- Atovoquone

Prophylaxis for Opportunistic Infections
- Tuberculosis: Cough of > 2 weeks duration be screened, At X-ray, abdominal shield be used
- Syphilis: All pregnant women be screened, Co-infection increases MTCT, Rx involves Penicillin & should be repeated after one week

Prophylaxis for Opportunistic Infections
- Candidiasis: Oral/vaginal infection treated with:
- Single dose fluconazole, Topical agents where possible, Amphotericine B is 1st trimester alternative
- Cytomegalovirus: Valgariciclor
- Herpes Simplex Virus: Acyclovir
- Varicela-zoster virus:Acyclovir or Valacyclovir, VZIG Immunoglobulin
- HPV: Topical Bi-chloroacetic Acid or Tri-chloro Acetic Acid, Ablative therapies

UNIVERSAL PRECAUTIONS
- Proper handwashing, Use of protective barriers, Safe handling & disposal of sharps & solid wastes, Safe processing of contaminated instruments for re-use

POST EXPOSURE PROPHYLAXIS
- Occupational Exposure:Initial steps after needle-prick or mucosal exposure, Evaluation for PEP, Determination of risk & ARV drugs for PEP:Low-risk = 2 ARVs, High-risk = 3 ARVs, Uncertain-risk = 2 ARVs
- Sexual Exposure: Assailant's HIV-status determination, Likelihood of HIV transmission, Counseling, 2 or 3 ARVs, Follow-up, with re-testing at: 6 weeks, 3 months, 6 months

ACKNOWLEDGEMENTS
- Federal Ministry of Health, National AIDS & STI Control Programme (NASCP), National Action Committee on AIDS (NACA) WHO, APIN/Harvard PEPFAR

IN CONCLUSION
In Nigeria, HAART has already been shown to reduce MTCT to 2.5%. If the national PMTCT coverage is raised from the current 22% to the 90% level envisaged in the 2010-2015 National PMTCT Scale-Up Plan, using the 2010 Guidelines, the country could achieve the "Virtual Elimination" of MTCT by 2015, as envisaged by the Joint United Nations Programme on HIV/AIDS (UNAIDS)!

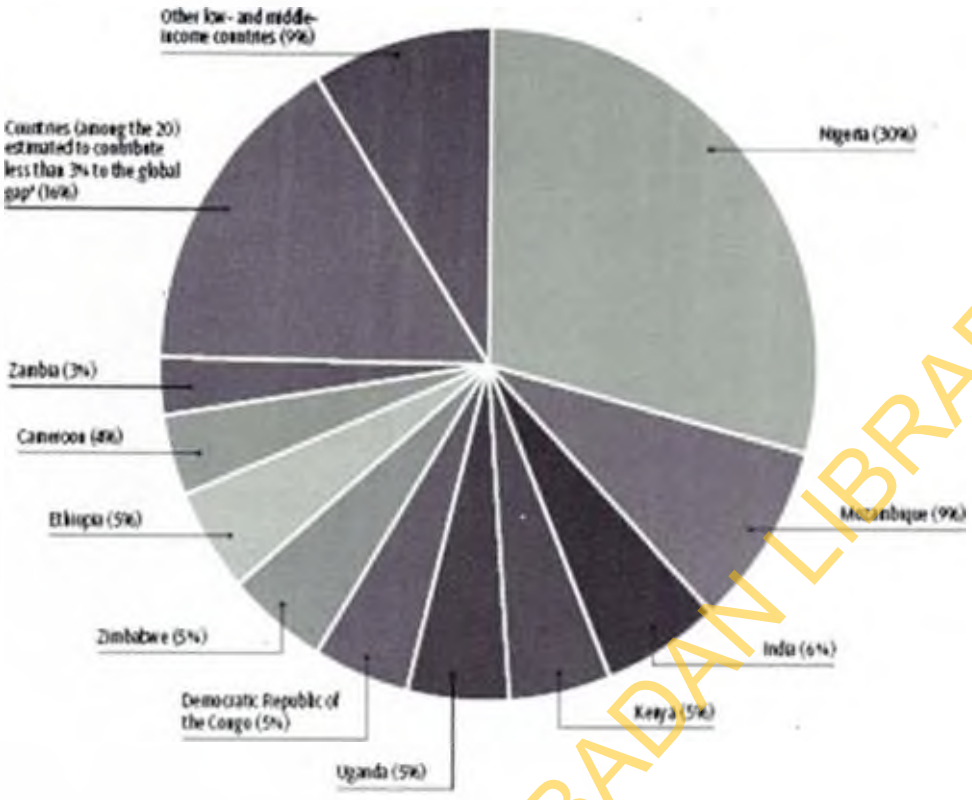
PL-042

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION OF HIV: A JOINT RESPONSIBILITY

By, Prof Atiene Solomon SAGAY
BSc, MBChB, FWACS, FRCOG(Lond)
Chairman, National PMTCT Task Team,Global impact of the HIV epidemic on children
- 14.2 percent (370,000 of 2.6 million) of new global HIV/AIDS infections in 2009
- 14.4 percent (260,000 of 1.8 million) of HIV/AIDS deaths in 2009

- 7.5 percent (2.5 million of 33.3 million) of the persons living with HIV

Over 90% of children acquire HIV through mother-to-child transmission (MTCT)



* These countries include Angola, Botswana, Burundi, Chad, Côte d'Ivoire, Ghana, Lesotho, Malawi, South Africa and the United Republic of Tanzania.

Score Board after nearly One Decade of Implementation

	Nigeria
HIV+ pregnant women:	210,000
Coverage of ARV/ART for PMTCT:	22%
Estimated HIV incidence (modelled):	0.39%
Contraceptive prevalence:	20%
Unmet need for FP:	20%
ANC at least 1 visit:	58%
Median duration of BF:	19 m
MTCT rate in 2009:	32%
New child infections 2009:	64,700

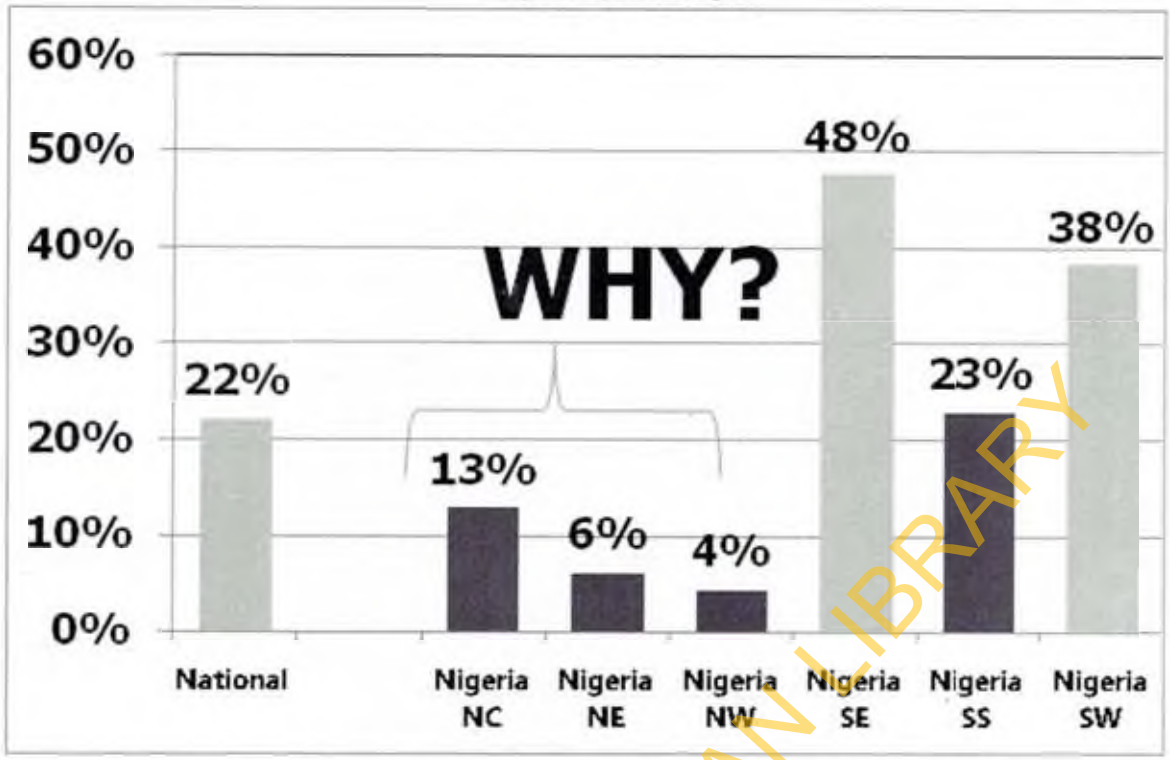
Sources: WHO Universal access report 2010, Nigeria DHS 2008, South Africa DHS 2003, UNAIDS analysis

The Global PMTCT Gap

FROM PMTCT TO E-MTCT

- 2009: UN declaration of commitment for the Elimination of Mother to Child Transmission of HIV (E MTCT)
- (IATT) in February 2010 organized a global meeting in Geneva
- Global Fund in May 2010 organized meetings in Kenya and later in South Africa
- A global consultation was held in Geneva in November 2010

Regional disparities in Nigeria



- regions and countries were advised to go and domesticate the concept of E-MTCT.

NOV. 2010 GENEVA CONSULTATION ON ELIMINATION

Goal: "To eliminate new paediatric HIV infections and improve maternal, newborn and child survival and health in the context of HIV."

Overall Targets

1. Reduce new paediatric HIV infections by 90%
2. Reduce mother-to-child transmission rate (MTCT) to <5%

Prong Targets and Indicators

Prong 1:50% reduction in HIV incidence **(+3 indicators)**

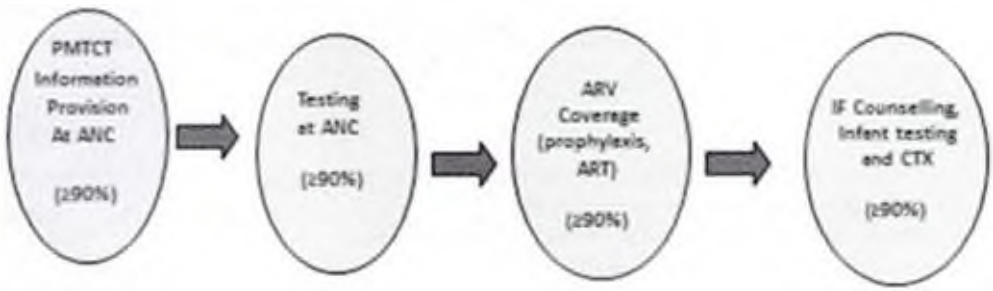
Prong 2: Unmet FP to ZER**(+1 indicator)**

Prong 3: Vertical transmission < 5% (<2% around 6 weeks) (+9 indicators)

Prong 4:90% reduction in HIV-related maternal and infant and child deaths**(+4 indicators)**

TARGETS FOR E-MTCT

- Follows similar sequence as ART guide, used in regional scale-up workshops (potential standard, country situational analysis, programmatic capacity, possible targets, decide)
- Focuses on components consistent with the IATT PMTCT global strategy:
- Other areas to consider for targets: partner testing, family planning, infant feeding practice ANC, safe delivery indicators

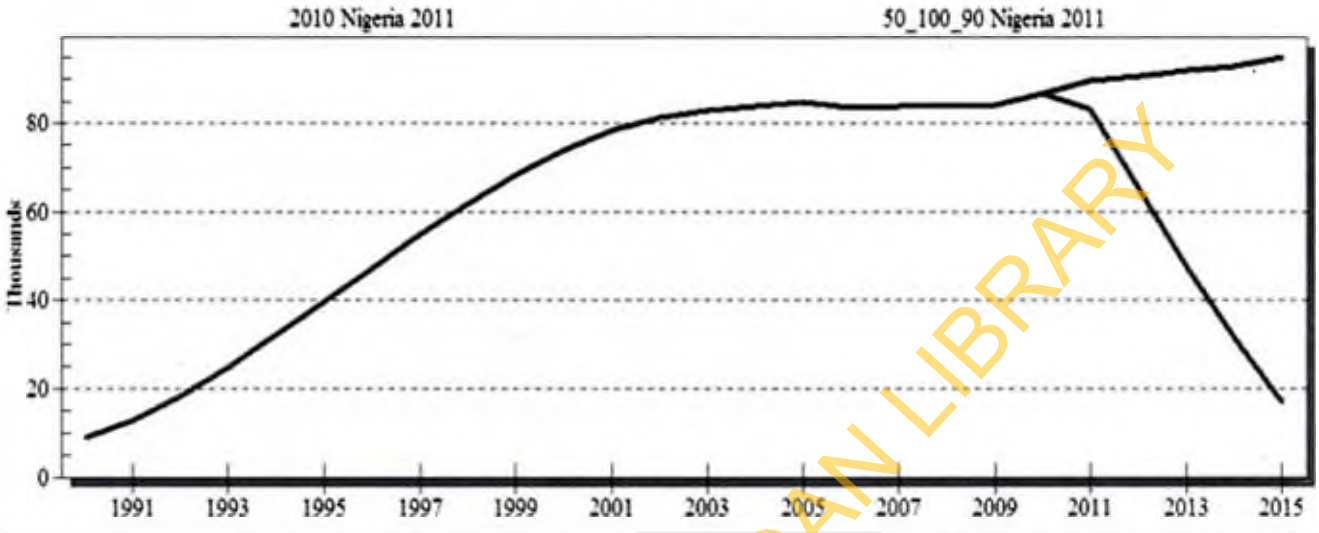


linked with and part of Safe Motherhood

WHAT DOES NIGERIA PLAN TO DO

- Reduce HIV incidence among women of reproductive age by 50% between 2010 and 2015
- Reduce unmet need for family planning by 100% between 2010 and 2015
- Reach 90% of HIV-positive women and infants with ART or ARV prophylaxis according to the 2010 National PMTCT guidelines (providing lifelong ART for women with CD4 levels below 350mm3 or highly effective ARV prophylaxis from 14

Number of new child HIV infections due to mother to child transmission, by scenario, Nigeria



2010 – base scenario: 2009 programme coverage maintained through 2015

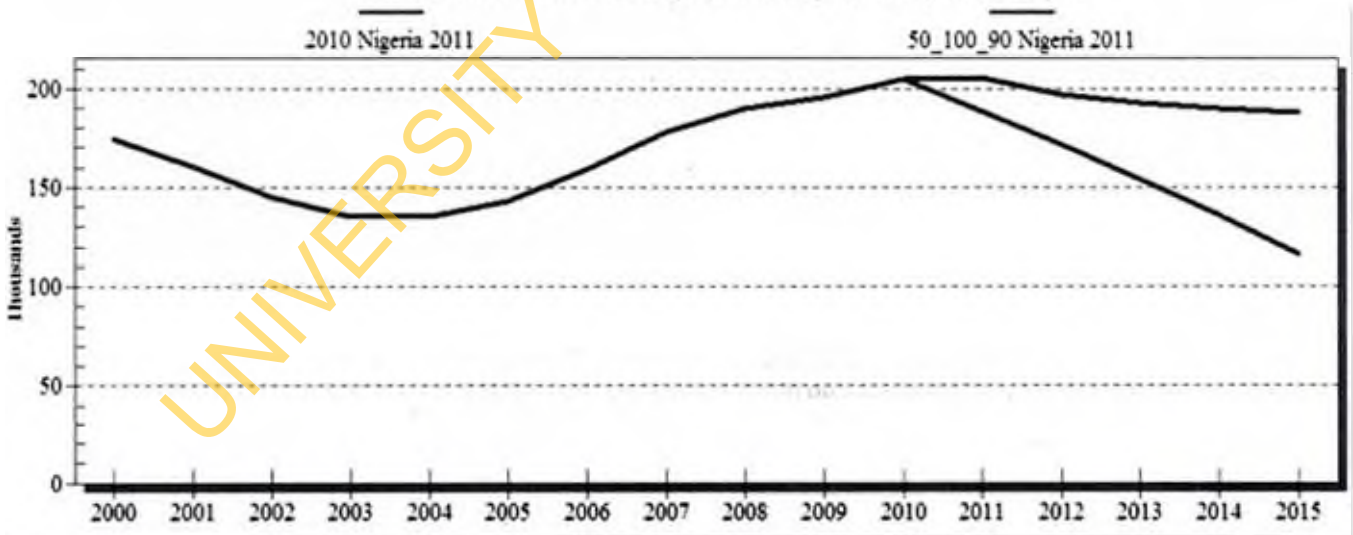
50_100_90 – intervention scenario: 50% reduction in HIV incidence, eliminate unmet need for family planning, provide ARVs or ART to 90% of women in need FMOH / UNAIDS

weeks through the end of breastfeeding)

HIV INCIDENCE – PRONG 1

Based on surveillance data from Nigeria, including antenatal care sentinel surveillance and population based surveys, the country team created an incidence curve in Spectrum. That curve was used to define the HIV incidence and prevalence from

Number of new HIV infections among reproductive age women, by scenario, Nigeria



2010 –base scenario: 2009 programme coverage maintained through 2015

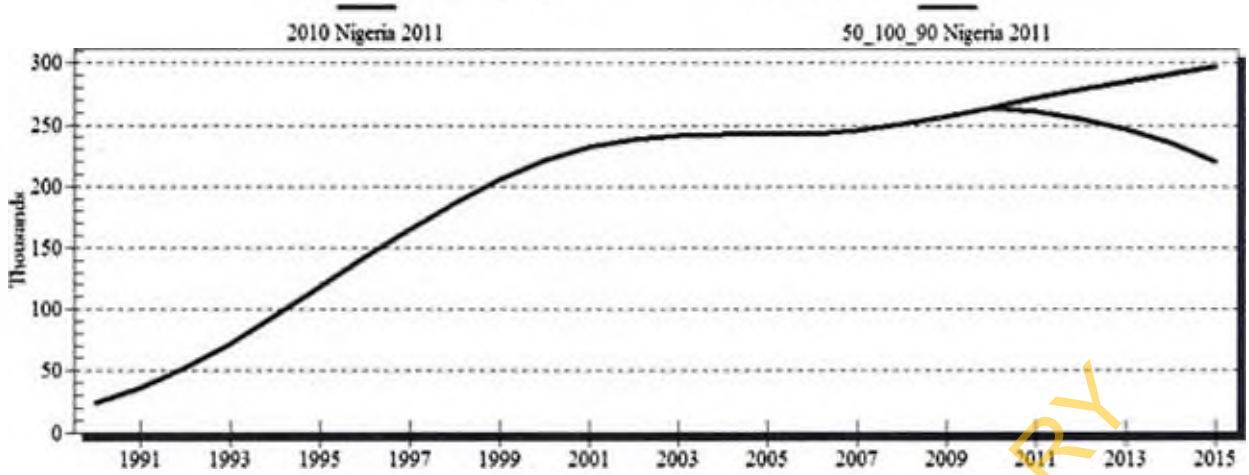
50_100_90 –intervention scenario: 50% reduction in HIV incidence, eliminate unmet need for family planning, provide ARVs or ART to 90% of women in need.

the start of the epidemic until 2009 in Spectrum

FMOH / UNAIDS

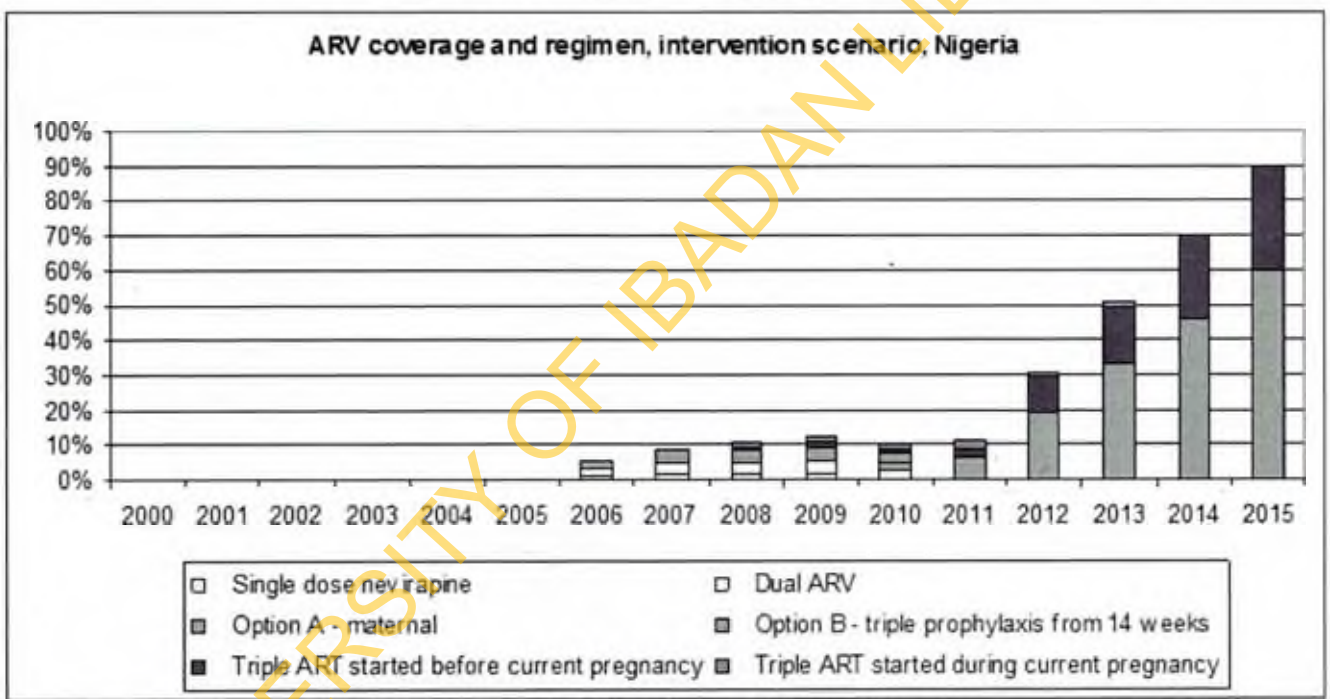
The 50% reduction in HIV incidence and meeting unmet need for contraception will reduce the number of births to HIV-positive women from a projected 297,300 to 220,200

Number of women living with HIV giving birth (women in need of PMTCT services), by scenario, Nigeria



2010 – base scenario: 2009 programme coverage maintained through 2015
50_100 intervention scenario: 50% reduction in HIV incidence, eliminate unmet need for family planning.

Percent of women receiving ARV or ART by regimen, by scenario, Nigeria



In this scenario the 2015 regimen and coverage will result in 8% transmission rate

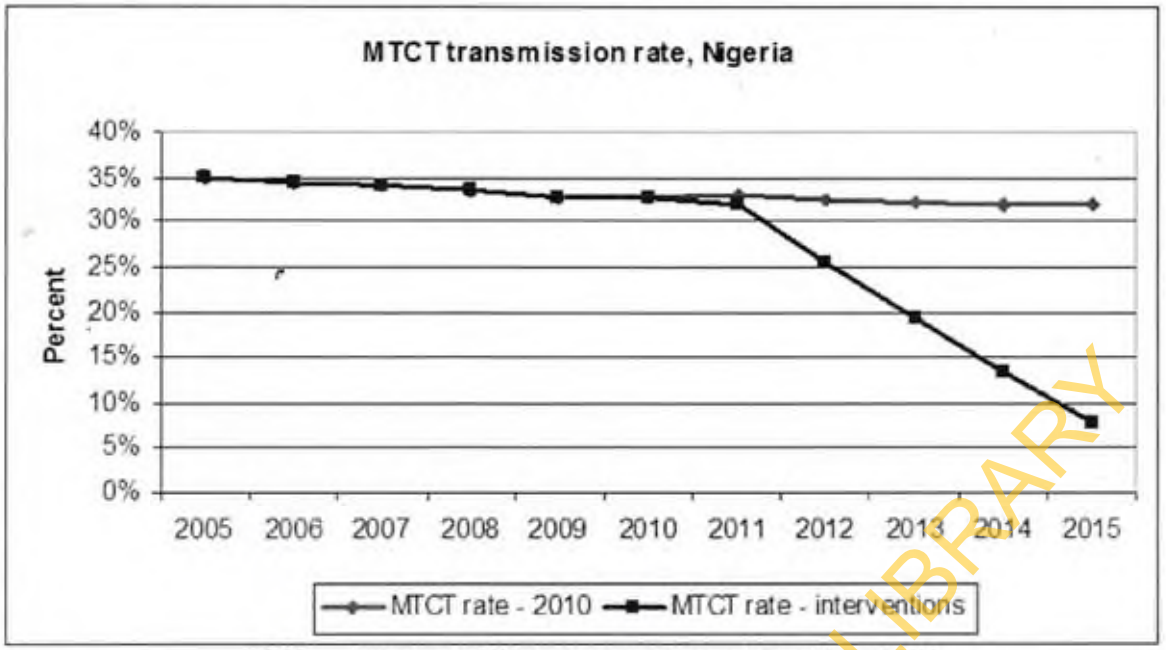
TOWARDS ELIMINATION OF MTCT IN NIGERIA

- Renewed Commitment for Elimination of MTCT (Global, Regional and National)
- Commitment to fully implement New Scale up (MTCT Elimination) Plan (2011-2015)
- Equity-focused strategic analysis of current program performance to identify and overcome bottlenecks (routine program data, effectiveness study, etc..)
- Strengthened emphasis on Prongs 1&2 through better collaboration and integration of SRH, MNCH and HIV programs.
- Programming for E-MTCT will not occur in isolation and calls us to get out of our comfort (Prong 3&4) zone
- Sustained funding for cost-effective interventions to support elimination of MTCT and contribute to maternal health and child survival.
- National leadership, States and LGA buy-in, accountability and ownership (communities).

ACKNOWLEDGEMENTS

- FMOH/ SMOH, UNICEF, PMTCT Task Team, Donor Agencies, Other Implementing Partners, Private Sector.

Estimated mother to child transmission rate (including transmission during pregnancy, delivery and breastfeeding), by scenario, Nigeria

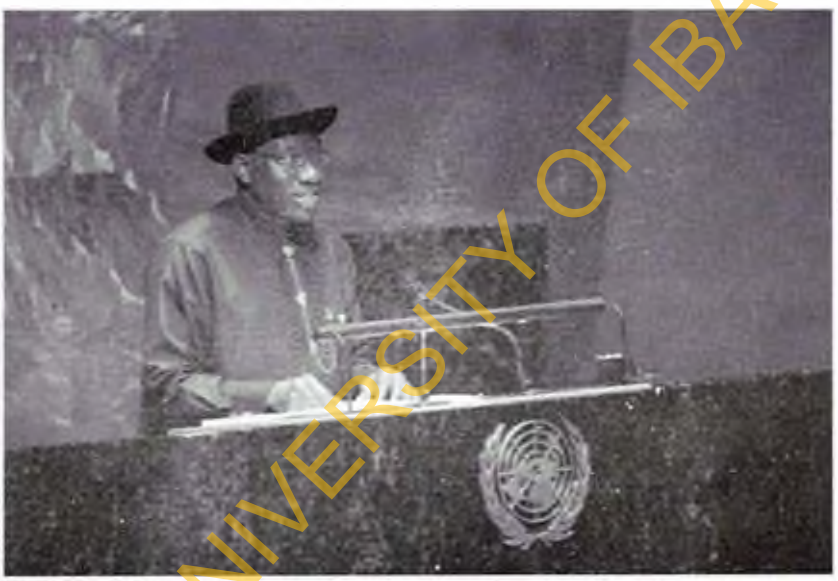


2010 – base scenario: 2009 programme coverage maintained through 2015

50_100_90 –intervention scenario: 50% reduction in HIV incidence, eliminate unmet need for family planning, provide ARVs or ART to 90% of women in need.

CLEARLY, BOLD ACTIONS ARE REQUIRED TO ELIMINATE NEW HIV INFECTIONS AMONG CHILDREN BY 2015.

Eliminating Paediatric HIV



- Nigeria is signatory to the Political Declaration on Intensifying efforts to Eliminate HIV and AIDS
- National Scale up plan targets elimination by 2015
- Government is committed to increased domestic funding, health systems strengthening, decentralization & integration to increase access to services

PL-043

HIV DIAGNOSIS IN CHILDREN

Edna Iroha
DEPT OF PAEDIATRIC,CMUL/LUTH
IDI ARABA, LAGOS

INTRODUCTION

- Determination of HIV status of children exposed to HIV during pregnancy, labour or breastfeeding is an important part of follow up services in PMTCT programmes.

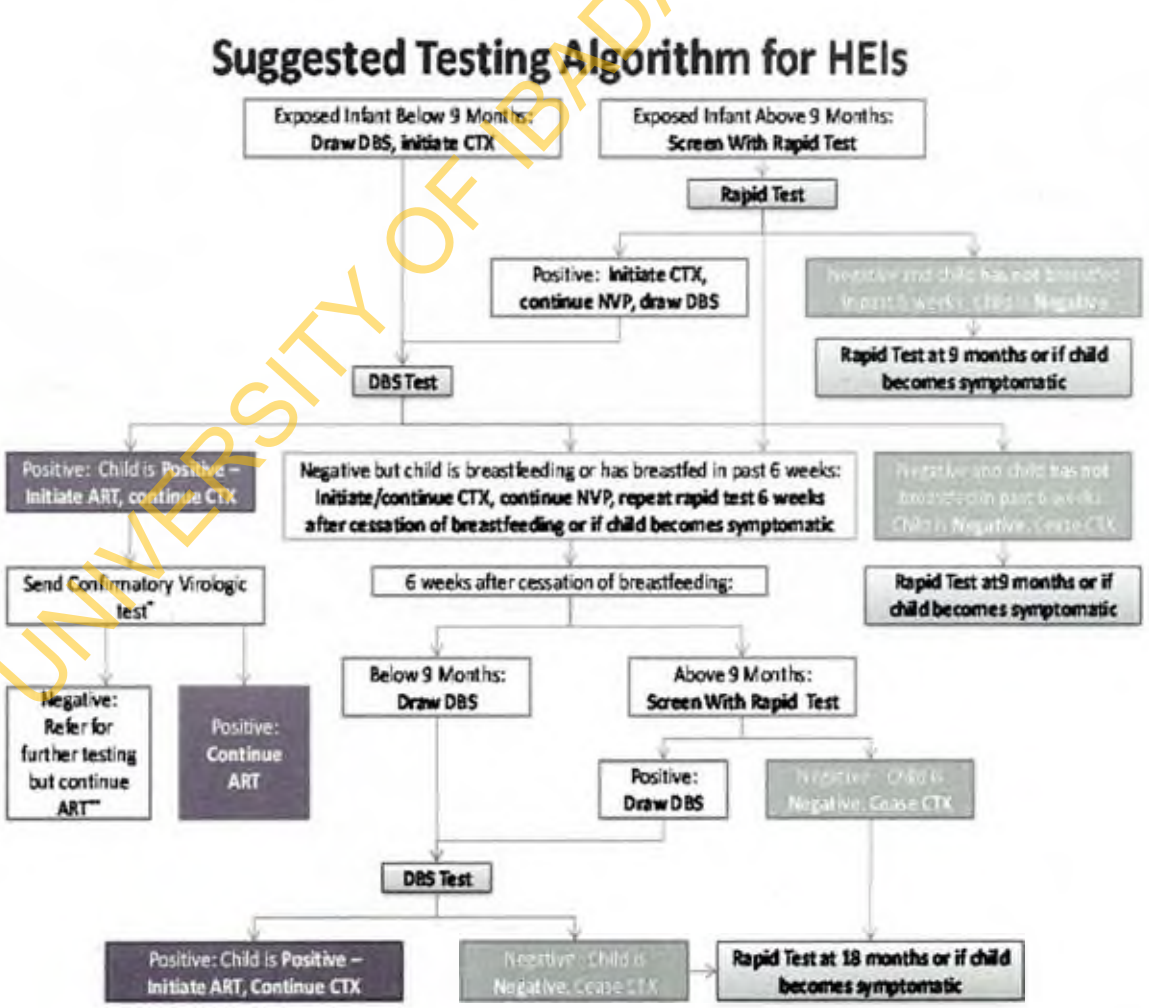
- HIV testing and counselling should therefore be provided. (PITC).
- Progression of HIV infection in children is rapid with high mortality
- Mortality rate * 30% at 1year, 50% at 2yrs, 60% at 5yrs
- Early identification for initiation of treatment and care is imperative

EARLY INFANT AND CHILD DIAGNOSIS

- In the first 18 months of life, methods of HIV testing that rely on the detection of the HIV or its products (virologic testing) are required for confirmatory diagnosis.
- As HIV antibody testing may not reliably confirm the true HIV status of the infant or child
- Early diagnosis of HIV in these infants (0-12months) and children (12-18months) before they become ill is desirable for many reasons including:
- Early introduction of ARV and other therapy for HIV infected infants.
- Tracking the effectiveness of the PMTCT programme.
- Polymerase Chain Reaction (PCR)
- Measure viral nucleic acid, it is a confirmatory test that is not affected by the presence of maternal antibodies.
- DNA-PCR is done about the age of 6weeks using whole blood or dried blood spot (DBS) on filter paper
- Breastfeeding infant who test negative should have a repeat test 6 weeks after complete cessation of breastmilk.

DIAGNOSIS IN CHILDREN ABOVE THE AGE OF 12 MONTHS

- Babies born to HIV positive mothers will have some maternal antibodies to HIV in circulation.
- Hence all of them will test HIV positive for HIV antibodies at birth
- The maternal antibodies persist for variable periods after infancy until they finally disappear at 18months.
- Diagnosis of HIV infection using HIV antibody testing can only be made after 18 months.
- In breast feeding infant antibody testing should be carried out at three month after cessation of all breast milk.



PL-044

OVERVIEW OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV (PMTCT) PROGRAMME IN NIGERIA

Dr Wapada Balami mni
National Coordinator, HIV/AIDS Division, FMOH
Presented at the Annual Conference of SOGON

OUTLINE

- Background information, Mother-to-child transmission of HIV, National PMTCT Strategies ,Progress made so far, Efforts at scaling up PMTCT programme, Challenges, Immediate priorities

BACKGROUND

- HIV/AIDS pandemic is one of the most serious health crisis facing the world today
- A disproportionate burden has been placed on women and children
- In 2009, 33.3million individuals were living with HIV globally
- 15.7M were women; 2.1M were children
- Over 90% HIV infection in children come from their mothers through vertical transmission
  HIV positive persons: 3.5million, HIV+ pregnant women(annual): 229,480
- Annual HIV exposed births: 57,000
- 58% of pregnant women attend ANC at least once; 45% attend at least 4 times
- 35% of births occur in health facilities, 62% occur at home.
- Nigeria is one of the 22 countries with high burden MTCT
- Nigeria contributes 30% 0f global burden of MTCT

MOTHER –TO-CHILD TRANSMISSION OF HIV(MTCT)

- Pregnancy (5-10%), Labour and delivery (15%), Breastfeeding (5-15%), In the absence of intervention the risk of transmission is between 25-40%

PREVENTION FROM MOTHER TO-CHILD TRANSMISSION OF HIV PROGRAMME

Includes interventions designed to reduce the risk of MTCT to less than 2% (2002)

Goal

- To contribute to improved maternal health and child survival through accelerated provision of comprehensive PMTCT services

Targets

- At least 90% of all pregnant women have access to quality HIV counseling and testing by 2015
- At least 90% of all HIV positive pregnant women and their babies have access to efficacious ARV prophylaxis by 2015
- At least 90% of HIV exposed infants have access to early infant diagnosis services by 2015

NATIONAL PMTCT STRATEGIES

- Four- pronged strategies/elements (UNAIDS)
- This strategy also provides the framework for the elimination of new HIV infections among children and to keep their mothers alive.
  - Primary prevention of HIV infection in women of reproductive age group and their partners
  - Prevention of unintended pregnancies among HIV positive women
  - Prevention of HIV transmission from infected mothers to their infants
  - Provision of appropriate treatment, care and support to infected mothers their infants and families

PROGRESS MADE SO FAR

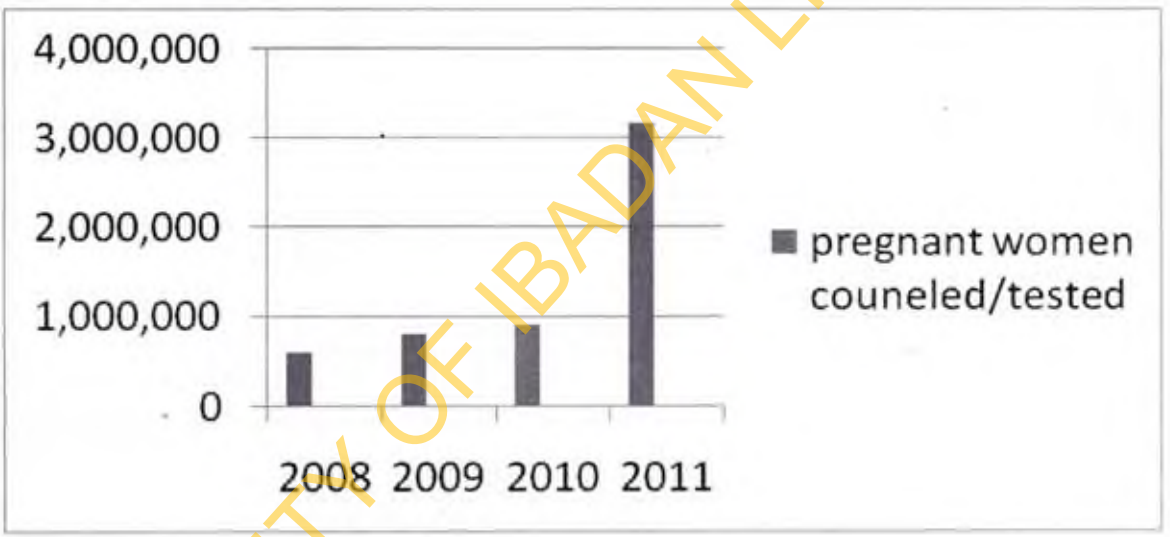
- Low national PMTCT coverage;13% pregnant women accessing HCT(▫ 60% by 2011)
- MTCT was still unacceptably high, in view of current global plan to eliminate MTCT by 2015
- Only 33% of PHC in the country offer maternal services
- Infrastructural decay at the PHC level
- Problem of integrating PMTCT into the existing reproductive health services
- Weak monitoring and evaluation system

NATIONAL SCALE- UP PLAN TOWARDS ELIMINATING MTCT(2010-2015)

- Increased focus on PMTCT by Government (Political and Funding)
- Establish Midwives services scheme to strengthen service delivery at Primary Health Care level with Federal Government

Progress made

	2004	2010
Sites offering PMTCT services	67	718
Pregnant women Counselled and Tested	18,554	907,387
Number women tested positive		31,577
HIV + pregnant women receiving ARV Prophylaxis	645	26,133
HIV exposed infants receiving ARV Prophylaxis	516	14,573
Labs with Polymerase Chain Reaction(PCR) capacity for Early Infant Diagnosis (EID)		20
Dried Blood Spot (DBS) collection sites	-	>200
Number of HIV positive children on ART		20,401



Progress made

	2008 (actual)	2009 (actual)	2010 (actual)	2011 (TARGET)
Pregnant women Counselled and Tested	605,875	804,113	907,387	3,165,166 (50%)
HIV + pregnant women receiving ARV Prophylaxis	22,055	24,485	26,133	55,575 (25%)

MDG funds.

- Re-programming of Global Fund R9 for PMTCT scale-up to Primary Health care Centers
- Mapping of HIV/AIDS services

SCALING UP PMTCT...(2)

- Update of PMTCT Guideline & Training Documents, Update of Integrated Infant Feeding Counseling Manual, Zonal Training of Trainers (TOT) on PMTCT, Zonal TOT on Early Infant Diagnosis (EID), Review of M & E Tools, Accreditation of Additional EID labs, Installation of SMS printers (120 printers procured up to date, 82 installed, 6 PCR Labs using SMS printers now

CHALLENGES

- Inadequate funding at all levels
- Poor coordination of Partners working on PMTCT
- Inequitable geographical distribution of health services and variable quality of services
- Inadequate Human Resource (Urban-Rural discrepancy; Capacity building and mentoring)
- Underutilization of maternal and newborn services
- Need for stronger collaboration with the Private sector
- Improvement of Procurement and supply management systems
- Improvement of the Monitoring and evaluation systems

IMMEDIATE PRIORITIES

- Increased collaboration with International Partners for well coordinated Technical & Financial support
- Advocacy for increased domestic funding at State and Local Government levels (effective leveraging of resources)
- Health system strengthening with emphasis on integration of services to improve Maternal & Child Health
- National Consultation on the Elimination of MTCT with all Stakeholders
- Increased engagement with Civil Society Organizations & Increased community based activities for adequate demand creation
- Improve monitoring and evaluation systems
- Support from everyone.

PL-045

PMTCT NATIONAL GUIDELINES: INFANT FEEDING AND EID RECOMMENDATIONS

EDNA IROHA
DEPT OF PAEDIATRIC,CMUL/LUTH
IDI ARABA, LAGOS

INTRODUCTION

- HIV can be transmitted via breastfeeding, the effectiveness of ARVs to reduce transmission and the benefits of breastfeeding to reduce morbidity and mortality from other causes, justifies an approach that strongly recommends exclusive breastfeeding for the first six months followed by the introduction of appropriate complementary feeding with continued breastfeeding to 12 months as the standard for feeding HIV exposed infants
- These guidelines therefore recommend that health care providers should support HIV positive mothers to breastfeed.
- Both mother and infant must however, receive ARVs for prophylaxis or treatment as appropriate.
- This strategy is likely to give infants the greatest chance of HIV free survival.

OBJECTIVE OF INFANT FEEDING

- To ensure survival of infants of HIV infected mothers., To reduce the risk of HIV transmission from mothers to their infants.

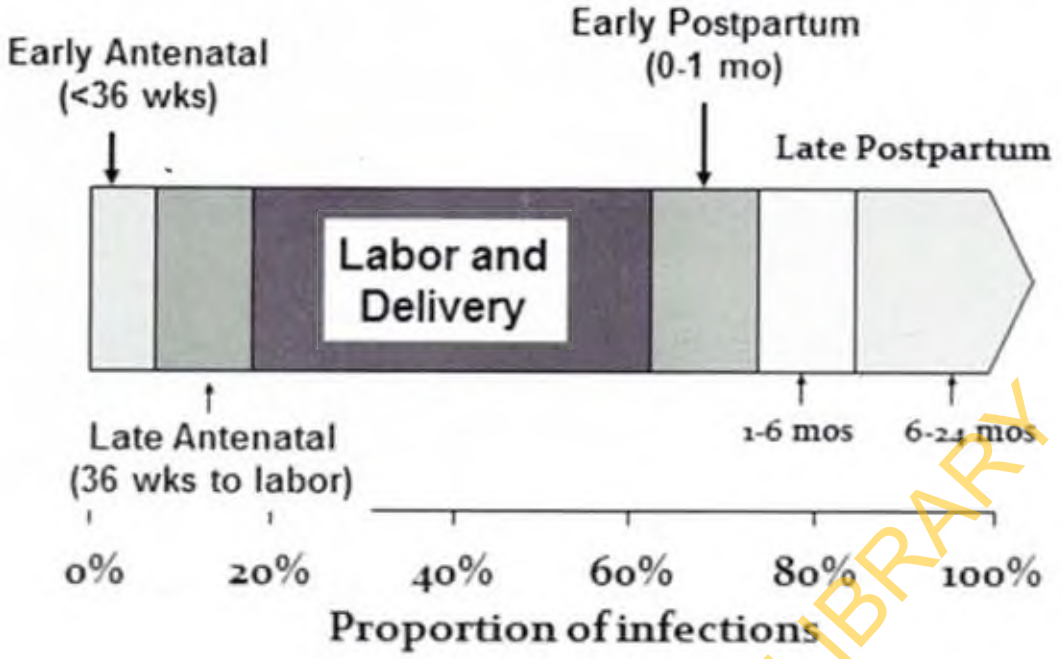
Information on infant feeding, Nutritional requirement of the child, Standard of care for HIV-free survival, Risks and benefits of breastfeeding, Risks and benefits of formula-feeding, Cost of infant formula feeding, Increased risk of HIV transmission with mixed feeding in the first six months of life, Child spacing, Psychological stimulation of the child, Social and cultural factors, Breast issues.

STANDARD OF CARE OF HIV EXPOSED INFANTS

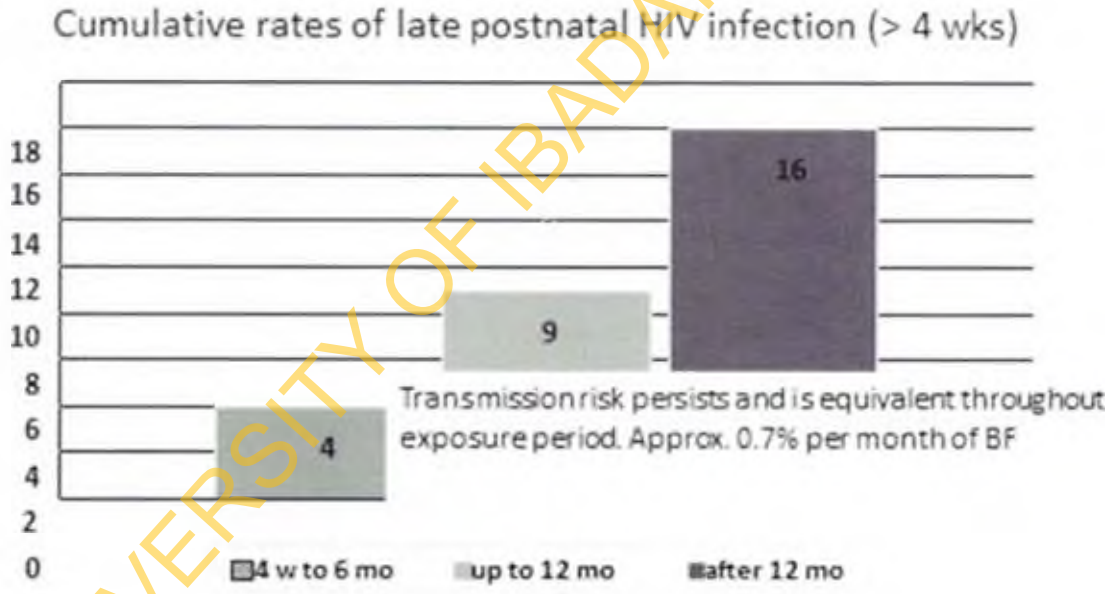
- The recommended infant feeding method for HIV positive mothers is exclusive breastfeeding with ARV intervention.
- However, exclusive formula feeding while avoiding all breast-milk is supported where the former is not feasible or is the choice of the mother.
- Appropriate infant feeding is critical to child survival and the natural food for the infant is breast milk.
- In the context of maternal HIV infection, infant feeding becomes complex.
- HIV infection may be transmitted through breast milk from the mother to the child and the risk approaches 45% in the absence of any intervention
- Not breastfeeding has the benefit of zero HIV transmission but carries the risk of morbidity and mortality from malnutrition or diarrhoea.
- HIV positive mothers are faced with two choices to take for the wellbeing of their infants:
- Breastfeed while receiving ARV intervention to make breast milk safer, Or
- Avoid all breast-feeding and give commercial infant formula

NATIONAL TASK TEAM ON PMTCT RECOMMENDATION ON HIV AND INFANT FEEDING

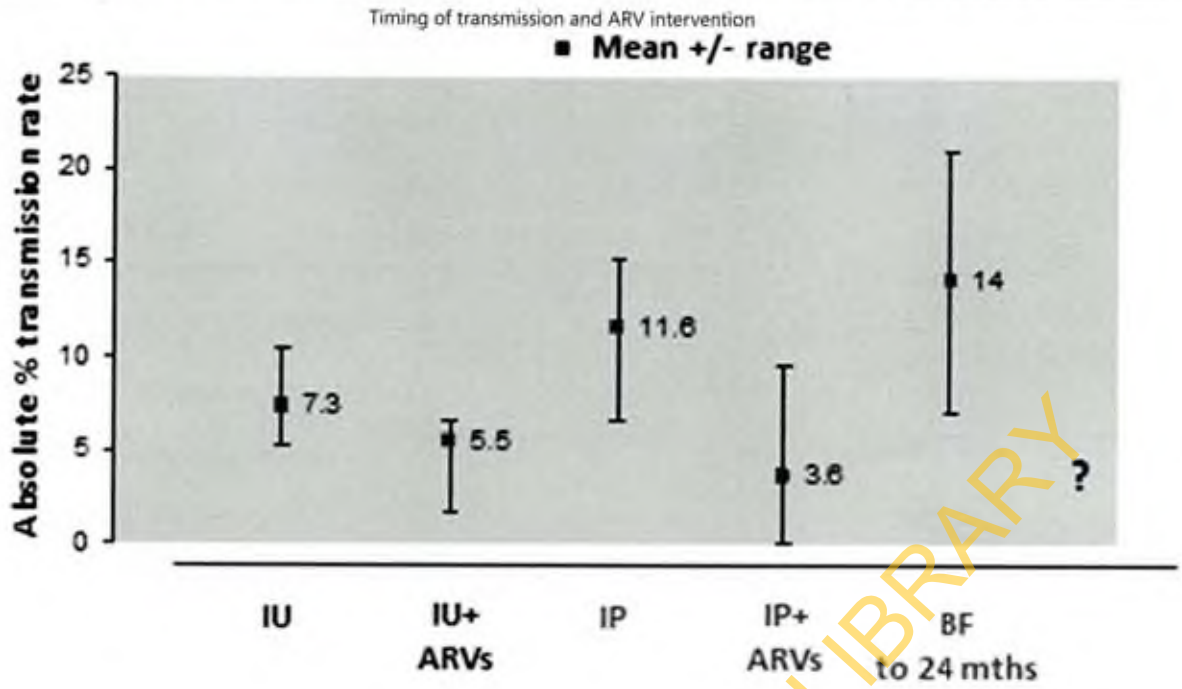
Timing of MTCT, Breastfeeding Population, No ARV: Breastfeeding Accounts for as Much as 40% of All MTCT



The risk of HIV transmission through breastmilk over 24 months



1. Exclusive Breastfeeding for all HIV infected mothers while receiving ARVs as ART or prophylaxis to the mother-infant pair is recommended.
   - However , where HIV positive mother opts for infant formula she should be supported to make it safe.
2. Which breast feeding practices and for how long
   - Mothers known to be HIV infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breast feed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life.
   - Breastfeeding should only be stopped once a nutritionally adequate and safe diet without breast milk can be provided.
3. When mother decide to stop breastfeeding
   - Mothers known to be HIV infected who decide to stop breast feeding at any time should stop gradually within one month. Mothers or infants who have been receiving ARV prophylaxis should continue prophylaxis for one week after breastfeeding is fully stopped.
   - Stopping breastfeeding abruptly is not advisable.



CLINICAL SETTINGS

CLINICAL SETTING 1

Mother receiving ART for her own disease:

- Exclusively breastfeeding from birth, Introduce complementary foods at six months, Continue with breastfeeding till the infants reaches 12 months of age, The infant receives daily NVP for first 6 weeks of life only.

CLINICAL SETTING 2

Mother receiving prophylactic ARVs beyond the postpartum period:

- Exclusively breastfeed from birth, Introduce complementary foods at six months, Continue with breastfeeding until the infant reaches 12 months of age, Continue with the ARVs until one week after cessation of all breast milk, The infant receives daily NVP for the first 6 weeks of life only.

CLINICAL SETTING 3

Mother receiving prophylactic ARVs for just one week after delivery:

- Exclusively breastfeeding from birth, Introduce complementary foods at six months, Continue with breastfeeding for up to 12 months, The infants receives daily NVP until one week after cessation of all breast milk

CLINICAL SETTING 4

Mother who never had any previous exposure to ARVs before birth:

- Exclusively breastfeed from birth, Introduce complementary foods at six months, Continue breastfeeding to the end of 12 months, The infant receives daily NVP throughout the period until one week after cessation of all breast milk.

CLINICAL SETTING 5

Mother receiving ART or ARVs as prophylaxis who chooses not to breast feed

- Exclusive formula feeding from birth, Introduce complementary foods at six month of life, The infants receives daily NVP for the first 6 weeks of life.

CLINICAL SETTING 6

When antiretroviral drugs are not (immediately) available

- Exclusive breastfeeding from birth, Introduce complementary food at 6 months ,Continue breastfeeding for up to 12 months, Every effort should be made to accelerate access to ARVs for both maternal health and also prevention of HIV transmission to infants.

N.B

- Breastfeeding may still provide infants born to HIV-infected mothers with the greatest chance of HIV-free survival
- Need to avoid the misconception that mothers can only breastfeed if they have ARVs

CLINICAL SETTING 7

When the infant is HIV infected

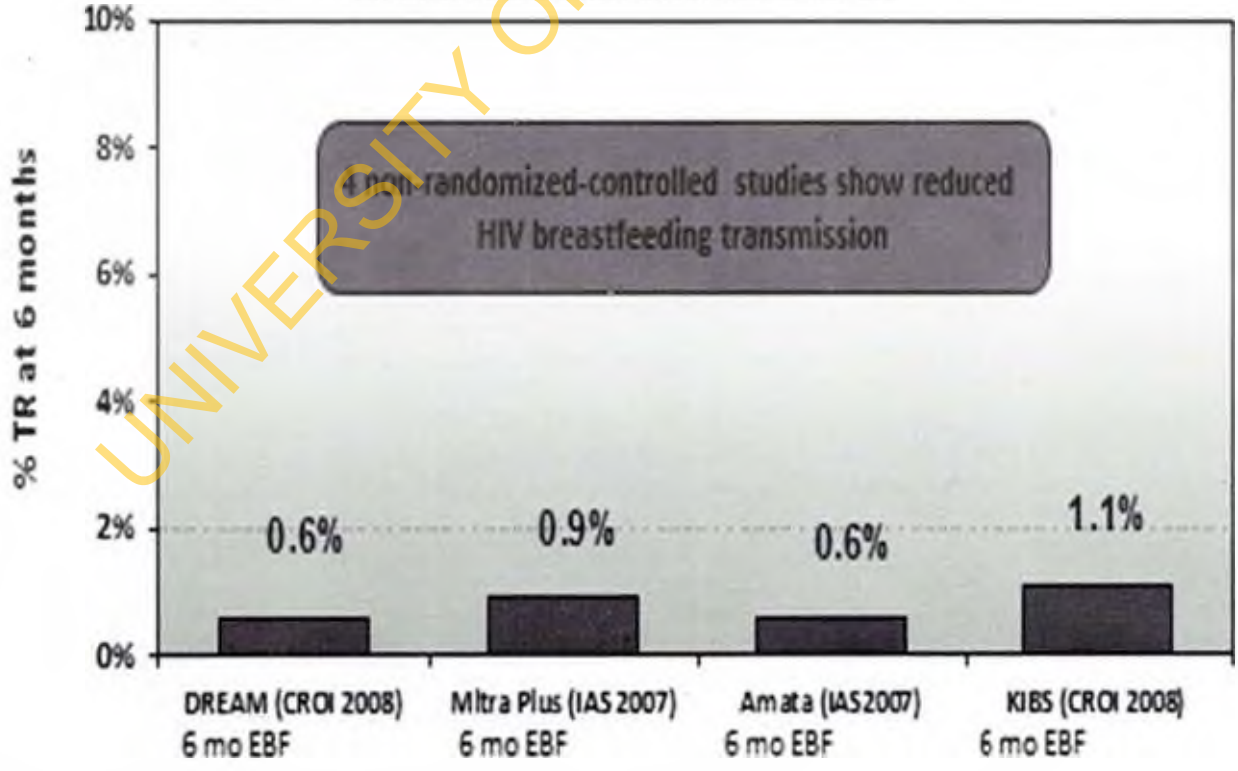
- If infants are known to be HIV infected mothers are strongly encouraged to exclusively breastfeed for the first six months of life and continue breastfeeding as per the recommendations for the general population that is up to two years or

Proposed Extended Simplified Infant NVP Dosing Recommendations (dosing required to sustain exposure in infant of > 100 ng/ml with least dose changes)	
Birth -6 weeks • Birth Weight < 2,500 gram • Birth Weight ≥2,500 gram	10 mg/daily 15mg/daily
≥6 weeks to 6 months	20mg/daily
≥6 to 9 months	30mg/daily
≥9 months to end of BF	40mg/daily

beyond.

