

001 Materno-Fetal Outcome of Expectant Versus Active Management Following Spontaneous Rupture of the Fetal Membranes at Term: A Randomised Trial.

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Objective: A randomised prospective trial of expectant versus active management (immediate induction) of pre-labour spontaneous rupture of the fetal membranes (SRM) at term was conducted to determine the clinical approach associated with better materno-fetal outcome in our environment.

Methods: Forty-eight (48) booked parturients seen at the UBTH over a 15-month period, October 1996 to December 1997, were randomised into an expectant management or control group (23 patients) and an active management [study] group (25 patients). Outcome measures were defined, analysed and compared between the two groups.

Results: Nineteen parturients (82.6%) in the expectant management group had spontaneous labour and delivery within 48 hours, the maximum latency period permitted for the study, while 4 (17.4%) failed to initiate labour spontaneously after 48 hours. These 4 patients had uterine stimulation with oxytocin. All 25 actively managed parturients delivered within 24 hours. There were no statistically significant differences in the mean duration of labour, birth weights and maternal morbidity between the two groups. However, rupture-delivery intervals were significantly longer in the control group than in the study group (25.22 hours [SD: 14.62] versus 15.08 hours [SD: 6.37]; $p < 0.005$). This was associated with a higher incidence of neonatal sepsis among controls (21.7% vs 8%) and the prolonged newborn admissions led to longer maternal hospitalisation in the control, compared to the study group (5.74 ± 3.6 days vs 3.92 ± 1.96 days; $p < 0.02$).

Conclusion: Expectant management of SRM at term is associated with greater neonatal morbidity and implicitly greater hospital costs in this environment. Active management of SRM is therefore the optimal clinical approach to this problem.

002 The Hidden Cost of Free Maternity Care in a Tertiary Health Institution in South East Nigeria.

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Background: The free maternity care in Ebonyi State University Teaching Hospital resulted in an astronomical increase in the number of obstetric patients. Preliminary assessment of the programme reported a 50% reduction in maternal mortality

Objective: To determine the additional cost incurred by clients using the free maternity services.

Methods: Two hundred and fifty-eight consenting postpartum mothers were interviewed using a standardized questionnaire on all expenses incurred in the course of their antenatal visits through their delivery and the immediate postpartum periods in a cross-sectional study that spanned 3 months. Mothers who had complications were excluded.

Results: The average additional cost for booked parturients ranged from ₦2,350.00 to ₦4,600.00 for vaginal delivery and ₦6,475.00 to ₦8,775.00 for those who had Caesarean delivery. The average monthly household income ranged from ₦2,500.00 to ₦150,000.00 with a mean of ₦19,641.00. Additionally, the average self-employed mother lost between ₦9,810.00 to ₦13,910.00 in forfeited daily income. Major contributors included transfusion and neonatal services.

Conclusion: The “hidden cost” of free maternity care in EBSUTH, Abakaliki is still high. The global effort towards reducing maternal and perinatal mortality and morbidity is only possible in a setting where health care services are both accessible and affordable. The hidden cost in a free maternity care setting tends to militate against the attainment of these objectives. There is an urgent need to reduce the frequency of antenatal visits in low-risk cases, review the hospital blood transfusion policy and provide free neonatal intensive care services.

003 Sexual Behaviour of *In-School* Adolescents in Ibadan.

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Introduction: Adolescents constitute about 20% percent of the world's population, with 85% of them in developing countries like Nigeria. Recent WHO reports showed that many adolescents engage in risky sexual activity without protection, especially the use of dual protection methods. Most had their coital debut via subtle coercion by their partner. This practice predisposes them to all forms of sexually transmitted infections, including HIV/AIDS, unwanted pregnancy and unsafe abortion.

Objective: To determine the sexual behaviour of *in-school* adolescent in Ibadan

Methods: A survey was conducted among students from four randomly selected public secondary schools in Ibadan, after an initial pilot study at a separate school.

Results: Of the 695 students studied, 354(51%) were female and 341 (49%) were male. Among the respondents, 197 (28.3%) had engaged in sexual intercourse and most (129) were male students ($p = 0.000043$). The mean age at sexual debut for the male and the female students were 14.9 and 14.6 years respectively. Majority of those with sexual experience admitted that their sexual debut was unplanned (77.2%) and 39.1% presently had more than one sexual partner. The various sexual practices engaged in by the studied population were vaginal (98.5%), oral (47.2%) and anal (15.2%). The sources of their information about sexual practices were friends (47.7%), parents (25.3%), media (21.1%) and other siblings (6%).

Conclusion: The outcome of this study is in tandem with earlier observations reported that *in-school* adolescents are sexually active. Hence it is important to reinforce the need for the introduction of family life education even at an earlier age or right from primary school. Also worrisome is the high rate of anal sex among these pupils. Further studies of this problem are needed.