- The new recommendations have great potential to improve the mother's own health and to reduce mother-to child HIV transmission risk to 5% or lower, from a background transmission risk of 35% (in the absence of any interventions and with continued breastfeeding).
- They offer the potential for all countries to virtually eliminate paediatric HIV. Combined with improved infant feeding practices, the recommendations can help to reduce both child mortality and new HIV infections.
- PMTCT can also act as a gateway to improved reproductive, maternal and child health services at primary leveland, in turn, bolster progress towards achieving the health-related Millennium Development Goals of reducing
- under-five mortality rates by two thirds, decreasing maternal mortality rates by three quarters, and halting and

Maternal ARV prophylaxis studies antepartum and postpartum (Dual or triple ARVs/ART)
Between age 4-6 weeks and 6-7 months HIV transmission rates



- reversing the spread of HIV/AIDS by 2015.

CHALLENGES

- · Continue programme scale-up, while introducing more effective interventions, CD4 screening and ART availability at primary care and MCH settings, Increased funding and human resource support, More effective monitoring of progress and quality, Rapid adaptation of new recommendations, More effective follow up and interventions postpartum, Attitude of health care givers

WAY FORWARD

- Successful implementation of the new guidelines will depend on:
- universal, voluntary HIV testing and counselling for pregnant women;
- availability of CD4 testing and ARVs at primary care level and antenatal facilities where most maternal-child health care takes place, and not just in specialized clinics;
- improved follow-up of pregnant women antenatally and of mothers and HIV-exposed infants after birth;
- ability to provide prophylaxis to the mother or baby throughout breastfeeding,
- Ability to provide infant feeding counselling and support;appropriately trained staff
- Involvement of all stakeholders in the PMTCT programme

ACKNOWLEDGEMENTS

- FMOH, UNICEF, PMTCT Task Team, Donor Agencies, Other Implementing Partners, Private Sector

HIV AND INFANT FEEDING

PL-046

THE ETHICS OF IN-VITRO FERTILISATION (IVF) IN NIGERIA

Dr. Richard Ajayi
FRCOG, FWACS

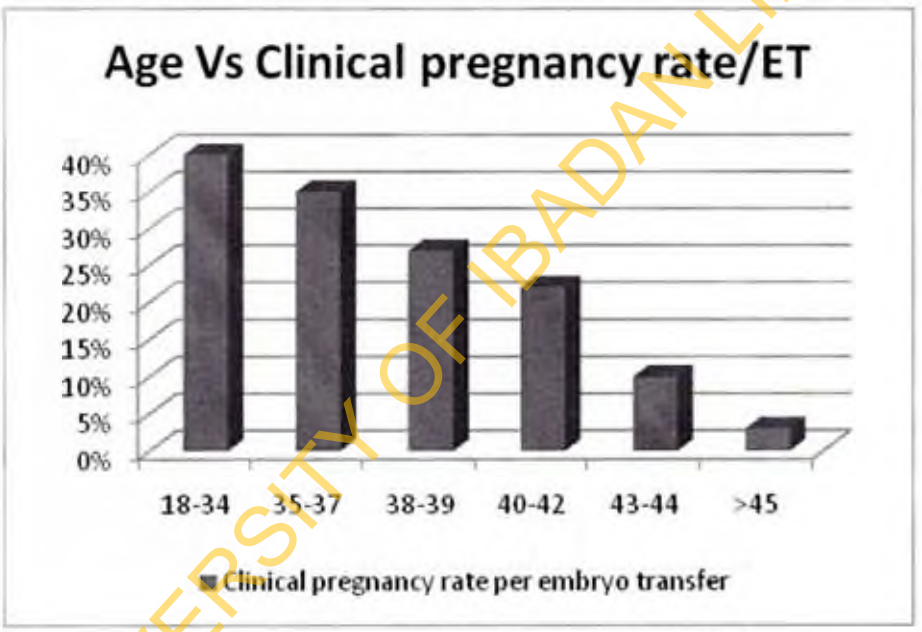
OVERVIEW

- Why is the subject important?, Introduction to medical ethics., Examine ethical arguments on IVF, Present data from two surveys on ethical considerations on IVF in Nigeria, Conclusion.

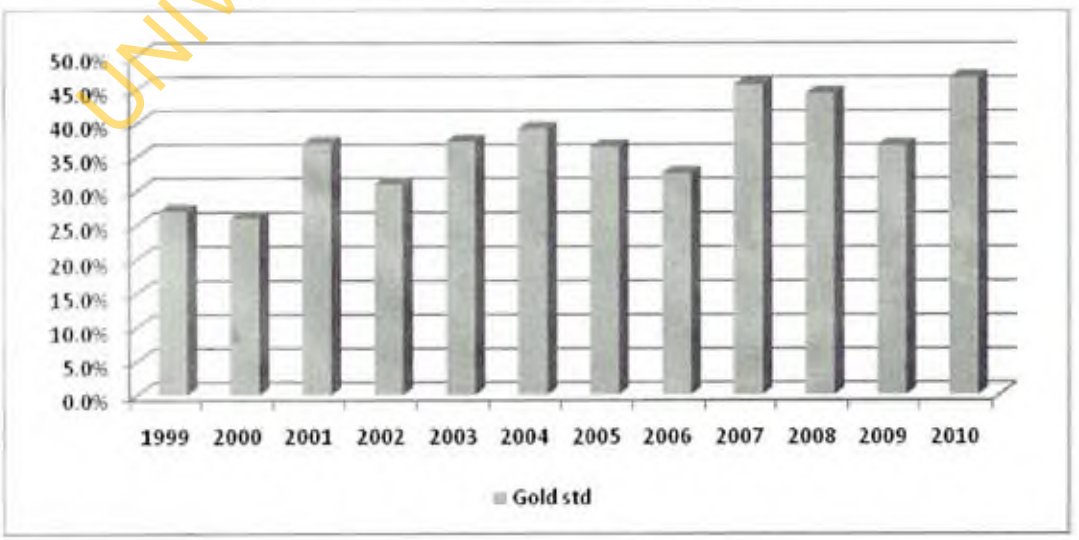
WHY IS THIS SUBJECT IMPORTANT?

- The award of the Nobel prize for medicine for 2010 to Prof. Bob Edwards has established IVF as the treatment of infertility.
- There are now over 4 million children born worldwide as a result of IVF and this expansion in the application of IVF is being seen in Nigeria with some clinics reporting the birth of over 1000 children from IVF.
- The requirement for children in the Nigerian culture is such that most couples become desperate and this leaves them open to exploitation.

Clinical pregnancy rates per embryo transfer achieved in The Bridge Clinic from 1999 - 2010



Average pregnancy rates for IVF/ICSI in the United Kingdom for 2010



ETHICAL ABUSES OF IVF IN THE PRESS

- Nadya Suleiman; the infamous "octomom" who had all 14 children born by IVF performed by the same fertility specialist, Dr. Michael Kamrava, who has since transferred 7 embryos into a 49 year old woman
- Dr. Cecil Jacobsen of Virginia who substituted his sperm in place of the father's and fathered scores of children to unsuspecting mothers
- 66 year old single woman who got pregnant by IVF in Ukraine using donor eggs
- 60 year old Canadian, Ranjit Hayer, gave birth to twin boys prematurely in 2009
- 70 year old Indian mother, Rajo Devi and her husband Bala Ram, gave birth to their first child making her the world's oldest new mother

ETHICAL ABUSES OF IVF

- 70 year old Indian grand mother of 5, Omkari Panwar and her husband, became world's oldest mother after giving birth to twins while trying for a male child through IVF
- Designer baby syndrome in America where people use PGD to select genotypic and phenotypic traits including the sex of the child.
- There has been a case involving surrogacy in the Nigerian press.....

THE WARNOCK COMMITTEE – 1982

- The committees' terms of reference were:
- "to consider recent and potential developments in science related to human fertilization and embryology; to consider what policies and safeguards should be applied, including consideration of the social, ethical and legal implications of their developments; and to make recommendations.

THE WARNOCK REPORT - 1984 (BMJ: 289:1984)

Made recommendations on.

- The setting up of a licensing body and the functions of the body.

This lead to the setting up of the Human fertilisation and embryology authority (HFEA) and the passing of the Human Fertilisation and Embryology Act in 1990.

THE HUMAN FERTILISATION AND EMBRYOLOGY ACT - 1990

Alongside the creation of the HFEA, the 1990 Act ensured the regulation, through the licensing of the following:

a) The creation of human embryos outside the body and their use in treatment and research.
b) The use of donated gametes and embryos.
c) The storage of gametes and embryos.

AMENDMENTS TO THE HFE ACT IN 2008

The main new elements of the 2008 Act are:

- Ensuring that the creation and use of all human embryos outside the body - whatever the process used in their creation - are subject to regulation
- Ban on selecting the sex of offspring for social reasons
- Requiring that clinics take account of "the welfare of the child" when providing fertility treatment, and removing the previous requirement that they also take account of the child's "need for a father"
- Allowing for the recognition of both partners in a same-sex relationship as legal parents of children conceived through the use of donated sperm, eggs or embryos

Pope Benedict XVI in June 2006

....." The human being has the right to be generated, not produced, to come to life not in virtue of an artificial process but of a human act in the full sense of the term: the union between a man and a woman".

" Never before in history has human procreation, and therefore the family, which is its natural place, been so threatened as in today's culture. Procreation must always take place within the family."

" They need to be aware that true love is only that which comes from the union of a man and a woman."

" A true family comes from the union of two people from different sexes."....Pope Benedict XVI in June 2006

Clinical pregnancy rates per embryo transfer in gold standard women (women less than or equal to 35 years, stimulated with not more than 225 IU daily, treated with ejaculated sperm, normal uterus, 1st IVF attempt and had more than 6 eggs injected) from 1999 to 2010.

WHY IS THIS SUBJECT IMPORTANT?

- The evolution of IVF worldwide has been chequered with controversies which in some way introduced doubts about IVF but the presence of a regulatory framework has always helped to restore public faith in the treatment.
- There is no such regulatory framework in Nigeria to control the expansion of IVF technology.
- The objective of this presentation is present the results of two studies on Ethical considerations on IVF in Nigeria – The first study presents the views of gynaecologists and the second study presents a more broad based perspective of diverse stakeholders.

DEFINITIONS AND ORIGINS:

- Ethics: Set of principles of morals, rules of conduct. Characteristic spirit and beliefs of community, people, system. From Greek: ethos - nature/disposition/habit
- Morals: Concerned with goodness or badness of character or disposition, regulation of general conduct. From Latin: Moralis – custom or habit.

MEDICAL ETHICS - 6 VALUES

- Autonomy – the patients right to self determination including the right to refuse or choose their treatment.
- Beneficence – a practitioner should always act in the best interest of the patient.
- Non-maleficence – first do no harm.
- Justice – Concerns the distribution of scare health resources and the decisions about who receives treatment.
- Dignity – the patients (and the person treating the patient) has a right to dignity.
- Truthfulness and Honesty – explaining the procedures and getting informed consent.

These values do not give answers as to how to handle a particular situation, but provide a useful framework for understanding conflicts

- THE BIRTH OF LOUISE BROWN - 1978
- Received with mixed emotions. Pride in the technological achievement., Pleasure at the new method for treating infertility, Unease at the apparent uncontrolled advance of science and its implication for humanity.

Negative images in the lay press

ISLAM

- Islam supports IVF when natural procreation fails, the treatment is seen as the couple's duty and the Islamic laws forbid adoption
- IVF and ET are only permitted between husband and wife, a third party is not permitted, that is, no sperm donation, no egg donation and no surrogacy.
- Even when the man dies posthumous artificial insemination is not allowed.
- Any medical procedure that involves a donor is considered adultery.

RATIONALE

- We decided to get a stakeholders perspective on ethical issues in IVF in Nigeria and we have carried out 2 studies to achieve this.
- The first was an initial survey of gynaecologists' views following a questionnaire which we administered at the SOGON 2010 annual meeting in Abuja
- The following slides will present the results of that survey

IVF in Nigeria: The Way Forward Abuja SOGON 2010 Questionnaire

1.	**With the current population statistics of over 150 million people and the resource constraints, is IVF a good idea in Nigeria?**	**Yes**		**No**	
2.	There is a religious argument against IVF. Do you agree with this?	Yes		No	
3.	Do you think there needs to be a benchmark pregnancy rate below which IVF clinics should not be licensed to provide service?	Yes		No	
4.	Do you think sperm donation should be allowed?	Yes		No	
5.	Should sperm donors be paid?	Yes		No	
6.	Is it okay to pay sperm donors between =N=5,000 and =N=10,000?	Yes		No	
7.	Do you think egg donation should be allowed?	Yes		No	
8.	Should egg donors be paid?	Yes		No	
9.	Is it okay to pay egg donors between =N=100,000 and =N=200,000?	Yes		No	
10.	Do you think embryo donation should be allowed?	Yes		No	

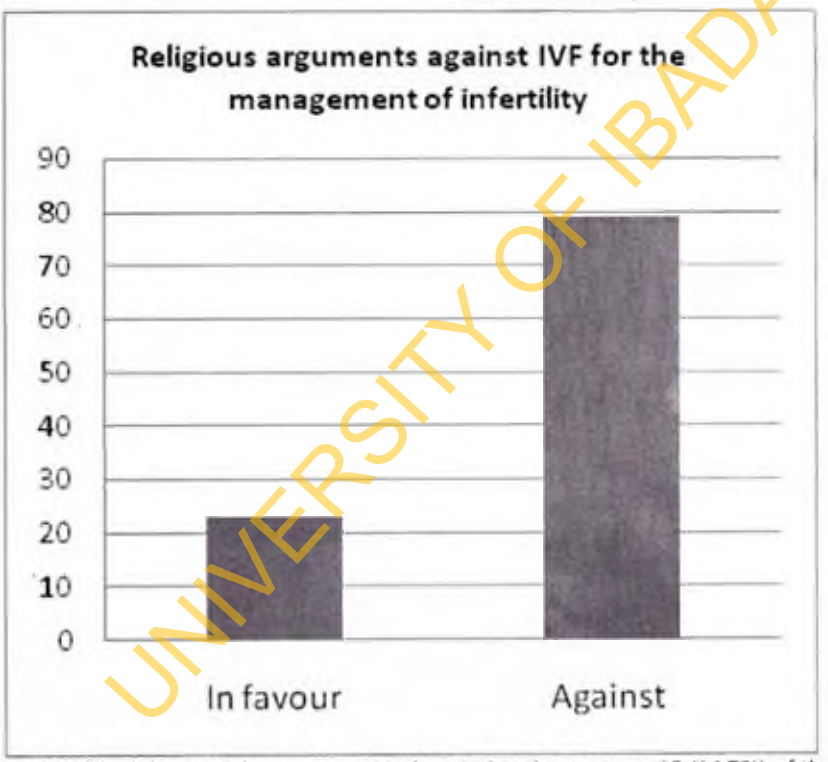
RESULTS OF IVF SURVEY

- 102 gynaecologists participated in the study, with the modal age of the participants being 40 years.
- 73 (71.6%) of them were male, 23 (22.5%) of them were female and 6 (5.9%) did not state their genders.
- The distribution of their religious preferences was 82 (80.4%) Christians, 16 (15.7%) Muslims and 8 (0.07%) belonged to neither category.
- The mean number of years of practice as a doctor was 16.9 years and as a gynaecologist was 8.3 years.
- The overwhelming majority (99%) concluded that IVF was necessary even in an economy like ours with 1% having a contrary opinion.
- 86 (84.3%) of the participants supported oocyte donation, 15 (14.7%) were against egg donation and 1 (1%) was non-committal.
- 47 (46.1%) participants felt that oocyte donors should be paid, 50 (49%) felt otherwise and 3 (3%) were non-committal.
- 29 (61.7%) of 47 participants in support of paying oocyte donors felt they should receive between N100,000 and N200,000 and 18 (38.3%) felt otherwise.
- Correlation between support of oocyte donation and religion which was significant (.388) at the 0.01 level
-
- 67 (65.7%) participants supported embryo donation and 34 (33.3%) of them did not.
- 47 (70.1%) of those in support of embryo donation felt that the donors should be compensated.

IVF in Nigeria: The Way Forward Abuja SOGON 2010 Questionnaire

cc	Should embryo donors be compensated?	**Yes**		**No**	
2.	Do you think surrogacy should be allowed?	Yes		No	
3.	Should surrogates be paid?	Yes		No	
4.	Should IVF be extended to single women looking to have children?	Yes		No	
5.	Should there be an age limit for intending recipients who require ovum donation?	Yes		No	
6.	Should 55 years old be the maximum age limit for intending recipients who require ovum donation?	Yes		No	
7.	Should IVF be extended to same sex (female) couples?	Yes		No	
8.	Should IVF be extended to same sex (male) couples?	Yes		No	
9.	Should there be a restriction on the maximum number of embryos that are transferred at a time?	Yes		No	
10	Should a maximum of three embryos be transferred at a time?	Yes		No	

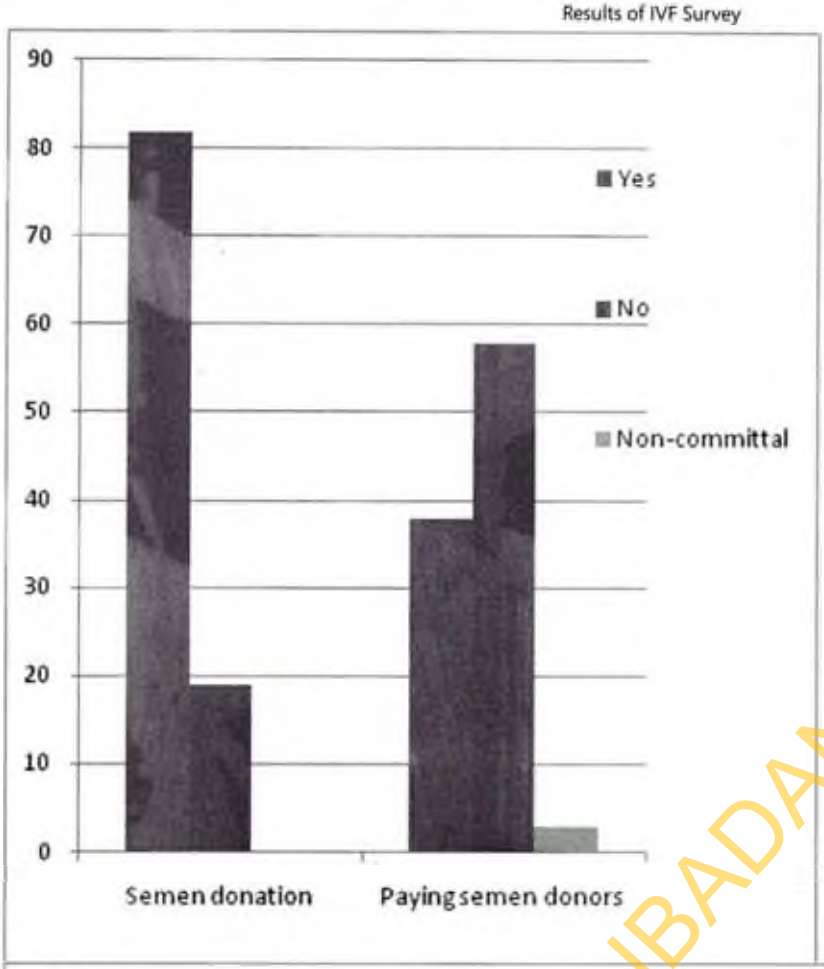
Results of IVF Survey



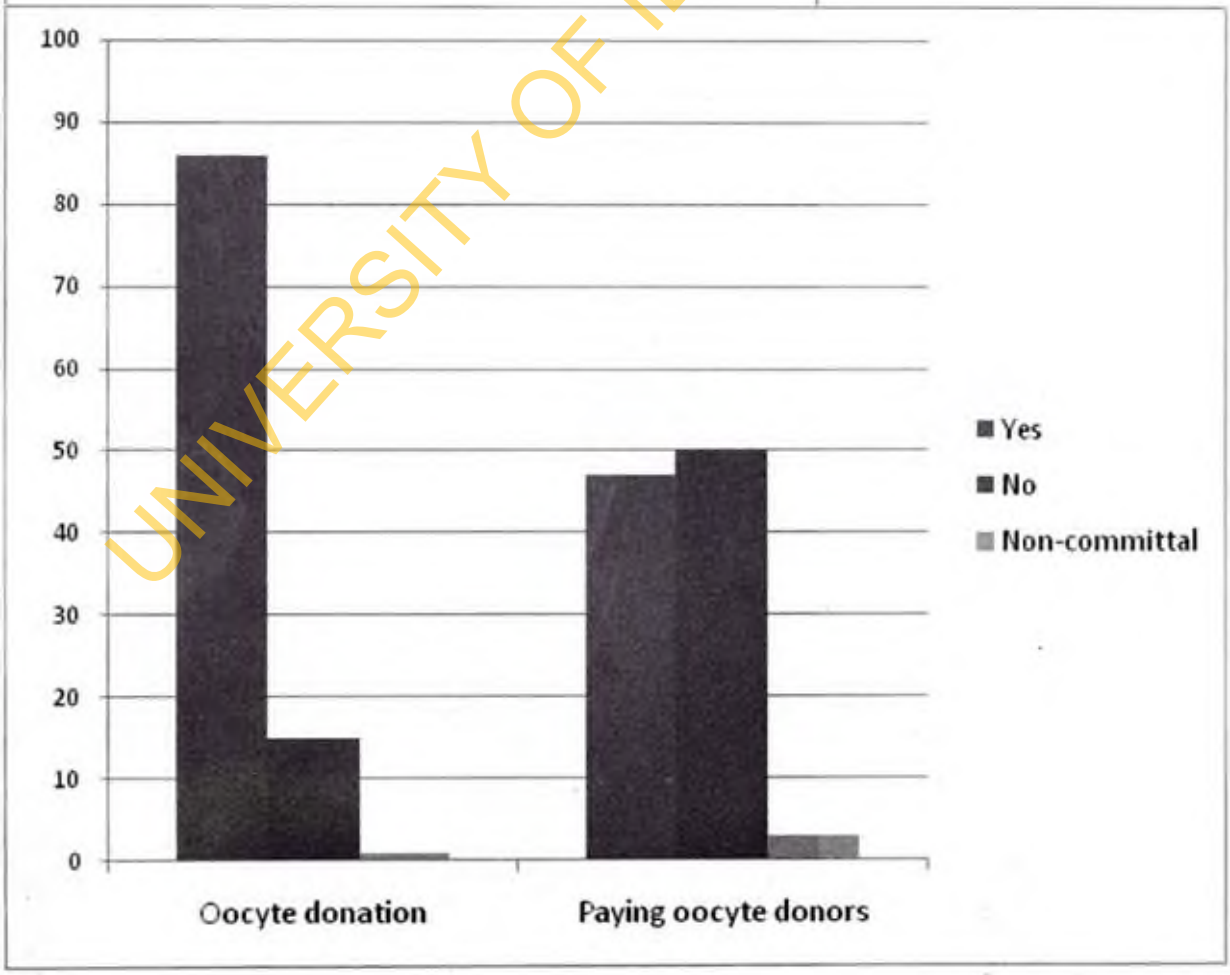
- In response to the religious arguments against IVF, 79 (77.4%) did not support these positions and 23 (22.5%) agreed that some aspects of IVF were unethical on religious grounds
- There was a correlation between the latter category and the Islamic participants which was significant at 0.01 level and an apparent although weak correlation between the same category and the Christian participants.

- 84 (82.4%) of the participants supported gestational surrogacy, 15 (14.7%) of them did not and 1 (1%) of them was non-committal.
- There was a strong correlation between religious preferences and the support of gestational surrogacy which was significant (.465) at the 0.01 level
- 43 (42.2%) of the participants approved of treatment of single women and 55 (53.9%) discouraged this with 4 (3.9%) refraining taking a position.
- 57 (55.9%) participants felt that couples had the right to select the sexes of their offspring with IVF and 41 (40.2%) were of a contrary opinion.
- The other emerging ethical issue of treatment of same sex couples was predominantly discouraged by 89 (87.3%) and 84 (82.4%) of the participants against treatment of male and female same sex couples respectively.
- 11 (10.8%) and 14 (13.7%) of the participants encouraged treatment of male and female same sex couples respectively.

Results of IVF Survey



- 82 (80.4%) of the participants supported semen donation and 19 (18.6%) did not
- 38 (37.3%) agreeing that donors should be paid; 58 (56.9%) disagreeing on payment of semen donors, 3 (3%) of the participants were non-committal and 3 (3%) did not have a position.
- 23 (60.5%) of 38 participants in support of paying semen donors felt that they should be paid a stipend of between N5,000 and N10,000 while 15 (39.5%) felt otherwise.
- Correlation between support of semen donation and religion which was significant (.389) at the 0.01 level



- There was no significant correlation between religion and age with neither tolerance nor intolerance of treatment of same sex couples.
- 80 (78.4%) participants supported the transfer of more than 3 embryos
- 26 (25.5%) advocated for single embryo transfer (sET).
- 17 (16.7%) participants felt that spare embryos should be discarded and 83 (81.4%) felt that they should not
- 77 (75.5%) of the participants agreed with the option of cryopreserving spare embryos while 20 (19.6%) did not.
- 44 (43.1%) participants advocated for the use of embryos for research and 52 (51%) disagreed with position
- 91 (89.2%) participants felt that sperm donors should remain anonymous to the couple and 64 (62.7%) felt that the clinic should not inform the offspring of the donors identities on any account.
- 64 (62.7%) participants advocated for disclosure of information of egg donors to the offspring at a later date.
- 30 (29.4%) and 29 (28.4%) participants felt that information on egg donors and sperm donors should be made available to the couple and children at a later date.
- The majority, 89 (87.3%) and 83 (81.4%), concluded that embryo reduction was necessary if the risks of the pregnancy to the mother and the other embryos respectively outweighed the benefits of continuing the pregnancy

METHODOLOGY

- The second survey was a think-tank session which was organised to deliberate on ethical considerations in the practice of IVF on the 15th of June 2011
- In attendance were a diverse pool of participants i.e. religious clerics (a catholic priest, an anglican vicar, two pentecostal pastors and an islamic cleric); medical practitioners (fertility specialists, gynaecologists, a psychiatrist, pathologists, quality managers, nurses), lawyers, sociologists, lay men and women, people who have had successful IVF treatment, people who currently require IVF and representatives of the media.
- 10 ethical issues were considered over a 4 hour period with moderation of the event by a neutral party

ETHICAL ISSUES CONSIDERED

Is in-vitro fertilisation (IVF) ethical?

- Is intra-cytoplasmic sperm injection (ICSI) ethical?, Is gamete donation ethical?, Is the use of donor gametes without the spouse/partner's consent ethical?, Is surrogacy ethical?, Is treatment of couples infected with the human immunodeficiency virus (HIV) ethical?, Is treatment for the purposes of sex selection ethical?, Is treatment of unmarried couples ethical?, Is treatment of single women ethical?, Is treatment of same sex couples ethical?, Question 1 and 2: Is in-vitro fertilisation (IVF) ethical?, This is a fundamental question of whether it is right to carry out extra-corporeal (outside the body) fertilisation in couples with infertility with the main issues here relating to the disposal of spare embryos as well as the dignity of the embryo,. The issue here is that the sperms used in ICSI ordinarily cannot fertilise the eggs themselves and the argument is that we are breaking a natural barrier and are forcing the fertilisation of eggs by the abnormal sperms which could ultimately have consequences on the development of the future generation

SUMMARY OF DISCUSSIONS

Response to questions 1 and 2

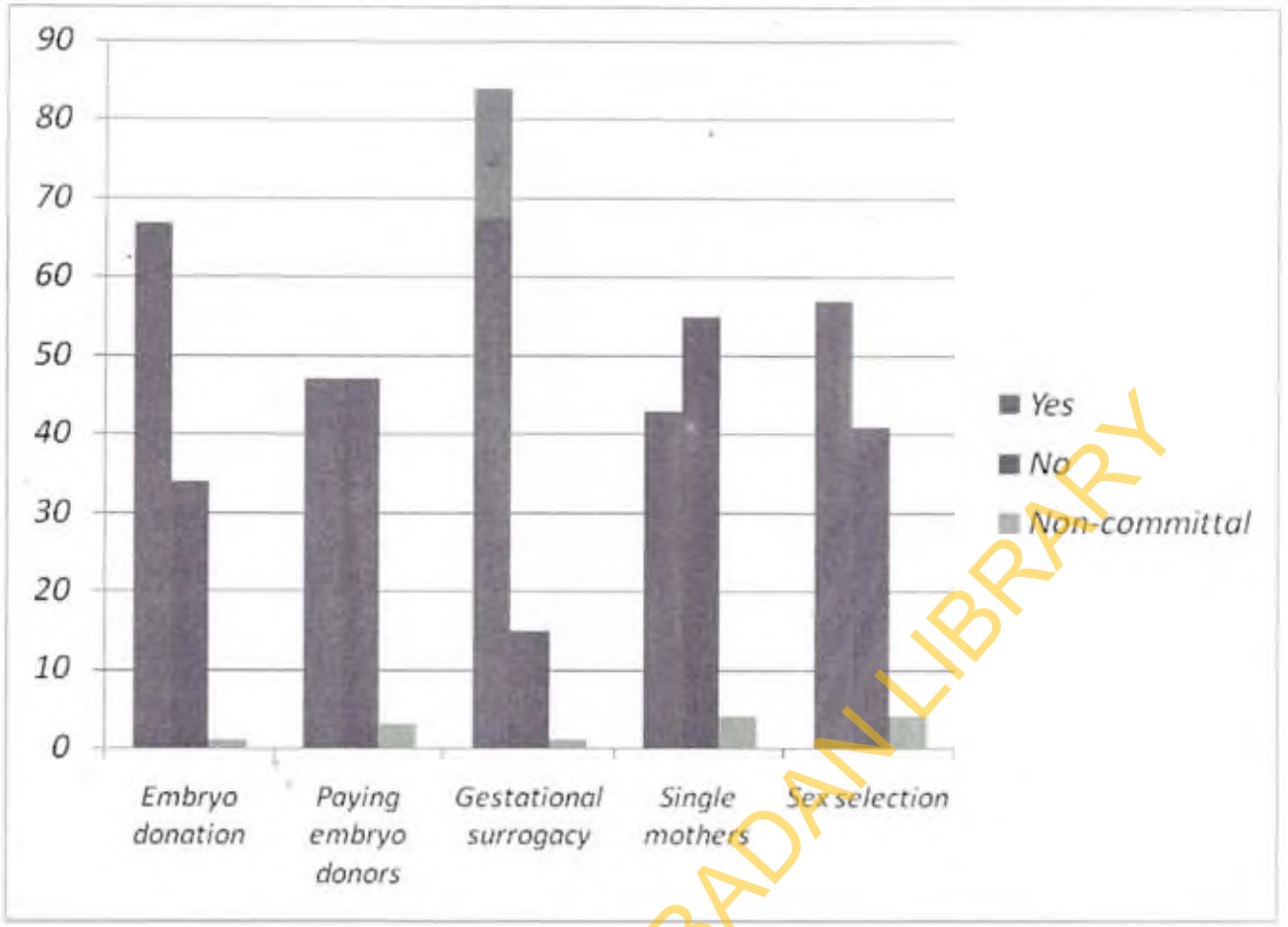
- The Anglican Church's position is that there is a 14 day window period following fertilisation when the human embryo should not be considered as a person. This was informed by the Warnock Committee's submission in 1984 and adopted by the HFEA and on these grounds IVF is considered ethical as well as legal to the English church and state.
- The Catholic position was that IVF, although humanely understandable and scientifically possible, was unethical on the grounds of the following; babies were meant to be born within the unitive and procreative good of marriage, the discard and inadvertent destruction of embryos and adjunct procedures such as embryo cryopreservation which impinge on the intrinsic dignity and inalienable rights of the embryo to life immediately it is formed.

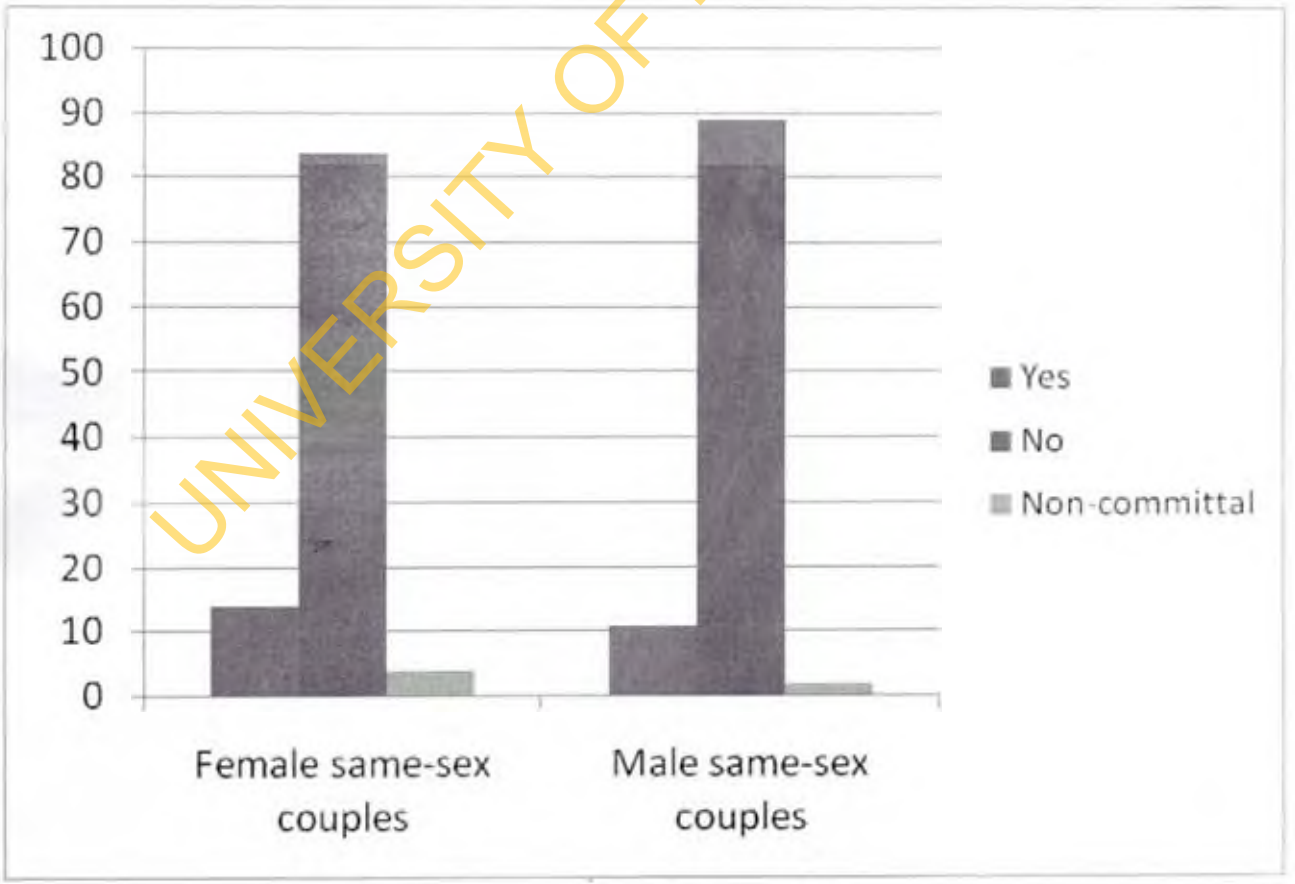
SUMMARY OF DISCUSSIONS

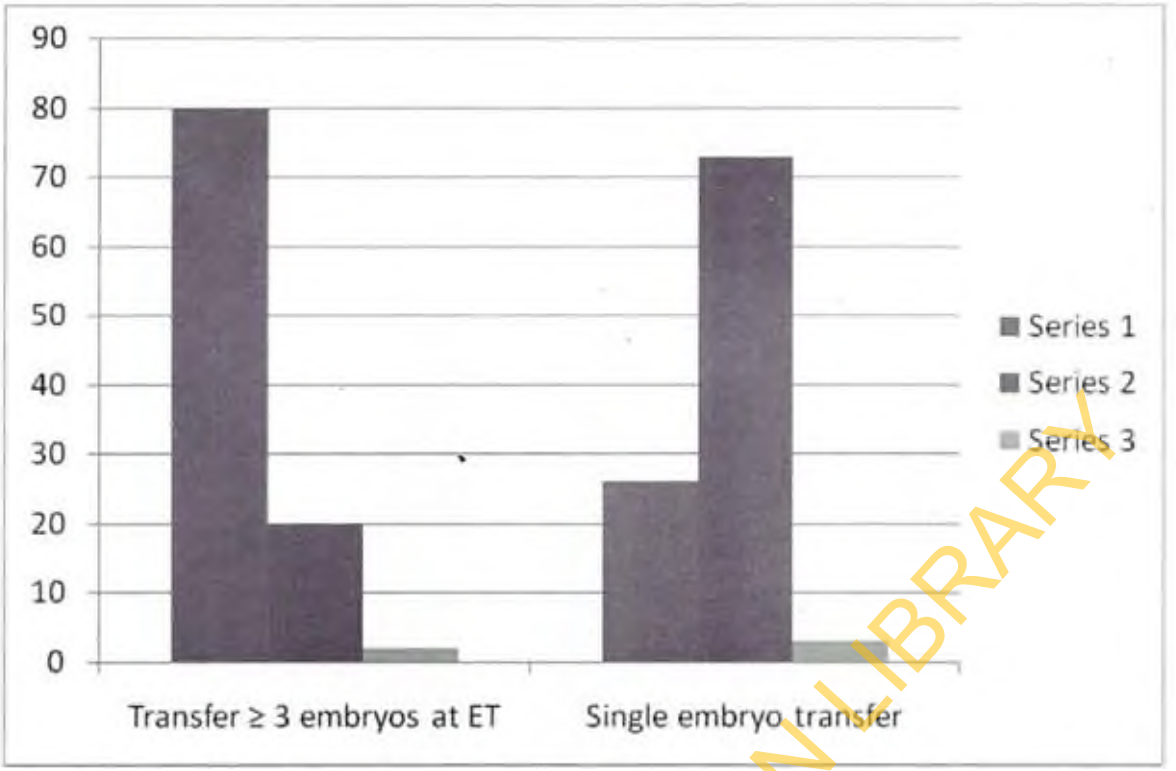
- The Islamic position is one where couples may seek medical intervention, if natural conception fails, as long as the laws of Sharia are adhered to.
- The gynaecologists submitted that IVF is ethical on the grounds that women in our society have been stigmatised on account of the scourge of infertility and IVF has given families the opportunity and satisfaction of procreation.
- The need for legislation, statutory regulations and enforcement of compliance by IVF practitioners was discussed for the empowerment and protection of patients' rights. Furthermore a call was made for a determination, in Nigeria, of the rights of the embryo to life and when the embryo should be considered a person by Nigerian

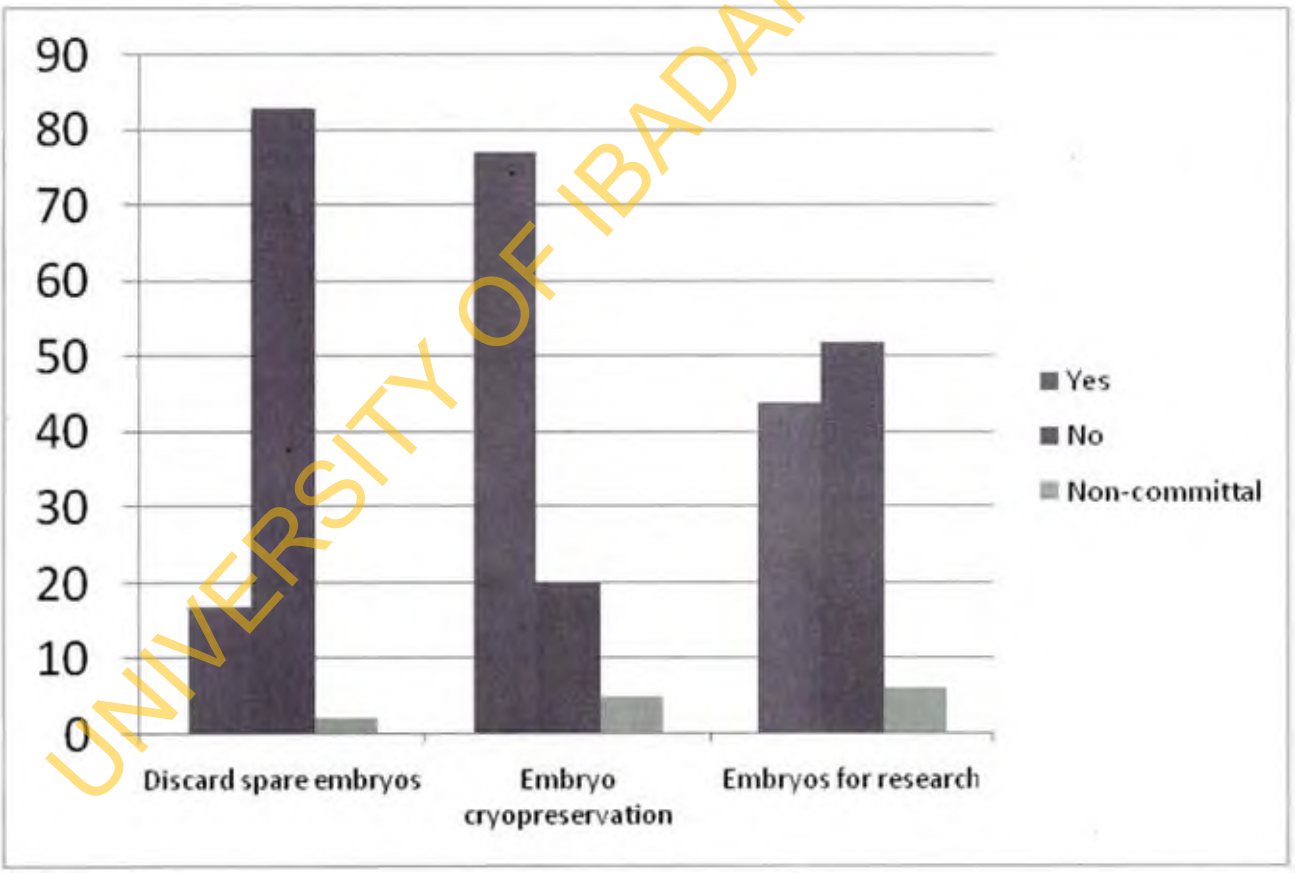
QUESTION 4: IS THE USE OF DONOR GAMETES WITHOUT THE SPOUSE/PARTNER'S CONSENT ETHICAL?

- This is a major issue here in Nigeria because we have couples with abnormal gametes requesting for treatment with donor gametes and not wanting their partners to know. We've brought this up as it is a very common occurrence and we would like to discuss this from a Nigerian perspective





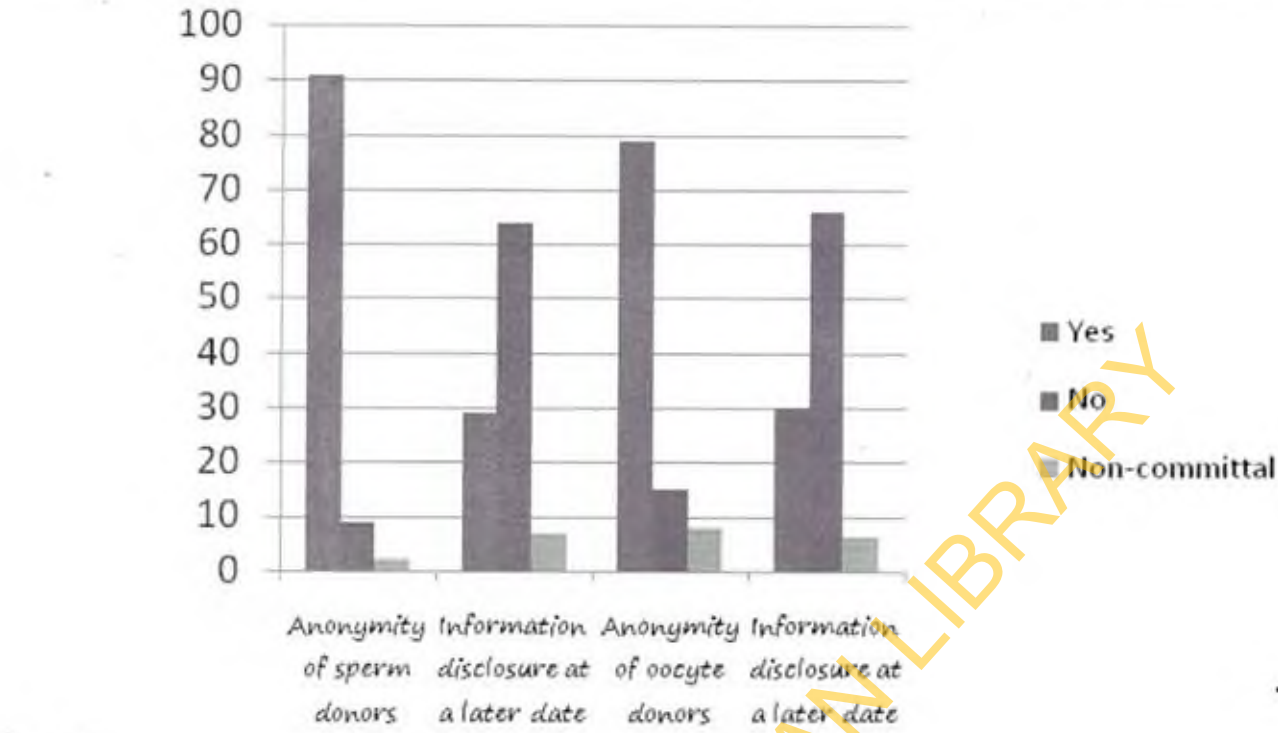


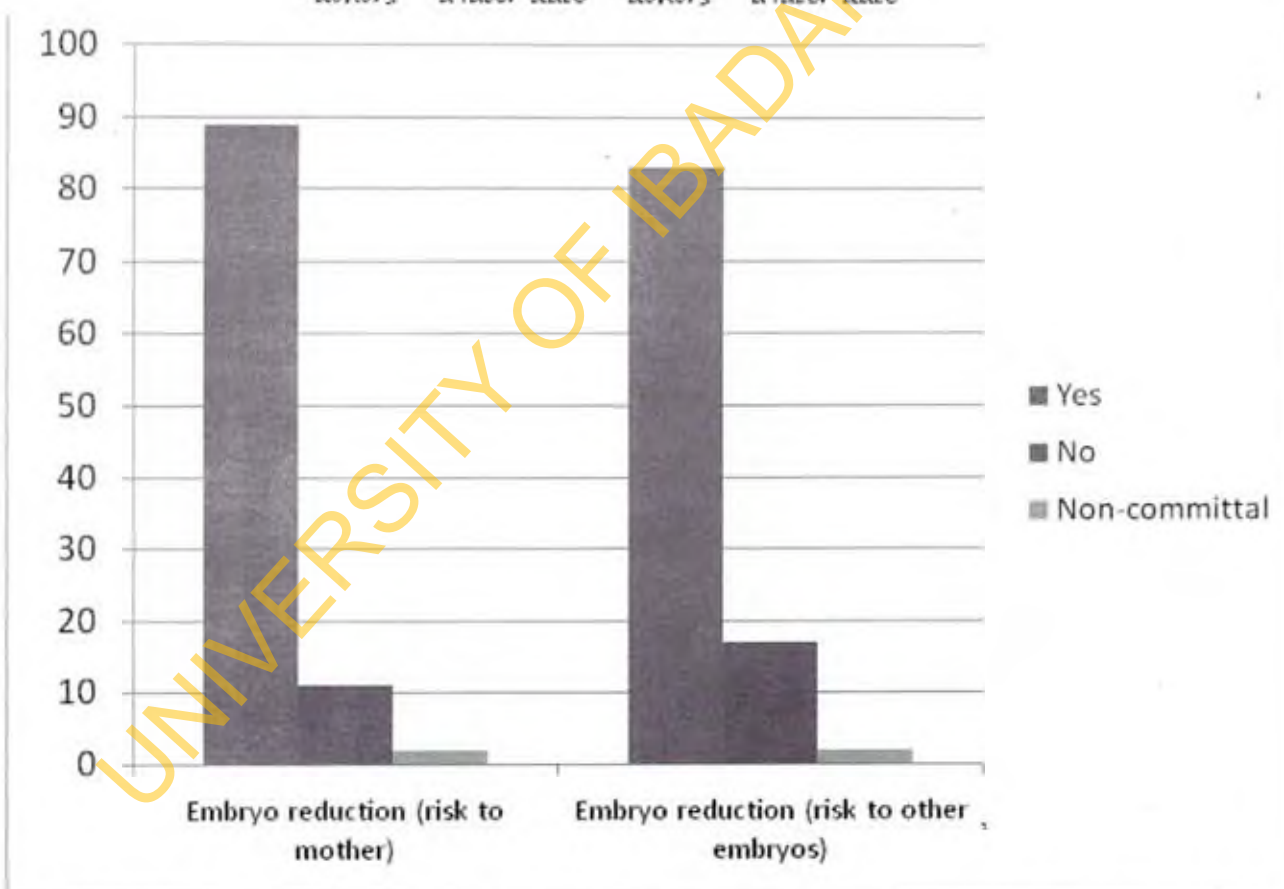


SUMMARY OF DISCUSSIONS

Response to questions 3 and 4

- The overwhelming majority of the group concluded that gamete donation is ethical once it is established that the couple have no chance of achieving a pregnancy with their own gametes.
- On the issue of the need for the partner's consent to gamete donation divergent views were put forward. Although the majority still submitted that gamete donation without the partner's consent was unethical and out rightly illegal because it infringes on the rights of the partner; some members of the group argued that the woman was within her rights on the grounds of autonomy to seek treatment with donor gametes with or without her partner's consent and others submitted that





this issue was a minefield with neither right nor wrong answers especially in a country like Nigeria where polygamy is very common.

SUMMARY OF DISCUSSIONS

Response to question 5

- On the surrogacy debate, the clerics unanimously concluded that surrogacy was unethical and adoption was preferable. They argued about the moral challenges the commissioning couple face with having to pay the surrogate for carrying their baby; in the minefield of gamete donation as it may overlap with surrogacy was elucidated, the rights of the surrogate as the

Stakeholders' Views on Ethical Issues in the Practice of In-Vitro Fertilisation and Embryo Transfer in Nigeria

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Question 3: Is gamete donation ethical?

- The Islamic position on this is clear and there are many issues to consider here such as:
- Procurement of the donor gametes
- Psychological adjustment of the children into the family
- Anonymity of the donor
- The relationship of the donor to the child

Question 5: Is surrogacy ethical?

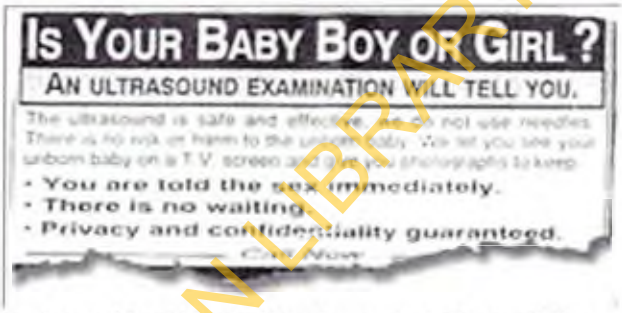
The United Kingdom's position on this issue is that it is difficult to enforce a surrogacy arrangement as the birth mother is the legal mother of the child. We would like to examine the implications of this in the Nigerian context.

Question 6: Is treatment of couples infected with the human immunodeficiency virus (HIV) ethical?

The issue with HIV infection are the life expectancy of the couple; the risks of transmission of the virus to the child and the risk of infection of the attending staff as they carry out procedures in the centre

Question 7: Is treatment for the purposes of sex selection ethical?

Sex-Selection Abortions



Is it right to choose the sex of your child? We would like to discuss this within the Nigerian context where a higher premium is placed on bearing male children.

"legal parent" of the child and the psychological as well as emotional development of the child.

- The medical practitioners concurred on the complexity of the surrogacy arrangement and the issues therein. However they concluded that surrogacy is not unethical but the legal and social implications must be addressed to protect the rights of the commissioning couple, the surrogate and the child.
- The legalities of the "birth mother" as the mother of the child were discussed from the UK context which clearly states that surrogacy arrangements cannot be enforced by law regardless of genetic contributions to the child. For these reasons surrogacy arrangements should be purely altruistic and not based on financial remuneration.

RESPONSE TO QUESTION 6

- The Islamic position on treatment of couples with HIV is unequivocal. It is considered unethical for a couple with HIV to procreate as long as there is a risk of transmission of the infection to the child; the Catholic position on IVF as an option for infertility management was reiterated but the advances made with the use of anti-retroviral drugs were buttressed as enabling couples infected with the HIV virus to have children naturally. The medical practitioners concluded that treatment of couples with HIV was ethical as science has enabled procreation at minimum risk of transmission of infection to the child. The need for proper counselling of sero-discordant couples was buttressed.

RESPONSE TO QUESTION 7

- The unanimous submission was that sex selection for social reasons was unethical even though some cultural groups in different countries place a high premium on a particular gender for example in Nigeria preference is for male children.
- The group submitted that with emancipation of women in Nigeria many of the inhibitory socio-cultural practises which prevailed have slowly given way to the more progressive rights of the woman. However the group concluded that sex selection for medical reasons, such as the prevention of sex-linked diseases, is ethical.

QUESTION 8: IS TREATMENT OF UNMARRIED COUPLES ETHICAL?

- There are some countries where the treatment of unmarried couples is unacceptable because of the belief that a child should be born into a "matrimonial union". With globalisation and the adoption of western ideals we are starting to receive such requests and would like to discuss this within the Nigerian context

RESPONSE TO QUESTION 8

- This was unanimously considered to be unethical.

RESPONSE TO QUESTION 9

Question 9: Is treatment of single women ethical?

There is an increasing population of single "career" women in Nigeria today who want to have children by IVF with or without donor gametes. We believe this is a pertinent issue to be discussed from a Nigerian perspective

Question 10: Is treatment of same sex couples ethical?

In the United Kingdom, for example, it is acceptable for same sex couples to have children and we have had similar requests in Nigeria. We would like to discuss this further.

- The position reached was that we recognise the fact that there are many single mothers who have successfully brought up their families and that even within marriages, especially polygamous ones; the mother plays a significant part. However it was difficult to support a position that challenges the sanctity of the matrimonial union and the unanimous position was that it was unethical to treat single women.

RESPONSE TO QUESTION 10:

- On the treatment of same sex couples, the general response was that it was extremely unethical and unacceptable in the Nigerian context. The need for both a maternal and paternal figure in a child's life was buttressed to protect the child's psychological as well as mental development.

IN CONCLUSION...

- This presentation has highlighted some ethical issues with IVF in Nigeria as well as well thought out opinions on these ethical issues.
- As usual with discussions on ethical issues, we are in that ubiquitous quagmire.....with no right answers.
- There are many justifiable perspectives but we need one perspective.
- That perspective needs to be driven by SOGON and it needs to be enforced by law.
- At the SOGON conference last year, we gave a presentation on the way forward for IVF in Nigeria.
- Following that presentation we were invited to submit a paper on our recommendations for the regulation of IVF in Nigeria.
- This has been done and we hope to get some feedback on this important issue.

PL-047

INNOVATING TO SAVE LIVES AT BIRTH

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Vice President and Medical Director, Jhpiego
Senior Associate, Department of International Health, Bloomberg School of Public Health

AREAS WE WORK IN:

- Reproductive health and family planning
- Maternal/child health
- Infection prevention
- Infectious disease: Cervical cancer, HIV/AIDS, Malaria, TB

The problems that we face cannot be solved by the same level of thinking that created them.
Albert Einstein

Coverage at scale
Quality at scale
Impact at scale

INNOVATING THE FUTURE

- What is the future that we want to create?
- What is happening now?
- Why is there a difference?
- What do we need to change?
- How do we nurture change and accountability?

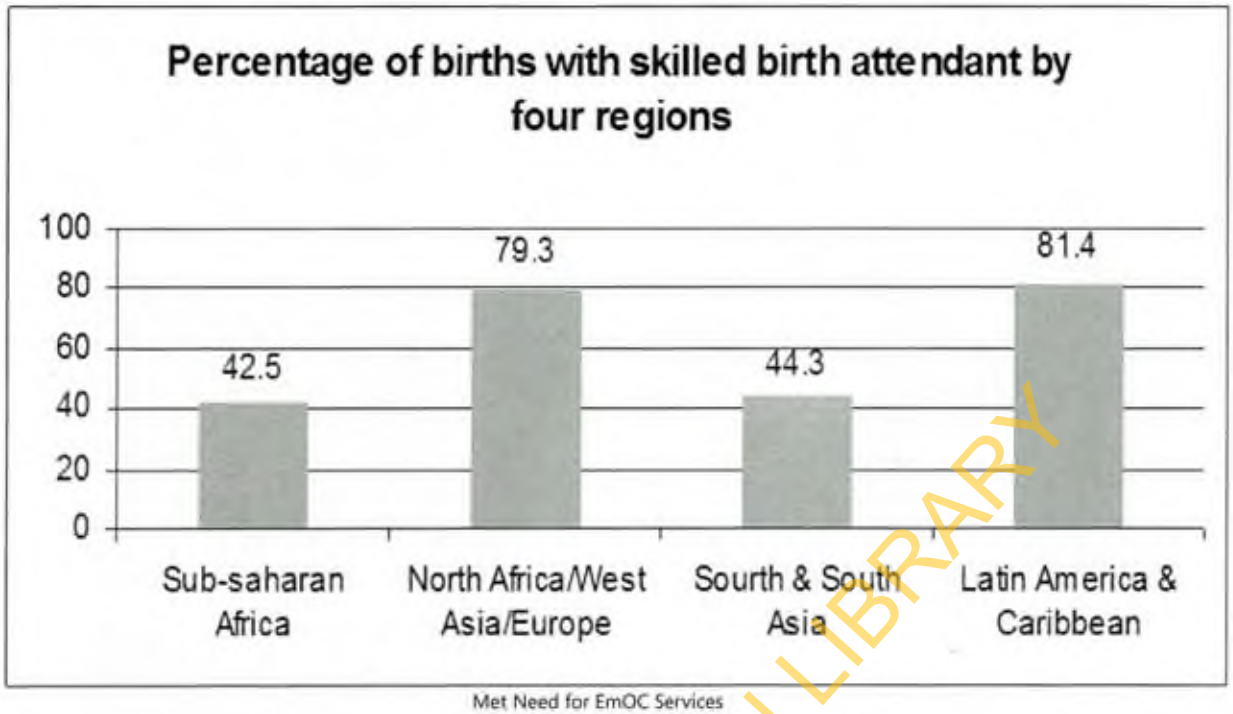
3 Decades of Developing and Scaling up Innovative Global Health Solutions

	Past	New
Program approaches	Task shifting Single visit approach Community based PPH prevention	Opt out versus opt in strategy for HIV testing Accelerated saturation initiative for Male circumcision
Clinical Interventions	Surgical contraception under Local anesthesia Visual inspection for detecting cervical cancer	Provider initiated testing and counseling Simplified Eclampsia treatment
Communication Technologies	Reproline	Applications of mobile technologies
Biomedical Technologies or Devices	Laparoscopy TL	Protein test High BP detector for community use Point of care diagnostics E-Partogram

Human Resource Issues in Africa

- Of 46 African countries, 36 have critical staff shortages.
- An increase of about 200% is needed to meet 2010 level of need.
- Possible solutions:
- Double training output
- Make a serious commitment to task-shifting/sharing
- Revamp HR policies including retention and reward

How Have We Done: Skilled Birth Attendant Regional Estimate



Met Need for EmOC Services

NEED MET FOR	Africa %	Asia %	LAC %
Basic EmOC Facilities **4 facilities per 500000 population**	**6-35**	**5-76**	**0-53**
Comprehensive EmOC **1 facility per 500,000 population**	**122-193**	**31-304**	**164-242**
% Met need for obstetric complication	**8-23**	**5-19**	**19-92**
MMR per 100,000	**690-1100**	**380-740**	**150-450**

POSTPARTUM HEMORRHAGE: THE SITUATION

- **PPH accounts for more maternal deaths than any other cause.**
- **More than 50% women deliver without a skilled birth attendant**
- **Emergency treatment for PPH is often many hours away from where women give birth**
- **We cannot predict who will experience PPH on the basis of risk factors.**
- **The primary cause of PPH is uterine atony.**

TREATING PPH : THE PRICE OF DELAY

- The sooner treatment starts, the better the survival rates
- Treatment is relatively simple if instituted immediately
- Uterotonics, bimanual compression, aortic compression

How can ensure immediacy of treatment where many births are occurring at home

Delayed treatment, especially beyond 2 hours, requires intensive care for shock, DIC, renal shutdown, respiratory failure, electrolyte disturbance, sepsis, pneumonia, and multi organ failure: Even in best centers, mortality is high

How can ensure immediacy of treatment where many births are occurring at home

APPROACHES FOR REDUCING MATERNAL MORTALITY FROM PPH

- Prevent and treat anemia
- Restricting episiotomy
- Infection prevention practices
- Prevention: AMTSL wherever there is skilled birth attendant
- Prevention at homebirth CBD/misoprostol
- Treatment: basic emergency obstetric care mostly

PREVENTING PPH: MISSING THE OPPORTUNITY TO MAXIMIZE ON A COST-EFFECTIVE INTERVENTION

- Correct practice of AMTSL:
- 16% of facility births
- Harmful practices in third stage:
- Fundal pressure 10%
- Cord traction without countertraction 33%

POTENCY OF UTEROTONICS: GHANA

- Ergometrine: active ingredient range 0 -127%
- None of the ergometrine samples met specifications (active ingredient level between 90-110% of specified level)
- 55/56 had active ingredient level below specified levels (< 90%)
- One ampoule showed 120.7% active ingredient
- One ampoule showed 0% active ingredient :possible counterfeit drug
- Oxytocin: active ingredient range 22.9-100.7%
- 26% of oxytocin ampoules met specifications (90-110%)
- 74% of samples did not meet specifications : active ingredient levels below specification levels (<90%)
- 4% of oxytocin was expired

COMMUNITY BASED DISTRIBUTION OF MISOPROSTOL NEPAL: IMPACT ON MORTALITY

- 18,761 pregnant women were dispensed misoprostol by FCHVs with no significant adverse events or misuse or incorrect use
- Proportion of deliveries protected by a uterotonic rose from 10.4% to 72.5%; largest gains were among the poor, illiterate and those living

DOING IT RIGHT: TECHNOLOGIES THAT CAN EXPEDITE CARE FOR PPH WHERE IT OCCURS

Need	Potential Technology
PPH detection	Brass V drape, Pad
Prevention	Misoprostol, Nasal Oxytocin
Treatment	Misoprostol, Hydrostatic (condom) tamponade
Safe Transfer	Antishock Garment
Retained Placenta	Intra umbilical Oxytocin
Training and retaining skills	Improved simulators and training systems

Technologies to make it simple to do the right thing

On Track to Reach the MDGs Nepal Maternal Mortality Study 1998 & 2009

	1998	2009
MMR	539	247
PPH	37%	19%
Eclampsia	14%	21%
% birth with SBAs	17%	19%

in remote areas

- Institutional deliveries increased from 9.9% to 16.0%
- MMR among 13,969 misoprostol users was 72/100,000; significantly lower than among non-users (304/100,000), as well as the national level of 281/100,000

HOW CAN WE DETECT ALL THE PREECLAMPSIA BEFORE IT BECOMES LIFE THREATENING

- Take testing for hypertension and proteinuria to women in their homes
- Reagent modified to yield sharp color change when there is 0.3g/l protein:

CBD MISOPROSTOL: INDONESIA, NEPAL, AFGHANISTAN

- CBD of misoprostol is safe, acceptable, feasible and programmatically effective
- Universal coverage for uterotonic protection against PPH is possible if we are willing to trust, educate and support non-literate community volunteers
- Women have a right to be protected against PPH even if they choose to or are forced by circumstances to have homebirth

OPPORTUNITY

More than 2 million nurses and other trained health professionals in peripheral level facilities or in the community in 30 countries who are being called upon to provide care on day of birth without sufficient capability

Training providers to support mothers choice of birth position

Learning AMTSL

Focus on what a woman and newborn need on the day of birth and what health worker is already in place who could provide that care

Saving lives at birth

Helping Mothers survive PPH

HELPING BABIES BREATHE

HBB in Tanzania

Characteristic	Number of Infants Prior (n=6298)	Number of Infants Post (n=7277)	Significance
Mortality/1000 Live Births	13.4/1000	6.3/1000	P=0.0001
Fresh Stillbirths /1000 Births	18.7/1000	17.9/1000	NS
5 Minute Apgar Score < 7	53/1000	45/1000	P=0.02

Relative Risk Reduction 0.54

Massive unmet need for early detection of PE Source DHS

Country	% Unmet need for BP Check	% Unmet need for Proteinuria Check
Bangladesh	53.1%	70.5%
Bolivia	24.5%	50.9%
DRC	38.8%	57.8%
India	52.5%	56.8%
Indonesia	13.9%	63.0%
Kenya	22.8%	38.9%
Malawi	28.6%	81.3%
Mozambique	48.7%	73.9%
Nepal	43.8%	77.7%
Zimbabwe	14.0%	39.8%

- The test strip prepared by marking an end of a piece of filter paper with the reagent.
- Use: Pregnant woman who is instructed to void urine on the test area of the strip and report if a color change from yellow to blue occurs.

Simplifying the technology for community use

Felt Tip vs. Shutter-Ball Tip Pen

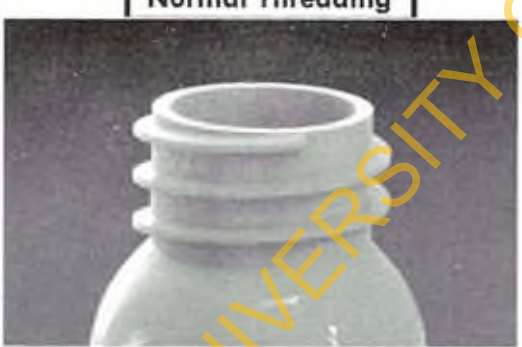
CONCERNS

- Lack of uniformity in reagent Delivery (felt-tip filtering back chemicals)
- Drying-out when cap left off

- ADVANTAGES
- Uniformity in reagent delivery
- Shutter-ball protects reagent from environment
- Ease of use
- Holds larger volume of reagent

Frugal Engineering

Normal Threading



Screws, Bottle Caps...
"Righty Tighty, Lefty Loosey"

Reverse

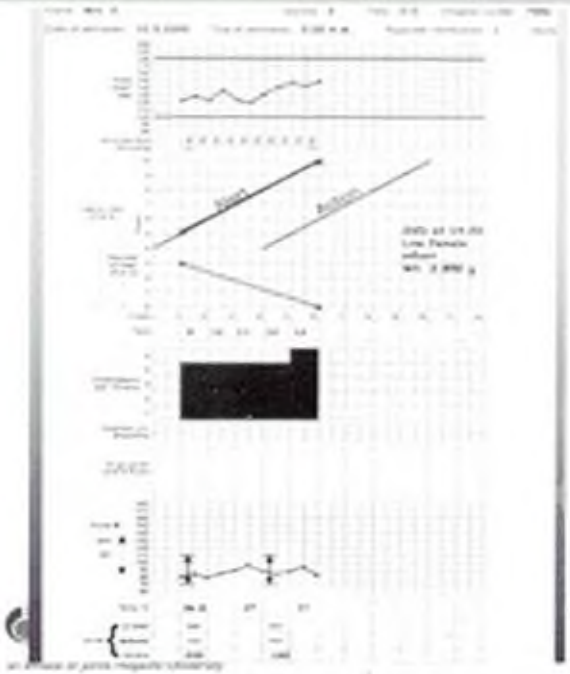
Most people assume cap is sealed and can't be opened

Validation of POC test in ANC Clients, Rural Nepal

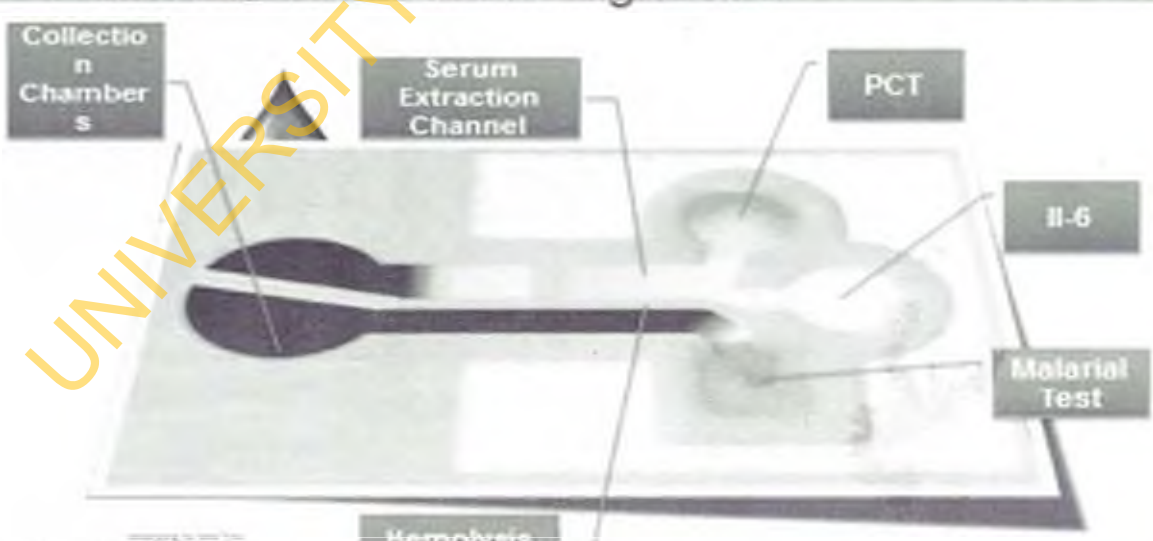
	Compared to Esbach (>.30 vs. <.30)	
	POC (N=578) Point Estimate and 95% CI	Dipstick (N=578)
Sensitivity	93.9 (79.8, 99.3)	48.5
Specificity	76.0 (72.1, 79.5)	89.5
PPV	19.1 (13.4, 26.0)	21.9
NPV	99.5 (98.3, 99.9)	96.6

Esbach test is the qualitative standard, Dipstick test is the standard of care (trace or 1+ vs. negative); Point of Care (POC) self-test is new

The WHO Partogram



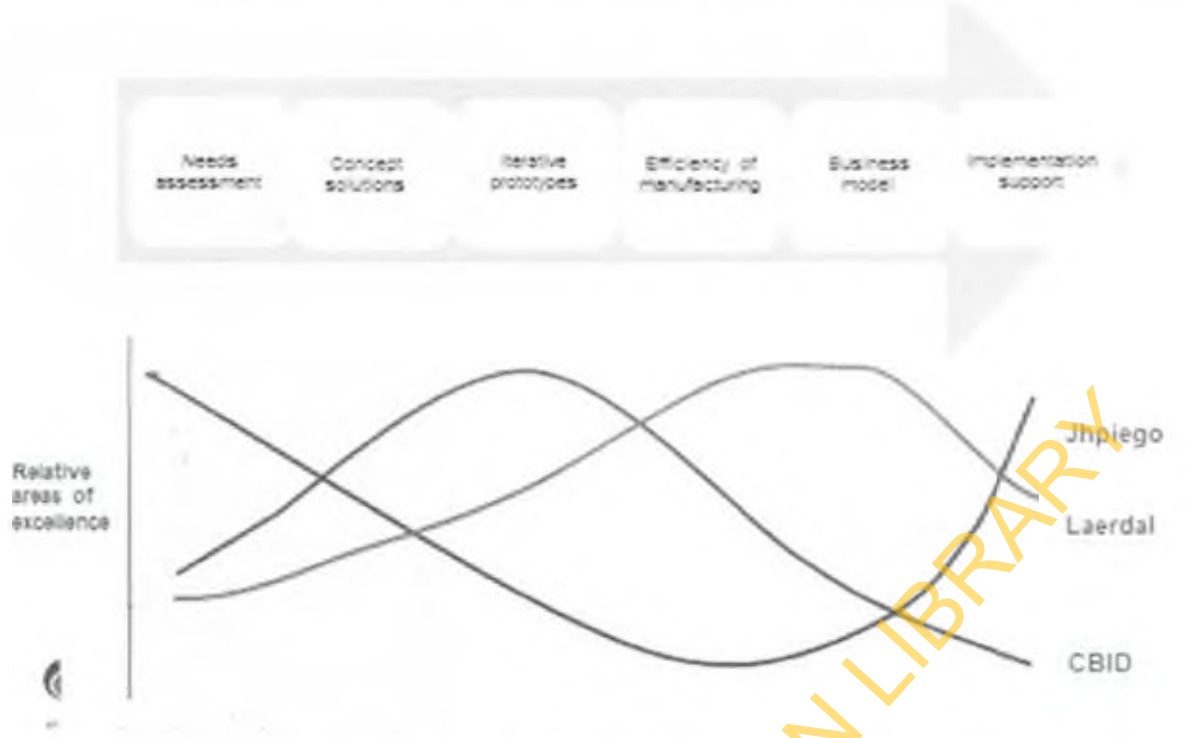
Point of care Fever diagnostic



Jhpiego
an affiliate of Johns Hopkins University

BIOENGINEERING INNOVATION & DESIGN

JOHNS HOPKINS BIOMEDICAL ENGINEERING



Jhpiego-CBID Innovation Pipeline

JHPIEGO-CBID-Laerdal	Jhpiego-CBID
	Green incinerator
Protein Test: marker pen platform	POC diagnosis of fever
BP device	Platform technology for antibody tests eg pregnancy test
Mamanatalie, HMS	Platform technology for Serum tests eg hep b, syphilis
Fetal wellbeing Monitor	Noninvasive anemia screen
Hemostatic tamponade	Hypothermia device for birth asphyxia
Antenatal screening POC tests	Improved cryoablation
E-Partogram	MC device: circumsafe
Improved Seal: neonatal resuscitation	CSF device
	POC detection of G6PD defeciency
PPIUD training model	Biodegradable syringe

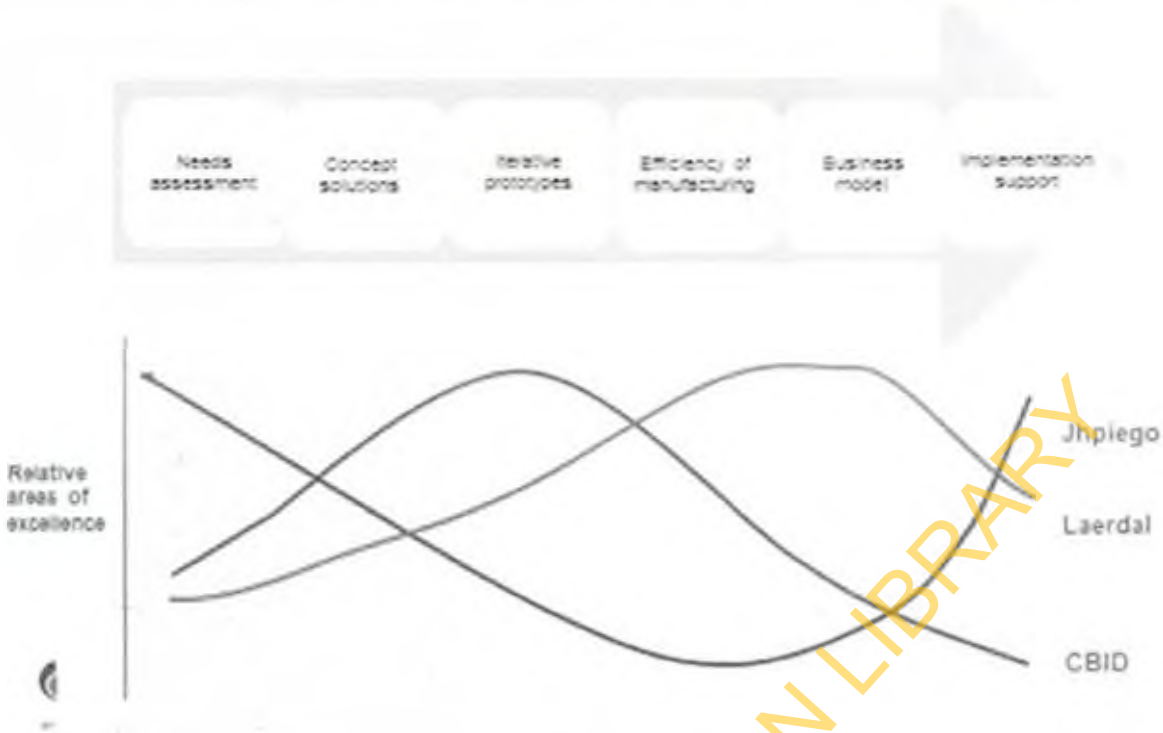
Important Note

Maternal and newborn survival is NOT about the best care that exists, it is about the best care you can take to the majority of women (even if they have births at home).


Afghanistan: Trained elderly performing newborn resuscitation


Zambia: Female nurses performing male circumcision


Mozambique: Community health worker taking HIV testing to people's homes



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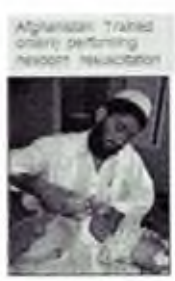
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Zambia: Female nurses performing male circumcision


Mozambique: Community health worker taking HIV testing to people's homes

IMPLICATIONS OF STANDARD PRACTICE

- Failure to implement standard practice may result in litigation and allegation of medical negligence
- Avoidable 'luxury' in developing countries

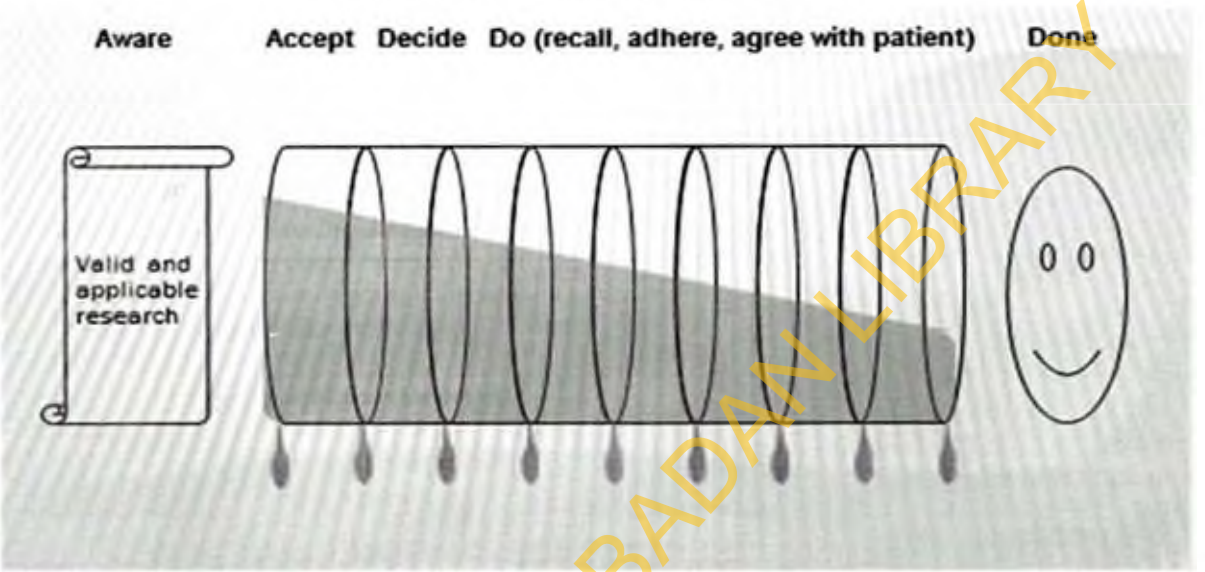
BARRIERS TO EVIDENCE-BASED DECISION MAKING

- Lack of access to the evidence, Poor understanding of the principles of evidence-based health care, Lack of guidelines, Lack of support and motivation from senior colleagues

BRINGING THE EVIDENCE CLOSER TO THE PATIENT

- Development of clinical guidelines

BARRIERS TO EVIDENCE-BASED DECISION MAKING



- Widespread dissemination/promotion of clinical guidelines to all levels of health care
- CLINICAL GUIDELINE DEVELOPMENT IN DEVELOPING COUNTRIES
- Clinical guidelines well integrated into clinical practice in industrialized countries for and shown to improve clinical practice (Grimshaw and Rusell, 1993)
- Use of guidelines in developing countries is not popular
- Introduction of clinical practice guidelines in developing countries as a 'potential behavioural change strategy' has been reported to be effective (Dumont et al, 2005)

CLINICAL GUIDELINE DEVELOPMENT IN DEVELOPING COUNTRIES

- Clinical guideline development is a major endeavour
- Usually undertaken by major professional/international bodies (WHO, AMCOG, RCOG, SOGC etc)
- Professional associations in developing countries must take up the challenge: Local input into guideline development will engender a sense of ownership, Will enhance its acceptance and utilization
- Support and mentorship necessary

SUMMARY

- Poor quality of care makes substantial contribution to poor maternal and perinatal outcomes in Su-Saharan Africa
- Evidence based decision making is an urgent imperative
- Promotion of clinical guidelines for improving reproductive health care is an urgent imperative

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PL-040

WHO GUIDELINE DEVELOPMENT PROCESS

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OUTLINE
- Introduction – What is a WHO guideline?, WHO guideline for guidelines, The GRADE methodology, Guideline development process for PE/E, Post-publication activities

A WHO GUIDELINE IS...
- "..any document – regardless of title – that contains recommendations intended to assist providers and recipients of health care and other stakeholders to make informed decisions.
- recommendations may be for clinical interventions, public health activities, or government policies."
- implies a choice between different interventions that have an impact on health and that have ramifications for resource use

WHO GUIDELINE FOR GUIDELINES
- Since 2007, WHO's process of producing guidelines have changed: The GRADE approach is a key component of this process
- This approach ensures that WHO guidelines are consistent with internationally accepted best practices, including the appropriate use of evidence

DIFFERENCES
- Process is more explicit
- Uniform and transparent system of grading quality of evidence
- Specifies strength of recommendations: Strong: Do it or don't do it, Weak: Probably do it or probably don't do it
- Makes it easier for users to assess judgements behind recommendations

The GRADE approach
Grades of: Recommendation, Assessment, Development and Evaluation www.gradeworking-group.org

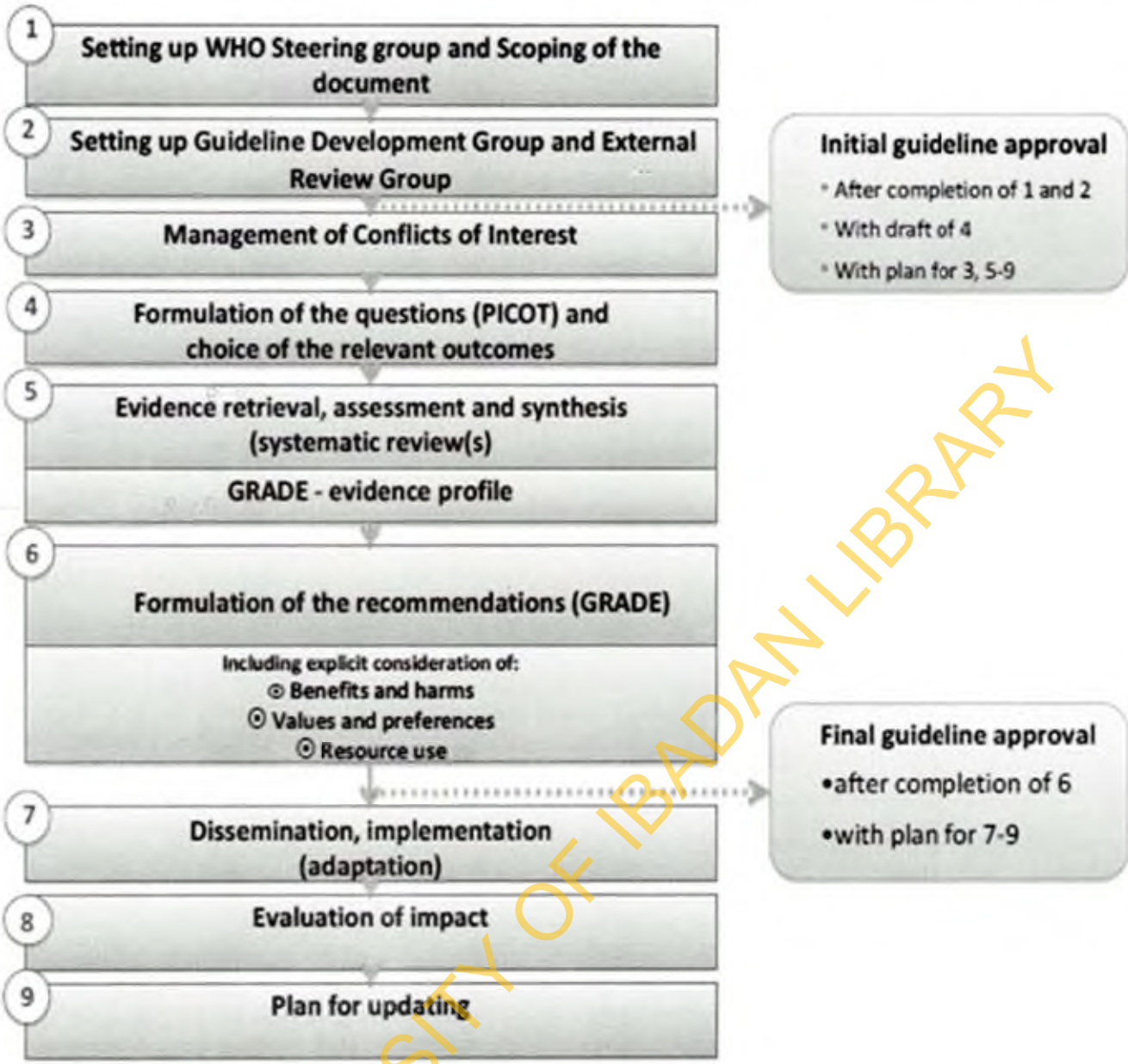
THE GRADE APPROACH - RATIONALE
- Any decision should consider whether incremental health benefits is worth additional costs
- Systematic reviews of effects of health intervention provide essential, but not sufficient information for making well informed decisions
- Costs, feasibility and applicability are also important
- Such judgments guide subsequent decisions

The GRADE approach - difference
- Clear separation of the two issues:

1) Quality of the evidence (High, moderate, low, very low) :methodological quality of evidence, likelihood of bias, by outcome
2) Strength of recommendation: Strong or Weak: Quality of evidence is only one factor

QUALITY OF EVIDENCE
- High, further research is very unlikely to change our confidence in the estimate of effect
- Moderate, further research is likely to have an important impact on our confidence in the estimate and may change the estimate
- Low, further research is very likely to have an important impact on our confidence in the estimate and is likely to change the estimate
- Very low, any estimate of effect is very uncertain

DETERMINANTS OF THE STRENGTH OF RECOMMENDATION
- Quality of the evidence



- Balance between desirable and undesirable effects
- Values and preferences
- Costs (resource use)

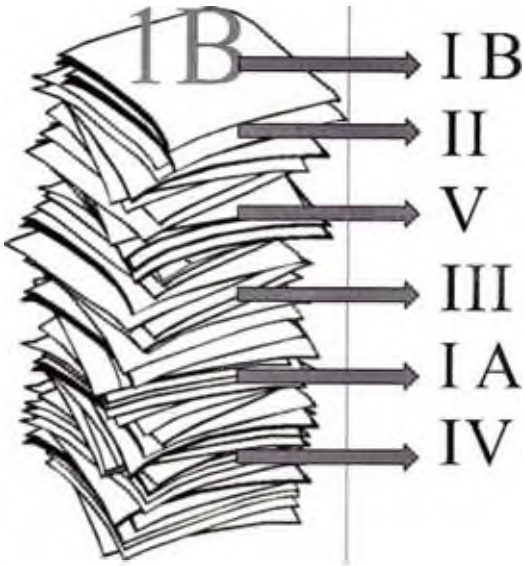
IMPLICATIONS OF A "STRONG" RECOMMENDATION

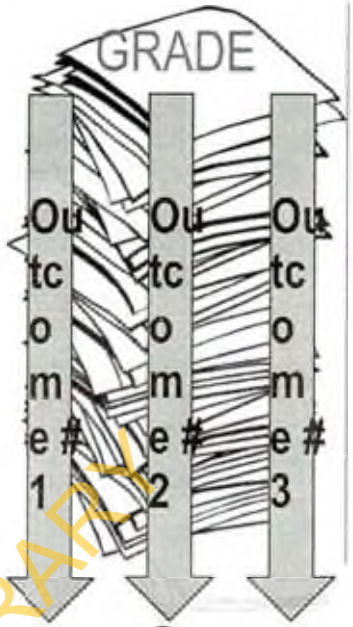
- Patients: Most people in this situation would want the recommended course of action and only a small proportion would not
- Clinicians: Most patients should receive the recommended course of action
- Policy makers: The recommendation can be adapted as a policy in most situations

IMPLICATIONS OF A "WEAK" RECOMMENDATION

- Patients: The majority of people in this situation would want the recommended course of action, but many would not
- Clinicians: Be prepared to help patients to make a decision that is consistent with their own values/decision aids and shared decision making
- Policy makers: There is a need for substantial debate and involvement of stakeholders

Quality of evidence across studies



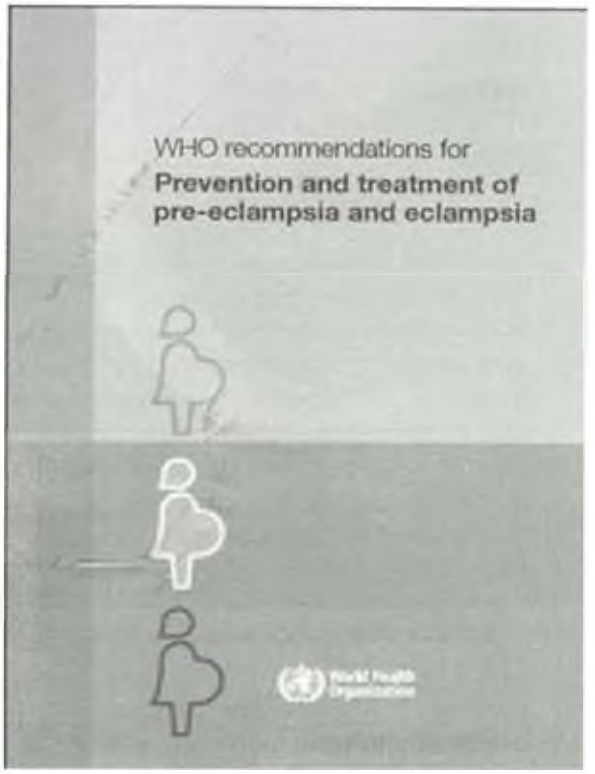


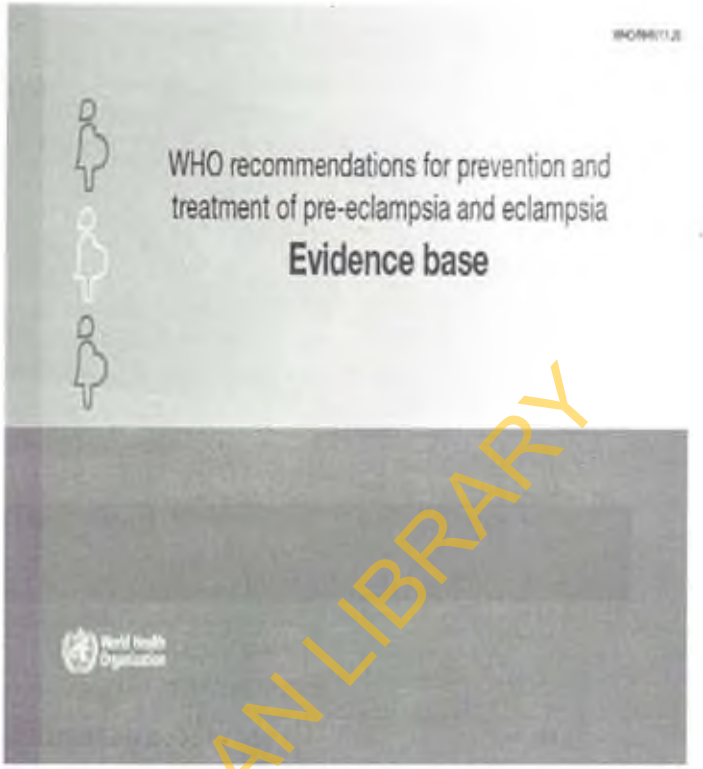
Prioritized outcomes for PE/E guidelines

	Outcomes	Average scores
1	Maternal death	8.8
2	Eclampsia	8.6
3	Recurrent seizures	8.3
4	Severe maternal morbidity	8.8
5	Perinatal deaths	8.5
6	Adverse effects of interventions	7.8
7	Admission to neonatal intensive unit	7.9
8	Apgar scores	6.9

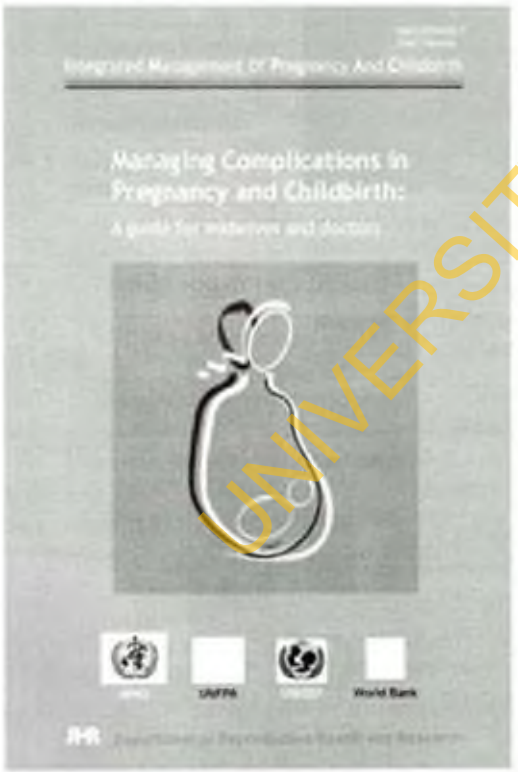
WHO PE/E Guideline Process

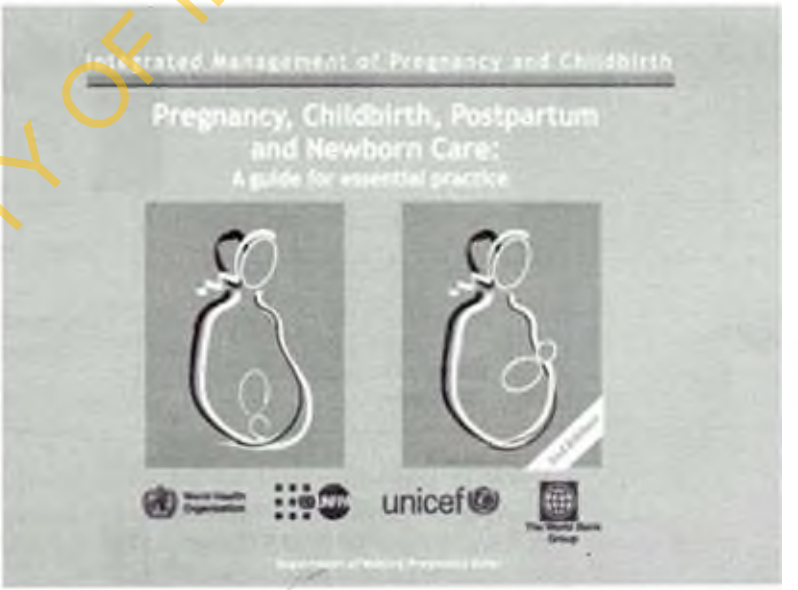
Setting up of WHO Steering Group	• WHO Staff, Two Maternal Experts • Drafting of Questions & Outcomes
Prioritization of Questions and Outcomes	• Online Consultation of Stakeholders • Rating of Questions & Outcomes
Evidence Retrieval, Evaluation & Synthesis	• Cochrane Reviews (select & update) • GRADE Process
Formulation of Recommendations	• GRADE • Benefits/Harms, Values, Costs
Stakeholder (Electronic) Consultation	• Online Survey • Virtual global consultation
Final Recommendation Expert Panel Meeting	• Agreement on recommendations • Implementation issues & update
Publication	• 23 recommendations in September 2011





IMPAC clinical guidelines to be updated





DISSEMINATION

- Through WHO offices, UN H4+ , Bilateral agencies, Professional organizations, Partnerships, National, regional and global meetings, Joint statements.

WHO recommendations for

Prevention and treatment of pre-eclampsia and eclampsia

SUMMARY OF RECOMMENDATIONS

Introduction

Hypertensive disorders of pregnancy are an important cause of severe morbidity, long-term disability and death among both mothers and their babies. In Africa and Asia, nearly one tenth of all maternal deaths are associated with hypertensive disorders of pregnancy, whereas one quarter of maternal deaths in Latin America have been associated with those complications. Among the hypertensive disorders that complicate pregnancy, pre-eclampsia and eclampsia stand out as major causes of maternal and perinatal mortality and morbidity. The majority of deaths due to pre-eclampsia and eclampsia are avoidable through the provision of timely and effective care to the women presenting with these complications. Optimizing health care to prevent and treat women with hypertensive disorders is a necessary step towards achieving the Millennium Development Goals. WHO has developed the present evidence-based recommendations with a view to promoting the best possible clinical practices for the management of pre-eclampsia and eclampsia.

Guideline development methods

The procedures used in the development of these guidelines, which are outlined in the *WHO Handbook for guideline development*[1], involved: (i) identification of questions related to clinical practice and health policy for which answers were needed; (ii) retrieval of up-to-date research-based evidence; (iii) assessment and synthesis of the evidence; (iv) formulation of recommendations with inputs from a wide range of stakeholders; and (v) formulation of plans for dissemination, implementation, impact evaluation and updating.

[1] *WHO Handbook for guideline development*. Geneva, World Health Organization, 2008.

The scientific evidence for the recommendations was synthesized using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology. For each preselected critical question, evidence profiles were prepared based on 19 up-to-date systematic reviews. The final recommendations were formulated and approved by an international group of experts who participated in the WHO Technical Consultation on the Prevention and Treatment of Pre-eclampsia and Eclampsia, held in Geneva, Switzerland, on 7–8 April 2011. The experts also identified important knowledge gaps that needed to be addressed through primary research and developed a list of priority research questions.

The recommendations

The WHO Technical Consultation made a total of 23 recommendations. For each recommendation, the quality of the supporting evidence was graded as very low, low, moderate or high. Then, taking into account the quality of the evidence and other factors (including the values and preferences, the magnitude of effect, the balance of benefits versus disadvantages, resource use and feasibility of each recommendation), the experts marked the recommendations as either weak or strong. In addition, in order to ensure that each recommendation will be understood and used in practice as in accordance with its intended meaning, the experts made several remarks, which are noted below the recommendations in the full document. In case of any doubt about the meaning of each recommendation, the reader is referred to the remarks in the full version of the guidelines. The 23 recommendations are presented below in two sets: interventions that are recommended and interventions that are not recommended.

RHL The WHO Reproductive Health Library

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Gynaecology, infertility and cancers
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Pregnancy and childbirth
Sexually transmitted infections

Anticonvulsant therapy for eclampsia

Magnesium sulfate is the drug of choice for the treatment of women with eclampsia. The duration of treatment should normally not exceed 24 hours beyond delivery or the last convulsion, whichever occurs last. Either intravenous or intramuscular route can be used for maintenance therapy. Clinical monitoring of respiration, urine output and tendon reflexes is essential, while serum monitoring is unnecessary and should not be used.

– See full RHL commentary

A pregnant woman has her blood pressure checked by a nurse, Sierra Leone

New in RHL

WHO recommendations for induction of labour

Anticonvulsant therapy for eclampsia

Early volume expansion for prevention of morbidity and mortality in very preterm infants

Highlights

WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia

New systematic reviews
New reviews in RHL awaiting commentaries

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PL-050

PRE-ECLAMPSIA/ECLAMPSIA IN NIGERIA: BURDEN AND COMMON PREVENTION AND TREATMENT MODALITIES

Bissallah Ekele,
Dept. of Obstetrics and Gynaecology,
College of Health Sciences,University of Abuja, Abuja.

BURDEN

- PRE-ECLAMPSIA (NIGERIA)
- Few community-based studies. 5-15% in western literature. A third of obstetric in-patient admissions in most tertiary centres are HDP (PE).
- ECLAMPSIA – A common obstetric emergence
- One of the top three major causes of maternal mortality. Northern Nigeria it alternates with Hemor'

PREVENTIVE MEASURES FOR
PRE-ECLAMPSIA

- Etiology still not known, Disease of theories, Prediction is difficult, Prevention is difficult, Agents that have been tried: Calcium supplementation, Low dose aspirin, Vitamins (C and E), Fish oil

MANAGEMENT OF PRE-ECLAMPSIA

- Monitor the mother and the fetus and aim to get to at least 34 weeks, if all is well.
- Fetal monitoring during conservative management should be by US serial measurement of growth and amniotic volume . ?Fetal Kick chart!
- Bed rest
- Anti-hypertensive (Nifedipine, Alpha-methyldopa)
- Anticonvulsant: Magnesium sulphate, Diazepam.
- Delivery = 'Cure'
- Choice of mode of birth (Induction or CS) depends upon clinical circumstances and patient preference.

TREATMENT OF ECLAMPSIA

- Support of cardio-respiratory functions
- [A B C D]
- Control of convulsions [Mag Sulphate; Diazepam; ???Lytic Cocktail]
- Control of hypertension [Hyralazine; others later]
- Delivery [Vaginal or C/S]
- What is the optimum time for stabilization in an eclamptic patient before a caesarean section?
- Management of co-morbidities and complications
- (Very important in our setting and may determine final outcome)

TREATMENT OF ECLAMPSIA

- Management of Co-morbidities
- Malaria (? Empirical) = Antimalaria: Sepsis (lungs or genital) = Antibiotics, Hypoglycemia = Parenteral/NG tubefeed, Aspiration pneumonitis = Supportive, Pressure point sores = Nursing care
- ICU or HDU Care (cost permitting)

SUMMARY

- PE/E common in Nigeria. Eclampsia is major cause of maternal mortality.
- Prevention of pre-eclampsia is still difficult
- Prevention of eclampsia is more feasible with prompt and proper treatment of pre-eclampsia.
- Principles of treatment of PE/E have not changed; magnesium sulphate is the anticonvulsant of choice but co-morbidities must be properly treated for best feto-maternal outcome!

WHO RECOMMENDATIONS FOR PREVENTION AND TREATMENT OF PRE-ECLAMPSIA AND ECLAMPSIA
Interventions that are recommended

RECOMMENDATION NO. 1
In areas where dietary calcium intake is low, calcium supplementation during pregnancy (at doses of 1.5–2.0 g elemental calcium/day) is recommended for the prevention of pre-eclampsia in all women, but especially those at high risk of developing pre-eclampsia

- Quality of evidence: Moderate, Strength of recommendation: Strong

RECOMMENDATION NO. 2

Low-dose acetylsalicylic acid (aspirin, 75 mg) is recommended for the prevention of pre-eclampsia in women at high risk of developing the condition

- Quality of evidence: Moderate, Strength of recommendation: Strong

RECOMMENDATION NO. 3

Low-dose acetylsalicylic acid (aspirin, 75 mg) for the prevention of preeclampsia and its related complications should be initiated before 20 (+0) weeks of pregnancy

- Quality of evidence: Low, Strength of recommendation: Weak

RECOMMENDATION NO. 4

Women with severe hypertension during pregnancy should receive treatment with antihypertensive drugs

- Quality of evidence: Very Low, Strength of recommendation: Strong

RECOMMENDATION NO. 5

The choice and route of administration of an antihypertensive drug for severe hypertension during pregnancy, in preference to others, should be based primarily on the prescribing clinician's experience with that particular drug, its cost and local availability

- Quality of evidence: Very Low, Strength of recommendation: Weak

RECOMMENDATION NO. 6

Magnesium sulfate is recommended for the prevention of eclampsia in women with severe pre-eclampsia in preference to other anticonvulsants

- Quality of evidence: High, Strength of recommendation: Strong

RECOMMENDATION NO. 7

Magnesium sulfate is recommended for the treatment of women with eclampsia in preference to other anticonvulsants

- Quality of evidence: Moderate, Strength of recommendation: Strong

RECOMMENDATION NO. 8

The full intravenous or intramuscular magnesium sulfate regimens are recommended for the prevention and treatment of eclampsia

- Quality of evidence: Moderate, Strength of recommendation: Strong

RECOMMENDATION NO. 9

For settings where it is not possible to administer the full magnesium sulfate regimen, the use of magnesium sulfate loading dose followed by immediate transfer to a higher level health-care facility is recommended for women with severe pre-eclampsia and eclampsia

- Quality of evidence: Very low, Strength of recommendation: Weak

RECOMMENDATION NO. 10

Induction of labour is recommended for women with severe preeclampsia at a gestational age when the fetus is not viable or unlikely to achieve viability within one or two weeks

- Quality of evidence: Very low, Strength of recommendation: Strong

RECOMMENDATION NO. 11

In women with severe pre-eclampsia, a viable fetus and before 34 weeks of gestation, a policy of expectant management is recommended, provided that uncontrolled maternal hypertension, increasing maternal organ dysfunction or fetal distress are absent and can be monitored

- Quality of evidence: Very low, Strength of recommendation: Weak

RECOMMENDATION NO. 12

In women with severe pre-eclampsia, a viable fetus and between 34 and 36 (plus 6 days) weeks of gestation, a policy of expectant management may be recommended, provided that uncontrolled maternal hypertension, increasing maternal organ dysfunction or fetal distress are absent and can be monitored

- Quality of evidence: Very low, Strength of recommendation: Weak

RECOMMENDATION NO. 13

In women with severe pre-eclampsia at term, a policy of early delivery is recommended

- Quality of evidence: Low, Strength of recommendation: Strong

RECOMMENDATION NO. 14

In women with mild pre-eclampsia or mild gestational hypertension at term, induction of labour is recommended

- Quality of evidence: Moderate, Strength of recommendation: Weak

RECOMMENDATION NO. 15

In women treated with antihypertensive drug antenatally, continued antihypertensive treatment postpartum is recommended

- Quality of evidence: Very low, Strength of recommendation: Strong

RECOMMENDATION NO. 16

Treatment with antihypertensive drugs is recommended for severe postpartum hypertension

- Quality of evidence: Very low, Strength of recommendation: Strong

Interventions that are not recommended

RECOMMENDATION NO. 17

Advice to rest at home is not recommended as an intervention for the primary prevention of pre-eclampsia and hypertensive disorders of pregnancy in women considered to be at risk of developing those conditions

- Quality of evidence: Low, Strength of recommendation: Weak

RECOMMENDATION NO. 18

Strict bed rest is not recommended for improving pregnancy outcomes in women with hypertension (with or without proteinuria) in pregnancy

- Quality of evidence: Low, Strength of recommendation: Weak

RECOMMENDATION NO. 19

Restriction in dietary salt intake during pregnancy with the aim of preventing the development of pre-eclampsia and its complications is not recommended

- Quality of evidence: Moderate, Strength of recommendation: Weak

RECOMMENDATION NO. 20

Vitamin D supplementation during pregnancy is not recommended to prevent the development of preeclampsia and its complications

- Quality of evidence: Very Low, Strength of recommendation: Strong

RECOMMENDATION NO. 21

Individual or combined Vitamin C and Vitamin E supplementation during pregnancy is not recommended to prevent the development of pre-eclampsia and its complications

- Quality of evidence: High, Strength of recommendation: Strong

RECOMMENDATION NO. 22

Diuretics, particularly thiazides, are not recommended for the prevention of pre-eclampsia and its complications

- Quality of evidence: Low, Strength of recommendation: Strong

RECOMMENDATION NO. 23

The use of corticosteroids for the specific purpose of treating women with HELLP syndrome is not recommended

- Quality of evidence: Very low, Strength of recommendation: Weak

PL-051

UNLOCKING THE SKILLS FOR FISTULA CARE IN NIGERIAN TEACHING HOSPITALS

O. A. Ojengbede

SITUATION IN TEACHING HOSPITALS

Clogged beds, Choked or space, Bereacratic challenges, High costs, Overburdened system

SITUATION IN TEACHING HOSPITALS

Significant Skills, Research opportuniyies, High class support systems, Post-menopausal phase: one-third of life span, One of 13 pillars of RH

MENOPAUSE

Peri-menopause

Transitional phase from onset of menopausal symptoms/period following menopause, Duration: 4 or more years

Post-menopause

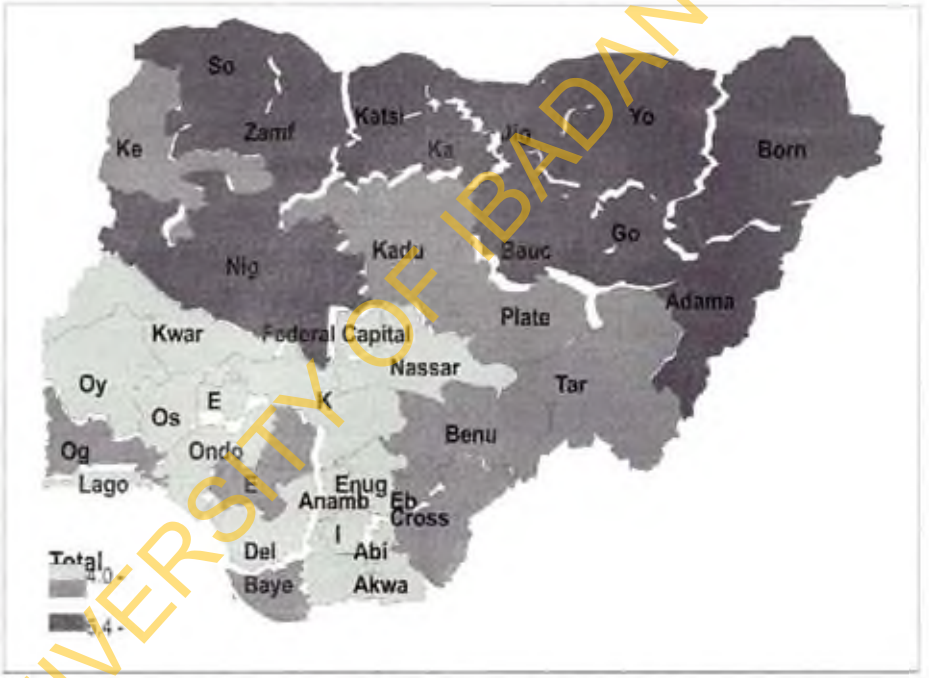
Onset 12 months after last period

Menopause

Last menses, Definitive after 12 months, Retrospective diagnosis

SITUATION IN TEACHING HOSPITALS

- Willing and committed enthusiasts/champions, Wide catchment areas, Expanding access and quality of car



PL-052

FROM TRAINING TO SERVICE DELIVERY – CURRENT PLANS BY THE FEDERAL MINISTRY OF HEALTH FOR OF SERVICES

Dr. C. O. Isokpunwu

Deputy Director and National Cordinator Obstetric Fistula Progamme FMOH

At the Round Table Discussion of the SOGON Conference, 25th November, 2011

INTRODUCTION

- Obstetric fistulae (vesico vaginal and recto vaginal fistulae) are serious reproductive health problems for women in the developing world
- The typical VVF patients are usually young, illiterate, poor and powerless rural girls who
- have been given out in marriage and became pregnant at very young age,
- had no benefit of antenatal care up to the time of delivery

- had labored at home for days without going to hospital.
- Available data from the NDHS have shown that VVF cases are prevalent in all the zones
- The highest rates are seen in the North-East and Northwest Zones of the country,
- The lowest rates persist in the South-West and South-East of Nigeria.
- According to data from the 2008 NDHS, the maternal mortality ratio for Nigeria is 545 per 100,000 live births; . The 2011 lancet series report puts it at 487/100,000 live births. Even at this, Nigeria still has one of the highest rates in the world.
- About 4 maternal deaths occur in Nigeria per hour, 90 per day, and 2,800 per month totaling about 34,000 deaths annually, with wide regional and local variations.
- It is also estimated that for every maternal death, at least 30 women suffer short to long term disabilities such as obstetric fistula
- It is estimated that Nigeria accounts for 40% - 50% of the worldwide fistula prevalence.
- Prevalence estimations range from as low as 150,000 to as much as 1,000,000 cases.
- The incidence is estimated at probably 20,000 new cases a year, although recent studies put estimates at approximately 12,000 new cases per year.
- Approximately 2,000 - 4,000 fistula repair surgeries are being carried out yearly in Nigeria.
- At this rate, it would take 250 years to clear the backlog assuming no new cases occur.
- While 70% of potential Fistula Surgeons are in the tertiary hospitals, less than 30% of repairs are done in these hospitals.
- Fistulae can often be prevented by the insertion of an in-dwelling catheter (for 4 to 6 weeks) to relieve pressure on the bladder following prolonged obstructed labour.
- Estimates of between 40% and 95% of small fresh fistulae heal spontaneously with Foley's catheter insertion for 4 to 6 weeks
- Yet not many doctors and nurses are aware of this even as more cases are reported to occur in hospitals
- It is against this backdrop that the FMOH in collaboration with Office of the Senior Special Assistant to the President on MDGs embarked on a National Training on Obstetric Fistula Repair for Doctors and nurses in O&G nationwide.
- This National Training Programme would also help develop a pool of resource persons as master trainers for step down training in their various health facilities and across the six geo-political zones.

GOAL OF THE TRAINING

- The goal of this National Training Programme was to build the capacity of medical Doctors and Nurses in management of VVF.
- Increase the capacity of fistula repairs in Nigeria

OBJECTIVES OF THE TRAINING

- To improve capacity of doctors and Nurses on management of VVF across the six geo-political zones in Nigeria.
- To update doctors and Nurses on best practices in general management of VVF
- To manage/repair VVF with limited resources
- To generate pool of trainers

CRITERIA FOR SELECTION OF TRAINEES

- For the teaching hospitals and FMCs, a consultant in O&G with not more than five years post-qualification while that of the General Hospital is an experienced Medical officer with at least 5 years post qualification having interest in fistula repair
- Nurse/ Midwife who have interest and pasion for VVF management
- The training manual adopted was the internationally approved global competency based state of the art guidelines developed by FIGO/ ISOFS
- The trainers adapted a team approach where the doctors were trained along with the nurses and all attended lectures together. The timetable was engaging and took the whole day.
- The training took place in Katsina, kano and Ebonyi states.
- a team approach where the doctors are trained along with the nurses and all attend lectures together was adopted.
- Each session of the training lasted for 14 days and trainees were trained in batches of 4- 6 teams
- A total of 8 training sessions took place, 2 at Kano, 3 at Katsina and 3 at Abakaliki.

TRAINEES WERE DRAWN FROM THE FOLLOWING INSTITUTIONS:

UCTH, Calabar, Bauchi FMC Azare, ATBUTH, Bauchi, FMC Abeokuta, FMC, Lokoja, FMC, Ebuta-Metta, UPTH, PortHarcourt, FMC Keffi, FMC Owo, FMC Ido Ekiti, UMTH, Borno, FMC Owerri, UITH, Ilorin, UBTH, Benin City, ISTH Edo State, National Hospital, Abuja, JUTH, Jos, AKTH, Kano, FMC Bida, FMC, B/Kudu, FMC Nguru, FMC Katsina, FMC Gusau, Zamfara, NAUTH-Nnewi, FMC Makurdi, ABUTH,Zaria, UATH, Gwagwalada, UDUTH, Sokoto, Gezawa GH Kano, GH, Daura – Katsina, GH, Funtua ,Katsina Kofan Gaiya Fistula Centre, Zaria, GH, Kankara –Katsina State, GH, Ogoja

OUTCOME OF THE TRAINING

- A total of 45 Doctors and 52 Nurses were trained
- A total 552 patients were repaired and rehabilited during the training.
- This is the single largest repairs in the history of Fistula treatment at a given time in Nigeria.
- The Training and treatment were free

OPPORTUNITIES

- Skills and confidence of the trainees were built on Fistula management
- The surgeons (Trainers) had opportunity of learning from one other the different approaches to obstetric fistula surgery.
- Trainees have formed a network where they could get technical assistance in obstetric fistula care.

86 women repaired in 1st session of training in Katsina

WHAT IS THE NEXT STEP?

- Mobilization of resources for repairs in the facilities
- Retraining of the trained doctors and nurses
- Train additional Doctors and Nurses on Fistula repairs
- Monitor and evaluate the work of the trained Doctors and Nurses at their facilities
- Encourage FTHIs to support fistula activity through waiver of fees for obstetric fistula patients
- Recognition of the training for CME
- Development of a curriculum to make Fistula surgery a subspecialty in O & G

PL-053

OPPORTUNITIES FOR FISTULA REPAIRS AT TERTIARY HOSPITALS

Panel Discussion -"Unlocking the Skills at Tertiary Hospitals for Fistula Repairs"

PRESENTATION OUTLINE

- UNFPA and the fight to end Obstetric Fistula (OF) in Nigeria
- Treatment of Obstetric Fistula-Critical to the end fistula campaign
- What opportunities are available for fistula repairs at the tertiary hospitals?

UNFPA AND THE FIGHT TO END OBSTETRIC FISTULA IN NIGERIA

- In 2003, UNFPA and partners launched a global campaign to end fistula- goal is to make OF as rare in the

developing world as it is in industrialized world.

- Main component is to support national programmes to eliminate fistula through:
  - Enhanced political and social environment for the reduction of maternal mortality and morbidity
  - Integration of fistula interventions into ongoing safe motherhood and reproductive health policies, services and programmes including training of doctors/surgeons, nurses and social workers

UNFPA AND THE FIGHT TO END OBSTETRIC FISTULA IN NIGERIA

- Main component is to support national programmes to eliminate fistula through:
  - Increased national capacity to reduce maternal mortality and morbidity
  - Increased access to and utilization of quality basic and emergency obstetric care services
  - Increased access to and utilization of quality fistula treatment services
  - Increased availability of services to assist women with repaired fistula to re-integrate into their community
- The campaign focuses on three key areas: *Prevention*, ***treatment*** and *rehabilitation*

TREATMENT OF OF-CRITICAL TO THE END FISTULA CAMPAIGN

- Experiences from the "fistula fortnight" clearly shows how treatment can serve as an entry point for leveraging commitment/resources to the broader causes of maternal health, RH and gender equality
- Provision of OF treatment highlights, de-mystifies & recognizes it as being curable hence contributing to stigma reduction, open discussions at policy and community levels.

WHAT OPPORTUNITIES ARE AVAILABLE FOR FISTULA REPAIRS AT THE TERTIARY HOSPITALS?

- Appropriate surgical set-up
- Adequate post-surgery follow-up
- Integration of OF treatment into young doctors traineeship
- Quality assurance
- Strong training opportunities
- Linkages to maternal health programs
- Opportunities for better data collection and research

Long queue of fistula victims awaiting surgery

PL-054

UNLOCKING THE SKILLS FOR FISTULA CARE IN NIGERIAN TEACHING HOSPITALS TEACHING HOSPITAL – SKILLS IN SITU; HOW ACCESSIBLE?

A. Ojengbede

Where are we? Where are the skills? Are they readily available? What is the attitude towards fistulae care in the teaching hospital? What are the barriers to teaching the skills in the teaching hospitals?

SITUATION IN TEACHING HOSPITALS

Clogged beds, Choked theatre space, Bureaucratic challenges, High costs, Overburdened system

SITUATION IN TEACHING HOSPITALS

Significant Skills, Research opportunities, High class support systems Post-menopausal phase: one-third of life span, One of 13 pillars of RH

SITUATION IN TEACHING HOSPITALS

- Training at the teaching hospitals to be encouraged
- Subsidized treatment/ free care
- Social mobilization for access/utilization
- Willing and committed enthusiasts/champions to be supported
- Wide catchment areas (regional centres)
- Expanding access and quality of care

PL-055

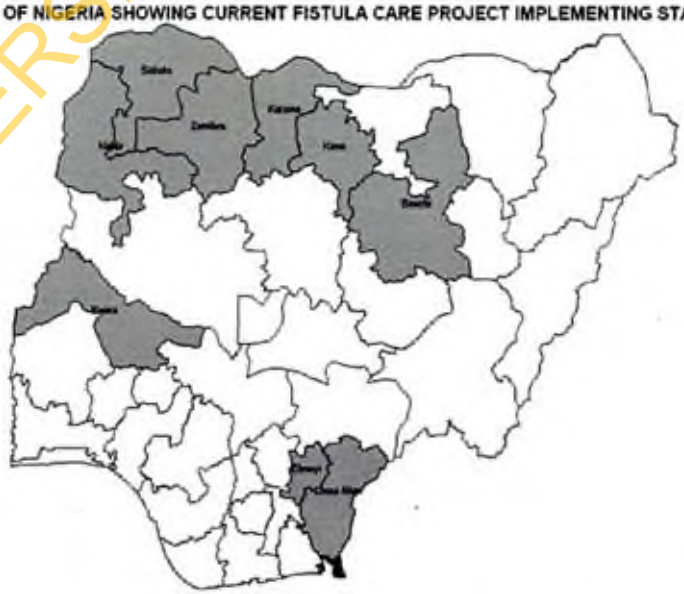
INSTITUTIONAL CAPACITY TO REPAIR OBSTETRIC FISTULA: A SITUATIONAL REPORT FROM SUPPORTED FACILITIES *(A PRESENTATION MADE AT SOGON CONFERENCE, PREMIER HOTEL, IBADAN, NIGERIA NOVEMBER 22-26, 2011)*

Dr Adamu Isah MD, MPH
Deputy Country Project Manager

THE FISTULA CARE PROJECT

Global Project, supported by USAID; Implemented by EngenderHealth; Nigeria Program launched in Sokoto in 2007; **Supports** 9 fistula repair facilities spread across 5 geo-political zones in Nigeria.

MAP OF NIGERIA SHOWING CURRENT FISTULA CARE PROJECT IMPLEMENTING STATES



WHAT WE DO

Prevention, Repair and Rehabilitation/Reintegration of Client Thru: Capacity Building, Quality Improvement, Advocacy/Community Engagement, Family Planning, Research

ACHIEVEMENTS SO FAR...

From May 2007 – Sept 2011, Close to 7,000 clients repaired with 82% closure rate, 3 Surgeon trainers trained, Total of 32 doctors and 74 nurses trained , 45,292 women counseled on FP, About 14,000 Couple Years of Protection achieved

OTHER ACHIEVEMENTS...

Thru **Collaboration** with many partners:

- Revival of National Obstetric Fistula Working Group
- Review of National Strategic Framework for Elimination of Obstetric Fistula 2005-2010 –ongoing
- Commencement of Repairs in Ebonyi, Bauchi; Kwara, Cross River coming soon
- Developed Strategies for Reduction of Fistula in Nigeria
- Global Prospective Study on Determinants of Post Operative Outcomes of Fistula Surgery
- Cost Study

STRATEGY RECOMMENDATIONS

A- Increase the capacity to treat women who present with fistula, B- Implement strategy for conservative (catheter) treatment, C- Set goals to reduce the occurrence of obstructed labor, D- Reintegrate fistula clients post-repair, E- Document learning and progress

CHALLENGES

Brain shift Vs Brain drain

Only 35% are available to provide services including those that provide: full time, active routine repairs , part time – on invitation during pooled efforts, those expected to start repairing soon (newly trained), those who work at Level 1 facilities* , WHY IS THIS SO??

OPINIONS FROM PARTNERS

Methodology

- semi-structured questionnaires issued to 28 partners from supported states during "Providers' Network Meeting"
- Questions on number of fistula surgeons that ever worked in their facility and those currently working and perceived needs
- Why are fistula surgeons leaving and ways to curtail the drain
- Which fistula repair facilities in Nigeria the participants know
- Whether any linkage exist among the centers outside the Provider Network Meetings and other activities organized by FC

PRELIMINARY RESULTS:

On average, 3.5 surgeons worked in the facilities but this dropped by 50% to 1.75 over time. The Partners believed that at least 4 surgeons are needed on average, Most important reason for the drain are. Educational advancement, Seeking Greener Pasture, Poor Motivation, Change in Government, Poor Remuneration, Unnecessary transfer by SMOH, Poor relations with facility managers

HOW TO STOP THE DRAIN?

- Group 1: Welfare/Motivation/Incentives with calls for unified salary for Federal/State Govt Institutions
- Group 2: Training Opportunities/Career Advancement with calls for university post graduate certification in fistula, incorporation of fistula in residency programs
- Group 3:Improvement of working environments and recruitment of more surgeons

QUESTION: HOW DOES **SOGON** COMES IN???

Knowledge of Fistula Repair Sites in Nigeria

Group 1: Mainstream, state owned repair centers –most famous (Katsina, Sokoto, Kano, Zamfara and Ebonyi. ECWA Jos barely mentioned

Group 2: New, state owned centers such as Jigawa, Zaria, Bauchi alongside new upcoming centers-Kwara and Cross Rivers also popular among participants

Group 3: Federal Institutions such as UITH, UCH, ABUTH, AKTH, UDUTH were not mentioned by any of the participants!

QUESTION: HOW CAN WE TAP/UNLOCK THE POTENTIAL IN THESE TEACHING HOSPITALS?

Other relevant findings...

Environmental Scanning 2010 revealed opportunities at UTH

Adequate manpower, Training facilities, Research Opportunities

CHALLENGES

Minimal caseload of fistula clients, Inadequate training in fistula surgery, High Cost of Surgeries, Competing priorities

SUGGESTIONS FROM STAKEHOLDERS

Waive fees for surgery and bed space, Devote one a day a week for fistula surgery, Construct separate Ward/Theater for fistula, Etc

I WILL ADD

Undergo training in fistula surgery, Participate in mass repair campaigns
Suggestions from stakeholders

OUR PRAYERS

- Greater Collaboration with SOGON and the Teaching Hospitals in order to unlock the potential in the teaching hospitals
- Appropriate recognition and opportunities for educational and career advancement for Fistula Surgeons
- Closer working relationship between secondary and tertiary hospitals in Nigeria in areas of fistula management
- Inclusion of fistula in both under and post graduate training programs for doctors and nurses

PL-056

A GIANT MUCINOUS CYSTADENOMA OF THE OVARY COEXISTING WITH PREGNANCY AT 21 WEEKS – A CASE REPORT

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ABSTRACT

- Mrs. CP was a 35 year old house wife; who was pregnant for the sixth time at 16 weeks of gestation on admission on 1st September, 2009. She complained of rapidly increasing abdominal swelling and pains for four months. She was ill looking, with gross distension of the abdomen.
- Ultrasonography showed a giant multi-septated ovarian cyst with a viable foetus at 16 weeks.
- At primary staging laparotomy, five weeks later, she had a stage Tb tumor of the ovary, for which she had a left ovariectomy of a giant cyst, measuring 100 x 100 cm in perpendicular diameters, and a contra-lateral cystectomy for a 20 x 20cm homologous synchronous cyst. Histology revealed bilateral mucinous cystadenoma of ovary. She aborted two weeks latter and had evacuation of the uterus by vacuum aspiration before discharge two days later.
- She was unique because she had an ovarian tumor in pregnancy which is a rare occurrence. She never had functional cysts that are most commonly found ovarian masses in pregnancy. Neither did she have a germ cell teratoma nor a dysgerminoma which are the varieties of ovarian tumors that commonly persist beyond 14 weeks of pregnancy. There were no degenerative changes seen! The timing of surgery at 21 weeks was not optimal as foetal wastages have been shown to be minimal at 16 weeks of gestation.
- She had disappointments because she planned and wanted the pregnancy in order to balance the sex ratio of three girls and two boys in the family. Later in the disease she had the threat of an impending death because of the rapidity of growth and huge size of the abdomen.
- There was a delay of five weeks because the admitting unit extensively evaluated her before she reached the final oncologic unit where definitive treatment was offered.
- The surgeon has the belief that the most important critical factor in successful management is prehensile surgical skills and bravery.

INTRODUCTION

- Tumours coexisting with pregnancy increase the maternal, perinatal morbidities and mortalities[1]. They are commonly breast tumours followed by leukaemia, lymphomas, melanomas, gynaecological (cervical, ovarian), before bone tumours in that order[2]. Their management is controversial because of difficulty establishing diagnosis, whether or not to terminate the pregnancy, whether or not to institute chemotherapy and its potentials for embryopathy, and risk of early metastasis because of increased vasculature of pregnancy1.

- Ovarian tumors in pregnancy is a rarity1. Luckily they are usually functional follicular or corpus luteum cysts that grow to average sizes of 3-5cm and rarely attain 11cm. [3] When ovarian mass persists beyond 1 4th weeks of pregnancy, it suggests a dermoitz cysts or mucinous cystadenoma and they usually attain average sizes. They are vulnerable to complications like rupture, haemorrhage, torsion, infection, impaction in the pelvis, obstruction of labour, and least but most importantly, malignant changes1.
- The commonest malignant ovarian disease in pregnancy is a dysgerminoma and then sex cord stromal cancers. But they also attain average sizes. The giant size of the case reported (with a possibility of a multiplier effect of the crucial issues of management of tumors in pregnancy like chemotherapy, torsion, malignancy etc), the age of onset at 35years, the rapidity of progression over only four months, make her unique for reporting.

REPORT

Mrs. CP was a 35years old full time house wife, married to a Policeman with a co wife. She was para 5+°, 5 alive with 3 females and 2 males. Her last confinement was 2years before. She presented on 1 September, 2009 in the A/E department of the hospital with complaints of not seeing menses for five months and abdominal swelling and abdominal pains for four months. She knew she was pregnant but the rapid swelling of the abdomen was unusual. She never sought care any where. She came to hospital when the swelling and pains became unbearable. She had no history of similar swellings in family nor that of breast or colonic cancer. She had no history of use of: ovulation induction drugs nor past irradiation of the ovaries. She breast fed all her children. She never used the oral contraceptive pills. She had all her deliveries by spontaneous vaginal delivery. She had not been hospitalized before, nor any past surgery done. She was cohabiting effectively with husband, a Policeman and with the co-wife.

THERE WAS NOTHING ELSE OF NOTE IN THE SYSTEMIC REVIEW.

On examination she was conscious, well orientated in time place and persons; not pale, not jaundiced and not cyanosed. Her vital signs were:

Pulse -76 beat per mm

BP- 130/90:mmHg.

Respiratory rate —24 beats per mm

Temperature - 367°c

Abdomen: Grossly distended without caput medusa. Shifting dullness was positive, fluid thrill was positive, liver, spleen and kidneys were not palpable. Bowel sounds were present.

PER VAGINAAM

The vulva was normal on inspection. Digital examination was gently done and cervix was soft and os closed. The uterine size could not be delineated in order not to rapture any masses.

Cardiovascular System: She was dyspnoeic at rest. There was no bilateral pedal oedema. Her heart sounds I & II were heard.

Respiratory Systems: This was essentially normal. Other systems were essentially normal.

Impression: Ascites in pregnancy was made to rule out ovarian mass.

Investigations revealed:

Full blood count PCV-30%, WBC - 3200 per microliter, Neutrophils —70%, Lymphocytes - 30%, Monocytes - 0, Eosinophils - 0, Basophils - 0, Anisocytosis +, Macrocytosis +, Microcytosis ++, Hypochromasia +, ESR 90mm fall in 1 hr

Liver function test

Total protein 6.4g% normal =(6.2-80), Albumin 3.9g% (2.8-4.0), Total bilirubin 1 6.6micromol/litre - up to 1 7, Conjugated 37 micromol/litre - up to 4.6, AST (SCOT) 11. micromol/litre - up to 1 2, ALT (SGPT) 6 micromol/litre - up to 1 2, Alkaline phosphatase 88 micromol/litre (67—1 70)

ELECTROLYTES + UREA

Sodium 1 3Ommol/l normal in bracket (1 34—1 46), Potassium 3.6mmol/l (3.5—5.5), Chloride 97 mmol/l (92-106). Bicarbonate 24mmol/l (26—3 1), Urea 6.Omm,/l (1.7-9.1), Creatinine 94mmol/l (72—1 26)

Urinalysis

PH 5.5 Bilirubin + Protein Urubilinogen Ascorbic acid	Negative	Sugars Ketone Blood Nitrite	Negative

Blood = Hepatitis B surface Antigen - Non reactive, HIV test = Non reactive, Mantou Test: Non reactive, Chest & X-ray: The heart is not enlarged, Abdomen - Relative gasslessness of the abdomen with no focal lung lesions seen. The rib cage was normal. Ultrasound scan 1/9/09. Uterus showed a live singleton foetus with gestation age 16/52 + 2/7

Pelvic adnexa contains a giant multi septated cystic mass which extends from the pelvic region to the epigastrium. The impression was normal viable singleton foetus at 1 6 weeks with a giant abdomino pelvic ovarian cystic mass. Tumor specific antigens were not available. The patient was stabilized on sedatives and haematinics and then prepared for primary staging laparatomy on 6th October, 2009.

With the standard operating table in its lowermost level, by the knee of a 1.65m surgeon, the patient was put in supine position. General anaesthesia was administered. Routine cleansing and draping done, The surgeon had to step on a fifth of a meter platform, and fully stretched his hand before the knife could reach the summit of the abdomen. A midline incision from xiphoid stenum to symphysis pubica was made; and carried to the peritoneal cavity. Findings were noted. Peritoneal cavity was irrigated and aspirate fluid collected for cytology. Yet the mass could not be delivered. We started infolding, tucking-in and kneading-in the margins of our incision towards the button of the mass. By the time we went beyond the diameter of the mass, the superior pole glided over the xiphoid sternum and delivered. The inferior pole of the mass bore the weight and eventually fell over the left pelvis of the patient with the impact of the weight shaking the entire patient and operating table. The pedicle was triply clamped and excised. A cystectomy was done for the right ovary. The masses and aspirate were sent for histology and cytology, which both turned out to be beningn mucinous cystadenoma of the ovary. With the removal of the masses, the patient was like a canoe. The margins of the incision were apposed and sutured in two layers. There was good healing on the seventh day of operation and patient was discharged to the gynaecologic out clinic.

DISCUSSION

The findings at operation were: - uterine size equivalent to 21 weeks gestation; a left sided giant cystadenoma (100cm x 100cm in perpendicular diameters; and a contralatral synchronous homologous multicystic ovary (20cm x 20cm) for which she had left ovariectomy and a right cystectomy.

She aborted perhaps for several reasons: – the stress of surgery; irritation of the uterus and trigger of a Fergusson's reflex; rapid decompression of the abdomen following removal of the masses, and severe emotional disturbances. She had several disappointments: - she planned for and wanted the pregnancy in order to balance the sex ratio of three girls to two boys in the family. In the course of the disease she had a sensation of an impending death became of the rapidity of growth and giant size of the abdomen.

The surgical team adopted this innovation from first principle as they had never had a prior experience before. They were bold.

The giant size of this tumour in pregnancy had not been described previously[1]. There were no degenerative changes seen! Otherwise ovarian tumours in pregnancy are crucial because of the degenerative changes like torsion, haemorrhage, infection, infarction, obstruction and malignancy which they could undergo, with the additional multiplier effect which the huge size could confer. Bilaterality in ovarian mucinous cystadenoma is of the order less than 5%; and synchronous, homologous bilaterality certainly is a very rare disease. The therapy offered this patient is considered optimal because the mass appeared beningn, though bilateral; the capsules were intact; masses were cystic; no peritoneal inplants or excrescences; and no ascites and no areas of solidity. It was a stage 1b disease of the ovary. There was no need for a primary induction chemotherapy. Most gynaecologic oncologists would consider the therapy optimal. There is overwhelming evidence that foetal wastages are least if surgery is done at 16 weeks when the placenta would have taken over the essential functions of ovary in pregnancy.

There was a delay of five weeks because of the uncertainties in establishing diagnosis. First the medical team was brought in and then the general surgeons. The admitting unit finally transferred the woman to the oncology unit for the definitive care. Could anything else other than, optimal timing of surgery, surgical dexterity and bravery, contribute to the success in management of this patient?

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PL-057

PRIMARY POST-PARTUM HAEMORRHAGE: A FIVE YEAR REVIEW AT THE FEDERAL MEDICAL CENTRE, ABEOKUTA (2004-2008)

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INTRODUCTION

- Post-partum haemorrhage is the most common cause of maternal mortality and accounts for one-quarter of maternal deaths worldwide[1].
- Although five years are left before the target date of 2015 at which the Millenium development goal of reducing maternal mortality by 75% was set for, it is now clear that this will not be met in Nigeria[2].

INTRODUCTION III

- The World Health Organization (WHO) currently defines primary post-partum haemorrhage (PPH) as blood loss in the first 24 hours after the birth of the baby equal to or in excess of 500mls[3].
- Risk factors associated with primary post-partum haemorrhage include primiparity, previous third stage complications, anaemia, pregnancy induced hypertension, grand multiparity and multiple pregnancy among others[4].

OBJECTIVES

To determine:

- The incidence of primary postpartum haemorrhage.
- The pattern of clinical presentation at Federal Medical Centre, Abeokuta.
- The associated aetiological risk factors.

MATERIALS AND METHODS

- *A retrospective, case-control, study of all patients with primary post-partum haemorrhage between the period of January 1, 2004 to December 31, 2008 was carried out at the Federal Medical Centre, Abeokuta.*
- *Information was obtained from case notes and the admission registers in the wards.*
- *The records of total deliveries within the period of study was also collated and used in the analysis*

MATERIALS AND METHODS II

- *Relevant information extracted from the case files include their age, parity, previous history of primary post partum haemorrhage, the mode of delivery, Identified cause(s) of haemorrhage, estimated blood loss and measures instituted to arrest haemorrhage.*
- *Data obtained were collated, analysis was carried out and results presented in form of tables and bar charts.*

RESULTS I

- Total of 3362 deliveries during the study period.
- 132 cases of 1°PPH were documented in the period under review; however, only 114 case files (86.4%) could be

Booking status of patients with primary postpartum haemorrhage and controls

BOOKING STATUS	CASES(%)	CONTROL(%)
BOOKED	26(22.8)	82(74.5)
UNBOOKED	88(77.2)	28(25.5)
TOTAL	114	110

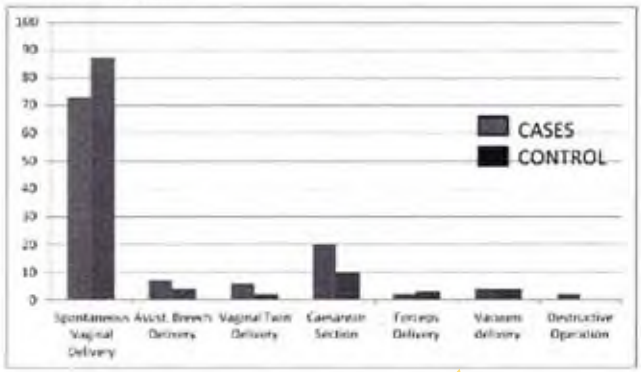
Age-group distribution

AGE(YEARS)	CASES(%)	CONTROL (%)
15-19	11(9.6)	22(20)
20-24	26(22.8)	19(17.3)
25-29	37(32.5)	38(34.5)
30-34	26(22.8)	19(17.3)
35-39	11(9.6)	11(9.6)
40-45	3(2.6)	1(0.9)
TOTAL	114	110

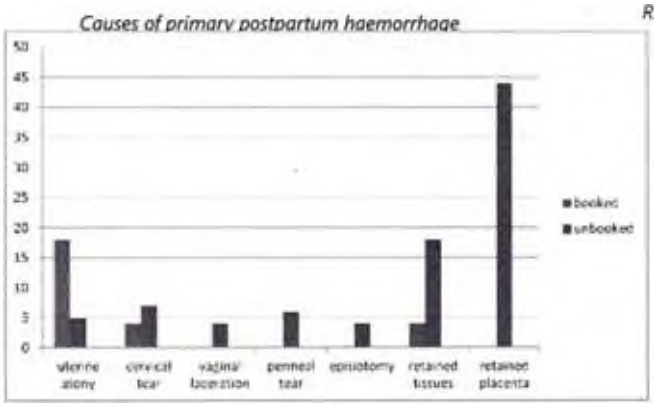
Parity distribution of patients

PARITY	CASES(%)	CONTROL(%)
1	19(16.7)	18(16.4)
2-4	29(25.4)	31(28.2)
5+	66(57.9)	61(55.4)
TOTAL	**114**	**110**

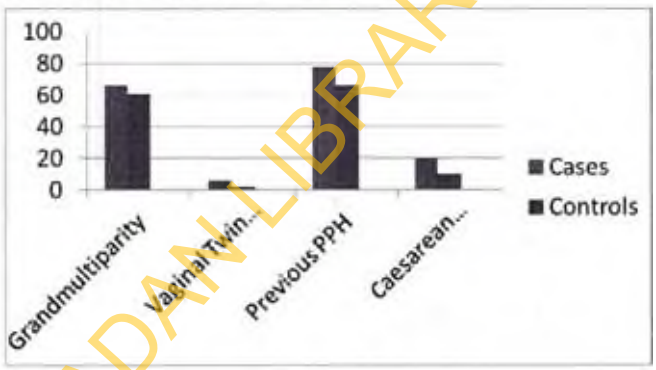
Mode of delivery chart



Causes of primary postpartum haemorrhage



Risk factors for primary postpartum haemorrhage



retrieved for data analysis.

- A study of 110 cases of randomly selected controls was done to further emphasize the risk factors for primary postpartum haemorrhage.
- Incidence of 1°PPH - 1 in 26 or 3.93%
- Average blood loss in cases of PPH – 1350mls (500-4900mls)
- Control- 200mls (80-450mls)

LIMITATIONS OF STUDY

- Small study group
- Poor care of hospital records and some cases of missing case records of patients.
- Visual estimation of blood loss generally underestimates blood loss: a biochemical assessment would be more appropriate.
- The incidence of primary postpartum haemorrhage is 3.93% or 1 in 26 live births.
- Uterine atony is the commonest cause of 1°PPH in booked patients.
- Retained placenta is the commonest cause of 1°PPH in unbooked patients.
- Most cases of 1°PPH were unbooked.

RECOMMENDATIONS

- Traditional birth attendants and health workers in peripheral units who handle significant number of deliveries in the community should be trained.
- The initiative of the Federal Ministry of Health in establishing the Midwives' Service Scheme (MSS) is a very welcome idea which needs to be supported and nurtured to grow.

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PL-058

HYSTERECTOMY FOR BENIGN GYNAECOLOGICAL CONDITIONS AT THE FEDERAL MEDICAL CENTRE, ABEOKUTA — A FIVE (5) YEAR REVIEW

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INTRODUCTION

Hysterectomy is the commonest major gynaecological operation in the United states of America and the United Kingdom [1], it is less commonly performed in Nigeria due to cultural and other reasons [2]. However, it still constitutes a significant portion of major gynaecological operation in the country

1- Mayonda I. 2003, 2-Ezem BU et al 1981.

OBJECTIVE

- To determine the frequency, indication and outcome of hysterectomy at the Federal Medical centre, Abeokuta.

METHODOLOGY

- A retrospective descriptive study.
- The theatre records of all patients who had hysterectomy for benign conditions during the study period (January 2003 and December 2007) were collated and the names compiled.
- The record was further checked with the inpatient record. The case files were retrieved.
- Total number of cases per year were noted.
- Information extracted from the record include: Patients biodata, route/ type of surgery, type of incision, indication for the surgery, uterine size at surgery, obstetric history and morbidities associated with the procedure.
- Data obtained were collated and analysed.
- The result was presented in tables and chart

Yearly frequency

Year	2003	2004	2005	2006	2007	Total
No. of cases	25	29	26	30	24	134

Age distribution

Age (yrs)	No. of cases	%
21-30	20	14.93
31-40	50	37.31
41-50	60	44.78
51-60	4	2.98
Total	134	100

Indication

Indication	No. of patient	%
Fibroid with menorrhagia	94	70.15
Fibroid with pressure symptoms	7	5.22
DUB	14	10.44
Ovarian mass	7	5.22
Combined fistulae with necrotic lower uterine segment	1	0.74
Post menopausal bleeding with fibroid	1	0.74
Utero-Vaginal prolapse	10	7.49
Total	134	100

Parity/No. of living children

Parity	No. of patient	%	No. of living children	No. of patient	%
0	5	3.73	0	8	5.97
1	7	5.22	1	14	10.45
2	16	11.94	2	18	13.43
3	33	24.63	3	38	28.36
4	38	28.36	4	34	25.37
≥5	35	26.12	≥5	22	16.42
Total	134	100	Total	134	100

Route/Type of surgery

Type	No. of patient	%
1.Abdominal Hysterectomy Total	112	83.58
-Sub-total	12	8.95
2. Vaginal Hysterectomy	10	7.47
	134	100

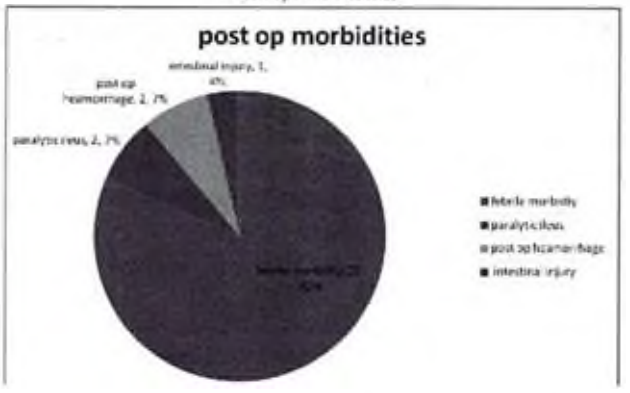
Type of incision (abd Hysterectomy)

Type of incision	No. of patient	%
Midline	80	59.70
Pfannenstiel	44	32.83
Total	124	92.53

Uterine size at surgery

Size of uterus at surgery (Weeks)	No. of patient	%
Normal	14	10.45
≤ 14	14	10.45
15-20	54	40.30
>20	52	38.80
Total	**134**	**100**

Post op. morbidities



RESULT

- There were one hundred and forty two cases of hysterectomies for benign conditions in the hospital during the study period of 5years from 1st January 2003 to 31st December 2007.
- One hundred and thirty four case files were available for review
- Retrieval rate was 94.4%

LIMITATION OF THE STUDY

All the case files could not be retrieved., Retrieval rate of 94.4%. , The study population is small.

CONCLUSION

- Symptomatic uterine fibroid constitutes the commonest benign indication for hysterectomy at Federal Medical Centre, Abeokuta.
- Abdominal hysterectomy constitutes the bulk of the hysterectomy performed with vaginal hysterectomy mainly employed in cases of uterovaginal prolapse.

RECOMMENDATION

- Increased use of vaginal route for hysterectomy especially with uterine size <14 weeks, in view of reduced morbidities associated with it.
- Strict adherence to aseptic technique during surgery to reduce infective/febrile morbidities.

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PL-059

INTEGRATION OF VIA INTO STAFF MEDICAL EXERCISE AS PREVENTION STRATEGY

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BACKGROUND

- Cervical cancer is the second most common gynecological cancer in the world and the most common cause of cancer deaths in the developing countries
- Screening for causative agent and pre-malignant stages have resulted in a dramatic decline in cervical cancer deaths over the past four decades in wealthier nations.
- However this is not the case in many developing nations especially sub-Saharan Africa.
- A key reason for continuing high mortality in the developing world is the shortage of efficient, high quality screening programs in these regions.
- In countries where resources are limited, recommendations include screening every woman in the target group once in her lifetime at about the age of 30 years using cheaper, less-technical but equally effective methods like Visual inspection with acetic acid (VIA).
- Because studies showed that the risk of progression from moderate to severe pre-cancerous lesions is 32% within 10 years and longer with mild lesions
- Cervical cancer most often develops in women after age 40 and is most frequent among women in their fifties and sixties

RATIONAL FOR THE STUDY

The relatively poor public awareness and confidence on "Visual Inspection with acetic acid" as a screening tool for cervical cancer in some communities in this environment and the yet unmet desired reduction in cervical cancer burden in Nigeria.

STUDY OBJECTIVES

General Objective

- To evaluate the sensitivity of VIA screening in detecting cervical lesions and to validate its' effectiveness as a screening tool for communities with relatively low resources with the aim of detecting the lesions at the earliest stages.

Specific Objectives:

- To evaluate the acceptability and effectiveness of VIA in a tertiary institution in Nigeria.

MATERIALS AND METHODS

- Visual Inspection with acetic acid (VIA) screening was conducted for 629 eligible and consenting members of staff and spouses of the male staffs at the University of Ibadan between April, 2011 to June, 2011 as part of routine annual staff medical exercises.
- A 10 stem questionaire was administered to all the eligible and consenting participants
- The VIA was done by trained nurses with the application of 5% acetic acid solution on the cervix and then examination under bright vision.
- The participants were also counselled and linked to University College Hospital cervical cytology programme for follow up.
- Fifty-four women reported for subsequent pap smear out of which 49 results were available for analysis.
- The data was analysed using SPSS version 15 and a chi-square test was done to check the level of significance.

RESULTS

- The mean age of the participants was 42.76 ± 8.75 s.d.The youngest participant was 19 years old while the oldest was 65.
- Sixty-nine (11.5%) were Nulliparous, 344 (57.3%) had between one and three children and 187 (31.2%) participants had four or more children

RESULTS

- Of the the 629 that had VIA:
  - 553 (87.9%) had normal result
  - 76 (12.1%) had various forms of abnormalities .
    - Contact bleeding 14
    - Acetowhite 20
    - Malignant lesion 2
    - Other suspicious lesions 40

PAP SMEAR RESULTS

- Forty-nine out of the 54 Pap Smear cytology results were available: 31 had normal VIA and Pap smear, 12 people had

normal VIA but abnormal Pap smear result, 12 had abnormal VIA and abnormal Pap smear result, 4 had abnormal VIA but Negative Pap

- Though, the proportion of participants with abnormal VIA results increases with parity and number of living children from 8.7% among Nulliparous women to 11.0% among those with 1 – 3 children and 13.4% among those with 4 children and above, this is not statistically significant (p=0.53).
- There was similar trend with age (p= 0.095)

CONCLUSION

- The prevalence of abnormal VIA result among University of Ibadan staffs and their spouses as shown in this study is 12% and this has a direct relationship with their age and their number of children.

ACKNOWLEDGMENTS

- My sincere gratitude to Prof. I.F Adewole – The Vice Chancellor , University of Ibadan.
- My teachers and mentors who showed me the way to make this a reality.
- To the Nursing staffs who recruited most of the participant and to all the participants.
- To GOD Almighty who made this study possible above all.
- My co-authors
- The staffs of APIN Plus/Harvard PEPFAR Program
- Management of University College Hospital, Ibadan, Nigeria
- The Patients
- Organisers of SOGON 2011

Table 1: Some Demographic Profile of subjects

CHARACTERISTICS	FREQUENCY	PERCENTAGE
AGE		
⩽ 34 yrs	112	18.0
35– 44 yrs	263	42.2
⩾ 45 yrs	248	39.8
PARITY		
0	69	11.5
1 –3	344	57.3
⩾ 45 yrs	187	31.2

Table 2: VIA Results

VIA RESULT	FREQUENCY	PERCENTAGE
Normal	553	87.9
Abnormal	76	12.1
Total	629	100

PL-060

ASSESSMENT OF A STRUCTURED CHECKLIST FOR DETECTING GESTATIONAL DIABETES

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INTRODUCTION

- Gestational diabetes is carbohydrate intolerance of variable severity with onset or first diagnosed during the index pregnancy.
- [Freinkel N et al, 2000]
- In Nigeria, prevalence of diabetes mellitus in pregnancies are generally less than 3 per 1000 deliveries.
- [Wokoma FA et al, 2003]
- In Ibadan, the incidence rate of diabetes in pregnancy was 0.74 per 1000 deliveries per year.
- [Oladokun A et al, 2003]
- In Enugu the prevalence of gestational diabetes is 1.7%
- [Ozumba et al, 2004]
- Infants born to mothers with gestational diabetes mellitus are at risk of both biochemical and structural anomalies [Kelly I et al, 2005]
- Maternal mortality is as a result of increased incidence of ketoacidosis, hypertensive disorders of pregnancy, postpartum haemorrhage, increased in abdominal delivery etc.
- In University College Hospital, Ibadan, one step model of diagnosis is the approach.
- Women with such risk factors as obesity, previous history of unexplained stillbirth etc, are subjectd to OGTT.
- However, identification of these women using risk factors is not done in a formal structure.
- In the USA (ACOG) universal screening approach is adopted using glucose challenge test [Diana RD et al, 1997].
- Women are referred for an oral glucose tolerance test if the plasma glucose concentration one hour later is greater than 140mg per dl or 7.8mmol/L [Diana et al, 1997].
- Universal screening detected prevalence of gestational diabetes 2.7% significantly more than the 1.45% detected in the risk factor screened group (P<0.03) [Graffin ME et al, 2000]
- However, WHO and American Diabetic Association adopted a one step model of diagnosing GDM [WHO, 1990].
- The most important risk factor or strongest predictor of gestational diabetes is the previous history of gestational diabetes [Nwah et al, 2001].
- According to WHO recommendations, fasting glucose levels is said to be normal at values less than 6.1mmol/L (<110mg/dl) and values greater than or equal to 7mol/L (≥ 126mg/dl) indicate diabetes mellitus while two hours postprandial of less than 7.8mmol/L (<140mg/dl) is normal and values greater than or equal to 11.1 (≥200 mg/dl) indicate diabetes mellitus [WHO, 2006]
- Initial treatment is dietary. Insulin may be commenced if initial fasting blood glucose is greater than or equal to 8mmol/L or when the fasting blood sugar is consistently greater than 6mmol/L despite diet therapy [Culme et al, 1999].

RATIONALE FOR THE STUDY

- This study was aimed at determining the effect of formal inclusion of these risk factors in the routine antenatal protocol on the rate of diagnosis of gestational diabetes.
- The thoroughness of using these risk factors in identifying these women with GDM at UCH, Ibadan.

OBJECTIVES

Main Objectives

- Overall goal was to determine the effectiveness of a structured checklist of risk factors in identifying pregnant women at risk of gestational diabetes mellitus at the University College Hospital, Ibadan.
- To audit existing protocol for diagnosis of gestational diabetes mellitus.

METHODOLOGY

- This analytical cross-sectional study was implemented in two phases.
- During phase 1, conducted between 2006 and 2007, women (537) with risk factor at booking (identified using the checklist) were subjected to OGTT.
- A pre-tested structured checklist designed to identify women with risk factors for GDM was employed retrospectively to screen medical records of pregnant women (549) managed during 2003/2004 (phase2).
- In both periods, women were selected by systematic random sampling.

STATISTICAL ANALYSIS

- Data was analysed with statistical package for the Social Sciences (SPSS version 18).
- Frequencies were obtained and Chi- square was used for bivariate analysis. The level of significant was set at P<0.05.

RESULTS

- The socio-demographic characteristics of the participants were similar(Table 1), and not statistically associated with acquisition of GDM (table 2).
- Thirty five (3.3%) women had gestational diabetes mellitus. Twenty six (4.8%) were in group A while 9 (1.6%) were in group B.
- There was increase in identification of women with history of GDM in the first degree relation (4 fold), women with history of previous unexplained stillbirth, women with recurrent pregnancy losses and macrosomia in the index pregnancy which were statistically significant (table 3).
- Overall, using the checklist, 134 (25.1%) women in group A had OGTT done while only 56 (10.6%) performed OGTT in group B.
- Note that 322 and 107 women are qaulified for OGTT in group A and B respectively.
- There was statistically significant difference between acquisition of GDM and BMI, unexplained stillbirth, previous history of GDM and previous macrosomic baby (Table 4).
- Previous history of GDM was the only risk factor that independently predicted gestational diabetes mellitus. Table 5.
- Complications were equally distributed except for the significant increase in abdominal delivery in group B (Table 6)

Table 1: Sociodemographic Features of the Participants.

Socio-demographic Characteristics	**A+B N (%)**	**Group A N (%)**	**Group B N (%)**
Age			
15-20	19 (1.81)	7 (0.7)	12 (1.1)
21-25	125 (11.8)	66(6.2)	59 (5.6)
26-30	423 (39.8)	209 (19.7)	214 (20.1)
31-35	358 (33.7)	176 (16.6)	182 (17.1)
36-40	121 (11.4)	60 (5.6)	61 (5.7)
>40	14 (1.6)	8 (0.8)	9 (0.8)
Mean age (± SD)	**30.4 (± 5.2)**	**30.3+4.5**	**34.4+4.5**
Ethnic group			
Yoruba	886 (83.2)	434 (40.8)	452 (42.4)
Igbo	74 (6.9)	35 (3.3)	39 (3.7)
Hausa	21 (2.0)	16 (1.5)	5 (0.5)
Others	84 (7.9)	41 (3.8)	143 (4.0)
Occupation			
Civil Servant	481 (45.2)	227 (21.3)	254 (23.8)
Trading	278 (27.0)	121 (11.4)	157 (14.8)
House Wife	117 (11.0)	64 (6.0)	53 (5.0)
Students	100 (9.4)	57 (5.4)	43 (4.0)
Artisans	62 (5.8)	37 (3.5)	25(2.3)
Youth Corpers	24 (2.3)	18 (1.7)	6 (0.6)
Clergy	3 (0.3)	3	0
Education Status			
Primary	28 (2.6)	26 (2.4)	2 (0.2)

Table 2: Influence of Socio-Demographic Features on the Presence of GDM (Group A & B combined together)

Sociodemographic Characteristics	Those with GDM %	X^2	P value
Age		8.244	0.143
15-20	0 (0)		
21-25	2 (5.7)		
26-30	12 (34.3)		
31-35	12 (34.3)		
36-40	7 (20)		
>40	2 (5.7)		
Ethnic group			
Yoruba	28 (80)	3.779	0.286
Igbo	5 (14.3)		
Hausa	0 (0)		
Others	2 (5.7)		

Table 2: Influence of Socio-Demographic Features on the Presence of GDM (Group A & B combined together)

Occupation		1.996	0.920
Civil Servant	18 (51.4)		
Trading	10 (28.6)		
House wife	2 (5.7)		
Students	2 (5.7)		
Artisans	2 (5.7)		
Clergy	0 (0)		
Youth corper	1 (2.9)		
Education Status		5.992	0.112
Primary	3 (8.6)		
Secondary	3 (8.6)		
Tertiary	23 (65.7)		
Nil formal edu.	6 (17.1)		

Table 3: Audit of the Use of Risk Factors in Identifying Women with GDM

Risk Factors		Group A	Group B	Relative Risk	95% CI		P-Value
		N (%)	N (%)		Lower	Upper	
Previous history in First degree relation	Yes No	29 (5,5) 496 (94.3)	8(1.5) 522(98.5)	3.72	1.72	12.92	0.0003
Previous unexplained stillbirth	Yes No	29 (5.7) 488(49)	1(2.4) 526(97.8)	0.424	0.218	0.824	0.007
Recurrent pregnancy losses	Yes No	30 (5.7) 495(94.1)	9 (1.7) 520 (98.3)	3.42	1.64	7.14	0.000
History of previous congenital anomaly	Yes No	10(1.9) 516(98.1)	0(0) 529 (100)	-	-	-	0.09
Maternal weight ⩾90	Yes No	26(4.9) 500(96.1)	32(5.9) 593(94.1)	0.83	0.50	1.38	0.48
Heavy glycosuria	Yes No	4(0.8) 522(99.2)	2(0.4) 527(99.6)	2.05	0.38	11.14	0.45
Previous macrosomic baby	Yes No	20(3.8) 506(96.2)	13(2.4) 516(97.6)	1.58	0.79	3.14	0.19
Previous history of GDM	Yes No	20(3.8) 506(96.2)	14(2.6) 515(97.4)	1.46	0.75	2.87	0.26
Macrosomia in index pregnancy	Yes No	3 (0.6) 523(99.4)	14(2.6) 515(97.4)	0.22	0.06	0.76	0.008
Unexplained polyhydramnios	Yes No	2(0.4) 524(99.6)	3(0.6) 526(99.4)	0.68	0.11	4.07	1.000

Table 4: Relationship between each risk factor and acquisition of GDM.

Risk Factors		Group A	Group B	Relative Risk	95% CI	
		N (%)	N (%)		Lower	Upper
Positive History in first degree relative	Yes No	2(5.7) 33(94.3)	35(3.4) 995(96.6)	1.68	0.42	6.75
Unexplained still birth	Yes No	4(11.4) 31(88.6)	38(3.7) 992(96.3)	3.14	1.16	8.50
Recurrent Pregnancy losses	Yes No	2(5.7) 33(94.3)	37(3.6) 993(96.4)	1.59	0.40	6.41
Previous history of congenital annomaly	Yes No	1(2.9) 34997.1)	9(0.9) 1021(99.1)	3.10	0.41	20.51
Maternal weight ⩾90kg	Yes No	4(11.4) 31(88.6)	54 (5,2) 976 (94.8)	2.24	0.84	32.02
Heavy Glycosuria	Yes No	1(2.9) 34(97.1)	5 (0.5) 1025 (99.5)	5.19	0.84	32.02
Previous Macrosmic baby	Yes No	4 (11.4) 31(88.6)	29 (2.8) 1001(97.2)	4.04	1,.51	10.77
Previous history of GDM	Yes No	28 (80.0) 7(20.0)	6 (0.6) 1024 (99.4)	121.29	57.04	257.94
Macrosomia in current Preg.	Yes No	1 (2.9) 34 (97.1)	16 (1.6) 1014 (98.4)	1.11	0.26	12.49
Unexplained polyhydramnios	Yes No	0 (0) 35 (100.0)	5 (0.5) 1025 (99.5)	—	—	—
BMI ⩾25	Yes No	28 (80.0) 7 (20.0)	639 (63.2) 372 (36.8)	2.27	1.00	5.15

TABLE 5: Multivariate Logistic Regression of Independent Predictors of Gestational Diabetes

Risk Factors			95% C I		
		Odds Ratio	Lower	Upper	P-Value
Previous Unexplained stillbirth	Yes No	5.31 1	0.79 -	35.56 -	0.085
Heavy glycosuria in index preg pregnancy	Yes No	3.20 1	0.04 -	244.51 -	0.599
Previous history of macrosomia	Yes No	0.33 1	0.03 -	3.51 -	0.355
Previous history of gestational diabetes	Yes No	950.49 1	250.71 -	3603.55 -	0.000
BMI > 25kgm^{-2}		2.15 1	0.51 -	8.99 -	0.296

DISCUSSION

- The incidence of GDM, when a structured checklist was used (group A) was 4.8% while the incidence in group B (without checklist) was 1.6% (comparable to a study done in Nigeria by Ozumba et al) P<0.05.

- BMI was not considered at all as a risk factor in group B [107 Vs 345]
- This means that two hundred and thirty eight (44.9%) participants may have been missed.
- When subjected to multivariate logistic regression analysis, previous history of gestational diabetes mellitus was noticed to be the strongest predictor of GDM.
- This finding is similar to the finding by Nwah et al who explored risk factors for gestational diabetes among Asian women.
- Graffin et al[21] in his study again compared the use of universal screening versus risk factor based screening (selective screening).
- He concluded that universal screening revealed a prevalence of 2.7% which was significantly more than the 1.45% detected in the risk factor based screening group ($P < 0.03$).
- The incidence using risk factor based screening is even high than that of the universal screening.
- More complications are noticed in group B than A .
- This justifies the importance of identifying women with GDM in order to initiate appropriate management and reduce these complications
- Our audit confirmed that fewer women are currently being identified [56 Vs 345]
- A significant proportion of women with GDM are being missed.

KNOWLEDGE CONTRIBUTIONS

- A checklist of risk factors for gestational diabetes mellitus should be inculcated in our antenatal protocol so as to ensure thorough identification of women with GDM.
- Healthcare providers should have high index of suspicion in identifying any of these risk factors especially previous history of gestational diabetes mellitus.
- Healthcare providers should ensure proper counseling so that all the pregnant women with these risk factors, have oral glucose tolerance test done.

PL3-061

HYSTERECTOMY FOR BENIGN CONDITIONS AT THE FEDERAL MEDICAL CENTRE, ABEOKUTA (A FIVE (5) YEAR REVIEW)

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INTRODUCTION

Hysterectomy is the commonest major gynaecological operation in the United states of America and the United Kingdom [1], it is less commonly performed in Nigeria due to cultural and other reasons [2]. However, it still constitutes a significant portion of major gynaecological operation in the country

1- Mayonda I. 2003, 2-Ezem BU et al 1981.

OBJECTIVE

To determine the frequency, indication and outcome of hysterectomy at the Federal Medical Centre, Abeokuta.

METHODOLOGY

- A retrospective descriptive study.
- The theatre records of all patients who had hysterectomy for benign conditions during the study period (January 2003 and December 2007) were collated and the names compiled.
- The record was further checked with the inpatient record. The case files were retrieved.
- Total number of cases per year were noted.
- Information extracted from the record include: Patients' biodata, route/ type of surgery, type of incision, indication for the surgery, uterine size at surgery, obstetric history, hospital stay and morbidities associated with the procedure.
- Data obtained were collated and analysed.
- The result is presented in tables and chart

RESULT

- There were one hundred and forty two cases of hysterectomies for benign conditions in the hospital during the study period of 5years from 1st January 2003 to 31st December 2007.
- One hundred and thirty four case files were available for review
- Retrieval rate was 94.4%

Yearly distribution

Year	2003	2004	2005	2006	2007	Total
No. of cases	25	29	26	30	24	134

Indication

Indication	No. of patient	%
Fibroid with menorrhagia	94	70.15
Fibroid with pressure symptoms	7	5.22
DUB	14	10.44
Ovarian mass	7	5.22
Combined fistulae with necrotic lower uterine segment	1	0.74
Post menopausal bleeding with fibroid	1	0.74
Utero-Vaginal prolapse	10	7.49
Total	**134**	**100**

Age distribution

Age (yrs)	No. of cases	%
21-30	20	14.93
31-40	50	37.31
41-50	60	44.78
51-60	4	2.98
Total	**134**	**100**

Parity/No. of living children

Parity	No. of patient	%	No. of living children	No. of patient	%
0	5	3.73	0	8	5.97
1	7	5.22	1	14	10.45
2	16	11.94	2	18	13.43
3	33	24.63	3	38	28.36
4	38	28.36	4	34	25.37
≥5	35	26.12	≥5	22	16.42
Total	**134**	**100**	**Total**	**134**	**100**

Route/type of surgery

Type	No. of patient	%
1.Abdominal Hysterectomy- Total	112	83.58
-Sub-total	12	8.95
2. Vaginal Hysterectomy	10	7.47
	134	**100**

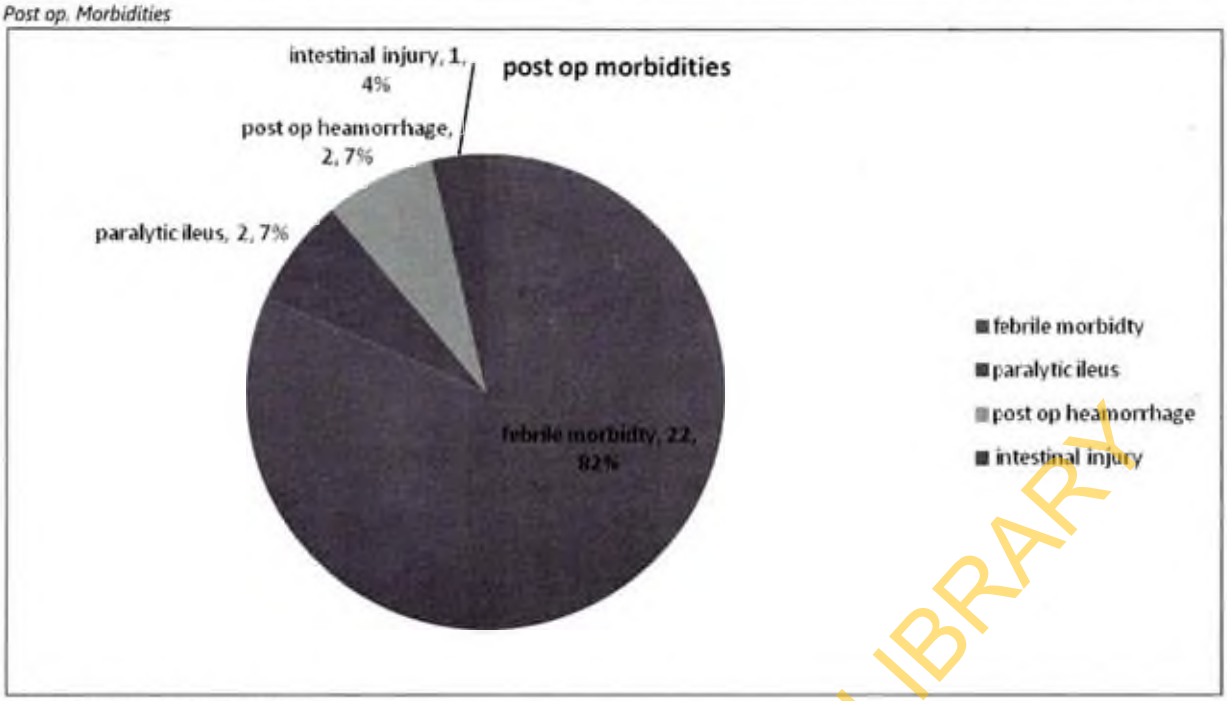
Type of Incision (abd Hysterectomy)

Type of incision	No. of patient	%
Midline	80	59.70
Pfannenstiel	44	32.83
Total	**124**	**92.53**

Uterine size at surgery

Size of uterus at surgery (Weeks)	No. of patient	%
Normal	14	10.45
≤ 14	14	10.45
15-20	54	40.30
>20	52	38.80
Total	**134**	**100**

Post op. Morbidities



LIMITATION OF THE STUDY

- All the case files could not be retrieved, Retrieval rate of 94.4%, The study population is small.

CONCLUSION

- Symptomatic uterine fibroid constitutes the commonest benign indication for hysterectomy at Federal Medical Centre, Abeokuta.
- Abdominal hysterectomy constitutes the bulk of the hysterectomy performed with vaginal hysterectomy mainly employed in cases of uterovaginal prolapse.

RECOMMENDATION

- Increased use of vaginal route for hysterectomy especially with uterine size <14 weeks, in view of reduced morbidities associated with it.
- Strict adherence to aseptic technique during surgery to reduce infective/febrile morbidities.

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PL-062

CONTRIBUTION OF MALE FACTOR TO INFERTILITY IN A TERTIARY HOSPITAL IN SOUTH EAST NIGERIA — ANALYSIS OF 512 SEMEN SAMPLES

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INTRODUCTION

- Infertility, a world-wide problem.
- Occurs in 10-15% of couple.
- A great cause of psychological distress and morbidity co
- Male factor infertility - abnormality in any of the components of the semen parameters(WHO,1999)
- A significant contributor to infertility.
- Extent of contribution of male factor to infertility varies in different regions of the world and even in different parts of the same country.
- This work therefore aims at finding the extent to which male factor contributes to infertility in our Center.

METHODOLOGY

- Five hundred and twelve (512) semen samples of male partners of infertile couples managed in our centre from 2007 to 2010 were analysed using WHO criteria.

RESULTS

- Eighty two (16%) males were azoospermic.
- Fifty (9.8%) had all the parameters – count, morphology and motility normal. Majority, 222 (43.4%) had all the parameters abnormal (the OAT syndrome).
- One hundred and sixty five males (32.4%) had normal count.
- Ninety four or (18.4%) normal motility.
- Ninety six (18.8%) normal morphology.
-

DISCUSSION

- Only 50 (9.8%) men had all the semen parameters normal. This is low and disturbing.
- Majority, 222(43.4%) had all the parameters abnormal (the OAT syndrome).
  - These could be attributed to:
  - -High incidence of STi,'s. –fuelled by culture, - Activities of quacks.
  - Only 50 (9.8%) men had all the semen parameters normal. This is low and disturbing.
- Majority, 222(43.4%) had all the parameters abnormal (the OAT syndrome).
- These could be attributed to:
  - High incidence of STi,'s. –fuelled by culture, - Activities of quacks.
- Azospermia in 82(16%) men. High and disturbing.
- Could be attributed to:
  - Chromosomal abnormality. Found in2.1-8.9% of men attending infertility clinics
  - Azoospermia associated with karyotypic in 15 % of cases out of which 90% were 47XXY(Klinefelter's syndrome) (Bhattacharya,2007)
- High incidence of:
  - Childhood mumps-orchitis,
  - STi's
  - Activities of quacks (BIH with bilateral vas transection)etc
- Compares to 16.8% found by Adams in Sudan .
- Higher than the 4.3% by Igberase in the more urban and enlightened Warri and Ibekwe et al in the same locality.
- 347 or 67.8% had oligospermia against 17.5% in the study by Adams in Sudan and65.1% by Igberase in Warri. Attributable to the factors highlighted above.
- Asthenozoospermia in 418(81.6%) of our sample, 30.7% (Adams)and 63.8%(igberase,20008)
- Teratozoospermia 416(81.3%), Igberase,2008(66.1%)

CONCLUSION

- Male factor infertility a very significant cause of infertility In our environment.
- Should never be omitted in the evaluation and treatment of the infertile couple.
- Need for a well designed IEC programme
- Let me conclude thus!
- WHO criteria for SFA good.
- Whose bench mark?
- What is the normal SF value for Nigerian men?
- What is it in your own area of practice?

PL-063

NUTRITION TO ENHANCE FETAL HEALTH AND NEONATAL WELLNESS: A BACKGROUND DISCUSS

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NUTRIENTS:

- Carbohydrates, Fiber >Protein >Fat, Essential fatty acids >Minerals, Macrominerals, Trace minerals >Water >Vitamins >Other nutrients, Antioxidants, Phytochemicals, Intestinal bacterial flora
- It is clear from experimental data that nutrition influences fetal growth in late gestation

The 8 week old embryo

The fetus at 18 weeks

The fetus at 36 weeks

- The mechanisms by which this occurs are currently not clear
- Fetal nutrition is the main regulator of fetal growth in late gestation.
- Fetal growth in late gestation is normally limited by maternal size and capacity to supply nutrients to her fetus (maternal constraint).
- The influence of maternal nutrition on fetal growth depends on :
- relative efficiency of the fetal supply line the timing and balance of changes in maternal nutrition indirect effects of altered maternal nutrition on fetal endocrine status and substrate balance.
- The mammalian fetus grows at the end of a long and sometimes precarious "supply line".
- This line links maternal diet at one end with fetal tissue nutrient uptake at the other.
- The supply line includes:maternal diet, maternal metabolism and endocrine status, uterine and umbilical blood flows and placental transfer
- Nutrition is the major intrauterine environmental factor that alters expression of the fetal genome and may have lifelong consequences.
- This phenomenon, termed "fetal programming," has led to the recent theory of "fetal origins of adult disease."
- This theory suggests that alterations in fetal nutrition and endocrine status may result in developmental adaptations that permanently change the structure, physiology, and metabolism of the offspring
- This thus predisposes individuals to metabolic, endocrine, and cardiovascular diseases in adult life.
- There is growing evidence that maternal nutritional status can alter the epigenetic state (stable alterations of gene expression through DNA methylation and histone modifications) of the fetal genome.
- This may provide a molecular mechanism for the impact of maternal nutrition on both fetal programming and genomic imprinting.
- Promoting optimal nutrition will not only ensure optimal fetal development, but will also reduce the risk of chronic diseases in adults.
- The "Barker Hypothesis" states that conditions during pregnancy will have long term effects on adult health.
- It is also known as the "fetal programming hypothesis" or "Thrifty phenotype"
- The word "programming" illustrates the idea that during critical periods in early fetal development, there are persisting changes in the body structure and function that are caused by environmental stimuli.
- This relates to the concept of developmental plasticity where our genes can express different ranges of physiological or morphological states in response to the environmental conditions during fetal development.
- If the mother has an inadequate diet then it signals the baby that the living condition in the long term will be impoverished.
- Consequently the baby adapts by changing its body size and metabolism to prepare for harsh conditions of food shortages after birth.
- Physiological and metabolic processes in the body undergo long term changes as a result of restricted growth.
- When the living environment switches from the condition of malnutrition to a society of abundant supply of nutrients, this exposes the baby to a bountiful environment that goes against what its body is designed for and this places the baby at a higher risk of adult diseases later in adulthood.
- By the same token, if the fetus growing in the womb of a healthy mother is exposed to prolonged famine after birth, the infant would be less adaptive to the harsh environment than low birth weight babies.
- Associated risk of lifelong diseases includes cardiovascular disease, type-2 diabetes, obesity, and hypertension.
- Babies born lighter in weight appear to have an increased rate of mortality than babies born at a heavier weight.
- After birth, neonatal nutrition is affected primarily by: food intake and the functional integrity and capacity of the gastrointestinal tract.
- A neonate's nutritional requirements are modified by: muscle activity, thermoregulation and stresses of various kinds and degrees
- Functional deficits of the gastrointestinal tract have been circumvented by a more aggressive use of intravenous nutrition.
- Both intravenous and enteral nutrient mixtures have been substantially improved in the quantity of all nutrients and

have been modified qualitatively toward compositions that are closer to those of human milk.
- These nutrient mixtures now produce plasma nutrient concentrations that approximate those of a healthy, breast-fed infant.
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- Both intravenous and enteral nutrient mixtures have been substantially improved in the quantity of all nutrients and have been modified qualitatively toward compositions that are closer to those of human milk.
- These nutrient mixtures now produce plasma nutrient concentrations that approximate those of a healthy, breast-fed infant.
- The natural food at birth is the breast milk
- Science continues to find that there is more to breast milk than "FOOD"
- Sometimes however, non breast-milk alternatives become imperative either as full replacements or adjuncts to breast milk

Prompt and appropriate identification of this need and necessary intervention will ensure and enhance nutritional well being of the newborn.

PL-064

THE STUDY OF THE FIRST CONSECUTIVE 35 PLANNED HYSTERECTOMIES AT THE SPECIALIST HOSPITAL (NOW UPGRADED ATBUTH) BAUCHI, NIGERIA

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ABSTRACT

CONTEXT: The literature is replete with hysterectomies done across the country but little is known about this centre undergoing a transition to a teaching hospital status.

OBJECTIVE: To study the characteristics of women who had hysterectomies especially those with morbidities and mortalities.

DESIGN: A retrospective, descriptive study of the first 35 women admitted for hysterectomy at the Specialist Hospital Bauchi under a single consultant unit.

METHOD AND MATERIALS: The case notes for the 35 women were cross checked against the gynaecologic in-patient and theatre registers for agreement of data. No exclusion criteria was used. The ages, tribes, occupation, marital status, parity, last confinement, last menstrual period and their presenting complaints were noted. Major outcome measures were mortality, morbidities and those who were discharged without any complications. They were followed up in the clinic for 5 months to 2 years for complications. The pattern of outcome according to age, parity, indications, and extent of surgery was studied in a tabular manner. The total admissions made into gynaecologic ward during the period of study of 22 months were noted.

RESULTS: There were 4212 admissions into gynaecologic ward giving a hysterectomy rate of 0.83%. Indications for hysterectomy were genital tract malignancy 12 (34.29%), uterine fibroid 10 (28.60%); utero vaginal (UV) prolapse 8 (22.86%); obstetric hysterectomy 4 (11.43%); and dysfunctional uterine bleeding (DUB) 1 (2.86%). Of the genital tract malignancies, ovarian cancer constituted 75% (9/12) and two died of relapsed disease following primary staging laparotomy and delayed induction chemotherapy. They were both stage IV diseases. One case of endometrial cancer in stage IV also died following surgery. 8 women had surgeries for UV prolapse; 3 by abdominal route because of concurrent pelvic pathologies of whom 2 (67.0%) had complications of vault prolapse and mild cerebrovascular accident. All 5 who had vaginal hysterectomy (62.50% of all UV prolapse) had no complications. All obstetric hysterectomies (11.43% of all patients) had no complaints following hysterectomy. Majority who had hysterectomy for uterine fibroid survived with out complications (90% of the group). The only one who died had no blood for transfusion after surgery.
The age and parity do not appear to be risk factors for hysterectomy.

CONCLUSION:

4 women died in the series with a mortality rate of 11.43%. 50% of this mortality (2/4) occurred in ovarian cancer group. Genital tract malignancy on the whole contributed 75% of all mortalities.
The recorded 10% mortality rate in uterine fibroid resulted from lack of blood for transfusion. This study showed 100% success rate with vaginal hysterectomy. While those who had the abdominal approach had 67% (2/3) complication rate. The level of evidence from a retrospective, descriptive, non analytical work of this nature is noted. However ovarian cancer

remains the major cause of mortality world wide. The 5 years survival rate remains less than 30% in spite of the use of the platinum based agents and the taxanes.
Implications for all is that ovarian cancer is a scourge to which all resources should be directed. Can it be prevented?

KEY WORDS:
Vaginal hysterectomy, abdominal hysterectomy, obstetric hysterectomy, class of hysterectomy, mortality, morbidity.

INTRODUCTION

Hysterectomy, from the Greek words hystera ektomia, is the surgical removal of the uterus usually performed by the gynaecologist[1]. It is the most commonly performed gynaecological procedure[2] it has emerged as a definitive management option in a wide rage of conditions, such as genital tract malignancies, benign lesion of the uterus, genital prolapses, menstrual abnormalities and uncontrollable post partum haemorrhage. It can be performed by laparotomy (in which case it can be emergency obstetrics or elective) in either case it can be total when the cervix is removed along with the corpus or sub total (supra cervical) when the cervix is left behind[3].
Vaginal hysterectomy is the removal of the uterus entirely through the vaginal canal and has advantages of less complications, shorter healing time and shorter hospital stay over the abdominal route. In recent times, laparoscopic surgeries have been done in over 80% of classical gynaecologic operations[4] because of obvious reduction in trauma, shorter hospital stay, faster recovery, lesser pain, and more rapid return to functions [5,6].
In spite of these advantages of laparoscopy in well selected patient's populations, the classical traditional hysterectomies by open surgery remain the gold standard in management of gynaecologic disorders[1]. This abdominal approach is very often applied in circumference of anticipated complications. When compared with the laparoscopic technique the abdominal (laparotomic) surgery causes shorter operation time with fewer rate of major complications though with slower healing [7,8].
The laparotomy route is not without complications such as haemorrhage, injuries to adjacent organs, trauma, infection, vault haematoma, vault prolapse, burst abdomen, nerve injury and in severe cases mortality [9].
The outcome of classical hysterectomies (laparotomic and vaginal) have been profusely documented in our country [10, 11, 12, 13, 14, 15, 16, 17], but little is known about this centre that is undergoing transition to a teaching hospital status. Against this background, a study of the first consecutive 35 hysterectomies done under a single consultant was carried out between April 2008 and February 2010 with the aim of characterizing the women who had the classical hysterectomies especially those who had morbidities or mortalities.

METHOD

The first consecutive 35 hysterectomies done by the consultant following his appointment with the hospital in April 2008 were kept and formed the source of data for the study. No form of exclusion criteria was used. The data in the women's case notes were cross checked against the gynaecologic ward register and that of the theatre to ensure agreement of data recorded. A descriptive retrospective survey was carried out over 22 months between April 2008 and February 2010.
The ages, tribes, occupation, marital status, parity, last confinements, last menstrual period, presenting complaints, indications for operation and the class of hysterectomies were documented.
The outcome measures were mortalities, morbidities and successful operations. This is shown in table I under results of study.
Over the same period the total admissions made into the gynaecologic ward was noted. We looked at our obstetric hysterectomies against the denominator of gynaecologic admissions and so a rate of hysterectomy could easily be calculated. The impact of age, parity, indications for surgery, and class of hysterectomy on the outcome of hysterectomy was assessed in a tabular manner and proportions were deduced from them. These are shown in tables II, III, IV and V under results of the survey.
The women were all followed up on outpatient basis for a variable period of 5 months to 2 years after surgery.

RESULTS

All the case notes were found and they agreed with the data in the gynaecologic and theatre registers. Only one woman was cost to fellow up.
The mean age of women was 44.69 years. (range 25-80 years). Table II shows the distribution of outcome according to age groups. 13 out of the 35 women (37.14%) were in the age bracket 41-50 years, while 10 representing 28- 57% were in the 31-40 years bracket. The 2 elderly women had vaginal hysterectomy for UV prolapse without complications. Age does not seem to be a risk factor for mortality in hysterectomy.
The majority of the women, 24 of the 35 (58.57%) were Hausas while the Fulani and Bajara were each 2, representing (5.71%). 2 women never specified their tribes (5.71%). 3 of the 4 mortalities (75.0%) were Hausas. This may be because they were in majority. other tribes were Toroso, Badija, Jarawa and Barabu. All the women were married and full house wives by occupation except one who was a widow.

Table III shows the impact of parity on outcome of hysterectomy. 2 women were nulliparous. One of them had surgery for huge uterine fibroid and had no blood for transfusion post operatively. The second had a stage IV endometrial carcinoma,

apparently in-operable case and died after surgery. 9 out of 35 (25.71%) belonged to the para 9-12 group and none died with only 2 having complications. Similarly 18 of the 35 (51.43%) were para 1-5; and 2 of them died and one had morbidity. It may be hard to say that parity may be a risk factor for mortality in hysterectomy. Other cofounding variables like fitness for radical surgery may be the key factor.

13 of the 35 women (37.14%) were currently menstruating at the time of surgery though with irregular menses and oligomenorrhoea while 12 out of 35 (34.29%) were in variable periods of menopause ranging from 2 years to 40 years. The 4 cases of obstetric hysterectomies they were having term pregnancies at the time of surgery. 6 never knew their last menses. 25 of the 35 women (71.43%) had their last confinement ranging 1 year to 40years. Data were not available in 8 women and 2 were nulliparous.

The presenting complaints were related to the indications for surgery. UV prolapses complained of protrusion per vagina, uterine fibroids, presented with abdominal swellings and pains, and ovarian tumours presented with abdominal swelling and discomfort. The obstetric hysterectomies were all in labour after which labour ceased and bleeding per vagina noticed.

Table IV shows the impact of indications for surgery on the outcome of surgery. Genital tract malignancies were the commonest indications for hysterectomy in this series with 12 out of the total 35 giving (34.29%). 4 of the women had morbidities of whom 3 died giving mortality rate in the group of 3/12 (25.00%).

Ovarian carcinomatosis constituted 9 of the 12 that is 75.00% of the genital tract malignancy and contributed 2 of the 4 total mortalities in the whole series. Ovarian cancer caused 50% of the deaths. The next common indication for surgery was uterine fibroids accounting for 10 of the total 35, that is (28.57%). Only 2 had morbidities out of whom one died. There were 8 UV prolapses. 3 were treated by total abdominal hysterectomy because of concurrent pelvic pathologies while the remaining 5 had vaginal hysterectomy. There was 100% success rate with the vaginal hysterectomy while complications rate in the abdominal approach was (66.67%). The complications were vault prolapse, mild cerebrovascular accidents and wound sepsis, though they recovered subsequently. There was also 100% success rate with the obstetric hysterectomies. Indications were ruptured uterus and couvelliare uterus. It is striking that no cases of hysterectomy was done for cervical cancer.

Table V shows the impact of the class of hysterectomy on the outcome of hysterectomy. Only one case of supracervical (subtotal) hysterectomy was done for the couvillare uterus and she survived. 19 of the 35 women had type I hysterectomy i.e. (54.29%). Only one women died of lack of blood for transfusion. The mortality rate in type I hysterectomy groups was 5.26%. 2 women had class II hysterectomy (5.71% of total). Mortality rate in the group was 0.0%. 8 of the 35 women had radical hysterectomy (43.75% of the whole) and 2 died in the group giving a mortality rate of (28.57%). 10 of the 35 women (28.57%) were planned for primary staging laparotomy (9 ovarian cancer and 1 endometrial cancer). The 9 ovarian cancer had 8 radical surgeries while 1 had type I hysterectomy. The endometrial cancer was inoperable.

The total admission made into the gynaecologic ward during the survey was 4212 giving a hysterectomy rate of 0.83% of total admissions.

The ovaries were conserved in the obstetric hysterectomies (4) and type I hysterectomies (19) group. A total of 23 out of the 35 cases; giving an ovarian conservation rate of 65.71%.

DISCUSSION

The mean age in this study is 44.69years (range 25-80 years), with 65.71% in the age bracket 31-50 years; while the mean parity is 4.17 (range 0-15), with 57.15% in the bracket para 0-5. Overall it would appear age and parity do not constitute risk factors for hysterectomy. This is because mortality was reported for both the young and the old. Morbidities were also reported for high and low parities. Looking at the group, hysterectomy was done for fibroids in 50% (perimenopausal group) 41-50 years and in 90% for the age group 31-50 years. Without regards to parity, outcome was successful in 90% of them. In the malignancy group, operation was done for 9 out of the 12 representing 75.00% in premenopausal years (35 – 50 years), while only 3 women (ovarian cancer, endometrial cancer, and endometrial hyperplasia atypia) that is 25.0%, were post menopausal. Mortality occurred in 70% premenopausal and 30% postmenopausal and all mortalities were low parity (100%). The UV prolapse were all successful regardless of age and parity except those who had abdominal surgery with 70% morbidity rate (all being postmenopausal and high parity).

It may be plausible to say that low party and young age may be risk factors in malignancy group; except that, because of design of this study, no statistical analysis was done. Age, and by extension parity in developed nations, had been found to be risk factors in hysterectomy.[18] Although long term all case mortality morbidity rates for hysterectomy is usually small, the women younger than 45 years as in this study have relatively higher rates believed to be due to hormonal effect of hysterectomy and prophylactic oophorectomy.[18]

Ovarian conservation rate in this study was 65.71%. The women were essentially having beningn lesions (uterine fibroids, UV prolapse, obstetric obstetrics; and DUB). Of the 34.29% who had their ovaries removed, only one complained of postmenopausal symptoms of hot flushes, and these abated with reassurance and sedatives. There was no need for hormone replacement therapy. In some surveys of patients who had hysterectomy for ovarian cancer, ovarian conservation rate of 20% [19] was noted. This contrasts greatly with our conservation rate of 65.71%. This is most probably because our malignant group constituted 34.29% of our total raw population. We studied a predominantly beningn population. Point further, since the mean age of this study is 44.69% a state of surgical menopause expectedly would have been created in

TABLE I CHARACTERISTICS OF THE HYSTERECTOMY WOMEN

S/N	Age	Tribe	Occupation	Marital Status	Parity	Last Confinement	Lmp	Presenting Complaints	Indications	Class	S	Outcome M	D
1	25	FULANI	H/W	Ma	3+ 3 alive			Protrusion pv	UV prolapse	I	S	NIL	NIL
2	65	FULANI	H/W	Ma	12+ 3 alive	20yrs	17yrs	protrusion pv	UV prolapse	I	CVA	Wound Sepsis	NIL
3	52	FULANI	H/W	Ma	Para 6+ 6 alive			Abdominal swelling, neck swelling	Ovarian CA	III	S	NIL	NIL
4	45	BADUA	H/W	Ma	5+ 5 alive	17 yes	6/52	Pv discharge	Uterine Fibroids	I	S	NIL	NIL
5	35	HAUSA	H/W	Ma	3+0 3 alive	16yrs	2/52	Abdominal swelling	Uterine Fibroids	I	S	NIL	NIL
6	45	HAUSA	H/W	Ma	2+0 1 alive	25yrs	1yr	Irregular menses	Ovarian CA	I	S	Burst abdomen	NIL
7	38	JARAWA	H/W	Ma	5+ 4alive	12yrs	39/52	Labour pain	Rapture uterine	Sub total (I)	S	NIL	NIL
8	57	HAUSA	H/W	Ma	2+0 2 alive	25yrs	2yrs	Abdominal swelling	Uterine Fibroids	I	S	NIL	NIL
9	31	BARABU	H/W	Ma	3+0 all alive		39/52	Labour pain	Rapture uterine	I	S	NIL	NIL
10	60	HAUSA	H/W	Ma	5+ 3 alive	20yrs	irregular	Endometrial sampling with hyperplasia	Endometrial hyperplasia with atypia	I	S	NIL	NIL
11	40	HAUSA	H/W	Ma	2+ 1 alive	10yrs	4/12	Irregular menses 1 yrs	DUB	II	S	NIL	NIL
12	45	HAUSA	H/W	Ma	3+0 2 alive	23yrs	irregular	Abdominal discomfort, constipation	Ovarian CA	III	S	Died 1yr, 6 months later of relapsed disease	
13	30	HAUSA	H/W	Ma	0+0	Nullipara	Last month	Abdominal swelling 1yr	Uterine Fibroids	I	NIL	NIL	Died
14	42	HAUSA	H/W	Ma	2+0 1 alive		1/52	4yrs infertility	Uterine Fibroids	I	S	NIL	NIL
15	80	HAUSA	H/W	Ma	10+ 10 alive	30yrs	10yrs	Protrusion pv	UV prolapse	Vag. Hyst.	S	NIL	NIL
16	42	BA'ARA	H/W	Ma	12+0 8alive	13yrs	1/12	Abdominal swelling 20/7	Uterine sarcomas	II	S	NIL	NIL
17	50	HAUSA	H/W	Ma	3+ 2 alive	20yrs	10yrs	Protrusion PV	UV prolapse	Vag. Hyst.	S	NIL	NIL
18	35	BAJARA	H/W	Ma	10 6 alive	4yrs	3/52	PV bleeding x 15/7	Uterine Fibroids	I	S	NIL	NIL
19	40	HAUSA	H/W	Ma	1+0 none alive	35yrs	irregular	Abdominal swelling	Ovarian CA	III	S	Primary induction chemotherapy not started until disease relapsed and died	
20	40		H/W	Ma	10+0 7alive	5yrs	This month	Abdominal pains	Uterine Fibroids	I	NIL	NIL	NIL
21	30	HAUSA	H/W	Ma	3+ 3alive			Protrusion PV	UV prolapse	Vag. Hyst.	S	NIL	NIL
22	50	HAUSA	H/W	Ma	8+ all alive	14yrs	14yrs	Abdominal pains	Ovarian CA	III	S	Had bladder Injury Repaired 3 layer	NIL
23	50	HAUSA	H/W	Ma	7+0 7 alive	12yrs	2yrs	Abdominal discomfort	Uterine Fibroids	I	S	Nil	Nil

24	65	HAUSA	H/W	Ma	10+ 10 alive	40yrs	40yrs	Protrusion PV 4yrs	UV prolapsed	I	S	Vault prolapse + wound dehiscence but survived	NIL
25	48	HAUSA	H/W	Ma	11+ 8 alive	11yrs	3/12	PV bleeding	Uterine Fibroids	I	S	NIL	NIL
26	38	TAROSO	H/W	Ma	5+ 2 alive	5yrs	1/12	Abdominal pains	Ovarian CA	III	S	NIL	NIL
27	27	CHAM	H/W	Ma	3+0 3 alive		39/52	Labour pain	Rapture uterine	I	S	NIL	NIL
28	45	HAUSA	WIDOW	WIDOW	10+2 3alive	20yrs	4yrs ago	Protrusion PV	UV prolapse	Vag Hyst	S	NIL	NIL
29	30	HAUSA	H/W	Ma	7+0 4 alive		39/52	Labour pain	Ruptured uterus (Couvellaire)	I	S	NIL	NIL
30	47	HAUSA	H/W	Ma	8+ 5alive	8yrs		PV bleeding	Fibroids	I	S	NIL	NIL
31	35	HAUSA	H/W	Ma	11+ 5 alive	5yrs	2yrs ago	Abdominal swelling 1yr	Ovarian CA	III	S	NIL	NIL
32	42	HAUSA	H/W	Ma	14+ 12alive			Abdominal swelling	Ovarian CA	III	S	NIL	NIL
33	70	HAUSA	H/W	Ma	5+6	20yrs	15 yrs	Protrusion PV	UV prolapse	Vag Hyst	S	NIL	NIL
34	42	HAUSA	H/W	Ma	7+ 7 alive	7yrs		Abdominal pain	Ovarian CA	III	S	NIL	NIL
35	65	HAUSA	H/W	Ma	0+0	NIL	?	Abdominal swelling	Endometrial Cancer	Inoperable Disease			died

LEGEND

*S=Successful *M= Morbidity *D= Died *CA= Carcinoma *PV = Per Vaginaam *Ma= Married * H/W = House Wife
* CVA = Cerebrovascular Accident

TABLE II IMPACT OF AGE ON OUTCOME OF HYSTERECTOMY

Age (years)	Frequency	Women without complications	Morbidities	Mortalities
< 10 yrs	0	0	0	0
10- 19	0	0	0	0
20-30	5	4	0	1
31-40	10	8	2	1
41-50	13	10	3	1
51-65	5	2	3	1
> 65+	2	1	1	0

TABLE III: IMPACT OF PARITY OF OUTCOME OF HYSTERECTOMY.

Parity	Frequency	No of women without complications	Morbidities	Mortality
0	2	0	2	2
1-5	18	15	1	2
6-8	5	4	1	0
9-12	9	7	2	0
13-15	1	1	0	0
≥ 16	0	0	0	0

TABLE IV IMPACT OF INDICATION FOR SURGERY ON OUTCOME OF HYSTERECTOMY.

Indications	Frequency	No of Women without complication	Morbidity	Mortality
1. Uterine Fibroids	10	9	1	1
2. Genital Tract				
Malignancy	12	8	4	3
- Ovarian CA	9	6	3	2
- Uterine Sarcoma	1	1	0	0
- Endometrial CA	1	0	1	1
- Cervical CA	0	0	0	0
- Endometrial atypia	1	1	0	0
3. UV Prolapse				
- With Coexisting pelvic pathology	3	1	2	0
- Without pelvic pathology	5	5	0	0
4. Obstetric hysterectomy				
- Ruptured uterus	3	3	0	0
- Couvelliare uterus	1	1	0	0
5. DUB.	1	1	0	0

TABLE V IMPACT OF CLASS OF HYSTERECTOMY ON OUTCOME OF HYSTERECTOMY.

Type of Hysterectomy	Frequency	Women without complications	Morbidities	Mortality
- Subtotal hysterectomy	1	1	0	0
- Vaginal hysterectomy ± Posterior repair	5	5	0	0
- Total abdominal hysterectomy				
i.	19	15	3	1
ii.	2	2	0	0
iii.	8	5	1	2
iv.	0	0	0	0
v.	0	0	0	0
- Primary Staging laparotomy	10	6	1	2
- Planned primary surgery but inoperable	1	0	1	1

more than one woman seen in this study with postmenopausal problems. The age at menopause has been shown to drop by 3.7years when the ovaries are removed than when preserved.[20] The black race is well known to have low risk for post menopausal symptoms because of the dark skin and the sun being vertically overhead for most part of the year. Indications for hysterectomy in this study were genital malignancy (34.29%), uterine fibroids, (28.60%), UV prolapse (22.86%), obstetric, (11.43%) and DUB (2.86%). The indications for surgery would seem related to the extent (class) of the hysterectomy. All the beningn indications for surgery had a class I or II hysterectomy (uterine fibroids; UV prolapse with concurrent pelvic pathologies; obstetric cases had class I hysterectomy; while other UV prolapses had vaginal hysterectomy and the DUB, a class II hysterectomy). The radical hysterectomies were done for the malignant cases except one malignant case a 45yars old who had a class I hysterectomy because it was an early stage ovarian cancer (serial no. 6 table 1). She did very well through out the follow up. The commonest reasons for hysterectomy generally is uterine fibroid and of genital cancers represent only 10%[21]. The reason for this contrast is probably the taste of the surgeon towards ovarian cancer and genital malignancy which influence the pattern of referral of cases to his unit. It is noteworthy that not one case of cervical cancer was seen in this study. We do not have an organized screening programme for cervical cancers, neither do we have an organized health education programme - two interventions that can lower the incidence of cancer of the cervix in the community. Moreover, It is a disease of high parity (In this study 42.85% were parity greater than 5).

Complication rate of 22.86% was observed. This included CVA, vault prolapse, wound sepsis, burst abdomen, anaemia, bladder laceration and hot flushes. These were all in the abdominal laparotomic group and occurred in the early stages of this study. These complications could be related to age, background medical disorders, concurrent pelvic pathologies and indications for surgery. The CVA was jointly managed with the physicians with good outcome. The burst abdomen was in obese woman and she had an immediate repair with good result. The vault prolapse was in the UV prolapse group treated per abdomen. She had modified McCall posterior culdeplasty. She eventually developed wound dehiscence. She spent good time before finally being discharged home in one of the outlier states. This study shows impressive results with vaginal hysterectomy (100% success rate) compared to 66.67% complication rate in those treated abdominally. A recent Cochrane review recommends vaginal hysterectomy over other variants where possible [8]. The result of obstetric hysterectomy in this study is also very impressive. 100% of them were alive and well without complications. Three of them had uterine rupture while the fourth had couveliare uterus. This result does not support most series where case mortality run into two digits[14]. Our success may be due to the skill of the surgical team, antibiotic coverage and intensive post operative management.

There were 4 mortalities in this series, giving a mortality rate of 11.43%. 50% of this figure occurred in the ovarian cancer group and becomes 75% if all genital tract malignancies are evaluated. Short term mortality (usually within 40 days of operation), associated with hysterectomy is reported variously as 0.1 – 0.6 percent [21] it becomes several times higher when performed in pregnancy, cancer and other complications [22]. The mortality rate of 11.43% is far higher because our leading complication for surgery is malignancy rather than uterine fibroids. The endometrial cancer was a stage IV disease which was inoperable. She died shortly after laparotomy without staging. The two ovarian mortalities were stage IV cancers who had primary staging laparotomy though (suboptimal) and had delays in procuring cytotoxic drugs for the induction chemotherapy. Subsequently they both had relapsed disease and died. Ovarian cancer is a leading cause of mortality all over the world [23,24,25,26]. The five year survival rate remains less than 30% inspite of the use of cisplatin based agents and the taxanes [23,24,25,26].

The problem in our centre today is how to manage our genital tract malignancies. Ovarian carcinomatosis is seen by us as a dread of gynaecology. Implication of this research to all, is that all resources of those at stake should be directed to fight this scourge. Can it be prevented? The level of evidence from a retrospective, descriptive, non analytical work of this nature is noted.

CONCLUSION

The commonest indication for hysterectomy was genital tract malignancies which was seen at an earlier ages than before; and the mortality rate was high in spite of efforts made.

When hysterectomy was done for beningn lesions, results were usually good. Efforts should be made to provide resources and personnel to ensure availability to and access by the patients to facilities.

We feel there are cervical cancers in the community. A programme of sensitization, education on cervical cancer, as well as an organized programme of screening will bring the disease to the fore as well as reducing it.

A call is made for a comprehensive look at ovarian carcinomatosis. The current approach at tertiary preventions may not be sufficient. Since the disease has no known preclinical stage, our efforts may be focused on primary prevention of a disease that is a calamity too much to bear.

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PL-065

ASSESSMENT OF THE RISK APPROACH TO THE REDUCTION OF MATERNAL MORTALITY IN NORTH-CENTRAL NIGERIA

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INTRODUCTION

- Maternal risk is the probability of dying or being seriously injured during pregnancy.
- One of the primary goals of antenatal care is risk assessment.
- The concept of risk assessment is based on the following:
  - certain groups of women have a higher likelihood of maternal death than other women;
  - health workers can identify these women;
  - and if they locate these women, health workers can prevent deaths.

THE RISK APPROACH

- In the past, women were screened to determine who was at high risk of developing complications.
- Criteria, referred to as the "four toos" were used to screen women for this purpose.
- Women who were: too young (less than 15 years); too old (greater than 35 years); too often (birth interval shorter than 24 months); and/or too many (greater than five pregnancies).

THE RISK APPROACH-2

- Other types of epidemiological research look at risk factors as a means of untangling aetiologies.
- Obstetric risk factors are often used as a screening device to assist in patient management.
- Maternal risk factors have been studied primarily for their value in predicting or preventing unfavourable perinatal outcomes.
- High attention paid to identifying "high risk" women during pregnancy.
- No published studies linking risk factor identification with reduced maternal or perinatal morbidity or mortality.
- The effectiveness of the formal risk-approach strategy to the reduction of maternal mortality and morbidity has not been systematically examined in trials.

OBJECTIVE

- The objective of this study was to predict the risk of death using the age distribution, parity and booking status of women who had maternal deaths in four health facilities in Makurdi.

METHODOLOGY

- This was a 6 month prospective, cross sectional study of maternal deaths from 1st January, 2011 to 30th June, 2011

using the emergency obstetric care register.

RESULTS

- The relative risk for women aged 20-34 years (low risk pregnancy) was 0.9

DISCUSSION

- The main finding of this study is that all pregnant women are at risk of maternal mortality irrespective of their risk categorization.
- Socio-demographic risk factors are poor predictors of direct maternal mortality.
- Majority of women that died were aged 20-34 years or booked.
- These women were not at risk since their relative risks were less than 1.
- This finding shows that, contrary to the expectations in routine obstetric practice, majority of maternal deaths occur in the low risk group.
- This finding is in agreement with findings from other studies [8,10,11].
- Several studies have revealed that age, parity, education of mothers, obstetric factors, unavailability of health facilities and trained health personnel, and socio-economic factors, are associated with an increased risk of maternal death [12-21].
- Most of the previous studies did not consider the absolute numbers of maternal deaths in the low risk group.
- Further research need to be conducted to develop better screening parameters and to understand the role of social risk factors in maternal mortality.

CONCLUSION

- This study has shown that all pregnant women are at risk for maternal mortality.
- Since all the causes of these deaths are treatable, we recommend a population-based approach for the reduction of maternal deaths rather than the conventional risk approach.
- This approach will include counseling all pregnant women on the danger/warning signs of obstetric complications, birth preparedness and complication readiness to avert delay in women with obstetric emergencies.

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Table 1: Maternal Mortality by Age

Age	Number of deliveries	Number of Maternal deaths	Maternal Mortality ratio /100,000 deliveries	% of deliveries	% of Maternal deaths	Relative Risk of maternal death
<20	104	1	952	7.45	5.26	0.7
20-24	327	4	1,223	23.41	21.05	0.9
25-29	477	4	839	34.15	21.05	0.6
30-34	286	6	2,098	20.47	31.58	1.5
35-39	117	3	2,564	8.36	15.79	1.9
40 and above	24	1	4,167	1.72	5.26	3.1
Missing	62	-	-			
Total	1,397	19	1,360			

Table 2: Maternal Mortality by Parity and Booking Status

Parity	Number of deliveries	% of deliveries	Number of Maternal deaths	% of Maternal deaths	Relative Risk of maternal death
1	370	26.49	4	21.05	0.8
2-4	828	59.27	8	42.11	0.7
5- Above	199	14.24	7	36.84	2.6
Total	1397	100	19	100	
Booking Status					
Booked	1000	71.58	10	52.63	0.7
Unbooked	397	28.42	9	47.37	1.7
Total	1397	100	19	100	

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PL-066

CONTRACEPTIVE IMPLANTS: REASONS FOR CLIENTS USING THEM BEYOND THE RECOMMENDED DURATION IN JOS, NIGERIA

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INTRODUCTION

- Contraceptive implants are long term hormonal methods of contraception meant to be used for a maximum of 60 months for Norplant and 36 months for Implanon.
- Forgetfulness has been determined as reasons for extended use in some centres
- Others have found movement to places where such services are unavailable
- Implants being out of stock and high Cost of removal have been advanced as other causes of extended use elsewhere
- Implants

OBJECTIVES OF THE STUDY WERE TO DETERMINE

- The percentage of clients using Implants for extended periods
- Reasons why clients used implants longer than the prescribed duration in our own setting
- Any failures or adverse effects with the prolonged use

METHODOLOGY

- This was a prospective study of all consecutive clients requesting for removal of implants who had used them for longer than the prescribed duration
- Consent was obtained from the clients for the study
- A pre-tested questionnaire was given for clients to fill out after the removal
- Data was fed into the an Epi-Info statistical software and analysed for percentages and means
- Period of study was September 2005 to August 2011; a 6-year period.
- A total of 906 clients had implants removed within the period of study (6 years)
- One hundred and fifteen (115) clients qualified for recruitment into the study (12.7%)
- Norplant was used by 47 (40.9%) and Implanon by 68 (59.1%)
- Norplant was used for an average of 85.9 months and Implanon for an average of 39.8 months
- Age range was between 24 and 55, with a mean of 38.4 ± 6.6 years.

CONCLUSION

- The rate of Extended use among users of Implants is high (12.7%)
- The main reason for Extended Use of Implants was that clients had no problems with them
- Other Reasons: 'No reason for doing so' and 'Forgetfulness'
- No pregnancy was recorded

Implants Removed

Type of Implant Removed	Number (%)
Implanon (Single Rod)	68 (59.1)
Norplant (Six Rods)	47 (40.9)
Total	**115 (100.0)**

Educational level of Clients

Level of Education	**Frequency (%)**
Tertiary	50 (43.5)
Completed secondary	8 (6.9)
Completed primary	11 (9.6)
Attempted secondary	21 (18.3)
Attempted primary	12 (10.4)
none	6 (5.2)
Not stated	7 (6.1)

Contraceptive use Prior to this Implant

Contraceptives use before Implant	Frequency (%)
Injectables	*37 (32.2)*
Oral pills	*19 (16.5)*
Intra-uterine Device	15 (13.0)
Norplant	*11 (9.6)*
Condom male	7 (6.1)
Safe period	5 (4.3)
Other	1 (0.9)
None (First Timers)	20 (17.4)

Reasons for having the implants removed at the time

Reason for getting the implants removed	Frequency (%)
Had reached time for removal	79 (68.7)
Wanted another pregnancy	15 (13.0)
Wanted to rest	12 (10.4)
Had lost husband	4 (3.5)
Husband wanted it removed	3 (2.6)
Had no need for it again	1 (0.9)
Had reached menopause	1 (0.9)

Whether clients would like to use implants again in the future

Willingness to use implants in the future	**Frequency (%)**
Yes would like to use	76 (66.1)
No, would not like to use	34 (29.6)
Not sure of further use	5 (4.3)

Clients' Wishes for More Children in the Future

Wishes to have more children	**Frequency (%)**
Yes, want more children	42 (36.5)
No, don't want more children	*72 (62.6)**
Don't know (Not sure)	1 (0.9)
(*Over 60% of clients were using Implants as an alternative for permanent contraception!)	

Reasons for extending use of implants

Reason for use the implant for longer period	Frequency (%)
Had no problems with it	55 (47.8)
No reason for doing so	16 (13.9)
Forgot removal time	11 (9.6)
Implants not available	6 (5.2)
Cost of removal too high	6 (5.2)
Had reached menopause	2 (1.7)
Clinic staff told me to keep it	2 (1.7)
Lost hand card	2 (1.7)
No staff to remove it	2 (1.7)
Lost husband	1 (0.9)
Other reasons	12 (10.4)

What clients liked most about the Implants

What clients like most about the implant	Frequency (%)
Easy to use	62 (53.9)
Low risk of pregnancy	21 (18.3)
Fewer side effects or problems	15 (13.0)
Long acting contraceptive effect	13 (11.3)
Nothing in particular	2 (1.7)
Other reason	2 (1.7)

- Adverse effects were not documented

CONCLUSION & RECOMMENDATIONS

- Possibility that implants may be active for longer periods than suggested by manufacturers
- This calls for further research into serum levels of the hormones after the recommended duration of use!
- In the meantime, there is the need to reiterate removal of implants at expiration during follow-up visits.

PL-067

CASE REPORT: RIGHT AMPULLARY ECTOPIC PREGNANCY FOLLOWING BILATERAL TUBAL LIGATION USING SPRING CLIPS

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INTRODUCTION

- Pregnancy is unlikely to occur in women who have undergone sterilization. However when it occurs, there is a substantial risk that it will be an ectopic pregnancy.
- Tubal sterilization is highly effective but can fail. Available evidence suggests that sterilization fails in 0.13-1.3% of sterilization procedures and of these, 15-33% will be ectopic pregnancies.
- A case of right unruptured ampullary ectopic gestation following tubal sterilization with clips 6 years prior to presentation.

CASE REPORT

- In August, 2011, a 35 year old woman, gravida 5, para 3^{+1} (4 alive) presented at the gynaecology clinic with a complaint of lower abdominal pain of 1 week duration and bleeding per vaginaam of 3 days duration.
- The abdominal pain was of sudden onset, localized to the right lower quadrant, intermittent and of dull intensity.

CASE REPORT

- The bleeding was irregular, moderate with passage of minimal blood clots. She was unsure of her last menstrual period and denied missing any period.
- She had 3 previous caesarean sections in 2000, 2002 and 2005 respectively. A bilateral tubal ligation was done post-partum in 2005 using spring clips at caesarean section. There was no history of intercurrent medical illness.

CASE REPORT

- Examination revealed a young lady, in stable clinical condition. She was neither pale nor icteric. Her pulse rate was 84 beats per min and blood pressure was 110/80 mmhg.
- Abdominal examination revealed right iliac fossa tenderness with significant rebound tenderness. There was an old pfannesteil scar from previous surgeries.

CASE REPORT

- A vaginal examination revealed a posterior, soft cervix with a closed external os. There was marked cervical excitation tenderness on the right. The uterus was marginally bulky measuring about 10 weeks size. The pouch of douglas was flat and tender.
- A blood pregnancy test done was positive and a pelvic scan revealed an anteverted bulky uterus measuring AP 47mm and LS 96mm. The endometrial plate was thickened measuring 8.9mm with no defined intra-uterine gestational sac. The was a complex echogenic mass seen in the pouch of douglas. The left ovary had a solitary, simple cyst measuring 68 x 52mm.

CASE REPORT

- Her packed cell volume was 34%, Retroviral screening for HIV 1 & 2 was non-reactive and urinalysis was essentially normal.
- A diagnosis of right slow leaking ectopic gestation was made and she was counseled for exploratory laparotomy.

The uterus and the left tube with a clip at the cornual end

Enlarged right tube and normal right ovary.

Consent was obtained for right total salpingectomy, repeat left tubal ligation and ovarian cystectomy

- She had exploratory laparotomy and intra-operative findings were: right unruptured ampullary ectopic gestation, normal looking right ovary, left simple ovarian cyst measuring about 70 x 60 mm, bilateral spring clips at both tubal cornu.
- A right total salphingectomy was done; repeat left tubal ligation using the Pomeroy technique was carried out alongside left ovarian cystectomy.

CASE REPORT

- Her post operative condition was satisfactory and she was discharged on the 3rd post operative day on antibiotics and analgesics. Her packed cell volume on discharge was 33 %.
- She was seen for follow up 1 week after the surgery.
- A review of the procedure was done with the couple and she was discharged from the clinic.

DISCUSSION

- Tubal rings and tubal clips are mechanical methods of tubal ligation applied to the fallopian tubes .
- The spring clip or Hulka Clip was developed in Chapel Hill, North Carolina by Dr. Jaroslav Hulka.
- Other types include the *Filshie clip* that is made of titanium and silastic.

CASE REPORT

- The Spring clip is placed across the narrow muscular or isthmic segment of the fallopian tube close to the uterus.
- When the clip is compressed, the spring locks the clip tightly across the tube.
- Because of its narrow width (7 mm), the tubal clip damages the least amount of fallopian tube of any tubal ligation method.

CASE REPORT

- Various studies have examined the cumulative probability of ectopic pregnancy for all methods of tubal sterilization.
- Peterson et al in 1997 found a 10 year cumulative probability of 7.3 per 1000 procedures. However the probability varied substantially according to the method of sterilization and the woman's age at the time of sterilization.
- Sterilization by bipolar tubal coagulation before the age of 30 years had a probability of ectopic pregnancy that was 27 times as high as that among women of similar age who underwent postpartum partial salpingectomy(31.9 versus 1.2 / 1000 procedure.)

CASE REPORT

- Ectopic pregnancy after tubal sterilization is not rare particularly among women sterilized before the age of 30 years. Partial salpingectomy is associated with the lowest probability of ectopic gestation, however up to 40 percent were likely to have regrets. Wilcox,1991.
- This patient was 29 years at the time of sterilization.
- Spring clip sterilization is associated with higher rates of ectopic pregnancy but more likely to be successfully reversed by tubal anastomosis with subsequent pregnancy rates of 76% 1 year following reversal.

CASE REPORT

- Herbert et al 1997, found that women who were under 30 at the time of sterilization were nearly twice as likely as older women to have a subsequent ectopic pregnancy.
- Hence the need for counseling on subsequent risks and follow up.
- Those who provide care for women of childbearing age should not assume that a history of tubal sterilization rules out the possibility of an ectopic pregnancy especially in those with signs and symptoms.

CASE REPORT

- The patient had been lost to follow up and was reluctant to have an exploratory laparotomy until more than 24 hours after presentation.
- Poor counseling was partly responsible for the patient's inertia and reluctance to accept the diagnosis of ectopic gestation post tubal ligation.
- The likely aetiology may be spontaneous reanastomosis.
- Left ovarian cystectomy was performed in this case due to the size of the cyst and the risk of a future acute abdomen resulting from torsion of the cyst.
- A repeat left tubal sterilization using a partial salpingectomy was done on account of completed family size, safety and very low risk for ectopic gestation in comparison to the clip.
- A total salpingectomy was performed on the right tube due to extensive destruction/ballooning by the ectopic gestation.

CONCLUSION

- There is a rising awareness about modern contraception. Women are increasingly requesting methods independent of the act of coitus, probably permanent.
- Counseling about the risks of complications and failure is imperative, especially amongst the younger clients.
- Follow up on any type of contraceptive is important and even after tubal ligation there exist the potential for pregnancy.

PL-068

BURDEN OF MALARIA PARASITAEMIA WITH ADVANCING GESTATIONAL AGE

Dr. Osinuga E. T., Adesina O. A., Fehintola F. A. Roberts O. A. (Presenter: Dr. Osinuga E. T. MBBS, FWACS)

INTRODUCTION

- Each year approximately 25 million African women get pregnant in sub-Saharan Africa where malaria infection is endemic. *W.H.O 2004*
- Malaria infection in pregnancy causes up to 10,000 maternal deaths each year and contributes to high rates of maternal and infant morbidity and mortality. *Savage E et al 2007*
- Pregnant women are more likely to suffer from complications of malaria than non-pregnant women.
- Pregnant women are vulnerable because their natural immunity is reduced. *Brabin BJ 1983*
- In Nigeria, prevalence of malaria parasitaemia among pregnant women varies from as low as 8.4% (*Falade CO 2008)* to as high as 72% *(Okwa OO 2003)* depending on the geopolitical region and the study population.

World Health Organization Regional Office for Africa. A Strategic Framework for Malaria Prevention and Control during Pregnancy in the African Region. Brazzaville, Congo: World Health Organization Regional Office for Africa; 2004.
Mariella KBA, Denisa EIC, Modeste MM.: Prevalence of Plasmodium falciparum Infection in Pregnant Women in Gabon. Malar J 2003, 2: 1-17.
Adefioye OA, Adeyeba OA, Hassan WO, Oyeniran OA: Prevalence of Malaria Parasite Infection among Pregnant Women in Osogbo, Southwest, Nigeria. American-Eurasian Journal of Scientific Research 2007, 2:43-5.

RATIONALE

- Malaria infection during pregnancy is a major health problem in the tropics
- Despite serious impact of malaria infection during pregnancy being known for over half a century yet coverage of pregnancies at risk for malaria infection according to WHO and national guidelines has been low in Nigeria and other malaria-endemic regions.
- There is therefore need for continued survey of peripheral parasitaemia among pregnant women with a view to obtaining vital information to reduce the scourge of malaria
- and aim at achieving the 2015 target of WHO Millennium development goal of improving the maternal health and reducing infant mortality in Nigeria and sub Saharan Africa.

OBJECTIVES

- To determine point prevalence of malaria parasitaemia among pregnant women at booking.
- To determine incidence of malaria parasitaemia in the pregnant women, as gestation advances.
- To evaluate malaria preventive measures undertaken by the pregnant women.

METHODOLOGY

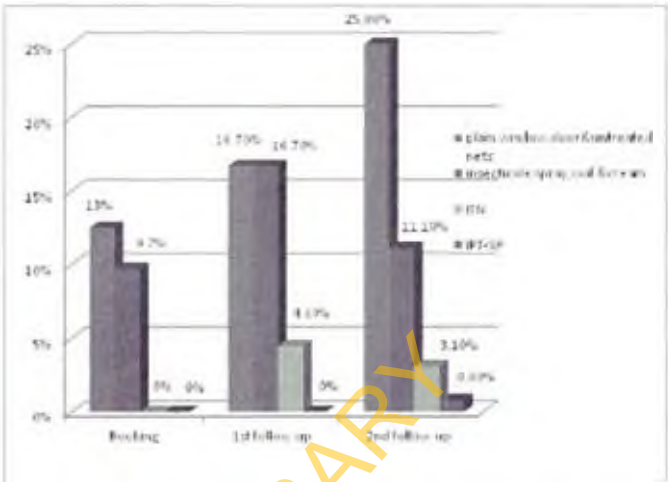
- This was a descriptive longitudinal study conducted at the University College Hospital (UCH), Ibadan between August 2010 and May 2011.
- University College Hospital Ibadan is a tertiary centre located in the heart of the ancient city of Ibadan which is the capital city of Oyo state.
- A total of 180 pregnant women were randomised for the study at booking using systematic sampling technique and followed up at GA 26-28 and 34-36 weeks.
- Information on the socio - demographic data, gestational age, parity, chemoprophylaxis and other malaria preventive practices of the pregnant women were collected at each visit using an interviewer administered-questionnaire.
- thick blood films were prepared from a finger prick blood sample of all the enrolled participants at each visit, capillary blood sample was also taken for haematocrit estimation .
- The slides were air dried and stained with 10% freshly prepared Giemsa stain at pH 7.2 and analysed.
- No slide was declared negative until and unless 200 contiguous oil immersion fields had been examined.
- Thus, parasite density was calculated from the following equation:
- No of parasite * 8000/no of leucocytes

RESULTS

Socio-biological characteristics of 170 pregnant women at booking and pregnancy outcome

AGE (years) Mean ± SD	**30.3 ± 3.9**
WEIGHT (Kg) Mean ± SD	71.0 ± 11.7
HEIGHT (Metres) Mean ± SD	1.6 ± 0.06
PARITY Median Range	1 0 – 4
GESTATIONAL AGE (weeks) Mean ± SD	18.5 ± 5.1
TEMPERATURE^{0}C Mean ± SD	36.9 ± 0.4
PACKED CELL VOLUME (%) Mean ± SD	32.2 ± 2.4
ANAEMIA (N=19) Mild Moderate	13 (68.4%) 6 (31.6%)
MEAN BIRTH WEIGHT (kg) Mean ± SD	3.1 ± 0.3

Distribution of malaria parasitaemia with each malaria preventive measures used across the three visits

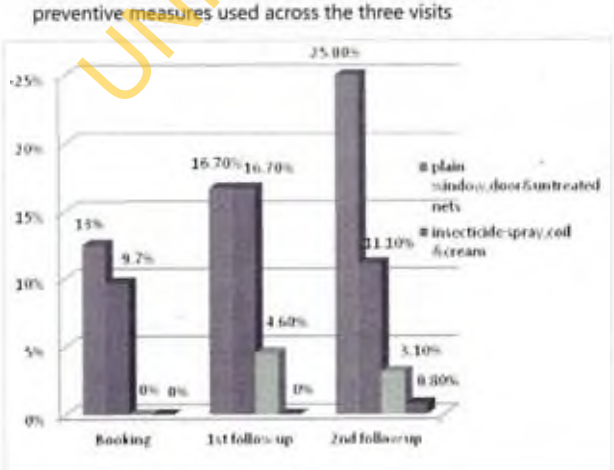


- Packed cell volume was determined by Hawksley™ microhaematocrit centrifuge and read on the microhaematocrit reader.
- Secondary outcomes: presence of anaemia, association between use of malaria preventive measures and malaria parasitaemia, and birth weight of babies.

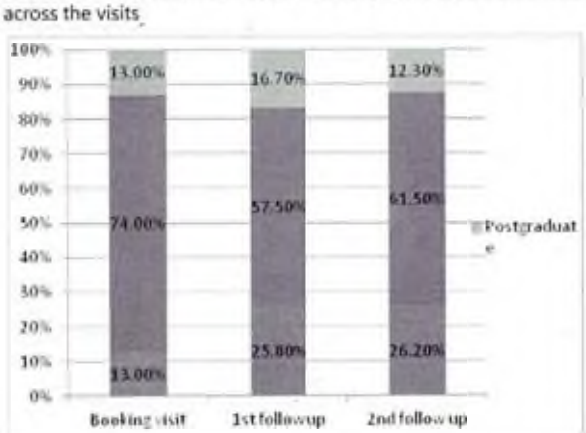
RESULTS

- The prevalence of peripheral malaria parasitaemia at booking was 7.7%,
- primigravidae had higher prevalence 13.3% compared to multigravidae 3.2% *(p = 0.014)*.
- There was a decline in the incidence of peripheral malaria parasitaemia at subsequent visits, 4.1% and 3.1% at 1st and 2nd follow up visits.
- There was an increase in the use of Insecticide treated nets(ITN) and intermittent preventive treatment(IPT SP) across the visits,
- use prevalence of ITN was 31.8%, 38.8% and 40.6%
- While IPT-SP use prevalence was 6.5%, 67.7% and 75.6% at booking, 1st and 2nd follow up visits respectively.
- At the 1st follow up visit none of the participants using IPTp had patent peripheral parasitaemia
- while 4.6%, 16.7% and 16.7% respectively of those using ITN, insecticide sprays/cream/coil only and untreated nets only had patent peripheral parasitaemia. Similar trend was noticed at the 2nd follow up visit.

Distribution of malaria parasitaemia with each malaria preventive measures used across the three visits



Distribution of Insecticide treated nets usage with educational status across the visits



- Anaemia was documented in 19/170 (11.2%), 7/170 (4.1%) and 15/160 (9.4%) participants at booking, 1st and 2nd follow up visits, respectively
- Prevalence of anaemia among participants with peripheral parasitaemia were 8/13 (61.5%), 4/7 (57.1%) and 3/5 (60%) at booking visit, 1st follow up visit and 2nd follow up visit respectively. Anaemia was significantly associated with malaria parasitaemia at each of the three visits
- The mean birth weight of babies born to mothers that had patent peripheral parasitaemia at any point during the visits was significantly lower than those born to mothers without patent peripheral parasitaemia throughout the visits; 2.9 ± 0.3kg versus 3.2 ± 0.3kg respectively (p = 0.001)

CONCLUSION

- The prevalence of patent peripheral parasitaemia among pregnant women was relatively lower that hitherto documented in the same study area although with different populations.
- Prevalence of patent peripheral parasitaemia exhibits an inverse relationship with the use of insecticide treated nets (ITN) and intermittent preventive treatment with sulphadoxine-pyrimethamine.
- The foregoing further makes it imperative to improve access to ITN and IPT-SP with a view to improving antenatal care and ultimately reduction of maternal and possibly infant mortality.

RECOMMENDATION

- There is need to intensify awareness campaign on the effectiveness of insecticide treated nets in the prevention of malaria infection.
- The Insecticide treated nets (ITN) should be made accessible and affordable.
- Government should make provision for free distribution of ITN at antenatal clinic; this will also encourage pregnant women to booking early for antenatal care.
- Health education during antenatal visits should emphasize on the effect of malaria infection in pregnancy and modes of prevention.
- Intermittent preventive treatment (IPT) with sulphadoxine-pyrimethamine should be encouraged at booking and follow-up as recommended.
- There is need for government to evaluate the various malaria preventive measures instituted on a regular basis.
- More research needs to be done at the community levels to find out why usage of the various malaria preventive interventions is still poor and how to eliminate malaria infection totally.

PL-069

THE EFFECTS OF ETONORGESTREL IMPLANT (IMPLANON) ON THE LIPID PROFILE OF NIGERIAN WOMEN

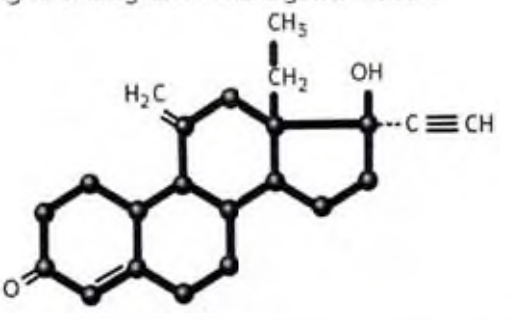
Adekunle A. O.; Fawole A. O.; Roberts OA; Okunlola M. A.; Arinola O. G.

INTRODUCTION

- Contraception development crucial for improving quality of family planning programmes
- Contraceptive implants – milestone in contraceptive delivery systems
- Ten potential contraceptive implants tested in 5 000 women in last 3 decades

IMPLANON

Reversible, long-acting hormonal, subdermal contraceptive > Active ingredient – etonorgestrel > Single-rod system with a disposable applicator > Progestogen-only method > Suitable for a wide range of women > Postpone a first pregnancy > May be used to 'space' pregnancies.>May provide reversible, long-term contraception when the desired family size is reached > Contains no oestrogen>Each Implanon implant contains 68 mg of etonorgestrel >Etonorgestrel – active



Structural Formula of Etonorgestrel

metabolite of desogestrel > Desogestrel: used in COCs > Established clinical pharmacology for desogestrel and etonorgestrel > Implanon >

- Avoids first-pass effect
- Potentially different clinical pharmacology

STUDY RATIONALE

- Low contraceptive use in Nigeria low (8%) > Total Fertility Rate - 5.7 children per woman > Large unmet need for contraception >
    - Poor access to quality services > Limited choice of methods > Lack of information > Concerns about safety or side effects> Partner disapproval
- Need for research into safer methods/users' perspectives

HORMONAL CONTRACEPTION AND SAFETY

- Increased cardiovascular risk factors (WHO, 1989) >Progestins and increased risk of arterial thrombosis (O'Brien et al, 1997) >Effects on immunoglobulins:
    - COCs – conflicting reports (Shabaan et al, 1984)
    - Norplant-induced elevation of serum IgG among Nigerian women (Otolorin et al, 1993)
    - Progesterone has profound effect on cellular immunity
    - Trace element deficiency associated with reduced immune function (Vyas and Chandra, 1983)
    - Race, ethnic group may alter effect of progestins on lipid profile (WHO,1993)
- Effects of Implanon on lipid metabolism, serum immunoglobulins, albumin and total proteins not studied in Nigeria

GOAL

To determine the safety of use of Implanon subdermal implants on Nigerian users with regard to lipid metabolism

SPECIFIC OBJECTIVES

To determine the effects of Implanon on

Cholesterol >Triglycerides > Low-density lipoprotein-cholesterol (LDL-C) >High-density lipoprotein-cholesterol (HDL-C)

METHODOLOGY

Longitudinal study > Study site: Family Planning Clinic, University College Hospital, Ibadan > Sample size: 100 women > Each woman served as own control > Follow-up period: 1 year

ELIGIBILITY CRITERIA

- Should be healthy women of reproductive age (18 – 45);
- Must not be on any other medication
- Should be willing to use hormonal contraception as a method of fertility control for at least one year
- Should have no contraindications to the use of hormonal contraceptives
- Must have regular menstrual cycles during the last three months
- Must be living in the locality to allow adequate follow-up
- Must use Implanon alone for contraception

EXCLUSION CRITERIA

Past history or of ongoing thrombo-embolic disease > Those who had been on hormonal contraception in the past six months > Varicose veins > Hypertension (BP $\geq$ 140/90 mm Hg) > Endocrine disease, especially, Diabetes Mellitus > Liver disease, mental disorders > Allergy to silastic materials > Heavy smoking

STUDY PROCEDURE

Recruitment of participants, Witten informed consent obtained, Documentation of baseline characteristics, Weight, height, Blood pressure, Collection of baseline blood sample (10 ml of fasting venous blood), Lipid profile, Data recorded on proforma

INSERTION TECHNIQUE

Insertion by trained personnel > Woman lying on her back > Sterile procedure > Insertion site: sulcus bicipitalis medialis of non-dominant arm > Local anaesthesia > Site was stretched > Insertion procedure: reverse of an injection

FOLLOW UP

- Monthly visits up to 12 months > Menstrual diary for each participant > At each visit
    - Participant's clinical status reviewed
    - Findings carefully recorded in the follow-up cards
    - Menstrual diary to keep a record of the menstrual flow and bleeding episodes
    - Fasting venous blood sample collected at end of the first, third, sixth, ninth and twelfth month following insertion

Weight also measured

LABORATORY PROCESSING OF SAMPLES

- 10 mls of fasting venous blood collected from the antecubital vein of either arm into an anti-coagulant-free tube
- After clot retraction, the bottle was spun at 3,000 rpm for five minutes
- Sera separated and stored at –20°C until analysis was carried out at the end of the study
- Serum total cholesterol and triglycerides were measured with a Hitachi 704 auto analyser (Siedel et al, 1983)
- High density lipoprotein were measured after selective precipitation of low density lipoprotein using phosphotungstic and magnesium chloride reagents
- Low density lipoprotein was estimated according to Friedwald et al. (1972)

Laboratory Reference Range for Adult Females

Lipid	Normal value (mg/dl)
High Density Lipoprotein	> 35.0 mg/dl
Low Density Lipoprotein	< 100.0
Total Cholesterol	<200.0
Total Triglycerides	< 150.0

ETHICAL CONSIDERATIONS

Ethical approval obtained from Joint UI/UCH Ethical Committee > Free voluntary informed, written consent obtained

DATA MANAGEMENT

- We employed Microsoft Excel (Microsoft, Redmond, WA) version 8 for data entry
- Data analysis was performed with SPSS version 17
- was used to compare means
- Mean levels at 1, 3, 6, 9 and 12 months for the various parameters were compared with the pre-insertion value using the independent "t" test to determine the level of significance of any observed differences

RESULTS

The study was conducted between June 2008 and June 2010 > 54 women completed the study > Mean age: 34.4 ± 5.6 years > Age range: 22 – 47 years > Modal number of children: 2 (1 – 6)

Total Cholesterol (Normal: < 200.0 mg/dl)

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	116.28 ± 31.5	122.87 ± 29.3	128.93 ± 31.2	112.52 ± 34.9	117.94 ± 32.3	131.07 ± 35.8
Mean Difference		6.6	12.7	- 3.8	1.7	14.8
P-value		0.263	0.038	0.56	0.79	0.025

Triglycerides (Normal: < 150.0 mg/dl)

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	50.67 ± 15.1	55.20 ± 16.9	52.96 ± 16.5	37.67 ± 19.9	38.44 ± 19.5	45.61 ± 12.9
Mean Difference		4.5	2.3	-13.0	-12.2	- 5.1
P value		0.15	0.45	0.000	0.000	0.07

High Density Lipoproteins (Normal: > 35 mg/dl)

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	15.06 ± 5.9	20.13 ± 5.6	26.22 ± 6.8	22.85 ± 8.5	25.25 ± 9.0	28.46 ± 8.7
Mean Difference		5.1	11.2	7.8	10.2	13.4
P value		0.000	0.000	0.000	0.000	0.000

Low Density Lipoproteins (Normal: < 100.0 mg/dl)

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	91.13 ± 28.7	91.52 ± 23.9	91.15 ± 26.6	83.94 ± 28.1	82.28 ± 30.4	94.15 ± 31.7
Mean Difference		0.4	0.02	- 7.2	- 8.9	3.0
P value		0.94	0.99	0.19	0.12	0.61

High Density Lipoprotein/Total Cholesterol Ratio

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	0.13 ± 0.05	0.17 ± 0.03	0.21 ± 0.04	0.22 ± 0.14	0.22 ± 0.08	0.22 ± 0.06
Mean Difference		0.04	0.08	0.09	0.09	0.09
P value		0.000	0.000	0.000	0.000	0.000

High Density Lipoprotein/Low Density Lipoprotein Ratio

	Baseline	1 month	3 months	6 months	9 months	12 months
Mean value	0.18 ± 0.08	0.23 ± 0.06	0.30 ± 0.10	0.30 ± 0.14	0.38 ± 0.34	0.33 ± 0.14
Mean Difference		0.05	0.12	0.12	0.20	0.15
P value		0.001	0.000	0.000	0.000	0.000

DISCUSSION

- Implanon is acceptable to Nigerian women
- In Jos, Implanon was accepted by almost 15% of contraceptive users with high continuation rates (Muthir & Nyango,2010)
- In Benin no remarkable changes in weight or BP were reported among users (Aisien & Enosolease, 2010)
- Menstrual changes are the major issues the Implanon use
- Its biochemical or hormonal effects among Nigerian women has not been fully evaluated

DISCUSSION

- Studies in Europe (Merki-Feld et al, 2008; Dilbaz et al, 2010) and Asia (Biswas et al, 2003; Suherman et al, 2004) reveal no negative effects on cardiovascular risk factors
- Implanon tended to be associated with a reduction in plasma lipids in most reports
- These reports have provided assurance about safety of Implanon

DISCUSSION

- Our data show variable changes in lipid profile
- High Density Lipoproteins showed significant trend towards a rise from baseline values
- Both High Density Lipoprotein/Total Cholesterol Ratios and High Density Lipoprotein/Low Density Lipoprotein Ratios showed consistent and significant rise from baseline levels
- This pattern contradicts the reported trend in the literature
- However, reassuring that atherogenic lipids do not exhibit significant elevations in a consistent manner

CONCLUSION

- Implanon is acceptable to Nigerian women
- It has some demonstrable effects on lipid profile
- Larger studies with longer follow up are required to establish its effects on lipid profiles among Nigerian women

PL-070

BARRIERS TO UTILIZATION OF MODERN METHODS OF FAMILY PLANNING AMONGST WOMEN IN A COMMUNITY SOUTH-SOUTH NIGERIA.

Utoo, B. T., Swende, T. Z., Utoo, P. M.

INTRODUCTION

- Family planning is an important component of reproductive health that affects the lives of women, their family members and the nation as a whole.
- Studies have shown that high parity, short inter pregnancy intervals and extremes of age are associated with poor pregnancy outcome.
- Furthermore, the use of contraceptive methods by the women in the reproductive age contributes to the prevention of unwanted pregnancies and subsequent induced abortion.
- The development of more effective and acceptable modern methods of contraceptives that have fewer side effects has resulted to the improvement in contraceptive prevalence rate worldwide.
- The story is however not very encouraging in Nigeria [4]

- Several women who use any method of family planning depend on natural and traditional methods which have high failure rates.
- Studies done in different parts of Nigeria have enumerated several barriers to the utilization of modern methods of family planning.

OBJECTIVE OF THE STUDY

- This study is aimed at determining awareness, acceptability and barriers to the utilization of modern methods of family planning amongst the women in a community south-south of Nigeria.

SUBJECTS AND METHODS

- This was a cross-sectional study using structured interviewer administered questionnaires to 145 pregnant women at the antenatal booking clinic in Sacred Heart Hospital, Obudu, Cross-Rivers State, Nigeria from June to September 2010.
- The antenatal booking clinic for new attendees is held twice in a week.
- Approximately forty clients are attended to per clinic visit. The maternity unit records more than 1000 deliveries annually.

RESULTS

- Of the 145 respondents, 38.8% were aged 21-25 years.
- Most (39.3%) had secondary and post-secondary (30.3%) level of education.
- Distribution by occupation showed that civil servants constituted 22.8%, traders 22.1%, students 19.3% among others.
- Most (44.1%) were of parity 1 to 2.
- Majority (98.6%) of the respondents knew at least one method of family planning
- Majority (62.2%) heard of the methods from medical personnel in the hospital.
- The commonest known methods included; Condom (35.2%), periodic abstinence (26.2%) and oral contraceptive pills (16.6%).
- Those who accepted the usage of family planning were 118(81.4%).
- Out of these number, 85(72.0%) have ever used any method while 33 (28%) had not.
- Barriers to usage of modern methods of family planning were; concern of safety to health (25.9%), Husband's opposition (24.2%), desire for more children (17.2%), Religious prohibition (13.8%), lack of money (10.3%) and fear of side effects (8.6%).
- There was a significant relationship between acceptability and utilization ($p < 0.05$).

DISCUSSION

- Access to safe, effective and affordable contraception is recognized by the world health organization (WHO) as a universal human right.
- Most (33.8%) of the women in the study were aged 21-25years.
- This makes the need for utilization of family planning methods more eminent.
- Majority (98.6%) of the women knew at least one method of family planning.
- This finding is similar to several studies done in different parts of Nigeria [2, 4, 6,9,10].
- The intensity of family planning enlightenment campaigns as well as integration of family planning into the strategy of HIV/AIDS/STI prevention and control could have accounted for the high awareness [8].
- The commonest methods known were the condom, periodic abstinence and oral pills.
- The extensive marketing of the condom in response to the HIV pandemic might have been responsible for the increase awareness of the condom [4, 9, 10].
- The oral pills like the condom are readily available over the counter at patent medicine stores, Pharmacy shops, health facilities and as such are the second contraceptive method of choice for women of reproductive age, particularly young married or unmarried females and students alike [4]
- The natural and traditional methods of family planning are popular most probably due to the concern of women about the safety of modern methods as well as the fear of side effects of such methods on their health and future fertility.
- The finding of medical personnel in hospital been responsible for most of the information about family planning method is similar to findings in other studies in Nigeria [6,9,11].
- There is need to sustain efforts in training and retraining of all cadre of health personnel towards building their capacity in offering family planning enlightenment and services to the communities.
- The acceptability of family planning methods in this study was high ((81.4%).
- This finding is similar to that of other studies in the country [1, 6].
- The high level of education of the respondents could have accounted for this.
- Studies have shown that well educated African couples are more likely to accept modern methods of contraceptives than less educated couples living in remote areas[1].

- The myth that Family planning methods are not good for health of users needs to be corrected through client education and enlightenment.
- Uncertainty about safety and side effects of contraception may be tackled by adequate screening of clients for pre existing health risk factors before the choice of contraceptive method is made.
- The opposition of male partners to the use of family planning methods by the women again makes male involvement inevitable.
- Improving access to family planning services can not be tackled successfully without poverty reduction and economic empowerment of women.
- Advocacy to religious leaders and faith-based organizations towards improving acceptability and allay fears by couples in using family planning methods due to religious prohibition is a crucial necessity.
- Also, family planning counseling aimed at promoting reproductive health of the woman as well as extending services beyond family planning clinics, antenatal care clinics and VCT centres to involving postratal /child ware fare clinics is recommended.

CONCLUSION

- The study finds numerous barriers to utilization of family planning methods despite high awareness and acceptability by the women.
- These barriers were; concerns of the safety of the methods to health, husband's opposition, religious prohibition, lack of money, desire for more children and fear of side effects.
- Overcoming these barriers should be the concern of all stakeholders.
- Strategies to improving access to family planning methods should therefore include; the involvement of male partners as well as traditional/religious leaders, economic empowerment of women and continuous research aimed at improving safety and reducing side effect profile of the methods among others.

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PL-071

MATERNAL DEMAND FOR CESAREAN SECTION (MDCS): PERCEPTION AND WILLINGNESS TO REQUEST BY NIGERIAN ANTENATAL CLIENTS

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INTRODUCTION

- There has been a global rise in cesarean section (CS) rates since the 1970s especially in developed countries [1-3]. This has been attributed partly to a rising level of primary cesarean rates and mainly increasing maternal request cesareans. The trend of maternal demand for cesareans has also has been recently noted in the West African sub-region [4,5].
- This is against the backdrop of high aversion for cesarean sections and lower CS rates [2,6,7]. In addition, women in this region who have had previous cesarean delivery reportedly live with poor self- esteem and cesarean sections are sometimes refused in emergency situations [8,9].
- Incidence- 4-18% (developed countries)
- 4.4% (Southwest Nigeria)
- It is thus an irony that MDCS is reported in the African subregion.
- In developed countries while fear of birth, increasing maternal age at marriage and first pregnancy, fear of pelvic floor damage and genital prolapse in later years are implicated reasons, in developing countries on the other hand, the view that CS was the surest way to a live birth is believed to be a critical factor underlying their choice [4].
- Maternal request for cesarean section is defined as primary cesarean section without any medical indication. Other authors describe it as medically unnecessary cesarean section performed on request by the pregnant patient irrespective of whether it is a primary cesarean section or a repeat cesarean section

JUSTIFICATION

- This study is the first among south-western Nigerian women.The first study on MDCS published from Nigeria and West Africa was conducted amongst south-eastern Nigerian women .
- *Ethnic and cultural diversities in Nigeria.
- Previous studies- two levels of health care system: tertiary and secondary. We decided to perform this study in all the three levels of health care service in Nigeria in order to understand better the dynamics of autonomy within each level of care.
- Emerging area- more information needed to understand expectations of women with regards to autonomy

OBJECTIVES

Main: *To determine the perception and attitudes of Nigerian antenatal clients towards MDCS, their*
Specific: *Reasons for MDCS > Willingness to request MDCS > The relationship between willingness to request MDCS and their sociodemographic characteristics.*

METHODOLOGY

- A cross-sectional survey of 843 women was conducted from 1st November 2008 to 28th February 2010 in Ibadan south-west Nigeria at the antenatal clinics of three health facilities: *Agbongbon/Orayan (PHCs), Adeoyo Maternity Hospital (SHC) and UCH Ibadan (THC)*
- The number of women studied at each level was determined using proportional allocation based on yearly antenatal attendance rates. Eventually, 257 respondents were recruited from the THC, 295 from the SHC and 291 from the PHCs.

STUDY INSTRUMENT

A thirty-three item questionnaire generated from previous surveys, publications and review articles on MDCS.

DATA COLLECTION AND ANALYSIS

Data was entered and analysed using SPSS version 15.

MAIN FINDINGS

- *The proportion of women aware of MDCS was high (39.6%).*
- *Women from THC and those with tertiary education and above were more likely to be aware of MDCS than others (p=0.001).*
- *More women from the THC than other facilities believed that requests for MDCS should be granted (p<0.001).*

MAIN FINDINGS

Commonest reasons reported for MDCS were: fear of labor pains (68.9%), fear of poor labor outcome (60.1%), advanced maternal age (46.1%), previous pregnancy losses (41.6%), Safer theatres (39%), previous infertility (36.3%), fear of fecal incontinence(20.2%), urinary incontinence(16.8%). Willingness to request MDCS was low (6.6%). More than 50% of those

willing to request MDCS would be criticized, mainly by their husbands. On multiple logistic regression respondents at the THC were significantly more likely than those at the SHC or the PHCs to be willing to request CS and to favor a woman's right of autonomy to choose her mode of delivery.

DISCUSSION

- Summarily, the findings in this study suggest that suboptimal pain control and weak confidence in the quality of obstetric care being provided by women receiving ANC.
- MDCS - a means to avoid labor pains and/or labor complications. This is contrary to the NIH guidelines on MDCS
- The commonest source of information on MDCS notably being from doctors is a pointer to the possibility of lack of confidence in the quality of obstetric care being provided even by healthcare providers .
- While previous infertility and advanced maternal age were the common reasons among south eastern Nigerian women [4], fear of labor pain and adverse labor outcome ranked highest among south-western Nigerian women who are known to have higher pain perception in labor .
- There's increased awareness of MDCS in developing countries:
- 39.6% compared to 15.1% noted from a previous survey [5] Awareness seems to be driven by higher levels of educational and professional attainment, belief in their right of autonomy to choose their mode of delivery and client-willingness among participants at the THC compared to SHC and PHC.

CONCLUSION & RECOMMENDATION

- *The decision for MDCS is a difficult one, as willingness is low and criticism by partners of those who choose MDCS is high.*
- *Provision of epidural anaesthesia and improved safety of vaginal delivery is recommended. This may prevent Nigerian women from making a difficult choice as MDCS based on fear of pain and poor labor outcome.*
- *Male-partner role should be taken into consideration in order to make sustainable policies or guidelines for MDCS in developing countries.*

PL-072

MATERNAL MORBIDITY AFTER CHILDBIRTH AT A SECONDARY HEALTH CARE FACILITY IN SOUTHERN NIGERIA

Utoo B. T., Musa J., Karshima J. A.

INTRODUCTION

- Maternal health indices remains poor in developing countries despite efforts at improving them [1].
- Out of the 585,000 women who die each year during childbirth, over 98% are from the developing world [2, 3].
- In regions of the world where maternal mortality ratios are low, SAMM is increasingly becoming important [1].
- Maternal morbidity refers to complications that arise during the pregnancy, labour ,delivery or postpartum period [4,5].
- Although MM is not uncommon, it has not been the subject of emphasis by medical experts in developing countries of the world [1,5].
- And yet for each woman that dies, 16 others suffer different forms of morbidity [1,6].
- The fact remains that maternal morbidity occur much more frequently than maternal deaths.

OBJECTIVE OF THE STUDY

- In view of the scarcity of data on the extent of this public health problem in developing countries, this study was designed to review the incidence, types and determinants of maternal morbidity after childbirth in a secondary health care facility in southern Nigeria.

SUBJECTS & METHOD

- The study was done at the Holy Family Hospital, Ikom, Cross- River State, Nigeria.
- This 256 bedded health care facility provides health care delivery services in the central senatorial district of the state as well as neighboring Cameroon's .
- The maternity unit has 40 beds manned by medical officers, nurse/midwives, CHEWs, mission trained auxiliary staff.
- Recently, resident doctors in Obstetrics and Gynaecology from the Jos University Teaching Hospital.
- The antenatal clinic which holds twice weekly attends to approximately 25 clients per booking visit.
- The hospital is equipped with an ultrasound machine, basic laboratory facilities and a functional operating theatre.
- Approximately 500 deliveries are recorded annually.
- Patients are sometimes referred from the primary health care facilities, maternity homes and occasionally from the numerous private hospitals to the health facility for treatment.

STUDY DESIGN

- This was a retrospective analysis of medical records of patients who were treated at the hospital from January 2004 to December 2010.

METHODOLOGY

- Patients who where treated at the health facility for one form of post delivery complication or the other were included in the study.
- Data was extracted from the delivery and admission register at the maternity unit.
- And where necessary, the general out-patient records were accessed.
- The Hospital management gave approval

DATA ANALYSIS

- Data collected include; initials, hospital numbers, age, occupation, religion, educational status, booking status, parity, mode of delivery, morbidity and duration of hospital stay.
- Data was analyzed using EPI INFO 3.2.2 (CDC Atlanta, Georgia USA) and presented as simple percentages in a tabular format.
- Chi-square was used as a test of statistics with p-value of ≤ 0.05 at 95% confidence interval considered statistically significant.

RESULTS

- A total of 3,068 deliveries occurred within the 7 year under review.
- Out of these number, 124 (4.04%) suffered various forms of morbidities.
- Most (31.5%) of the women were aged 26 to 30 years.
- Most (49.2%) of them had secondary level of education.
- Housewives constituted 37.9%, Farmers 29.0%, Students 12.9%, Traders 11.3% and Civil Servants 8.9%.
- Majority (53.2%) were unbooked for antenatal care. Para 3-4 constituted 54.0%, 1-2 (28.3%) and primi-parous (17.7%).
- Hospital deliveries were 61.3%, Home deliveries 25.0% and others 13.7%.
- Most (83.9%) had spontaneous vaginal delivery, 4.0% assisted vaginal breech delivery, 4.0% destructive operations, 3.2% vacuum extraction and 1.6% laparatomy.
- Nurses/Midwives were responsible for 50.8% of the deliveries, TBA 22.6%, CHEWs 14.5%, M/O 12.1%.
- The leading morbidities were PPH (33.9%), retained placenta (25.0%), Hypertensive disorders (14.5%) and genital sepsis (13.7%).
- Women with formal education were more likely to book for antenatal care (p=0.000) and to deliver in orthodox health facility (p=0.007).
- The morbidities were significantly related to the level of skill of the birth attendants (0.001) and place of delivery (0.045).
- Majority (85.5%) of the patients were managed as in-patient for a week.

DISCUSSION

- The incidence of maternal morbidity after child birth in the study was 4.04%.
- This is higher than the reported 0.38% in Scotland, but lower than the 6.45% in Niger Republic and 7.5% in Senegal[11-12].
- This variation is a reflection of the differences in quality as well as utilization of reproductive health services in the developed and developing countries.
- Women who suffered morbidities were aged 26 to 30 years, multiparous and with low level of education.
- These were similar to findings of other studies[13].
- More than half of the women were un-booked for antenatal care.
- The booking status of patients and place of delivery was significantly related to their level of education.
- Sustaining the campaign for women education and economic empowerment will promote utilization of reproductive health services including delivery in orthodox health facilities.
- Leading maternal morbidities following child birth were; Post-partum haemorrhage, retained placenta, hypertensive disorders and genital sepsis.
- The rate of occurrence of retained placenta in the study is extremely higher than the findings in a study done at Ibadan, South western Nigeria, where the incidence was 1.74% in unscarred uterus and 5.3% in scared uterus [17].
- This could have been as a result of poor management of the third stage of labour which is possibly a reflection of the low level of knowledge of some of the accouchers about this concept.
- Placenta retention is a known cause of post-partum heamorrhage [18].
- The incidence of genital sepsis was higher than the reported 1.7% in Ife, Nigeria[19].
- Although, the study at Ife was done at a tertiary health facility.
- Supervised delivery where appropriate antibiotic usage is achieved should be encouraged.

- The incidence of wound infection following caesarean section which was 1.6% is lower than the reported 6.7% and 12.5% at two tertiary health facilities in Nigeria [20, 21].
- It is possible that the higher number of surgical operations done at this referral centres could have accounted for this variation.
- Post partum psychosis is said to typically occur around the time of delivery and affects less than 1% of women [22, 23].
- The incidence in the study was however 1.6%.
- Episiotomy breakdown rate was 4.8%.
- The restrictive rather than routine use of this obstetric procedure will help in reducing the incidence of complications associated with it [24-27].
- The significant relationship between maternal morbidity after childbirth, and accoucher observed in the study calls for intensive efforts in training and retraining of birth attendants.
- The employment of qualified medical personnel in public hospitals at all levels of health care delivery should be pursued with vigour.
- The midwifery service scheme (MSS) of the Federal Ministry of Health (FMOH) in Nigeria to provide skilled birth attendants at the grassroots should be given the desired speedy attention.
- It has been shown that midwives in health facilities appear to detect more obstetric complications than TBAs.
- Immediate detection leads to immediate Care and low fatality rates [1, 28].
- Barriers to the utilization of antenatal and obstetric services which could involve, illiteracy, low socio-economic status, culture and wrong perception of their health by women in our environment should be adequately tackled by all stake holders in the health sector [29,30].
- This measure will discourage the attitude of women who book for antenatal care and yet prefer to deliver outside orthodox facilities [2].
- It is also worthy to mention that, health problems after childbirth should be anticipated and careful attention should be given to prevent them from occurring or reducing the severity of morbidity [31].

CONCLUSION

- The incidence of maternal morbidity after childbirth observed in this study is high.
- The leading morbidities were haemorrhage, retained placenta, hypertensive disorders and genital sepsis.
- Sustained campaigns towards promoting women education, economic empowerment, and utilization of reproductive health services offered by skilled birth attendants will reduce the incidence of morbidities especially in developing countries.

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PL-073

RESUMPTION OF SEXUAL INTERCOURSE AND CONTRACEPTIVE USE BY THE POST-NATAL VISIT AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN

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INTRODUCTION

- Although not evidence-based early authorities taught that the ideal time for resumption of sexual intercourse following delivery was after six weeks/puerperium and contraceptive counseling was usually neglected until after this period.
- Pain and tenderness in the episiotomy scar, fear of another pregnancy, changes in body image, and fatigue all have been cited by women for the avoidance or dislike of sexual intercourse in the postpartum period .Alder et al 1989.
- Ovulation can occur as early as 25 days postpartum among non-breastfeeding women.
- Some women may resume sexual intercourse before this period resulting in unplanned pregnancies, unsafe abortions, poor child-spacing, short inter-birth intervals with negative maternal and child outcomes under-scoring the importance of initiating contraception in the very early postpartum period (5). Systematic review. Jackson et al 2010,CDC 2004-2006

JUSTIFICATION

- Few studies in our environment addressing this .
- Its important to find out if women in our environment if women in our environment are practicing early resumption of sexual intercourse. This will inform policies for family planning counselling practices.
- The postpartum period is an important time to initiate contraception because women are accessing the health-care

system and might have increased motivation to avoid another pregnancy.

OBJECTIVES

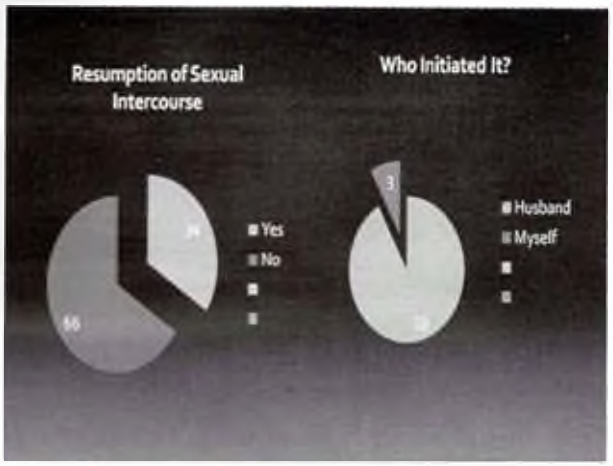
Main: To determine the proportion of women attending the post-natal clinic (PNC) who have resumed sexual intercourse (SI) and contraceptive use amongst them.

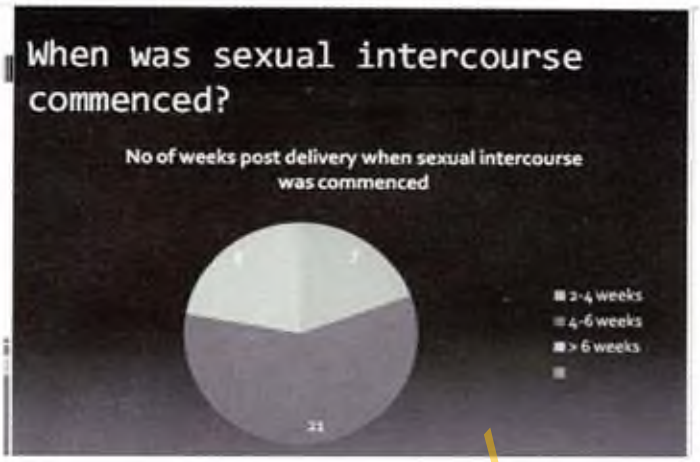
Specific:

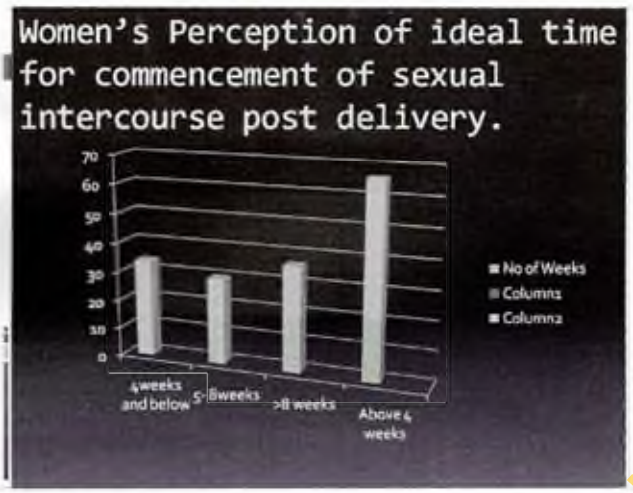
- Women's perception of the ideal time for commencement of sexual intercourse after childbirth.
- The proportion of sexually active women by the PNC visit
- The proportion of sexually active women using contraception and the methods by the PNC visit
- The relationship between early resumption of sexual activity, contraceptive use, socio-demographic variables and family planning counselling on discharge.

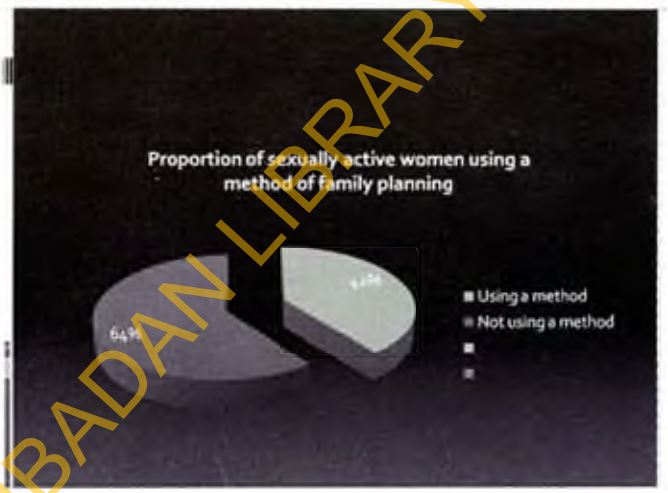
SOCIO-DEMOGRAPHIC VARIABLES					
VARIABLE	Frequency	Percentage	**VARIABLE**	Frequency	Percentage
AGE			**BOOKING STATUS**		
Less than 30	36	34%	Booked	89	84%
30-34	51	48.1%	Unbooked	17	16%
35 and above	19	17.9%			
EDUCATION			**PARITY**		
Secondary & below	14	13.2%	One	47	46.5%
Tertiary & above	**92**	86.8%	Two & Above	54	53.5%
RELIGION					
Christianity	**85**	80.2%			
Islam	21	19.8%			
TRIBE					
Yoruba	**86**	81.1%			
Others	20	18.9%			

SOCIO-DEMOGRAPHIC VARIABLES								
VARIABLE	Frequency	Percentage	**VARIABLE**	Frequency	Percentage	**VARIABLE**	Frequency	Percentage
MODE OF DELIVERY			**LOCHIA AT 6WKS**			**NO OF WIVES**		
Cesarean	53	51.5%	Yes	42	39.6%	One	94	88.6%
Vaginal	49	47.6%	No	64	60.4%	Two & Above	12	11.4%
Assisted Vaginal	1	0.9%						
EPISIOTOMY GIVEN			**ADMISSION POST DEL.**			**INFANT FEEDING**		
Yes	24	23%	<3days	27	26%	EBM	101	94.9%
No	82	77%	3-7 days	62	60%	Non-EBM	5	5.1%
REPAIRED PERINEAL TEARS			> 1 week	15	14%	**FPC**		
Yes	27	25.5%				Yes	35	32.8%
No	79	74.5%				No	71	67.2%









METHODOLOGY

- An ongoing descriptive cross-sectional survey of women attending the PNC at the University College Hospital, Ibadan conducted from the 1st of January, 2011 till date.
- Study Instrument: A thirty-five item questionnaire generated from previous surveys, publications and review articles on MDCS. Questionnaire contained 8 sections containing questions addressing socio-demographics, history of delivery and puerperium, resumption of intercourse, perceived ideal time for resumption of intercourse, contraceptive use, emotional state post delivery, infant care, family planning counselling before discharge.
- Data Analysis: A preliminary analysis of 106 women interviewed was done using SPSS version 15. Summary statistics such as means and proportions were reported. Chi-square tests was used for significance of association between categorical variables at a level of 0.05%. Multiple logistic regression was done for two dependent variables: early resumption of intercourse and contraceptive use by the PNC visit.
- Results were presented using tables, pie-charts and bar-charts.

METHODS OF FAMILY PLANNING USED

Male Condom– 50%, Bilateral Tubal Ligation– 20%, Condom + Coitus interruptus– 10%, Coitus interruptus alone– 10%, Injectable Hormonal Cont.– 5%, Abstinence– 5%

DISCUSSION

- Few used modern methods known to be safe during lactation.
- Despite 100% breast feeding rate, the knowledge of lactational amenorrhoea as a method of contraception was low among these sexually active women. This finding was corroborated by studies done by Vural et al. This puts non-contracepting,breastfeeding postpartum women at high risk of unwanted pregnancies as proper use is required to ensure low failure rates.
- Predictors of early resumption of intercourse include vaginal delivery and absence of repaired vaginal tears
- Apart from commencement of intercourse, a predictor of contraceptive use was longer duration of long hospital stay suggesting that women may only consider contraceptive use important following previous complicated pregnancies. Education unlike in some other studies was not a predictor of contraceptive use following commencement of sexual activity.

- Frequency of family planning counselling on discharge is also low.

CONCLUSION & RECOMMENDATION

- Early resumption of sexual intercourse is a reality among Nigerian women and majority do not use contraception.
- Formal pre-discharge family planning counselling and follow up before the postnatal visit for all women and their partners especially for those at risk of early resumption of intercourse is advocated.
- Knowledge & Counselling on LAM by health workers will be useful to prevent unintended pregnancies in sexually active postpartum women who may not want to use other modern contraceptive methods.

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PL-074

ACCEPTABILITY OF TRANSVAGINAL SCAN IN IBADAN, SOUTH-WEST NIGERIA

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INTRODUCTION

- Ultrasound imaging involves exposing part of the body to high frequency sound waves to create images of specific areas of the body to diagnose various pathologies.
- Transvaginal/transabdominal ultrasound imaging is mostly performed in OB/GYN.

APPLICATION AND CLINICAL BENEFITS OF TRANSVAGINAL SCAN(TVS)

- The ultrasound frequencies most commonly used in medical diagnosis are in the range of 2-15mhz.
- The endocavity probe in TVS **typically** uses a 7.5mhz energy frequency.

ADVANTAGES (OR CLINICAL BENEFITS)

- Advantage: better image resolution, Improved visualization of pelvic anatomy., Excellent tissue characterization of uterus and ovaries., Increased efficiency as there is no waiting time for bladder filling., Accurate serial assessment of follicular and endometrial dynamics in infertility management.

DEMERIT

Small field of view, May not be able to see the full extent of large masses., Culturally unacceptable, Transabdominal scan is occasionally used in a complimentary role.

BACKGROUND & AIM OF STUDY

- TVS not a common mode of ObGyn USS imaging in location of study.
- Non-familiarity of procedure by medical personnel
- Role of TVS is well established in developed countries
- Initial resistance encountered from medical personnel with regards patients reaction
- Cultural reasons given for perceived non-acceptability by patients
- Study therefore aimed to assess the acceptability of transvaginal scan in the community

PATIENTS AND METHODS

Prospective study was from April- Sept 2011.

Eligibility Criteria: At least a previous act of sexual intercourse, No heavy vaginal bleeding, Appropriate medical indication, Informed consent obtained before each procedure.

PATIENTS AND METHODS

Of 508 gynecological referrals, 317(62.5%) were deemed eligible for the study.

SOURCES OF REFERRAL

Tertiary hospital 147 (46%), Private health care 98 (31%), Self referral 71 (23%)

AGE RANGE

18 to 72 years

RELIGION, TRIBE &SOCIO-ECONOMIC CLASS

Adequately represented, 191 women(37.5%) did not fulfilled the eligibility criteria.

EXCLUSION CRITERIA

Virgins, Heavy vaginal bleeding

RESULT

- 315 clients(99%) found the procedure acceptable. **Demerits:** minimal discomfort in patients who are not relaxed., 1(0.5%) procedure was refused., 1(0.5%) procedure was abandoned., >70% of requests were not specific for TVS although clinically indicated.

REFERRAL INDICATIONS

- Most common gynaecologic indications were: Evaluation of Subfertility (17.7%), Confirmation of Uterine Fibroids(14.4%), Polycystic Ovaries(62.5%),as a significant contributory cause of oligo-amenorrhoea., Least common gynaecologic indication was, Evaluation of post menopausal bleed (0.1%)

CONCLUSION

- This small study has demonstrated a high level of acceptance of TVS among the women In Ibadan, Nigeria.
- Increasing the awareness of this service among health care providers and women may help to bridge the existing gap between service availability & utilisation.
- No woman should be denied the opportunity of a TVS if clinically indicated.

PL5-075

MASSIVE ASCITES, AN UNCOMMON PRESENTATION OF ENDOMETRIOSIS: A CASE REPORT

Oranye B.C. (UCH, Ibadan)

CASE PRESENTATION

- Mrs.A.U. is a 37year nulliparous woman.She presented with recurrent abdominal swelling of 3years duration associated with weight loss, abdominal pains,early satiety,loss of appetitte and vomitting .
- No history of vaginal bleeding or menstrual irregularity. No hx of yellowness of the eyes,ingestion of unpasturized milk or contact with persons with chronic cough.
- There was a background history of treatment with clomiphene citrate for secondary infertility of 4yrs duration.
- She first presented at UPTH where she had exploratory laparotomy done about 3years ago with drainage of large(7L) volume of ascitic fluid;histology report of the mass(omentum) removed showed she had endometriosis .
- Had danazol for 6months.
- Patient had right pleural effusion drained via CTTD and pleurodesis in UPTH.
- She developed another episode of abdominal swelling 2years ago and presented in UCH.
- Pelvic scan done showed hepatomegaly with ascites and USS-guided FNAC of the right ovarian mass;
- Ascitic fluid was chocolate colored;cytology yielded an inflammatory lesion.
- She had a 2nd exploratory laparotomy and drainage of purulent peritoneal fluid collection.The entire abdominopelvic cavity walled off by pyogenic memb,5L of pyogenic fluid drained,no features suggestive of malignancy

- Patient made a steady recovery and was discharged but re-presented again in UCH 5months ago with a 7/12 history of another episode of progressive abdominal swelling.
- A repeat USS done revealed loculated fluid collections,both ovaries ,uterus and endometrium were normal,no adnexial mass.
- Systemic review was nil contributory.
- Nil Family history of malignancy. She had VTOP in 2003.
- Young woman,chroncally ill-looking,not pale,afebrile,anicteric
- CVS & CHEST -normal
- Distended,Midline subumbilical scar,gross ascites,no palpable organomegaly or mass
- Normal vulva/vagina.Cervix is smooth and Os is closed.,firm mass palpable in POD
- DRE: Normal sphicteric tone,firm mass felt resting in the anterior rectal wall,rectal mucosa is smooth
- Diagnosis: Recurrent intra-abdominal collection?

MANAGEMENT

- Full blood count-PCV 29% ,others normal >Electrolytes,urea & creatinine- normal >PT/PTTK-normal >Abdominal paracentesis for mcs,cytology –chocolate-coloured fluid >Group & cross-matching of 2 units of blood >Chest Xray-Normal >Abdominopelvic Ultrasound scan-Massive fluid ascites

EXPLORATORY LAP & EXCISION OF PERITOENAL IMPLANTS: INTRA-OP FINDINGS

- Midline subumbilical scar >Chocolate coloured ascitic fluid(9750ml)> Moderate,adhesions between anterior abdominal wall and uterus> Normal size uterus> Both fallopian tubes and ovaries bound in adhesions(not visualized)
- Parietal peritoneal implants(5 in nos,ranging btw 2x2cm to 3x3cm,chocolate like & powdered burns) with adhesions over some of the implants> EBL-250ml
  >Histology revealed endometriosis

POST-OP CARE

- Patient made a steady and gradual recovery and was discharged on the 30th day post op.
- She was counselled on the intra-operative findings and her fertility options;and later commenced on Subcutaneous goserelin 3.6mg monthly.
- She presented 2 weeks after discharge in gynaecology clinic with abdominal pains and discomfort;and 1L of ascitic fluid was aspirated via abdominal paracentesis.

DISCUSSION

- Endometriosis is the abnormal location of endometrial like tissues in areas other than the uterine cavity .
- It is a rare cause of massive ascites. The possibility should be kept in mind when a young patient presenting with ascites,which may be chocholate-colored or haemmorhagic.
- Endometriosis presenting as hemorrhagic ascites is an extremely rare presentation and is seen more commonly in black nulliparous women[1]
- Possible mechanisms of abdominal pain include rupture of endometrial cysts and subsequent irritation of serosal surfaces by free blood causing ascites and adhesions [2,3]
- Patients present most commonly with abdominaldistention, dysmenorrhea, abdominal pain and anorexia [3].
- The ascitic fluid is typically exudative in nature[4]
- It is seldom possible to arrive at the diagnosis without surgical exploration; the diagnosis is made based on histology after surgical exploration.
- This patient had surgery and histology showed she had endometriotic spots on the omentum and anterior abdominal wall.

CONCLUSION

- Patient may present with abdominal pain, infertility and recurrent ascites.
- Treatment options include estrogen-progesterone combination therapy and GnRH analogues (e.g. Danazol). A six month course of MPA is also appropriate [5].
- These drugs prevent a woman with infertility from getting pregnant which is a therapeutic dilemma.Others include GnRH agonist (Goserelin) COCP, lovonorgestrel intrauterine system(mirena).
- The response to hormonal therapy including GnRH agonists has been reported to be often unsatisfactory.

- Repeat recurrences and severe complications required multiple laparotomies and thoracotomies for associated pleural and pulmonary involvement[6].

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PL-076

PMTCT IN LAGOS ISLAND MATERNITY HOSPITAL (LIMH).-THE JOURNEY SO FAR

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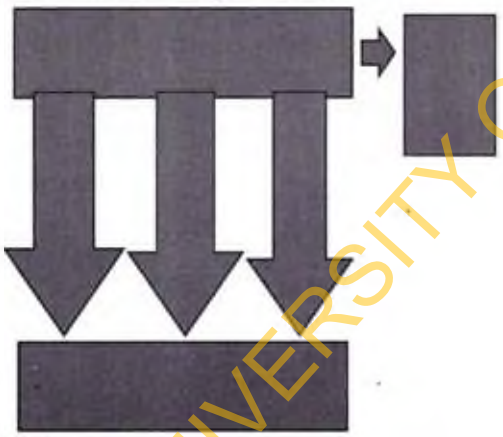
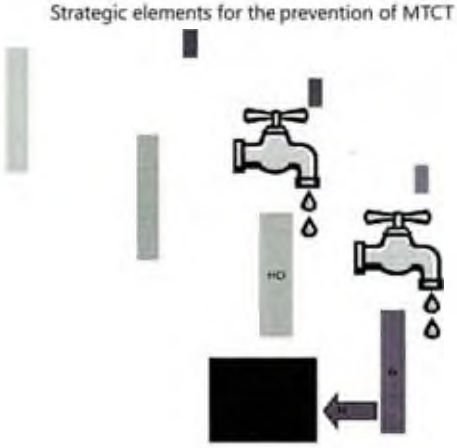
BACKGROUND

- 57% of adults living with HIV are women > Over 90% of infection in children is acquired through MTCT >2006, 2.3million children were living with HIV and up to 530,000 were newly infected worldwide.

HIV outcomes of infants born to women infected with hiv in the absence of intervention



Strategic elements for the prevention of MTCT



PMTCT LIMH

Commenced July 2005 >Ghain supported stand alone site >187 PMTCT Ghain supported site >74% are in Nigeria >15 PMTCT sites in Lagos > Pepfar, Apin,

PMTCT LIMH

YEAR	ANC ATTENDEES	NEGATIVE	POSITIVE	UNKNOWN
2006	2013	1604	171	238
2007	2246	1759	199	288
2008	2375	1841	190	344
2009	2586	1833	173	588
2010	1704	1491	136	77
TOTAL	10924	8528	869	1527

OBJECTIVES

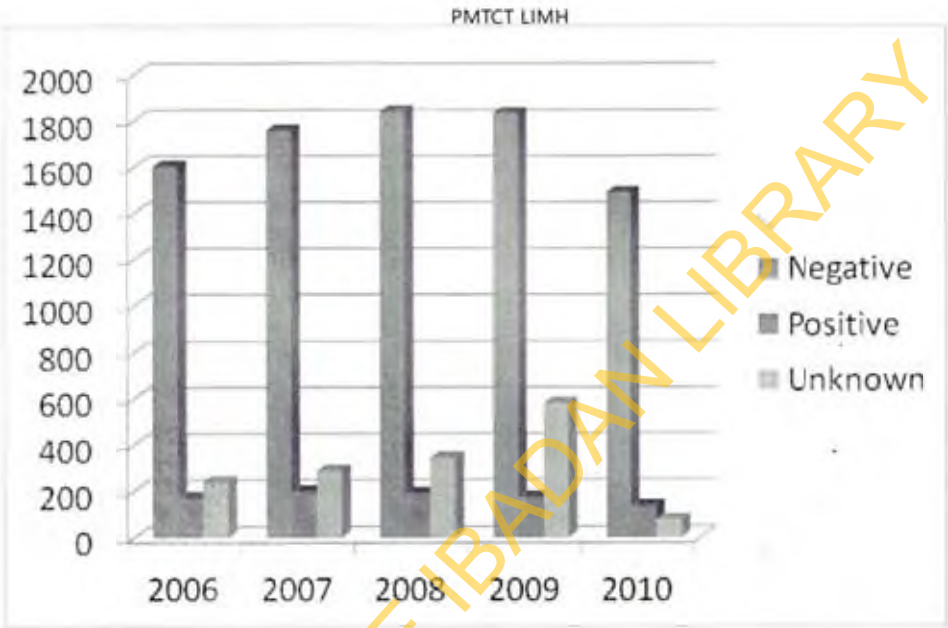
To review and analyze the outcome of PMTCT Intervention in LIMH for the past five years of commencement.

METHODOLOGY

- Data were obtained from the ante-natal clinic (ANC) from women who had voluntary counselling and testing (VCT) for HIV and the results analyzed
- During labour and delivery — exposure to the virus in the mother's blood and other fluids
- During breastfeeding — Breast milk contains high concentration of HIV

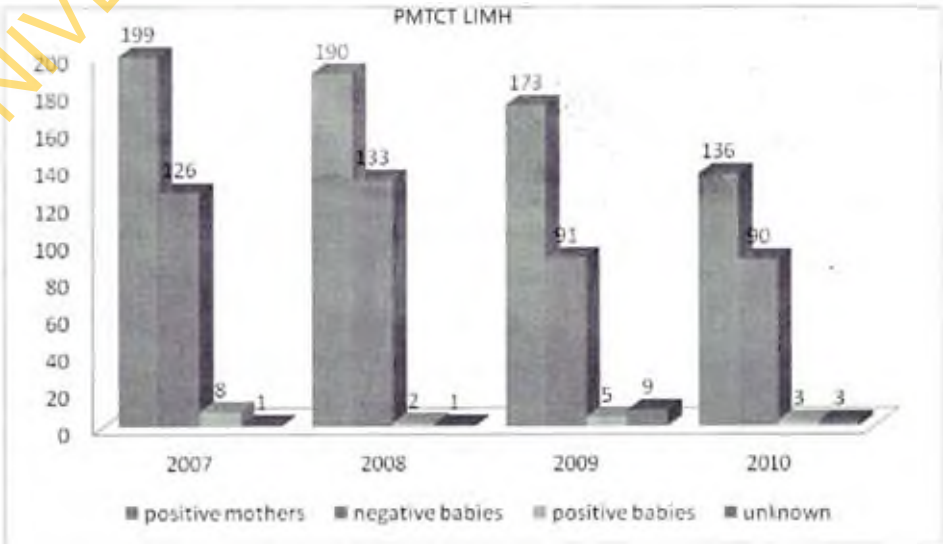
SUMMARY OF RESULTS

Antenatal attendees who had VCT- 10,924. >869(7.95%) tested positive for HIV. >8,528(78.0%) tested negative



OUTCOME OF PMTCT LIMH

Year	Positive mothers	Negative babies	Positive babies	No results
2007	199	126	8	1
2008	190	133	2	1
2009	173	91	5	9
2010	136	90	3	3
TOTAL	869	440	18	14



PMTCT LABOUR WARD LIMH

LAB AND PHARMACY

CHALLENGES AND DISCUSSION

>1,527(13.97%) did not have results. >472(54.31%) HIV positive mothers were followed up. >397(45.68%) HIV positive mothers could not be followed up. >Out of those followed, 440 babies tested negative for HIV (93.22%), >18 babies tested positive for HIV (3.81%). >14(2.966%) babies did not produce their results

PMTCT ANC LIMH

Booking of clients >Pre and post test counselling >Same day counselling >Couple counselling, partner notification, and disclosure >Further counselling /health education for HIV negative clients >Liase with doctors to prescribe ARVs >ARVs adherence counselling >Keeps maternal diary and tracking >HAART eligibility referrals

FAMILY PLANNING AND VCT UNITS

Challenges II

Many clients are lost to TBAs and others >Late booking by clients >Non availability of test kits >Staff transfers and attrition >Non involvement of Medical Consultants >Very high patients attrition rate >HCWs not enough >Many HCWs not knowledgeable about PMTC including doctors

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PL-77

PREGNANCY FOLLOWING LAPAROSCOPIC OVARIAN DRILLING FOR CLOMIPHINE RESISTANT PCOS IN UNIVERSITY COLLEGE HOSPITAL, IBADAN

Dr. G. C. Nkwocha, FMCOG, FICS, Dipl lap Surg (Tel Aviv University Israel)

SUMMARY

- 29 year old P0+0 woman with clomiphene resistant polycystic ovarian syndrome (PCOS).
- She had Laparoscopic Ovarian Drilling (LOD) in UCH with good outcome
- She conceived within two months after LOD but had threatened abortion at nine and eleventh weeks respectively
- She subsequently expelled a live female fetus at 24 weeks due cervical incompetence.
- She is scheduled for cervical cerclage in her next confinement
- Mrs IG was a nulliparous lady who presented to us on 16th March, 2010 following a 2 year history of primary infertility and 5 year history of irregular menses. LMP was 12/12/ 2009
- The couple are both laboratory scientists in Uch /college of Medicine University of Ibadan
- They live together in Ibadan
- They have been unable to achieve any pregnancy despite adequate sexual intercourse for 2 years
- She had episodes of menstrual irregularities, oligomenorrhea initially but in the last 3 months prior to presentation, she had amenorrhea
- Pelvic sonogram done and hormone profile were suggestive of PCOS
- She had clomiphene citrate up to 150mg daily and metformin for ovulation induction with timed intercourse for three cycles to no avail
- She neither smoked cigarette nor drank alcohol
- No family history of chronic medical illness
- Examination revealed an obese young lady(BMI 31). Not hirsute but had a male hair pattern
- Her BP was 110/70mmhg, PR 72/min
- Chest was clinically clear
- Abdomen showed an obese anterior abdominal wall, no organomegally
- Her investigations were all within normal range PCV 36%, Genotype AS, blood group B Rhesus negative, HIV Negative.

- E/u/cr were normal as well as urinalysis
- Seminal fluid analysis of her husband was within normal range.
- The results of the investigations were discussed with the patient as well as the options of management which she gave her consent for LOD
- She had LOD on July 13, 2010 under general anaesthesia
- Three-port laparoscopy was done
- A 10mm port was placed on the umbilicus via a longitudinal incision and two 5mm secondary ports placed 5cm from the umbilical port each on either side of the base of a triangle
- Intra-operative findings include a nulliparous os, 8cm uterine capacity, normal sized uterus, normal tubes, clean pelvis, no adhesions, 6x6cm polycystic ovaries.
- Other intra-abdominal organs were normal.
- There was prompt spillage of methylene blue from both tubes
- Bilateral LOD was done using rule of 4- 40 watts of cutting current, 4 holes drilled on each ovary, 4mm depth, for 4 seconds
- The abdomen was generously irrigated with normal saline to cool the ovaries and remove the debris
- Estimated blood loss was minimal
- The instruments passed through the secondary ports were removed first under vision, then the laparoscope and the 10mm trocar.
- The port wounds were sutured subcuticularly with vicryl 2/0
- She was reviewed two weeks after the surgery and she was fine
- She was reviewed again after a month & she saw her period in August & it was normal
- She now presented 2 months after to say that her LMP was on 7/9/10.
- She did a pregnancy test that was positive & the pregnancy confirmed by pelvic USS.
- She was subsequently booked for ANC .
- She had threatened abortion at the 9th and 11th weeks gestation for which she had progestogen support.
- At 24 weeks gestation she had another vaginal bleeding but without pain and subsequently expelled the fetus who survived for only 3 hours

DISCUSSION

- PCOS affects 5-10% of reproductive age women making it the most common endocrine disorder in this population
- PCOS is characterized by chronic anovulation, hyperandrogenism, and polycystic ovaries (Rotterdam ESHRE/ASRM sponsored workshop Group; 2003).
- Most accepted theory for the patho- mechanism of PCOS is insulin resistance
- Women with PCOS often present with infertility from anovulation. Insulin sensitizing medications have been studied to improve ovulation and pregnancy rates but not live birth rates (SOGC Clinical Practice Guidelines: Ovulation Induction in PCOS; 2010. Legro RS et al; 2007)
- The diagnosis of PCOS in our patient was based on history of amenorrhea, obesity, USS report which revealed polycystic ovaries and a reversal of FSH/LH ratio
- She had clomiphene citrate alone and later with metformin for ovulation induction with poor outcome.
- Clomiphene citrate is widely accepted as first line treatment for ovulation induction for infertile women with PCOS (Seow KM et al 2008)
- Those who are unresponsive to clomiphene are treated with metformin and or gonadotrophin as well as Ovarian Drilling (Seow KM et al 2008, Youssef H, Atallah MM 2007).
- The drawback for gonadotrophins are increased risk of twinning and ovarian hyperstimulation syndrome. (Farqhuar 2007).
- These drugs are also not cheap and not easily available in our environment. The patients also require close monitoring
- Wedge resection is no longer favoured due to risk of adhesions (Farqhuar 2007)
- Mrs I.G accepted LOD since medical treatment has failed
- The procedure was uncomplicated and she was discharged home the next day
- She conceived without any further measure within two months.
- This agreed with observations that LOD is followed by spontaneous ovulation and conception or that subsequent medical induction becomes much easier(Palomba S et al 2005, Farqhuar 2007)
- The exact mechanism of action of LOD is unknown, however, it has been associated with: decrease androgen level, Improved spontaneous ovulation, Increase in pregnancy rates in patients with PCOS
- Some drawback are adhesion, premature ovarian failure

OTHER OPTION(S)

- Ultrasound guided transvaginal Needle ovarian drilling is another option of treatment of PCOS
- Expertise is an impediment our environment
- The eventual loss of pregnancy recorded due to ? Cervical incompetence was not anticipated

- We have planned to offer her cervical cerclage in her next confinement as soon as fetal viability is confirmed
- She did not have impaired glucose tolerance or hypertension which has been reported as common complications in pregnancy in patients who had LOD.
- It is therefore a recommended option in patients who have PCOS in our environment since the procedure is now readily available

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PL-078

BURDEN, CHALLENGES AND ASSOCIATED FACTORS OF TB/HIV

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BACKGROUND

- The interaction between tuberculosis and human Immunodeficiency Virus (HIV) is complex.
- Apart from altering the pathology and clinical presentation of each other, they also complicates the follow up and compromises each others response to treatment .
- When both infections coexist in pregnancy, it is not only a double burden for both mother and baby but a nightmare to the clinician
- While many studies have reported the prevalence of TB HIV co-infection and described its presentation in non pregnant adult, no study from extensive literature search and to the best of our knowledge has reported the prevalence and described the presentation of TB HIV co-infection in pregnancy.
- Such information will be essential in the planning of prevention and control strategy of TB and HIV infection in pregnancy.

OBJECTIVE OF THE STUDY

- To determine the burden, challenges of management and associated risk factors of TB in HIV infected pregnant Nigerians receiving PMTCT services at HIV treatment Centre, Nigerian Institute of Medical Research, Lagos.

SUBJECTS & METHODS

Study Setting and Design

- Pregnant HIV infected women seen at the HIV treatment Centre, NIMR from July 2004 – Dec. 2010 were prospectively evaluated for TB using multiple diagnostic approaches after an informed consent.

Diagnostic method:

- The women were first screened for Tb using the WHO's "5 questions" for TB screening.
- Suspected cases based on screening and clinical findings were subjected to sputum smear microscopy (SSM) and chest x-ray with lead shielding if SSM is negative.

- Chest x ray reports were by consultant radiologist.
- Study sample
- All HIV positive women accessing PMTCT services during the study period

Data collection:- Data collection was with programme visit, laboratory and entry forms.

Study Primary outcome

- Number of HIV positive pregnancy women diagnosed to have TB either by SSM or chest radiograph

STATISTICAL ANALYSIS

- Descriptive statistics were used to analyze the challenges encountered by the clinicians.
- In addition we measured the presence and strengthens of the association between some variables and Tb infection in HIV positive pregnant women using both univariate and multiple logistic regression models.
- All statistical test were 2 sided and were considered significant at alpha 0.05.
- Analysis was with SPSS for windows version 14.0

RESULTS

- 2961 pregnant HIV positive women were seen and screened for TB during the 7 year period.
- Active Tb was diagnosed in 94 (3.2%) women: Category I cases : 98.9%, Category II (retreatment cases) : 1.1%, Case fatality rate: 1.1%

CHALLENGES ENCOUNTERED DURING MANAGEMENT

- Diagnosis: Low yield of SSM, Safety of x-ray, Late presentation, Treatment, Safety of EFV in the first trimester, Drug - Drug interaction
- Intensive phase
- PI based regime

The association between sociodemographic characteristics and TB infection in HIV positive women

Xteristics	TB/HIV cases N=94(%)	HIV cases only N= 2867(%)	P value	OR	99% CI
Age (years)	3(3.5)	80(2.8)	0.74	1.16	0.29-3.91
• <20	80(84.6)	2480(86.5)	0	0	0.55-2.18
• 20 -35	11(11.9)	307(10.7)	0.88	1.11	
• ⩾ 35					
Parity	24(25.9)	754(26.3)	0.92	1.01	0.58-1.15
• 0	36(38.4)	1141(39.8)	0	0	0.67-1.83
• 1 – 2	34(35.7)	972(33.9)	0.76	1.11	
• >2					
Socioeconomic class[1]	9(9.2)	345(12.1)	0.82	0.85	0.36-1.93
• I & II	25(26.7)	814(28.4)	0	0	0.70-1.89
• III	60(64.1)	1708(59.5)	0.66	1.14	
• IV & V					

Variables independently associated with TBHIV co-infection in pregnancy after controlling for confounder's in multiple logistic regression model

Variables	Adjusted odd Ratio	95% confidence interval
Time on care greater than 48 weeks	1.5	1.4 – 3.3
CD4 cell counts less than 200	1.6	1.9 – 5.1

The association between sociodemographic characteristics and TB infection in HIV positive women ..2

Xteristics	TB/HIV cases N=94(%)	HIV cases only N= 2867(%)	P value	OR	99% CI
GA @ diagnosis (wks.) • <13 • ⩾13	28(30.2) 66(69.8)	748(26.1) 2119(73.9)	0.49 0	1.20 0	0.75-1.95
Previous PMTCT experience • Yes • No	25(26.6) 69(73.4)	404(14.1) 2463(85.9)	0.001 0	2.21 0	1.34-3.61
Previous TB treatment experience • Yes • No	1(1.1) 93(98.9	9(0.3) 2858(99.7)	0.28 0	3.41 0	0.49-20.6

The association between clinical & Biologic characteristics and TB infection in HIV positive women

Xteristics	TB/HIV cases N=94(%)	HIV cases only N= 2867(%)	P value	OR	99% CI
Time on care (yrs) • < 24 • 24 - 48 • ⩾ 48	19(20.2) 39(41.5) 36(38.3)	1591(55.5) 840(29.3) 436(15.2)	<0.01 0 0.02	0.26 0 0	0.14-0.46 1.09 – 2.91
Median CD4 Count	139.3± 50.4	319.6 ± 96.7	0.03	1.9	1.3 – 5.6
Mean HIV RNA levels	124145.1 ± 4567.3	58471.3 ± 654.9	0.04	1.2	1.1 – 7.6
ARV drug use • Yes • No	67(70.9) 27(29.1)	2047(71.4) 820(28.6)	0.92 0	0.99 0	0.62-1.61
Type of ARV • NNRTI based • PI based	84(89.4) 10(10.6)	2583(90.1) 284(9.9)	0.95 0	0.92 0	0.46-1.91

CONCLUSION

- TB/HIV co-infection in pregnancy rate in this study is lower than the rate in non pregnant adult
- It posses enormous challenge to both the patient and the managing physician .

RECOMMENDATION

- Intensified case finding, Improved contact tracing, Stigma reduction programmes, Provision of alternative drugs for mother and babyN

PL-079

COSMETIC LASER VAGINOPLASTY IN A PRIVATE PRACTISE

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INTRODUCTION

- Laser surgery is one of the new approaches in surgical management of patients
- Its use in medical practice in Nigeria is rare hence the reporting of this in a private hospital setting
- The device is a PhotoMedex LaserPro Diode Laser.

PATIENTS

- PATIENT 1: 35YEARS, PARA 2, 1ST DEGREE VAGINAL PROLAPSE
- PATIENT 2: 39 YEARS, PARA 4, 1ST DEGREE PROLAPSE + CTSTOCOELE

OBJECTIVE

To report the use of laser for vaginoplasty

METHODS

The indication for its use was for anterior colporrhaphy and posterior colpoperineorrhaphy (vaginal rejuvenation) in two women with prolapse of the anterior and posterior vaginal walls. Incisions were made using laser at appropriate wavelength using the 810 device. Repairs were done traditionally. Appropriate protective eye wears are worn during the procedures.

RESULTS

Two women with a mean age of 36 years had cosmetic vaginal repairs. Average number of children was 3. Mean duration of surgery was 72 mins. Average blood loss of 300mls. The duration of hospital stay was 2 days and both patients resumed back to work the following week.

CONCLUSION

- The advantages of laser over traditional cold knife or cautery include: better precision by the surgeon, less blood loss with better haemostatsis, less tissue damage hence less scarring with better healing, faster post operative recovery and earlier return to work
- The major disadvantage is the cost.

Fig 1: The device

PL-080

MYOMECTOMY USING LASER IN A PRIVATE PRACTISE

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INTRODUCTION

Traditional myomectomy for uterine fibroids is one of the commonest gynaecological procedures in most gynaecological practice in Nigeria. However the use of laser is not common, hence the reporting of these cases within our practice.

PATIENT
Patient 1: 36 YEARS, NULLIPARA; Patient 2: 34 YEARS, NULLIPARA

OBJECTIVE
To report the use of laser for myomectomy

METHODS
Laser techniques were used in the opening of the rectus sheath, the peritoneum and the enucleation of the fibroid nodules as against traditional cold knife or electrocautery. A tourniquet was applied at the uterine isthmus. The traditional repairs were done following rehydration of the tissue. Protective goggles were worn during the procedures.

RESULTS
·Two nulliparous women with a mean age of 35 years. Mean duration of surgery was 57.5mins and average blood loss of 250mls. The average duration of hospital stay was 4 days.

CONCLUSION
- The use of laser for myomectomy is very recent in our practice
- Haemostatsis seems better with less tissue damage
- Further reviews in our practice would compare outcomes with similar cases using traditional cold knife

PL-081

LAPAROSCOPIC FINDINGS IN WOMEN WITH PRIMARY AMENORRHOEA: NNEWI EXPERIENCE

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INTRODUCTION
Menstruation has long been an important societal marker of female sexual development. Its absence is an important gynaecological problem requiring expert evaluation.

Case 1: Laparoscopy and dye test revealed blind ending one-third of the lower vagina and double uterus and appendages. There was no other uterine mass.
Case 1: The tubes were seen bilaterally as normal except that the left tube had atrophic isthmic portion. The ovaries were normal and well developed with corpus luteum bilaterally.
Case 1: The dye test was not done due to blind ending vagina. A diagnosis of primary amenorrhoea secondary to mullerian dysgenesis and normal functioning ovaries was made.

Case 2: Laparoscopy and dye test revealed infantile cervix and uterus but well developed uterine appendages. There was no other uterine mass.
Case 2: The tubes were seen bilaterally but were tiny. There was absent ovaries. The dye test showed prompt and bilateral spillage of dyes. A diagnosis of congenital absent of the ovary was made.

Case 3: Laparoscopy and dye test revealed nulliparous cervical os, small but well developed uterus and appendages. There was no other uterine mass. The tubes were seen bilaterally but were convoluted.
Case 3: The ovaries were streak bilaterally. The dye test showed prompt and bilateral spillage of dyes. A diagnosis of primary amenorrhoea secondary to ovarian dysgenesis was made.

Case 4: Laparoscopy and dye test revealed blind ending lower third of the vagina and absent uterus and appendages. There was no other pelvic mass. The tubes were seen bilaterally but were rudimentary.
Case 4: The ovaries were normal and well developed with corpus luteum bilaterally. The dye test was not done due to blind ending vagina. A diagnosis of primary amenorrhoea secondary to mullerian agenesis and normal functioning ovaries was made.
Case 5: Laparoscopy and dye test revealed very small cervix and rudimentary uterus, with cervical os to fundus diameter of 5.5 cm. There was no uterine cornu tapering to a pointed fundus. The broad ligaments were normal. The tubes were absent except for the thickening on the superior part of the fold of the broad ligament stretching from the side walls to the uterus.
Case 5: There was no evidence of tubal fimbria. The ovaries were absent. The cul-de-sac was clear. The dye test was not done. A diagnosis of primary amenorrhoea secondary to proximal paramesonephric duct and gonadal agenesis was made.

Case 6: Laparoscopy and dye test revealed infantile uterus and appendages. There was no other uterine mass. The tubes were seen bilaterally but were rudimentary and bilaterally patent on dye test.
Case 6: There was streak ovary on the right and absent ovary on the left side. A diagnosis of primary amenorrhoea secondary to ovarian dysgenesis was made.
Case 7: Laparoscopy and dye test revealed normal vagina and infantile uterus and appendages. There was no other uterine mass. The tubes were seen bilaterally but were rudimentary. The ovaries were absent.
Case 7: The dye test showed bilateral patent tubes. A diagnosis of primary amenorrhoea secondary to ovarian agenesis was made.

DISCUSSION

- A number of conditions could present with primary amenorrhoea in an adult. In situation where there are presence of normal secondary sexual characteristics, primary amenorrhoea could be due to imperforate hymen, transverse vaginal septum, Others include:
- XY female (androgen insensitivity), resistant ovary syndrome, and absent vagina with non-functioning uterus (Meyer-Rokitansky-Kuster-Hauser syndrome)[2].
- In cases where the secondary sexual characteristics are absent, primary amenorrhoea could be due to gonadal agenesis or dysgenesis, turner syndrome/mosaic, ovarian failure, hyperprolactinaemia, and olfactogenital syndrome[1,2]
- Of the above, Turner syndrome is the most common cause, followed by Mayer-Rokitansky-Kuster-Hauser syndrome[1,2]

CONCLUSION/RECOMMENDATION

- Primary amenorrhoea remains a serious gynaecological concern
- Laparoscopy evaluation as shown in these cases is an adequate evaluation to unravel the cause of this anomaly and even propose possible line of treatment
- Early evaluation is recommended for these women to allow for treatment before they advance in age and marry ignorantly.

PL-082

CHALLENGES OF SETTING UP LAPAROSCOPIC SURGERY UNIT IN A DEVELOPING COUNTRY

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INTRODUCTION

- Just as we learnt & perfected the art of open surgery, we are obliged by our calling to be flexible to learn & embrace new developments in medicine (surgery) for the benefit of mankind
- Laparoscopic surgery has been available in developed countries for more than 40 years and about 25 years in India, a developing country
- It has replaced MOST open surgeries because of obvious advantages which include (Yang et al 2002, Teng et al 2003, Milingos et al 2004): Shorter hospital stay, Lower risk of infection, Lower risk of adhesion, Less pain and morbidity, Better haemostasis, due to effect of Co_2 , Less tissue dessication because it is done in an enclosure, Excellent cosmetic result, Challenges in Developing Countries, Cost, Lack of trained personnel/ skill, Poor enabling environment, Exploitation by those who should transfer the skill, Poor acceptability even by fellow doctors (surgeons).

NEEDS ASSESSMENT – UCH AS A CASE STUDY

850 bed hospital established in 1957, 90 beds in OBGYN with bed occupancy of 97%, 21 consultants, 3 do laparoscopic surgery at the moment, 3000 open gynae surgery done yearly, Laparoscopy was introduced here in 1978, the only surgical procedures done were for tubal ligation and drainage of ovarian cysts, The tempo could not be sustained until recently,

COST

Cost of initial purchase of equipment & instrument is high (Afuwape oo, Akute oo 2011). Most companies deal with Nigeria through agents. Budget for health in Nigeria is low compared to WHO recommended 5%. Laparoscopic surgery involves use of a lot of disposable consumables. Maintenance of equipment is worsened by frequent power outages that spoil the equipment faster. Affordability for the patients is cumbersome, there is no proper functional Health insurance scheme. Many patients are poor, live on less than a dollar per day.

POOR ACCEPTABILITY

Attitude of doctors to laparoscopic surgery is that of skeptism or an act of self preservation. Referral is low. But medicine (surgery) is dynamic, am not sure we have seen the last of these changes. Like Ogilvy said " there is a tendency to see every change as advance" but advance means progress to something better not necessarily something new. There is no attempt to totally discard

open surgery, no. Like St Paul even said " Prove all things and hold fast that which is good". Evaluate and appraise all laparoscopic procedures not in terms of enthusiastic and euphoric personal achievement but rather a pragmatic clinical study as it applies to our own condition. Proper patient selection is important for patients who will benefit from laparoscopic or open surgery. We must move nearer to what obtains elsewhere instead of discouraging those who are interested in endoscopy.

TRAINING

This is where the main problem is, 'crash courses' compared to 4-5 years of training in open surgery. No uniformity or standardization. Variation from center to center, country to country. In developing countries, usually 2-5 days of workshop, intensive, up to 8-12 hours per day. Only serious minded ones continue to practice with models (if available) for eye - hand coordination & basic laparoscopy techniques. There are still few journals/ exhibitions. Safety, poor economy, few patients to perfect their skills is still a problem. The resource persons who come sometimes are tourists who may take the opportunity to mock the poverty level of their hosts.

THE JOURNEY SO FAR IN UCH

We identified local laparoscopic surgeons & partnered with them to reduce the steep learning curve. We are open to genuine partnership who will be willing to collaborate with us both in skill transfer and maintenance/ replacement of our equipment. Our first 20 cases were done free to encourage patients to come & spread the good news. So far we have done 25 cases, LAVH, LOD, Ovarian cystectomies, ectopic pregnancy, adhesiolysis, some diagnostic eg Turner's syndrome including hysteroscopy.

TEAM SPIRIT

We have identified a team of willing nurses, doctors, technicians. We meet quarterly to motivate ourselves, discuss recent advances and how to improve on what we have already. We have concluded arrangements for training of our nurses abroad soon.

WHERE WE WANT TO BE

A world class laparoscopic surgery center providing excellent services & training to other hospitals in Nigeria. We expect that equipment manufacturing companies will review their confidence in Nigeria & invest heavily in Nigeria as an emerging market for them when laparoscopic surgery becomes well accepted in Nigeria.

CONCLUSION

We cannot allow the eradication of malaria & communicable diseases to distract us so much that we can no longer aspire to be where others are. With proper coordination Nigeria can fully establish excellent laparoscopic surgery centers in giving the number of experts we have in diaspora. This has been done successfully in Bolivia, Nicaragua etc (Asbun HJ et al 1996)

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PL-083

UTILIZING COMMUNITY HEALTH WORKERS AS SKILLED BIRTH ATTENDANTS IN RURAL

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INTRODUCTION

- Nigeria is not on track to attaining the 4th and 5th MDGs. There are effective interventions to achieve these MDGs. The problem is poor coverage and access to these interventions. Shortage of skilled birth attendants (SBA) is one of the most important constraints faced by women with obstetric complications. The Midwives Service Scheme (MSS) was designed to address this challenge. Retention of available Midwives in rural areas remains a huge challenge in the MSS .
- Little success achieved in pulling higher cadre manpower to the rural health care facilities despite numerous policy drives in the past. Due to Poor socio-economic development in the rural areas. More than 90% of deliveries in the PHC facilities were conducted by the CHWs (NPHCDA 2009). CHWs are the most consistent HWs (70%) at the frontlines of MNMR at the PHCs (NPHCDA 2009). The CHW is the bedrock of PHC service provision in Nigerian rural communities.

OBJECTIVE

To assess the baseline knowledge, skills and practice of CHWs in maternal and newborn service provision.
Aim: To better understand how to effectively utilize CHWs in the delivery of live saving interventions.

METHODOLOGY

A cross sectional survey of female senior CHWs/CHO from Adamawa, Katsina, Plateau, Anambra, Bayelsa & Osun States by members of SOGON and PAN; and Tutors of the Schools of Midwifery from 1-4/11/10. Four LGAs were randomly selected from each of these states. Structured questionnaires and Focused Group Discussions (FGD)

RESULTS

The mean duration of MNCH practice was 8.9 years. They had a good knowledge of basic midwifery with an average percentage score of 70.25%. Generally, the knowledge of maternal wellbeing assessment during the ANC. The knowledge on fetal assessment during the ANC was weak. Capacity to detect obstetric complications was weak but resuscitative and referral skills were good. Good knowledge of stages of labour (86.9%), third stage of labour (66.6%) and Exclusive breastfeeding (85.4%). 34.6% of them use partograph to monitor labour. 46.5% have good knowledge of fetal monitoring during labour. More than 85% of the CHEWs were providing ANC, Delivery, Post natal and immunization services while 58.6% of them were providing family planning services. Capacity building of CHEWS on common obstetric and underfive mortality reduction interventions was low ranging from 13.3% in STI to 70.7% in immunization with a mean of 28.5%.

DISCUSSION

The use of CHWs has been in existence for quite a long time, but became more pronounced after the Alma Ata Declaration of 1978. Several studies[16-29] have demonstrated that CHWs can be effective at providing basic curative and preventive MNCH interventions. The study shows that CHWs have good health promotion and disease prevention skills. The good performance of CHWs in resuscitative/referral skills are critical to saving women and newborns with life threatening complications.

CONCLUSION

The study shows that Programmes can identify CHWs and utilize their potentials fully through a team approach to complement midwives by handling preventive and promotive interventions that are known to be efficacious to women, newborns and children, along the continuum of care in order to avert the escalating problem of shortage of skilled staff in Nigeria.

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PL-84

ASSESSING THE MATERNAL, NEWBORN AND CHILD HEALTH SITUATION IN NIGERIA USING THE MOBILE APPLICATION DATA EXCHANGE SYSTEM (MADEX)

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2. National Primary Health Care Development Agency Abuja.

BACKGROUND

"Until recently, the only connection between cell phones and health was the fear they might cause cancer or traffic accidents." The use of low-cost ICT to improve the quality of service delivery and to build up health workers' capacity has been proposed by the WHO (2005). This application of ICT in health care has been termed e-health, Mobile e-health, or m-health (WHO 2004) . Today, m-health spans everything from text messaging services to remind people to take medications to implants that monitor heart patients. The International Telecommunication Union (ITU) has been piloting m-health for health system and workers development in developing countries at the PHC level since 2002. The Midwives Service Scheme (MSS) is an intervention designed to address shortage of skilled birth attendants at primary health care level in Nigeria. The NPHCDA-driven MADEX has

already put in place about 1000 mobile phone lines, distributed among 652 health facilities in rural locations linked to 163 referral General Hospitals in Nigeria. These facilities are involved in the collection, transmission and dissemination of health statistics for the purpose of monitoring and evaluation of health service delivery at the PHCs. MADEX involves the use of mobile phones to transmit key MNCH indicators by text messaging.

CORE MNCH INDICATORS OF THE SCHEME

The proportion of health facilities with midwives offering 24 hours services under the Midwives Service Scheme. The proportion of pregnant women receiving antenatal care 4x and above under the MSS programme. The proportion of deliveries attended by skilled birth attendants in the areas covered by the MSS programme. Reduction of Maternal Mortality Rate. Reduction of Neonatal Mortality Rate. The proportion of women using family planning services in the areas covered by the MSS programme. The proportion of children fully immunized at one year in the areas covered by the MSS programme.

OBJECTIVE

To assess the core MSS MNCH indicators in Nigeria using the Mobile Application Data Exchange System

METHODOLOGY

MADEX was developed in April/May 2010 for the purpose of collecting MSS MNCH data. A six month prospective study on Maternal, Newborn and Child Health (MNCH) services from the Primary Health care (PHC) facilities under the Midwives Service Scheme (MSS) from July to December 2010 using MADEX compared to baseline data (July to December 2009).

RESULTS

Fig 1: MSS facility maternal mortality ratios 2009 & 2010

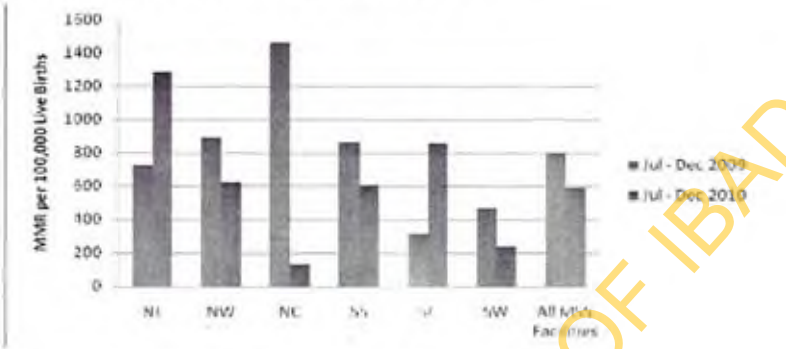


Fig 2: MSS facility based neonatal ratio 2009 & 2010

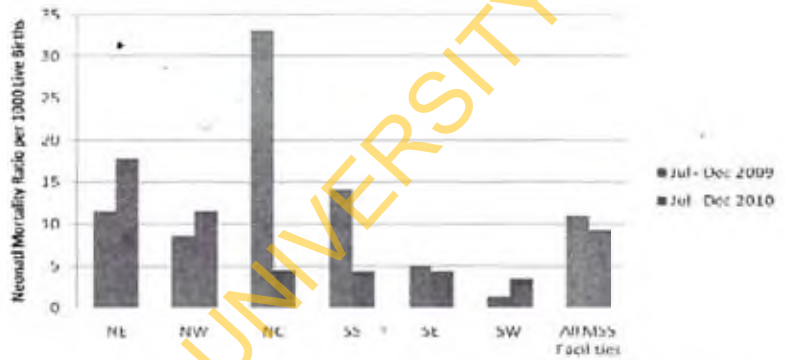
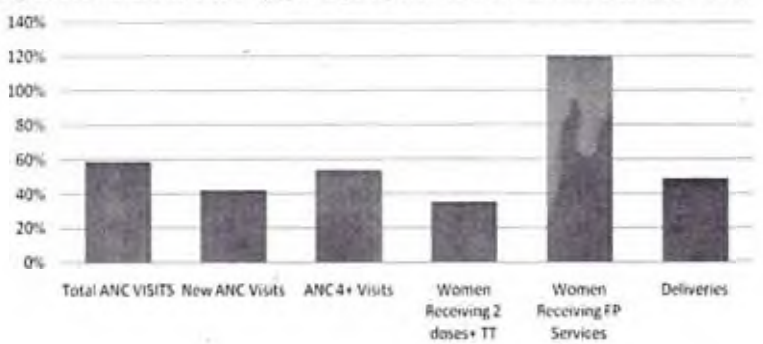


Fig 3: MSS MNCH indicators - percentage increase from base lines as December 2010



Overall 57% of the facility provided data. The data showed a 59% increase in total antenatal clinic (ANC) attendance, 35% increase in women receiving two doses of tetanus toxoid during ANC and a 49% increase in deliveries. There was a reduction in Maternal Mortality Ratio from a baseline level of 789 to 586/100,000 live births. The neonatal mortality rate reduced from 10.97 to 9.3/1,000 live births. The family planning attendance doubled and the DPT1 and DPT3 uptake increased by 33% and 24% respectively.

DISCUSSION

The main findings of this study were:

The achievable reduction of maternal and neonatal mortality. MADEX system is an efficient data collection tool in Nigeria. This is similar to findings from other studies from India, Peru, Columbia, Cuba, Philippines, Uganda and South Africa 9-14. Information from MADEX shows an overall improvements in the provision of MNCH services in the rural areas that usually lack SBA such as midwives. Sustainability was a challenge in some of the programmes from above countries because they were donor driven. Even though the MSS in Nigeria is a FGN funded programme collaboration with other partners is imperative to ensure sustainability and increased coverage of MADEX/ MSS to all LGAs in Nigeria.

CONCLUSION

The information from the MADEX for the period between July to December 2010 provides very useful information on the progress being made in achieving the MSS objectives. It also provides a powerful tool for advocacy visits to support the success of the scheme and improvements for the women in rural areas. The study finding should serve as a catalyst for maternal mortality reduction efforts and a positive PHC revitalisation in Nigeria.

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PL-085

ECTOPIC PREGNANCY AT THE FEDERAL MEDICAL CENTRE, ABEOKUTA: A FIVE YEAR REVIEW

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INTRODUCTION

Ectopic pregnancy is one of the most critical emergencies in gynaecological practice. It is a common life threatening gynaecological emergency at the Federal medical Centre, Abeokuta. It is associated with maternal morbidity, mortality, and pregnancy wastage1 and has far reaching consequences on the subsequent fertility of women[2].

INTRODUCTION II

Ectopic pregnancy is defined as the implantation of a fertilised ovum outside the endometrial lining of the uterine cavity1. The commonest site is the fallopian tube which accounts for 95% of ectopic pregnancies[3].

OBJECTIVES

To determine the incidence of ectopic pregnancy at the Federal Medical Centre, Abeokuta. To ascertain the clinical pattern of presentation. To identify risk factors for ectopic gestation. To determine the modalities of management.

MATERIALS AND METHODS I

A retrospective descriptive study of all patients with Ectopic Gestation between the period of January 1, 2004 to December 31, 2008 managed at the Federal Medical Centre, Abeokuta. Information was obtained from case notes and admission registers in the wards. The records of total deliveries within the period of study was also collated and used in the analysis.

MATERIALS AND METHODS II

Relevant information extracted from the case files include their age, parity, history of contraception, clinical presentation on admission, diagnostic procedures performed, type of surgical treatment and post-operative morbidity or mortality. Data obtained were collated, analysis was carried out and results presented in form of tables and figures.

RESULTS I

Total of 3362 deliveries occurred during the study period. 180 cases of Ectopic gestation were documented in the same period and 176 case notes were retrieved, giving a retrieval rate of 97.8%. Incidence of ectopic pregnancy - 1 in 19 live births or 5.35%.

CONCLUSION

Incidence of ectopic pregnancy is very high in our environment and is prevalent among women of low parity. It is also a significant cause of anaemia. Abdominal pain and tenderness were the commonest symptom and sign respective, seen in 100% of patients in this study. Unilateral salpingectomy was the main method of surgical management.

Table I: Age distribution

AGE (YEARS)	FREQUENCY	%
<20	9	5.1
20-24	27	15.3
25-29	53	30.1
30-34	55	31.3
35-39	28	15.9
⩾40	4	2.3
TOTAL	**176**	**100**

Table II: Parity of the patients

PARITY	FREQUENCY	%
0	44	25.0
1	40	22.7
2	39	22.16
3	26	14.77
4	11	6.25
5	11	6.25
>5	5	2.88
TOTAL	**176**	**100**

Table 3: Risk factor

RISK FACTORS	YES	NO
PREVIOUS ABORTIONS	104	72
PREVIOUS ECTOPIC GESTATION	9	167
PRIOR CONTRACEPTIVE USE	36	140
PREVIOUS PELVIC INFECTION	96	80
PREVIOUS PELVIC SURGERY	39	137

Table 4: Type of surgical management

TYPE OF SURGICAL MANAGEMENT	FREQUENCY	%
UNILATERAL SALPINGECTOMY	163	92.6
SALPINGO-OOPHORECTOMY	4	2.3
OOPHORECTOMY	3	1.7
OVARIAN CYSTECTOMY	10	5.7
CORNUAL RESECTION	6	3.4

Figure 1: Clinical symptoms

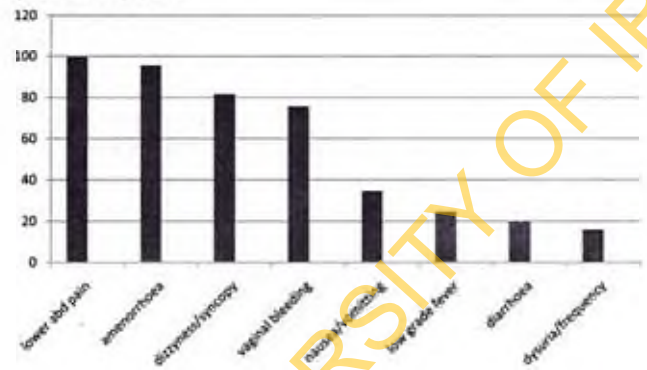


Figure II: Clinical signs

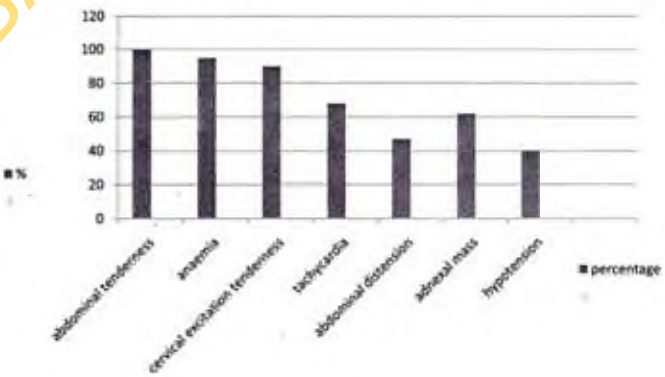
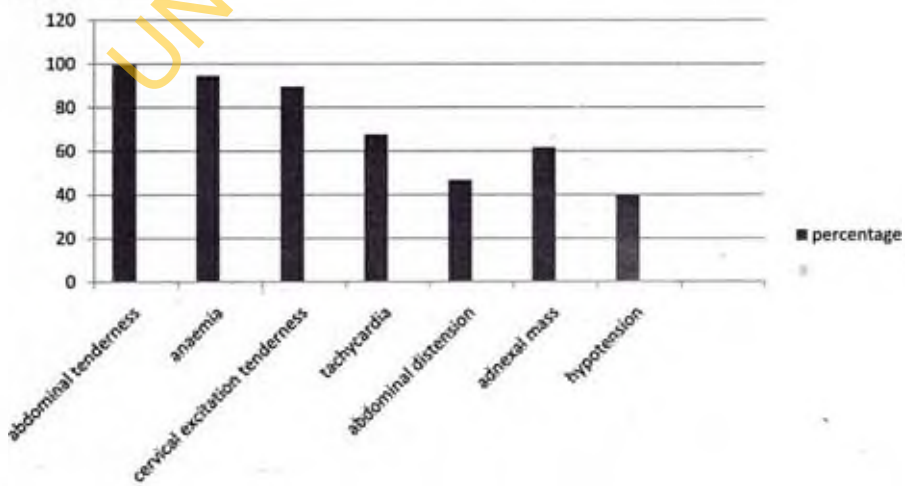


Figure 2: Clinical signs



RECOMMENDATIONS

Efforts should be geared towards aggressive prevention of pelvic infection in our environment through sex education, use of barrier contraceptives and prevention of abortion-related complications. When pelvic infection sets in, it should be aggressively treated with broad spectrum and potent antibiotics.

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PL-086

PRELABOUR RUPTURE OF FETAL MEMBRANES (PROM) AT FEDERAL MEDICAL CENTRE, ABEOKUTA: MATERNAL AND NEONATAL OUTCOME

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INTRODUCTION

- Refers to spontaneous rupture of fetal membranes before the onset of labour[1,2].
- It could be preterm (PPROM) or term PROM.
- Also defined PROM as rupture of membrane one hour or more hours before the onset of labour[1,3,4].
- The interval between membranes rupture and onset of labour --latency interval[1,3].
- PROM is associated with significant maternal and fetal morbidity and fetal mortality[1,3,4,6].

INTRODUCTION II

- Overall about 10% of all gestations are complicated by PROM[1].
- At term the incidence ranges from 4-18% of all pregnancies [1,2].
- About 40-60% of preterm deliveries are associated with PPROM and nearly all women with PPROM will deliver before term[5].
- Diagnosis based on clinical evaluation ± laboratory analysis of fluid from the vaginal fornix ± USS[2]
- Poses management dilemmas – Balance between prematurity & intrauterine infection[2,3].

OBJECTIVES

- To determine the incidence of pre-labour rupture of membranes in Federal Medical Centre, Abeokuta.
- To identify the associated aetiological risk factors,
- To determine the maternal and neonatal outcomes.

METHODOLOGY

A descriptive study conducted at the FMC Abeokuta. A review of cases of PROM that presented at the maternity section of FMCA (booked & unbooked) between Jan 2004 and Dec 2008. The ward records , labour ward and operating theatre records of all deliveries during the period were reviewed. The case notes of parturients who had PROM during the period were retrieved from the medical records department and relevant information extracted from them. Information was obtained on socio-demographic characteristics, parity, gestational age, possible risk factors, latency interval, mode of delivery, maternal and perinatal morbidity and mortality. Data obtained were collated and analysed. Results presented in percentages, frequency tables and charts.

RESULTS

Total deliveries during study period : 3,512, Total no of patients with PROM : 132, Incidence of PROM : 3.76% of total deliveries, No of case files available for analysis – 108, Retrieval rate – 82%, Term PROM = 48 (44.4%), Preterm PROM = 60 (55.6%), 28 -33 wks = 34 (31.5%), 34-36 wks = 26 (24.1%), Age range of patients = 21 – 45 years, Peak age incidence for PROM = 26 – 30 years age range

CONCLUSION

The study has revealed that:

- PROM is a significant cause of perinatal morbidity and mortality and maternal morbidity.
- Infective complications are major culprits in the causation of perinatal morbidity/mortality & maternal morbidity associated

Table 1: Parity of the patients

Parity	Number	Percentage (%)
0	35	32.4
1	32	29.7
2	17	15.7
3	9	8.3
4	9	8.3
⩾5	6	5.6
Total	**108**	**100**

Fig 1: Risk Factors for PROM

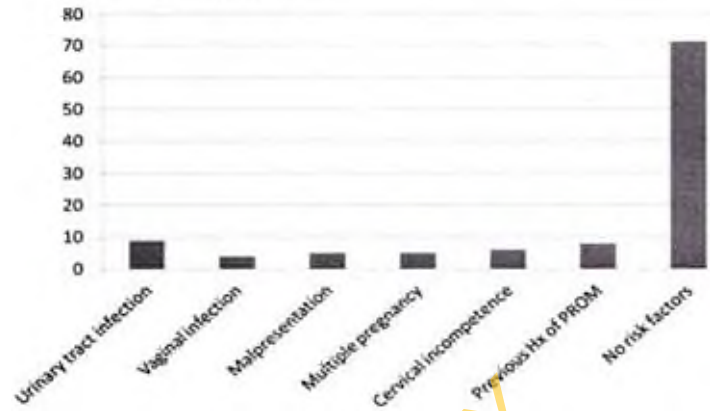


Table 2: Latency periods

Latency Periods (Overall)					
EGA(wks)	**<24 hrs**	**2-7 days**	**8-14 days**	**>14 days**	**Planned for C/S**
28-33	6	18	3	4	3
34-36	15	7	2	-	2
-	36	3	-	-	9
Total	57	28	5	4	14

Overall latency intervals

The latency period ranged from 1 to 84 days. 65 patients (60.2%) fell into spontaneous labour , 29 patients (26.9%) had induction of labour and 14 (12.9%) were scheduled for C/S at presentation.

Table 3: Latency Periods - Spontaneous onset of labour

	Latency Periods – Spontaneous onset of labour			
EGA (weeks)	**< 24 hours**	**2-7 days**	**8-14 days**	**> 14 days**
28-33	**6**	**12**	**1**	**2**
34-36	**12**	**-**	**-**	**-**
⩾ 37	**32**	**-**	**-**	**-**
Total	**50**	**12**	**1**	**2**

Latency Periods – Spontaneous onset of labour

Only fifty out of all cases of PROM (46%) during the study period and 60% of those occurring at 34 weeks or more went into spontaneous labour within 24 hours.

Fig 2: Latency Periods - Spontaneous onset of labour

Mode of Delivery

Eighty six patients (79.6%) had successful vaginal delivery while 22 (20.4%) had caesarean section. Of those who had successful vaginal delivery, 58 (67.4%) followed spontaneous onset of labour, while 28 (32.6%) had labour induced.

with PROM.

- Only fifty out of all cases of PROM (46%) during the study period and 60% of those occurring at 34 weeks or more were in spontaneous labour by 24 hours.

RECOMMENDATION

- PROM should be managed actively with prompt stimulation of labour especially for cases occurring after 33 weeks

Fig 3: Indications for C/S

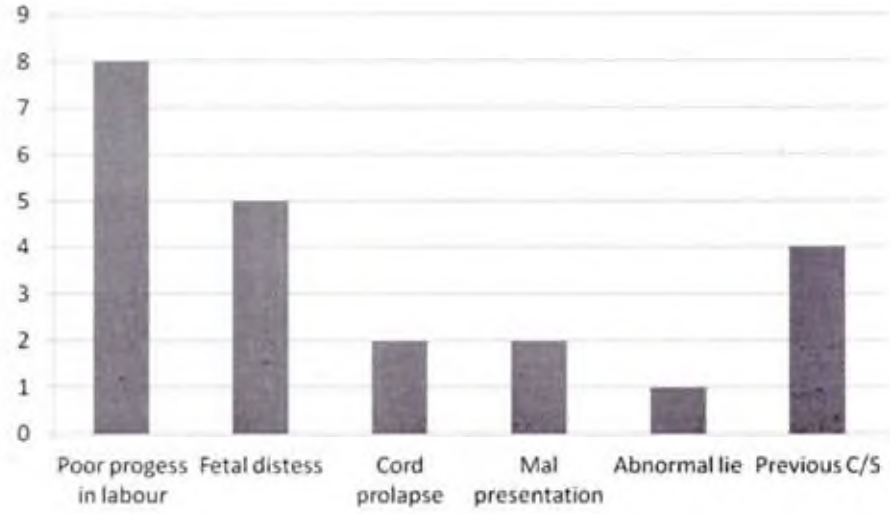


Fig 4: Perinatal Morbidity

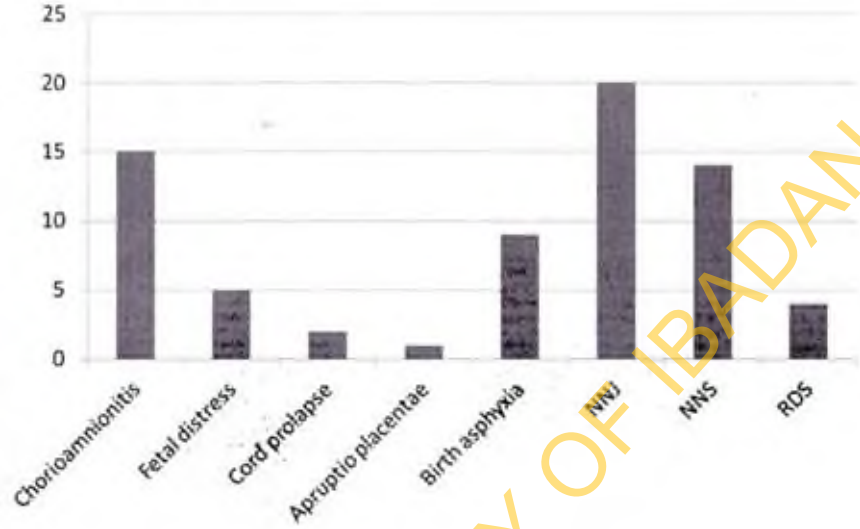
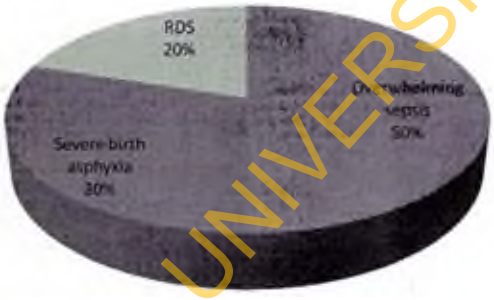


Fig 5:



- Broad spectrum and potent antibiotic therapy should be instituted as soon as possible to reduce complications of sepsis.
- Improvement in the available neonatal care facilities and standard of neonatal care will lead to an appreciable improvement in the perinatal outcome particularly of the preterm infants with respiratory distress syndrome and babies with severe birth asphyxia.

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PL-087

ETHICS AND THE OBSTETRICIAN

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CLIMATE SETTING

Gratitude, Privilege, Needs: Globalization; Technology; Science for industry, for business for finance; Local challenges and perinatal statistics; professions and ethics today.

GOALS

·To highlight the background understanding, importance and some issues of ethics to obstetrics today.

OUTLINE

Obstetrics from ethics viewpoint. Basics of Ethics. The Principles. Some issues with potential ethical lapses and dilemmas. Summary.

METHODS

Straight presentation, Further discussions later.

THE OBSTETRICIAN

Specialized physician focused on peri-conceptional to perinatal issues but actually involved from birth especially of the female child. Trusted with the two most delicate modes of human existence: reproducing female and the new human life and future of humanity. The obstetrician ceaselessly hones her science, technology and skills only as expression of her humanity and ethics. It would be contradictory therefore for the modes, ends, means and procedure of obstetrics to diminish the humanity and ethical integrity of the obstetrician.

ON THE OBSTETRICIAN

Pregnancy is physiology cruising at the boundaries with pathology. Biologically, Psychologically, Socially and spiritually, Pregnancy issues are loaded with ethical challenges. Obstetrics is at the peak of medical ethical complexities.

ON ETHICS

Ethics is the systematic engagement of right and wrong, good and bad. It can be descriptive, prescriptive or reflective. It is a reflection on world views its resulting values and the consequent ethos with which existence is undertaken. Ethics reflectively attempts to use the facts of life together with our insights and desires to construct the road to the beauty of life. Ethics is the fiber of integrity, honor and glory: individual and corporate. Because ethics acts upon our innate impulses, drives and residual instincts, it is a function of higher 'rationality', 'spirituality' or 'enlightenment' of authentic humanity; It therefore requires insight, courage, honesty, humility and robustness of heart and mind; for these same reasons however, it tends to be of high octane in the open society. Most people would want to flourish with integrity, honor and glory; people however differ in insight, wisdom, courage, honesty, and robustness and so the authentic attainment of the above. People also differ in individual history, education, training, intellectual temperament and abilities and so values and goals.

Our differing choices affect our varying attainment of individual efficiency, flourishing and fulfillment. It is the Truth that works, the good that prospers and the balanced and harmonious that fulfills, hence the need for education. Education is the capability to discern, desire and develop the True, the Good and the Beautiful, at all times and in all places. Because metaphysically, life is a gift offered each alone and must be received or rejected in various ways only as individuals, existence, the realization of that life is cosmic. At the core therefore, each must be alone and free; as each other's human environment however, we can and ought to

properly shed light on the path as individuals lift their own legs in realizing their own lives.

SUCH BALANCE IS HARD

Our choices are like tangents along a circumference while ethic is the central tendency at the center. Morals vary, morality is universal; all morals do not lead to equal efficiency, flourishing or fulfillment. Nothing however makes it desirable or moral to colonize the life or inner personal territory of another human. It is hurtful to impair the integrity, empowerment and harmony of another's inner being and freedom. Because we are the necessary human environment of each other, we may infer that it is desirable that we be supportive of each other and our medium of interactions.

GENERAL: RESPECT FOR PERSON

Autonomy of and respect for women in general with respect to personal decision making in various societal settings and hospitals. Individuality of life and mutuality of existence magnified in obstetrics practice. Resolving conflicting needs/interests of mother and child. Status as living, human, person and primary or secondary patients of both.

GENERAL: BENEFICENCE

Social: Empowering relationship; Psychologically: Integrity, reliability, support and inspiration; Medically: The best end and means possible at site; Family; economy; education; spirituality etc.

GENERAL: NON-MALEFICENCE

Physical harms, Psychological harms, Sociological harms : Economic harms, Family injuries, Education and spiritual harms, Moral harms.

GENERAL: JUSTICE

In society, institutions, at personal practice levels.

GENERAL: PROFESSIONAL BODY TO SOCIETY.

Public health aspects of Obstetrics, Public Education aspects, Public policy aspects, Legislative aspects.

ABORTION

Physician/Public policy expert, Physics/Metaphysics, Biology/Theology, Law/Ethics (ethics and law have different goals).

PRENATAL TESTING

Ultrasonography, Amniocentesis, Chorionic Villus sampling.

NEW BORN SCREENING

Public health criteria, Available support, Implication for the living, Social and policy implications.

ASSISTED REPRODUCTION

A whole gamut, Complex ethical discussions. Ends, means and procedures are all relevant issues. Need for courage and openness in public debate. Multidisciplinary approach is inevitable.

OBSTETRIC TRAINING AND ETHICS

Trainees, Trainers, Patients and Society, Science or Research ethics, Institutional ethics, Social ethics.

ENGAGING ETHICS AS PROFESSIONALS

Moral Intelligence: 'Phronesis', Moral Motivation, Moral Will, Moral self-empowerment, Levels of human engagement and ethics: Instinct, craft, technology, science, philosophy.

SUMMARY

Obstetric is ethically complex. Obstetricians cannot be mere ethics technicians. The issues are fairly well resolved. More are on the way in addition to the yet unsolved. Our concern is to bring ethics into practice.

PL-088

LITIGATION AND THE OBSTETRICIAN

Prof JIB Adinma
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INTRODUCTION

- A perfect baby is the expectation of all parents, and a perfect outcome is the mission of obstetrics – Chou
- Morbidity and mortality in obs. engender distress, frustration and disappointment .When traceable to medical negligence, may bring about litigation
- An estimated 75% of obstetricians have experienced litigation
- Litigations – common in obs. practice in developed Countries. Powered by 4 major stakeholders in medico-legal debate - the pregnant patient and her environment; the health-care providers; the insurance companies and the legal practitioners.
- Increasing rate of litigations with high indemnity cost have the negative effect of apprehension to or outright withdrawal from obstetrics practice.

SCOPE OF PRESENTATION

- Medical ethics, Ethical Codes and Guiding Principles of Ethics
- Code of medical ethics in Nigeria and FIGO ethical responsibility on women's sexual reproductive health.
- Medical ethics and the law
- Medical negligence
- Litigations and implication to obstetrics practice
- Conclusion and recommendation

MEDICAL ETHICS, ETHICAL CODES AND GUIDING PRINCIPLES OF ETHICS

Medical ethics - the principles or norms that regulate the conduct of the relationships between medical practitioners and other groups with whom they come in contact in the course of their practice. Code of Ethics is - a set of principles or rough guides to practice developed following serious breach of ethical standards. E.g. the Nuremberg code of 1947 ; Helsinki Declaration of 1964

GUIDING PRINCIPLES OF ETHICS

Four key principles derived from Belmont report and the work of Tom Beauchamp, James Childress and Raanan Gillon. The Guiding Principles In Bioethics:

1. RESPECT FOR PERSONS: Autonomy of capable persons - respect the right to self determination and individual liberty. (Informed voluntary consent and confidentiality). Protection of persons incapable of autonomy – children, the mentally sub-normal and the unconscious. Overriding Autonomy – Medical Paternalism which is divided into strong and weak.
2. BENEFICENCE: Responsibility to do and maximize good. (do good to others and maintain a balance between benefits and acceptable harms).
3. NON-MALEFICENCE: Ethical duties to do no harm or wrong.
4. JUSTICE: Fairness and equity in Medicare to persons. (Equitable distribution of potential benefits and risks).

Others include:

5. VERACITY: Tell all the truth.
4. FIDELITY: Do what is promised.
5. SCIENTIFIC VALIDITY: Ensure professional competence and scientific soundness.

CODE OF MEDICAL ETHICS IN NIGERIA (COMIN)

COMIN – derived from the rules and regulation of the Professional Conduct for Medical and Dental Practitioners in Nigeria and

Table 1: Distribution by selected States in USA for Costs of Medical Indemnity with respect to three specialties for 2009

States	Int. Medicine	Gen. Surgery	Obs/Gyn
Minnesota	$4, 000	$10, 000	$ 17, 000
Pennsylvania	$ 6,000 - $11,000	$28,000 - $50,000	$64,000
Nevada	-	-	$85,000 - $142,000
Florida	$56,000	$90,000 - $175,000	$100,000 - $200,000

contained as statutory provision in the medical and dental practioners act, CAP 221, section 1 subsection 2© It has eight (8) parts: Preamble and General guidelines, Professional conducts, Malpractice, Improper relationships with colleagues or patients, Aspects of private medical or dental practice, Self-advertisement and related offenses, Convictions for criminal offences and Miscellaneous. FIGO's ethical guidelines on women's sexual and reproductive health developed in 2003, hinged on 3 pedestals: professional competence, women's autonomy and confidentiality and responsibility to the community.

A. PROFESSIONAL COMPETENCE

- Professionals should attain and maintain the highest standard of professional competence in health so as to promote patient's right to life.
- Professionals should offer only services which they are trained, to a competent standard, and should refer cases which they lack capacity to handle.
- Professionals should ensure respectful conduct that will promote the dignity and security of all patient's – men and women alike.
- Professionals should avoid relationship considered to be inappropriate with patients or their families which may be exploited for psychological, sexual, material, financial, and even research purposes.
- Professionals with conscientious objection should ensure that their moral and religious values do not interfere with patients' treatment. They should therefore refer such cases promptly.
- Professionals should neither indulge in practice nor support such practices that violate principles of medical ethics and human rights.
- Professionals should uphold and maintain the highest standard of integrity and honesty with colleagues, patients, and learners in the conduct of research.
- Professionals should design appropriate inter-personal relationship with patients and others to promote optimal care and learning environment.
- Professionals should advocate for continuous medical education to keep abreast with development in healthcare.

B. WOMEN'S AUTONOMY AND CONFIDENTIALITY

- Professionals should ensure adequate information and education of patients to facilitate choice based on informed consent.
- Professionals should ensure privacy in the clerking, physical examination, and delivery of health services to patients especially women e.g. through appropriate draping or covering of the patient during examination and RH procedures.
- Professionals should ensure the confidentiality of the information obtained from the patient and should reveal such only following patient's consent or if required by the law.
- Professionals should ensure equal and respectful treatment of patients, free of discrimination irrespective of age, marital status, ethnicity, political affiliation, race, religion, economic status, disability, etc.
- Professionals should ensure that adolescent patients are treated without age discrimination, and are guided towards an informed consent to make health decisions especially as regards sexual and reproductive health.

C. RESPONSIBILITY TO THE COMMUNITY

- Health professionals should advocate for the rights of members of a community to information concerning health services available to them in other to make appropriate decisions for optimum healthcare.
- Health professionals should advocate for the resources and care to enable community members seeking for health care to obtain the highest standards and ensure their rights to benefit from scientific progress.
- Health professionals should promote community education on health to aid community members towards effective participation and dialogue to influence health practices, laws, and policies
- Health professionals should discourage patients from seeking services from unqualified persons, while encouraging traditional healers such as the TBAs towards safe health practices and prompt referrals.
- Health professionals should always assist at medical emergencies and should not be restricted by stringent conditions such as non-payment of hospital deposits and industrial actions.
- All Obs/Gyn professionals should acquaint themselves with the provisions of the code of medical ethics in Nigeria as well as the FIGO professional ethical guidelines on women's sexual and reproductive health in order not only to improve patients obstetrics care but also prevent litigations and disciplinary sanctions.

MEDICAL ETHICS AND THE LAW

Medical jurisprudence or medical law is defined as that aspect of the law which governs the relationship between the healthcare provider and the patient. The medical practitioner is bound by certain laws depending on the circumstances of his practice. These laws include - civil and criminal laws of the land; the medical law; codes of medical ethics; Public service rules and regulations; and the military law. The law and ethics – complimentary to upholding the rights of the patients. Discordance occasionally occurs b/w ethics and the law. E.g. apartheid policy in South Africa, euthanasia & legal abortion.

MEDICAL NEGLIGENCE

Medical negligence is said to occur when a health professional performs his duty in a health institution in such a manner that avoidable harm befalls a patient. E.g. when the doctor leaves an abdominal mop inside the patient's abdomen following surgery usually attributable to the doctor in relation to his patients only. Duty of care - the legal requirement of a medical doctor possessing special knowledge and skills to attend to patients consulting for this medical expertise. Requires the employment of knowledge, expertise and caution by the medical practitioner to avoid undue harm to the patient. Applies to the medical practitioner's regular patients and non regular (call duty) patients alike. When a doctor fails to perform up to the requisite standard of care and skill expected of him to the extent that injury or harm occurs to the patient, breach of duty of care is said to occur.

CONDITIONS FOR MEDICAL NEGLIGENCE

- Existence of a duty of care to the plaintiff patient
- Breach of the duty of care by the doctor
- Damage or injury to the patient traceable to that breach of duty of care
- Damage refers to loss or injury which the patient has suffered as a result of the breach of duty of care while claim of damage is compensation for such injuries/loss suffered by the patient.
- Damage may be physical or emotional – injury, pain, loss of earnings, reduction in life expectancy or quality of life usually quantified in monetary terms
- Onus of proof of medical negligence – lies on balance of probabilities. Mere inadvertence – occurs when harm occurs to a patient despite every reasonable precaution that has been taken to avoid it. Medical negligence has not occurred. When does medical negligence occur? – in any of the 3 triads of medicare viz: Diagnosis, Advice/counseling and Treatment.

LITIGATIONS AND THE IMPLICATION TO OBSTETRICS PRACTICE

Medical malpractice is said to occur when a registered medical practioner carries out medical practice that does not conform to professionally accepted standard, methods or decorum as stipulated in the provisions of the code of medical ethics in the Medical and Dental Practitioners Act. It may be brought to the attention of the Medical and Dental Council by either an aggrieved person, a medical colleague or any other means whatsoever for appropriate scrutiny and necessary action. Medical malpractice constitutes medical negligence which can be litigious

OBSTETRICS LITIGATIONS

Commonly occur from errors of omission or commission notably:

- Errors or omission in antenatal screening and diagnosis, Errors in ultrasound diagnosis, The neurologically impaired infant, . Neonatal encephalopathy, Stillborn or neonatal death, Shoulder dystocia with either brachial plexus injury or hypoxic injury, . Vaginal birth after cesarean section, Operative vaginal delivery, Training programs for residency and nursing
- With the exceptions of 1,2 &9 the remaining 6 of the 9 major causes of litigation in obstetrics practice are traceable to failure to perform C/S or to perform the operation early enough
- This implies therefore that early resort to caesarean section at the suspicion of impairment of foetal well-being is likely to avert obstetric litigation
- Increasing rate of litigations in Obs with high medical insurance awards for damages together with long working hours have been identified as the main reasons why many obstetricians in developed countries want to quit obs. practice

CONCLUSION AND RECOMMENDATION

Obs/Gyn professionals in developing countries should be mindful of impending high litigation rates in obs. practice which could be devastating in practices without risk insurance cover. They should be conversant with medical laws and codes that govern medical practice . Communication of the various risks of any treatment must be clearly made to the patient as of right. The health professional should adhere strictly to proper documentation with respect to consent and also procedures, activities and time. Proper medical record keeping often provides good legal documents of defense in cases of litigation. Obs/Gyn consultants should ensure thorough supervision of their residents in training and young consultant should enlist the advice of older ones in the management of certain conditions. Treatment protocols should be developed not only to guide practioners but also to standardize and streamline patient's care. Medical equipments should always be kept in good working conditions, be upgraded as appropriate and if necessary be changed entirely to ensure patient's safety. Continuing medical education, training and re-training of Obs/Gyn practitioners, irrespective of the status, especially on new and emerging trends in obstetrics practice is very important in the improvement of the safety and quality of patient's care. *With these, we can be hopeful of actualizing the expectation of all parent for a perfect baby, and the mission of obstetrics for a perfect outcome.*

PL-089

AUDIT, ACCOUNTABILITY AND MATERNITY CARE

Julia Hussein

OVERVIEW

About Impact, Audit, evaluation and quality improvement, Types of maternity audits: Critical incident & Criterion based, Examples of innovations, adaptations, developments, Reflections on audit and accountability, The future

WORLD BANK & IMF 2011 GLOBAL MONITORING REPORT

"Efforts aimed at increasing access should be complemented with improvement of the quality of care provided, without which very little .... can be achieved. We call on policymakers to devote substantial resources to achieve universal access to quality services" Okonofua 2008

EFFECTIVENESS OF MCH STRATEGIES TO IMPROVE QUALITY

"Multifaceted interventions that combine several quality-improvement strategies are....effective but may not be more so than single interventions." Althabe et al 2008'

AUDIT AND QUALITY IMPROVEMENT

Pubmed search: maternal death review OR maternal audit AND Nigeria = 155 hits (+)

- Prospective audit of perinatal mortality among inborn babies in a tertiary health center in Lagos, Nigeria. Ekure EN, Ezeaka VC, Iroha E, Egri-Okwaji M Niger J Clin Pract. 2011 Jan-Mar;14(1):88-94.
- Clinical audit of antenatal service provision in Nigeria. Osungbade KO, Shaahu VN, Uchendu OC. Health Care Women Int. 2011 May;32(5):441-52.
- Clinical audit of knowledge and practice of epidural labour analgesia amongst obstetricians in south-west Nigeria. Osinaike BB, Ogunbode OO, Aderinto DA. East Afr J Public Health. 2010 Jun;7(2):191-5.
- Clinical audit of intra-partum care at secondary health facilities in Nigeria. Osungbade KO, Oginni SA, Olumide EA, Owoaje ET. Niger J Clin Pract. 2010 Jun;13(2):210-4.
- Pregnancy outcome in eclamptics at the University of Abuja Teaching Hospital, Gwagwalada, Abuja: a 3 year review. Agida ET, Adeka BI, Jibril KA. Niger J Clin Pract. 2010 Dec;13(4):394-8.
- A 30-year review of advanced abdominal pregnancy at the Mater Misericordiae Hospital, Afikpo, southeastern Nigeria (1976-2006). Sunday-Adeoye I, Twomey D, Egwuatu EV, Okonta PI. Arch Gynecol Obstet. 2011 Jan;283(1):19-24. Epub 2009 Oct 30.
- Evaluation of criteria-based clinical audit in improving quality of obstetric care in a developing country hospital. Hunyinbo KI, Fawole AO, Sotiloye OS, Otolorin EO. Afr J Reprod Health. 2008 Dec;12(3):59-70.

PUBLIC SERVICES PERSPECTIVE

AUDIT are proper procedures being followed, less suited to assess impact, less able to deal with uncertainties due to set standards or criteria

ORGANISATION-WIDE PERSPECTIVE

Mind set: management, Credibility: Institutional setting, national audit bodies, Accredited auditors, Speed

CONFIDENTIAL ENQUIRIES INTO MATERNAL DEATHS

South Africa, Malaysia, Egypt, Jamaica....

Identifies areas where clinical practice is deficient. Different from maternal death review: Collated/policy level & Anonymity of woman, providers and institution

LIMITED UPTAKE – WHY?

Poor quality documentation, Lack of time/interest/ accountability, Poor organisational capacity of health system, Heavy clinical workload, Litigation, futility, fear of exposure?

TRACE

Tracing adverse and favourable events in pregnancy care Conventional inquiries are observational studies of adverse events related to maternal deaths.

DATA SOURCES:

Case notes, In depth interviews with providers, In depth interviews with community members involved in event, Uses 'social autopsy/audit'. Multidisciplinary approach, sociological perspectives

FINDINGS: FACILITY BASED CARE, GHANA

Favourable factors in health facilities: Referral, Drugs and supplies, Team communication

What do we do, how do we contribute?

Immpact

Engage with stakeholders for knowledge transfer → Create new knowledge & tools → Strengthen research & technical capacities

Where we work

Immpact

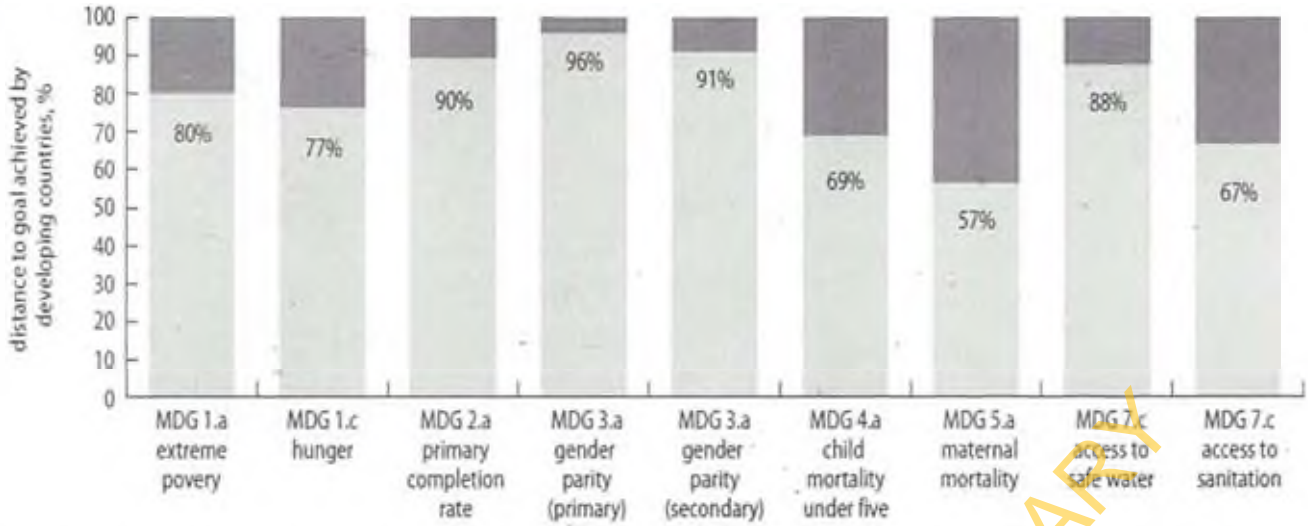
Mexico: Infection control
Nicaragua: emergency care
Argentina: Capacity building
Jamaica: skilled delivery care

Tunisia: MMR study
Morocco: training, financing in maternity care

Afghanistan, Bangladesh, India, Nepal, Pakistan: Programme reviews and evaluation, M&E, MNH advocacy for research, infection control study, birth kits, quality of care, MMR study
Tajikistan: User fees

Angola: Health systems financing; **Tanzania, Uganda**:Training
Nigeria: Infection control; **Zimbabwe**: MMR study
Burkina Faso, Ghana, Senegal: Evaluation on skilled care, user fees, emergency care; training, health sector support, confidential enquiry, audit, quality improvement **Malawi, Ethiopia**: quality improvement, skilled care
5 West African countries: economic evaluation of free delivery care
Somalia: MMR feasibility study

Indonesia: Large scale evaluations on skilled care, M&E, training, confidential enquiry
Vietnam: MMR study
Cambodia: ReBUILD, MMR study
Malaysia: training and capacity building



Source: World Bank & IMF. 2011 Global Monitoring Report. Improving the Odds of Achieving the MDGs
"...the quantity of health...has increased, but not the quality. This might be one reason that progress has been slower for MDGs measured by outcomes (like those for health) than for those measured by access (like those for education)."

SUBSTANDARD CARE

Caesarean sections conducted in haste. Inappropriate and ineffective drugs. Doctor rarely present when woman in critical condition. Acute resuscitation efforts were poor. Few partographs . Completed audit forms seldom found. Case assessment form (analysis of events) completed by multidisciplinary panel.

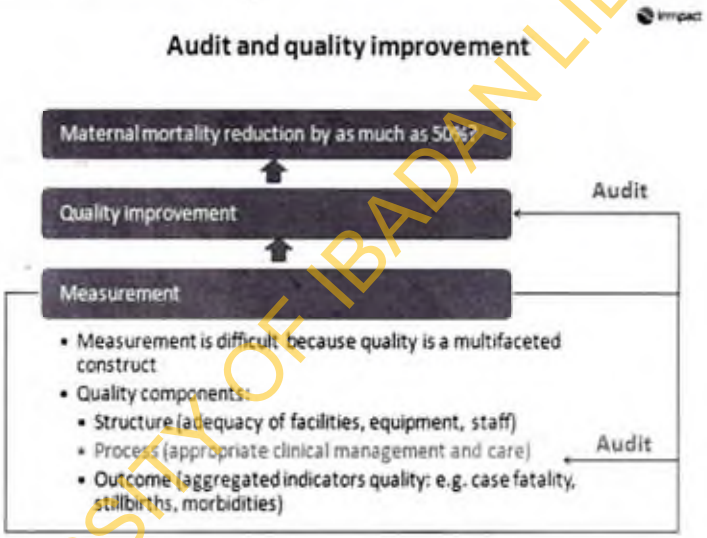
4 MAIN TYPES OF FACTORS INVESTIGATED

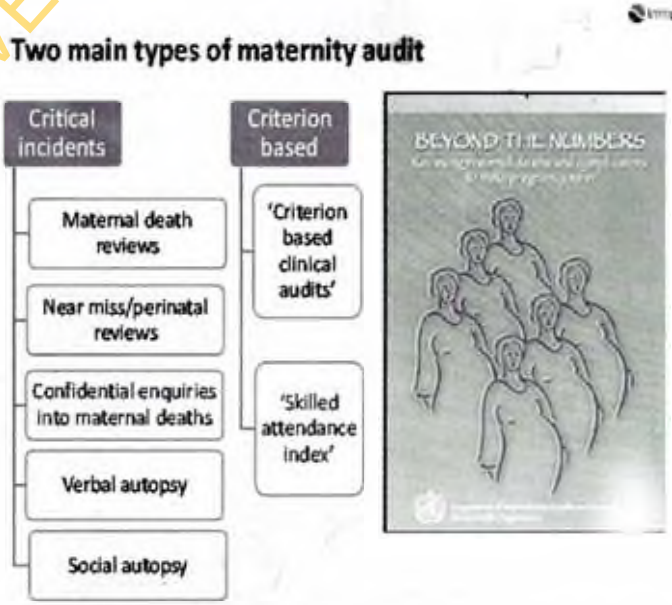
Personal/family/community, Administrative and health system (transport, infrastructure, personnel), Medical care , Availability of information.

COST OF CONDUCTING TRACE

"Costs": venue, refreshments, time (80% of costs), transport. Panel members time = 50-60 hours per panel member (meetings and

MCH interventions developing countries	Professional practice(range)
Multifaceted interventions	+1% to +64%
Audit and feedback	**-17% to +49%**
Reminders	-1% to +34%
Educational meetings	+1% to +30%
Patient mediated interventions (not alone)	+10% to +25%
Interactive workshops	+4% to +17%
Mass media	+0.1% to +13%
Educational outreach	Prescribing only, +50%
Opinion leaders	Small
Local consensus, problem based learning, record systems, provider incentives, patient mediated interventions alone, regulatory interventions	Not effective/ No evidence/ inconclusive





reading, more time for reading in Indonesia). Excludes time for interviews in Indonesia (travel to villages, plus 3-5 interviews of 2 hours duration each)

LESSONS LEARNT

Lack of availability/quality of clinical case notes not a major limitation. Negative outcomes like death can also demonstrate positive action/factors, and identification of these is useful and motivating. Costs could be reduced by: assessing a sample of cases, intermittent, rather than continuous conduct of enquiry. A tool for measurement and change

Systematically record missing data to minimise and record bias characteristics of retrievable vs non retrievable files from birth registry). Test-retest and interobserver reliability; reliability co-efficients. Link the measure to patient outcomes (show that deaths decrease with improving quality indicator) or other quality assessment tools.

"Seizing the moment" "....successful implementation.....will pave [the] way for the long-awaited Confidential Enquiries into Maternal Deaths that would guide the formulation and or revision of obstetric policies and practices in

WHY NEEDED FOR NIGERIA, WHY NOW?

Wealth of knowledge and experience (research publications, programmes...), Priorities; Synthesising what's already known; Engaging diverse groups; Mobilising credibility: institutional setting/national audit bodies; Accountability

AUDIT FOR ACCOUNTABILITY

Traditional view of accountability: emphasizing what could be controlled and assigning blame when things go wrong. A new view of accountability acknowledges a more complex management world..... Accounting for results....means demonstrating that you have made a difference: that through your actions and efforts you have contributed to the results achieved.' Future innovation? Using contribution analysis, mixed methods to tell a 'performance story'.

"The extent to which checking is needed in society is an interesting question. Clearly, in any given situation, there is a trade-off among the amount of checking needed, the level of trust that exists, and the level of risk we are willing to assume." Mayne 2006

"Trust releases us from the need for checking." Power 1997

ACKNOWLEDGEMENTS
SOGON, WHARC, MacArthur Foundation

3. MEDICAL CARE		
	Adverse factors	***Favourable factors***
Antenatal care		
Intrapartum care		
Intra-operative care (if applicable)		
Postpartum care		
Did an emergency occur? If so, when? (early pregnancy, antenatal, intrapartum or postpartum)		
Emergency event during:		
Initial assessment		
Problem identification or diagnosis		
Management plan		
Continued monitoring		
Resuscitation		
Anaesthesia		
Professional conduct of health providers		

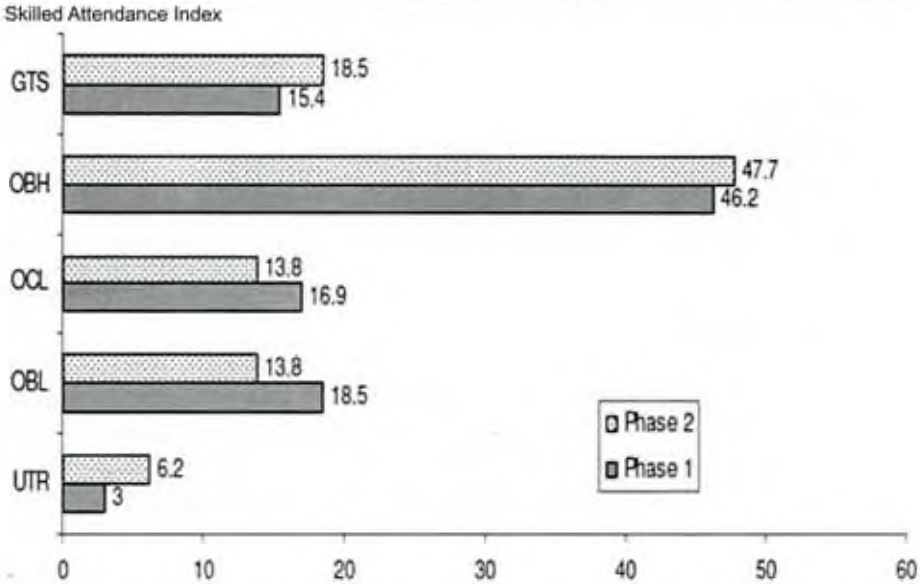
Criterion based clinical audit (CBCA)
Comparison of practice against set criteria using a case extraction form

	Cases reviewed	**Panel members**	**Meetings**	**Cost (US$)**
Ghana	20	8	8 hours per month for 6 months Total = 40 hours	10,000
Indonesia specialist panel	13	6	2 hours per week for 5 months Total = 40 hours	9,000
Indonesia "community" panel	13	7	3.5 hours per month for 6 months Total = 21 hours	5,000

The case extraction form

316	Was blood typing carried out?	Yes..... No ..... Not recorded.....	1 2 99
317	Was cross matching of blood done?	Yes..... No ..... Not recorded.....	1 2 99
318	Was Hb or haematocrit levels assessed?	Yes..... No ..... Not recorded.....	1 2 99
319	Was a request made for units of blood?	Yes ..... No..... Not recorded....	1 2 99
etc			

Hunyinbo et al 2008
CBCA conducted at Federal Medical Centre, Abeokuta, 2003



OBH, Obstetric haemorrhage; ECL, Eclampsia; UTR, Uterine Rupture; OBL, Obstructed labour; and GTS, Genital tract Sepsis

Modification of CBCA, to provide aggregate measures of clinical indices of care, expressed as a % of the maximum. n=416

Range	32.6-93.0%
Mean (95% confidence intervals)	65.5% (64.0,66.7)
Deliveries meeting at least 75% criteria	26.9%
Deliveries meeting at least 50% criteria	82.7%
Deliveries meeting at least 25% criteria	100.0%

Comparison by place of delivery

Score as percentage of maximum	n	Percentage mean score (95% confidence intervals)
Place of delivery		
Mission hospital	122	76.3 (75.1, 77.5)
Government hospital	191	68.6 (67.5,69.7)
Government health centre	16	46.2 (45.2, 47.2
Private maternity home	86	46.8 (47.8, 50.0)

PL-90

THE PARADOX OF OUR TIMES AND WHY WE MUST ACT

Ejike Oji, MD
Country Director, Ipas Nigeria

THE VALUE OF WOMEN ALL OVER THE WORLD

The Taj Mahal mausoleum located in Agra India was built under Mughal Emperor Shah Jahan In memory of his favorite wife Mumtaz Mahal.

MISSION AND VISION OF IPAS

Ipas is dedicated to improving women's lives through a focus on reproductive health and concentrates on preventing unsafe abortion, treating its complications, reducing its consequences and increasing women's access to a broad range of reproductive

health services. Ipas has its head office in Chapel Hill, North Carolina in the United States of America and works through country programs in most of Africa, Asia and Latin America .

FEDERATION ACCOUNT ALLOCATIONS, 1999-2005
(COMPLEMENTARY DISCLOSURE FRAMEWORK TO NEITI)
Allocations 1999 -2005: All N15.8trn; FG N5.138trn (32.5%); Sgs N10.671trn (67.5%)
Relative Allocation by zones: SS=n1.259trn, NW=N627.888bn, SW=N550.526bn, NE=N458.195bn, NC=425.398bn, SE= N374.503bn. *NOTE: These allocations are from revenues from oil and non-oil sources, including tax, customs duties, V.A.T, etc*

POVERTY LEVELS IN NIGERIA, 1996-2005
NIGERIA: RICH COUNTRY, POOR PEOPLE. HOW AND WHY?
WHY
Nigeria's oil and solid minerals are stolen or lost raw; the commodities themselves are not accurately measured; revenue from them are not accurately accounted for (NEITI has facts and figures on this). Approximately 80% of the oil revenue is concentrated in the hands of 1% of the population; and 70% of Nigeria's private wealth is held abroad. Nigeria is a victim of the "Dutch Disease" and also suffers from "resource curse. " The disease kills agriculture in industry; the curse makes the people docile.

HOW:
Nigeria, the tenth highest oil-producing country in the world has a population ranked among the 25 poorest in the world. In 2005, the year of phenomenal African economic growth, Nigeria did not rank among the ten fastest growing economies in Africa. Each of which recorded between 7.3%(SL) and 9.3% (EG).

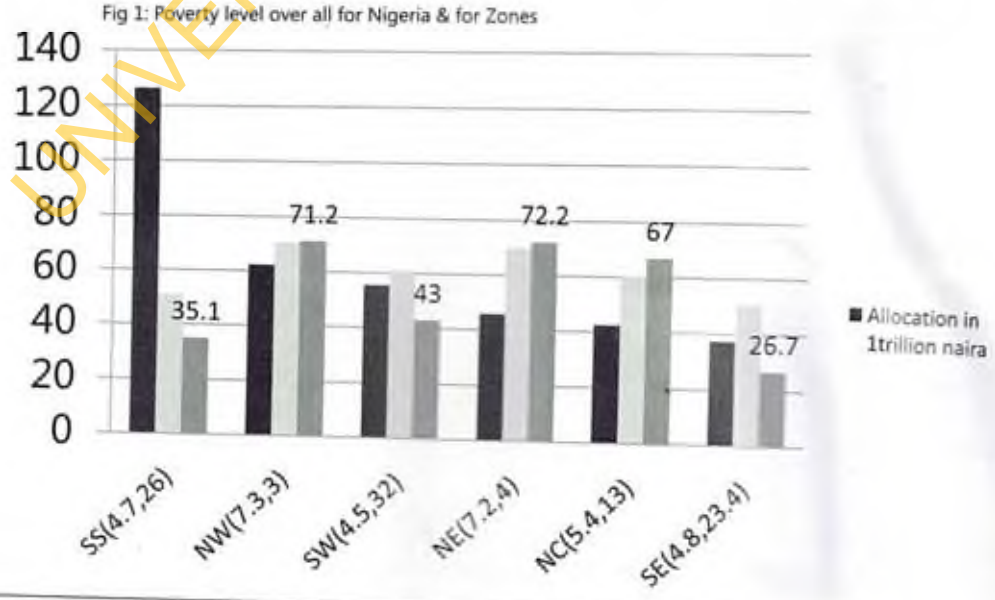
Table 2: RH indicators and poverty levels

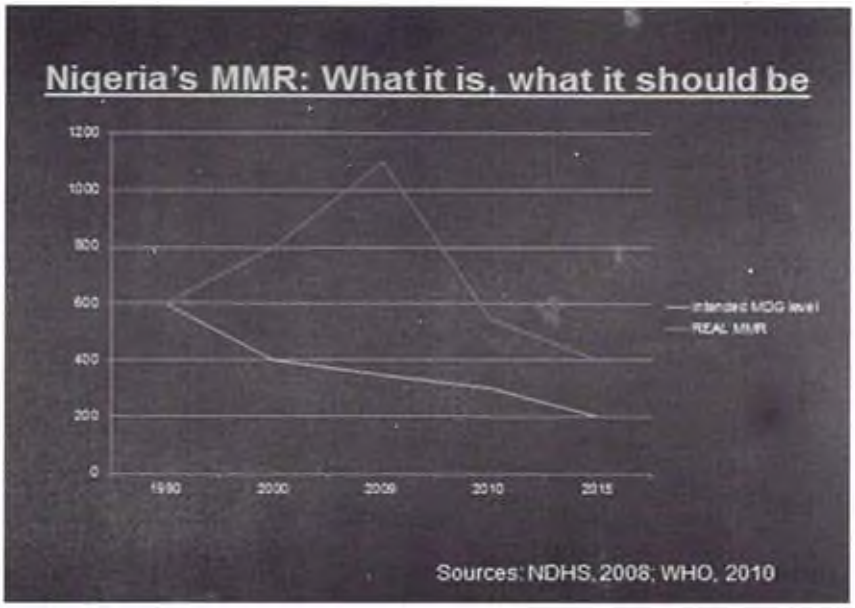
LOCATION	1996	2005
Nigeria	65.6%	54%
NE	70.1%	72.2%
NW	77.2%	71.2%
NC	64.7%	67%
SW	60.9%	43%
SS	58.2%	35.1%
SE	53.5%	26.7%

SO MANY MOUTHS TO FEED
At independence Nigeria was 56 million and the UK same. 50 years later Nigeria is 166 million by October this year. The UK is 64 million.

PREVENTION OF MATERNAL MORTALITY
"Women are not dying because of diseases we cannot treat. They are dying because societies have yet to make the decision that

Fig 1: Poverty level over all for Nigeria & for Zones





INDICES	ITALY (Catholic)	NIGERIA (Mixed)	SAUDI ARABIA (Islamic)
Contraceptive Prevalence Rate	60%	11%	32%
Maternal Mortality rate/ 100,000 life births	5	1100 (2009) 545 (2010)**	23
Life time risk of maternal death	1/13900		1/610

their lives are worth saving." Mahmoud Fathalla, MD, PhD, Ipas Board Member, Former President of FIGO.

THE BURDEN OF UNSAFE ABORTION IN NIGERIA

760,000 induced abortions annually, 60% unsafe (Guttmacher Institute). More than 140,000 women hospitalized for abortion complications. Up to 10,000 maternal deaths annually due to unsafe abortions.

PROGRESS ADDRESSING UNSAFE ABORTION

Ipas has worked in Nigeria > 20 years:

- Partnerships with federal and state MOHs and other NGOs, professional bodies e.g SOGON to increase women's access to high-quality postabortion care (PAC): Emergency treatment for complications of unsafe abortion, Post-abortion family planning counseling and services, Links to other RH and community services as needed.
- Advocacy

PARTNERS/STAKEHOLDERS

A 19 year old girl with the necrotic (dead) intestines sticking out from the vagina

Hospital after Advocacy and Subsequent Renovation

Advocacy the President

Advocacy with a senator

Women Group

Misoprostol

Ipas Nigeria team identified 5 different stakeholder-groups who have been the bedrock of our policy work in Nigeria: Women Groups, Parliamentarians/Legislators, Lawyers/Judges, Media, Youths.

STRATEGIES FOR LAW REFORM

Inform, sensitize, and move partners to action by working in strategic alliances. Use media to scale-up information sharing from the grass roots to the national space. Bring the human angle through stories in the public domain. Collaborate with women leaders to introduce the law into the parliament. Legislative advocacy - winning over key leaders one on one.

MEDIA

Our strategy in working with the media is to train, inform and conscientize them to action. We have to date trained and conscientized about 382 journalists, who have become advocates of WSRHR issues generally.

WOMEN GROUPS

We work with 7 women groups: NCWS, FIDA, MWAN, WAELE, FOMWAN, NAWOJ, UMUADA IGBO and Young Women Christian Association. We have built and strengthened their personal and institutional capacities by giving them requisite skills for leadership, advocacy, programme management and networking skills.

COMMUNITY ACCESS TO MISOPROSTOL

Advocacy to Federal Ministries of Health for policies to enable use of misoprostol.

PL-091

ADEQUATE NUTRITION TO ENHANCE FOETAL AND NEW BORN WELLNESS

Dr R. A. Sanusi, MB,BS(Lagos), MSc(Nutr.), PhD
Department of Human Nutrition, University of Ibadan

NUTRITION BEFORE PREGNANCY

- Starvation diets, Anorexia nervosa, Excessive athletic activity may interfere with ovulation (pregnancy difficult)
- Obesity may alter hormone profile level and decrease fertility
- Folate and vitamin A deficiency early in pregnancy may lead to birth defect.
- Oral contraceptive may reduce levels of vitamin B6 and B12
- Many drugs may affect fertility and pregnancy outcomes
- Therefore a woman planning pregnancy should discuss with her obstetrician or gynaecologist.

NUTRITION DURING PREGNANCY

Energy: increased need during pregnancy

- New foetal tissue
- Maintain maternal tissues

1st trimester little change in energy need
2nd trimester: additional 340kcal/day

3rd trimester: additional 452kcal/day

- Increased energy expenditure
- Protein need increases. Structure of new cells and tissues of both mother and child (+25g/day or 1.1/kg/day for 2nd and 3rd trimester). Blood vol. and muscles (uterus and foeto-placental tissues). Micronutrients. Calcium: foetus retains 30g over the course of gestation. Vit. C: bone and connective tissue (RDA+10mg/day during pregnancy). Folate : synthesis of DNA (neural tube defect, preterm and LBW delivery; 400-600µg/day. VitB12: the RDA of 2.6µg/day is adequate for both foetus and mother and easily supplied by diet (except in vegans). Zinc: in synthesis and function of DNA, RNA and protein (RDA 11mg/day for pregnant woman). Iron: IDA common during pregnancy, risk of LBW and preterm delivery. For haemoglobin and myoglobin (RDA 27mg/day for pregnant).

MEETING THE NEED DURING PREGNANCY

Table 1

Group	Non-pregnant	Pregnant	Lactating
Bread(1 slice)	7 serv.	8serv.	10serv.
Fruit (med apple/banana)	3ser	3serv.	3serv.
Vegetable	3serv	4serv.	4serv.
Milk(1cup/250ml)	2ser	3serv.	3serv
Meat			
Fats, oils & sweets	sparingly	sparingly	sparingly

Table 2: Serving Size

	Energy(kcal)	CHO(g)	Protein(g)	Fat
Starch	80	15	3	0-1
Fruits	60	15	3	0-1
Veg.	25	5	2	0
Milk	90-150	12	8	0-8
(Non-fat)	90	12	8	8
(Whole) Meat	150	12	8	8
Very lean	35	0	7	0-1
Lean	55	0	7	3
Medium fat	150	12	8	8
Fat	45	0	0	5

CONTEXTUAL FACTORS OF ADEQUACY

Socio-economic environment, Care environment, Culture/perception, Activities aimed at ensuring nutrient adequacy, The way forward, Innovations, Who is responsible for what

PL-92

CROSS SECTIONAL SURVEY OF MALARIA PARASITAEMIA AMONGST PREGNANT WOMEN ATTENDING ANTENATAL BOOKING CLINIC AT ADEOYO MATERNITY HOSPITAL, IBADAN, NIGERIA

Drs Osinuga ET, Roberts OA, Adesina OA, Fehintola FA

INTRODUCTION

Africa accounts for about 90% of the world's burden of malaria infection. Millions of women living in malaria-endemic areas in Africa become pregnant each year and are at risk of infection with Plasmodium falciparum. In Nigeria, studies have reported malaria parasite prevalence as high as 72% . Pregnant women are more susceptible to malaria than their non-pregnant counterparts. In sub Saharan Africa, pregnant women and young children carry disproportionate burden of malaria. There is still ineffective coverage of the programs targeted at reducing the scourge of malaria infection. There is therefore need for continued survey of peripheral parasitaemia amongst pregnant women with a view to obtaining vital information to reduce the scourge of malaria.

OBJECTIVES

To assess the prevalence of malaria parasitaemia among pregnant women booking for antenatal clinic at Adeoyo Maternity Hospital, Ibadan, Nigeria. To evaluate malaria preventive measures undertaken by the pregnant women. To determine the prevalence of anaemia at booking and its association with malaria parasitaemia.

METHODOLOGY

It was a cross sectional study conducted at Adeoyo Maternity Hospital Ibadan in 2010. A total of 502 pregnant women were randomly recruited at antenatal booking clinic of the hospital over a period of three months. All enrolled women were interviewed using a structured questionnaire. Blood samples were taken for malaria parasite screening and haematocrit estimation.

RESULTS

The prevalence of malaria parasitaemia in this study was 7.6%, primigravidae had higher prevalence 15.9% compared to multigravidae 3.8% (p = <0.001). The mean malaria parasite density was higher in primigravidae compared with multigravidae 6824+ 18131 vs 606.69+ 929.29/µl respectively. Prevalence of anaemia at booking was 27.1%. 42.1% of the pregnant women with anaemia had positive malaria parasitaemia vs 25.9% pregnant women with anaemia without malaria parasitaemia (p = 0.030). Insecticide treated nets (ITN) and intermittent preventive treatment (IPT-SP) use prevalence were 12.4% and 9.2% respectively. Prevalence of malaria parasitaemia among ITN users was 1.6% (p =0.040). Prevalence of malaria parasitaemia among IPT-SP user was 4.4% (p=0.300). Prevalence of malaria parasitaemia was higher among those who used insecticides (spray, coil and cream) and untreated nets 55.3% and 42.1% respectively.

CONCLUSION

Reducing the burden of malaria infection in pregnancy is achievable but concerted efforts needs to be made at implementing the various effective interventions proposed by concerned bodies both locally and internationally. Insecticide treated nets (ITN) and IPT-SP have been proven to be effective in preventing malaria infection in pregnancy. There is therefore need to renew malaria control efforts among pregnant women especially with the use of ITN and IPT-SP.

RECOMMENDATION

There is need to intensify awareness campaign on the effectiveness of insecticide treated nets in the prevention of malaria infection. The Insecticide treated nets (ITN) should be made accessible and affordable. Government should make provision for free distribution of ITN at antenatal clinic; this will also encourage pregnant women to booking for antenatal care. Intermittent preventive treatment (IPT) with sulphadoxine-pyrimethamine should be encouraged at booking and follow-up as recommended. There is need for government to evaluate the various malaria preventive measures instituted on a regular basis. More research needs to be done at the community levels to find out why usage of the various malaria preventive interventions is still poor and how to eliminate malaria infection totally.

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PL-93

POSTPARTUM CONTRACEPTIVE CHOICES MADE BY HIV- INFECTED WOMEN AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN

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BACKGROUND
In a bid to tackle the burden of mother-to-child transmission of HIV the government of Nigeria, in addition to providing ARV, needs to pay attention to the prevention of unintended pregnancy among HIV-positive women.
Objectives- To describe the pattern of contraceptive use by HIV positive women at the University College Hospital, Ibadan, (UCH) following delivery and to identify factors associated with uptake of a mode of contraception. The outcome measure was the mode of contraception being utilized at 6 months postpartum.

METHODS
HIV-positive Nigerian women presenting for care in the PMTCT unit of the ARV clinic of UCH were enrolled, over a 6-month period, prospectively in a cohort study. They were asked at gestational age 28-34 weeks if they desired an effective form of contraception after delivery and what method they desired. They were again interviewed 6 months postpartum as to what method they were using. Over an eighteen month period they were followed up.Family planning services are available in another clinic about 400 meters away in the hospital compound.

RESULTS
Starting from June 2009, 200 women were asked if they desired a method of contraception after delivery. Most of the women had between 6-10 years of education (98%), were married (72%) and were para 0-2 (83.0%). About half of the women were HAART experienced while mode of delivery was vaginal in 64% of cases. Of the 200 women, 75% declared a desire to use an effective form of contraception postpartum. The commonest methods mentioned were implants (30.0 %), Injectables (18.7%) and barrier methods (13.3%). Six months after delivery, 112 of the women were available for follow-up. Seventy- eight (69.6%) of these confirmed they were on a method of contraception. Methods being used were male condoms (74.4%), Injectables (7.7%) and IUCDs (7.7%). Of the 34 not on any contraception 61.8% expressed a desire to use an effective form of contraception.
The mean age of women who used a method of contraception and those who did not was similar (30.36 vs. 31.24, p=0.78). More of the HAART inexperienced women (76.6% vs. 62.3%, p= 0.112), women who had caesarean delivery (77.2% vs. 65.9%, p=0.691) and women who expressed a prenatal desire to use contraception (70.3% vs. 50.0%, p=0.131) used a method after delivery.

CONCLUSIONS
Contrary to the antenatal desire of most of these women and the dual method encouraged for HIV positive individuals most women utilized only condoms and maybe at increased risk for repeat pregnancies. In addition, about 1/3 of these women were not on any form of contraception, including condoms, and are at risk of pregnancies and transmitting the virus to others or acquiring other infections. Possible suggestions to improve these outcomes include the integration of family planning services with HIV services and provision of free family planning services. The study was limited by the observational nature of the data and the potential for both measured and unmeasured confounding.

PL-094

SOGON: THE UMBRELLA ORGANIZATION FOR CARE AND ADVOCACY OF WOMEN REPRODUCTIVE HEALTH

SOGON, SUBSPECIALTIES AND SPECIAL INTEREST ASSOCIATIONS
Association of Maternal and Fetal Medicine Specialists of Nigeria: MISSION

FOUNDATION MEMBERS
Profs O. O. Fakeye, O. Kuti , S. J. Etuk, A. P. Aboyeji, H. E. Onah; Drs O. Onafowokan, Bosede Afolabi, Hadiza Galadanci, A. O. Fawole,

O. T. Oladapo, O. Olayemi , Marliyya Zayyan, A. A. Odukogbe.

MEMBERSHIP

- There shall be two categoris of membership of the Association, namely:
- Full membership which shall be accorded Obstetrician and Gynaecologists with at least a fellowship equivalent of FCMOG
- Associated membership may be accorded to stakelders involved in the reduction of maternal and perinatal mortality in Nigeria

SOGON members particularly those with special interest in foeto-maternal care and advocacy are invited to join by contacting the Secretary General, Dr Akin-Tunde A. Odukogbe (+2348023314205, akin_tundeodukogbe@yahoo.com) for forms.

PL-95

ROLITEN: TOLTERODINE 2 MG

Dr. Amarinder Singh M.B.B.S.; M.D.
Clinical Pharmacology, Ranbaxy Medical Services

OVER ACTIVE BLADDER

Frequency– to urinate more than 8 times in 24 hr.
Urgency– sudden and strong desire to urinate with little or no chance to postpone urination.
±Urge Incontinence– involuntary loss of urine following a sudden strong desire to void.
Nocturia – awakening from sleep at night to pass urine (>1)
Ruling out other pathologic/metabolic causes.

THE IMPACT OF OAB

QOL impaired, Disturbed sleep & loss of daytime productivity, Withdrawal from sexual intimacy, Repeatedly leave meetings, Habitually look for toilet locations, Carry a spare set of clothes, Use disposable pads, Silently endure a condition that no one is talking about to their physician

EPIDEMIOLOGY

1 in 11 people over 40 years have OAB, 1 in 4 women over 40 years have OAB, Affects men and women of all ages

WHAT CAUSES OAB

The detrusor is too active and contracts more than normal and at inappropriate times. Also called Unstable bladder *Detrusor hyperreflexia.*

Causes: Idiopathic, Trauma or Surgery, Bladder stones, Drug side effects, Neurological diseases, Bladder outlet obstruction, Infection, Psychological

TREATMENT OPTIONS

Medication, Diet Control, Bladder Training

DIET CONTROL

Avoid foods or beverages that worsens OAB like Tea , Coffee , Alcohol etc. Adequate fluid intake that is spread throughout the day. Regularize bowel habits. Weight loss and exercises

BLADDER TRAINING

To unlearn the already developed voiding habits. Postpone voiding and urinate according to time-table. Use bladder control diary. Be patient and consult your doctor

PHARMACOTHERAPY

Anti-cholinergics
Oxybutynin: Not a bladder selective agent. Effects on bladder and salivary glands. More side effects like dry mouth, constipation, visual disturbances etc.
Tolterodine: More bladder selective, Few side effects, Well tolerated in long-term treatment

MECHANISM OF ACTION

Competitive muscarinic receptor antagonist. It reduces urinary bladder contractions. Inhibits the frequency and intensity of involuntary bladder contractions NOT voluntary bladder contractions. Effectively treats symptoms of OAB

ABSORPTION

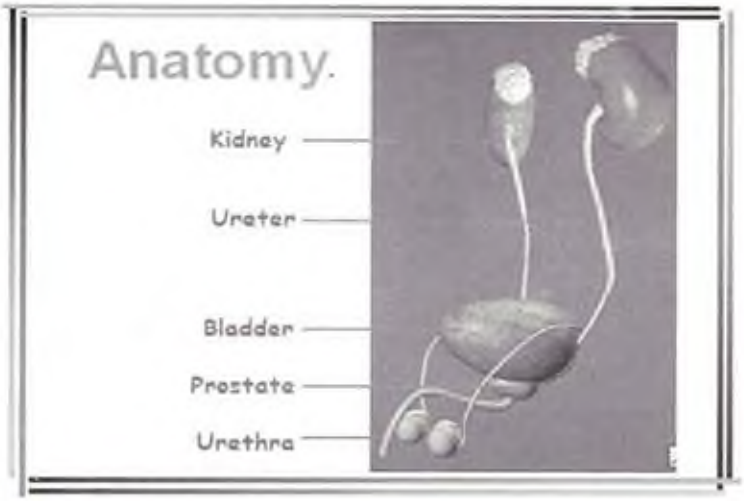
Well absorbed orally about 77%. Maximum concentration within 1 to 2 hour after ingestion. Food intake does not alter bioavailability of the drug.

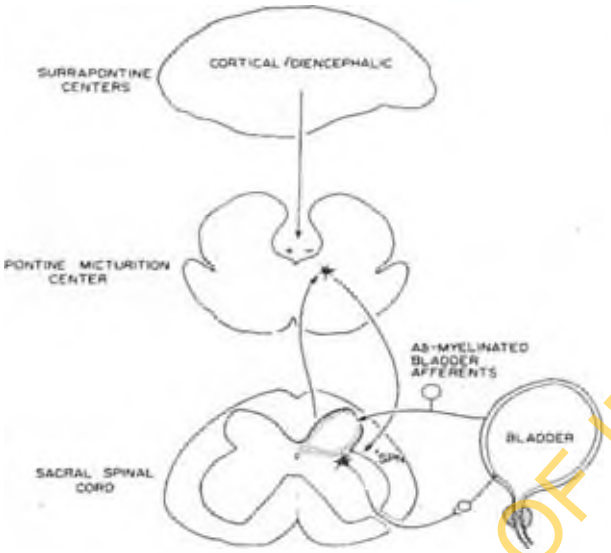
METABOLISM

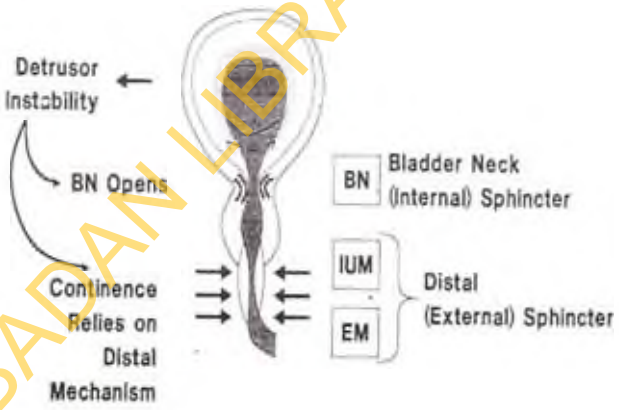
Extensively metabolised by liver. It gets oxidised by cytochrome P450 enzyme to active 5-hydroxymethyl metabolite. Excretion via urinary (77%) and fecal (17%) route.

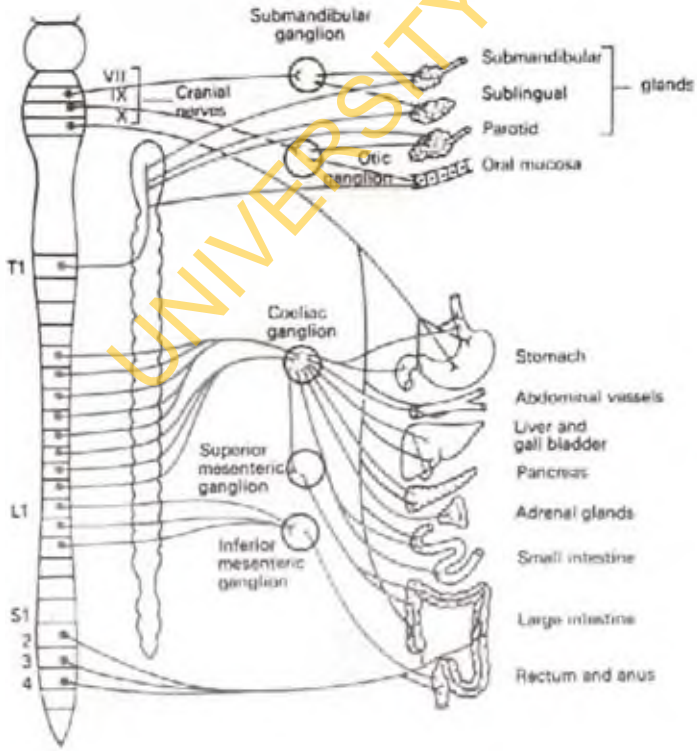
P/K IN SPECIAL POPULATIONS

Age– no differences found in efficacy and safety between older and younger patients
Sex– no differences between males and females
Pediatric group– pharmacokinetics not established in pediatric population









SPECIAL SITUATIONS

Pregnancy– in mice study it is found to be teratogenic and reduces fetal weight
Lactation– in mice study it is found to reduce weight gain
Renal failure– dose needs to be titrated and should be used with caution
Hepatic failure– in cirrhotic patients it remains for longer time and half the dose should be given

INDICATIONS

For the symptomatic treatment of patients with OAB

DOSAGE

Start therapy with 2 mg twice daily. Dose can be titrated based on response and tolerability. Use half dose for patients with hepatic failure

CONTRA-INDICATIONS

Urinary retention, Gastric obstruction, Narrow angle Glaucoma, Hypersensitivity to drug, Pregnancy, Lactation

GENERAL PRECAUTIONS

Complete patient assessment. Rule out above mentioned C/I. Detailed patient information. Avoid drug interactions with. Macrolide antibiotics like erythromycin and clarithromycin. Anti-fungal agents like ketoconazole & miconazole.

SIDE EFFECTS

Headache, constipation, dry mouth, fatigue, abdominal pain

CLINICAL EFFICACY

In a 9 month study for evaluating efficacy of tolterodine 2mg BID in 854 patients with OAB. 70% continued treatment for 9 months. Treatment significantly reduced the number of micturition per 24 hours (-22%). Number of urge incontinence episodes per 24 hrs (-76%). Treatment increased the mean volume voided per micturition (22%). World Journal of Urology 2001;19(2):141-147

In another trial, Tolterodine 2 mg is found to be effective and well tolerated in OAB. Treatment significantly reduced: the number of micturition per 24 hours (-21%), Number of urge incontinence episodes per 24 hrs (-47%). Treatment increased the mean volume voided per micturition (27%). *British Journal of Urology 1998;81(6):801-810*

CLINICAL EFFICACY - TOLTERODINE VS OXYBUTYNIN

106 women with urodynamically confirmed detrusor instability. Tolterodine 2mg vs Oxybutynin 5mg BID for 10 weeks. Tolterodine significantly better than Oxybutynin in reducing urinary leakage, in visual analogue score. Better than Oxybutynin in treatment outcome measures. *British Journal of Urology International 2002;90(4):375-380*

LONG TERM COMPLIANCE: TOLTERODINE VS OXYBUTYNIN

505 patients with detruser overactivity received tolterodine and 515 patients received Oxybutynin. Outcome measured - % patients continuing therapy for 6 months. More patients continued treatment for 6 months in tolterodine group than in Oxybutynin group. Oxybutynin was discontinued significantly earlier (45 days) than tolterodine (59 days). Tolterodine was favored over Oxybutynin for several measurements of patient adherence. *Pharmacotherapy 2000;20(4):470-475*

TOLERABILITY – TOLTERODINE VS OXYBUTYNIN

Tolterodine 2 mg is found to be effective and well tolerated in OAB. Tolterodine was better tolerated than Oxybutynin with respect to: Frequency & intensity of dry mouth and superior tolerability of tolterodine allows more patients to remain on effective therapy than commonly prescribed drugs for OAB. *British Journal of Urology 1998;81(6):801-810*

TOLTERODINE – PLACE IN THERAPY

Previously available antimuscarinic therapies (like Oxybutynin) for overactive bladder are poorly tolerated due to a high incidence of adverse events. Tolterodine is a bladder-selective, antimuscarinic agent . Found to be very effective and well tolerated in the treatment of symptoms that characterize overactive bladder. *World Journal of Urology 2001;19(2):141-147*