004 Effects of Previous Abortions on the Development of Hypertension in Pregnancy Among Nulliparous Parturients at the University College Hospital, Ibadan

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Context: Hypertensive disorders in pregnancy and abortions are both common events in this environment.

Objectives: This study was designed to determine the influence of previous abortion on the risk of hypertensive disorders in pregnancy in nulliparous patients.

Methodology: The study was conducted at the University College Hospital, Ibadan between 1st January 2002 and 31st March 2004. Nulliparous pregnant women who booked for antenatal care were recruited for the study. A group of 508 nulliparous women were followed up from booking till delivery, history of previous abortions was obtained at baseline and the relationship between this and the risk of developing hypertension was examined by univariate analysis and logistic regression.

Results: The incidence of hypertension in pregnancy in this study was 20.6% overall. It was 16.1% among patients with a history of a previous abortion and 23.7% among those without a history of abortion. Among the age group categories, the highest incidence was among mothers less than 20 years of age (31.4%) and the lowest in the age group of mothers between 26 and 30 years of age, being only 15%. The adjusted odds ratio for hypertension among those with history of previous abortion compared with those without, adjusting for all the other variables in this model, was 0.62, demonstrating a 38% reduction in odds with a positive history of previous abortion. Only the 26-30 year old age group showed a significantly lower reduction in odds of hypertension compared to the less than 20 years group. Family history of hypertension was not a significant predictor in the logistic regression model.

Conclusion: History of previous abortion in nulliparous women reduces the risk of developing hypertensive disorders of pregnancy by about 38%.

005 Cross-Sectional Study of Antioxidant Status in Normotensive and Hypertensive Pregnancy.

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Background: The cause of pregnancy induced hypertension (PIH) is yet unknown despite many theories. The role of antioxidants in its etiology is currently receiving attention worldwide.

Objectives: The study examined the role of free radicals in pregnancy-induced hypertension (PIH) by comparing plasma antioxidant status of non-pregnant healthy women (Control 1), normotensive pregnant women (Control 2) and pregnancy-induced hypertension women (Patients) in Osun State, Nigeria.

Methodology: Forty five patients aged between 22 and 38 with pregnancy induced hypertension (PIH) were recruited from the clinics of the Obstetrics and Gynaecology Department, Obafemi Awolowo University Teaching Hospital Complex (OAUTHC). A comparable group of forty five normotensive pregnant women and fifteen normotensive non-pregnant women were also recruited. Uric acid, albumin, catalase and ascorbate antioxidants were investigated. They were estimated in the 2nd and 3rd trimesters and three to six days postpartum. Correlation between these measured parameters (antioxidants) and the values of the blood pressure in pregnancy within each trimester were also studied. The results were also compared with that obtained for the 15 non-pregnant normotensive women matched for age and parity.

Results: The study revealed that pregnant women have lower plasma antioxidant levels than non-pregnant women (except uric acid which is increased). The plasma catalase and ascorbate levels of the second and third trimesters of hypertensive pregnant women were significantly lower than those of second and third trimesters normotensive pregnant women respectively ($p < 0.05$). There was a slight but insignificant reduction in albumin concentration.

Conclusion: The study concluded that low concentrations of some antioxidants may play a contributory role in the aetiology of PIH. On this premise it is suggested that intakes of some foods rich in antioxidants by pregnant women may be beneficial. Further research in this area is necessary.

006 Introduction of Guidelines for Maternity Care in Nigeria

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Context: Despite previous interventions, maternal mortality ratio has remained in the region of about 1,500 maternal deaths per hundred thousand live births in Nigeria.

Objectives: To determine the attitude of Nigerian obstetricians and gynaecologists to the introduction of clinical guidelines in the management of obstetric and gynaecological cases in the country.

Methodology: A structured questionnaire was administered to practising obstetrician who attended the 38th Annual Conference of the Society of Gynaecology & Obstetrics of Nigeria (SOGON) held at Markudi in November 2004. The findings were analysed and the Fisher's exact test was applied to determine the significance of associations.

Main Outcome Measure: Percentage of Nigerian obstetricians who accept the introduction of, and agree to implement the clinical guidelines.

Results: About 75% of Nigerian obstetricians who attended the conference were less than 50 years old. The mean age was 42.41 [SD: 8.82] years. Some 86.8% of respondents accept the introduction of clinical guidelines. Noticeable resistance was seen in those who had been in practice for more than 10 years compared to those who had practised for a shorter period but the difference was not statistically significant.

Conclusion: Majority of Nigerian Obstetricians believe that the introduction of clinical care guidelines will benefit the patients. SOGON was most favoured as the agency to organise the development of the guidelines, while the Federal Ministry of Health was selected as best suited to finance the programme.

007 Introduction of Clinical Guidelines in the Management of Obstetrics and Gynaecological Cases

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Introduction: Despite previous interventions, maternal mortality ratio in Nigeria has remain high, often in the range of 1,500/100,000 deliveries.

Objectives: To determine the attitudes of Nigerian obstetricians/gynaecologist to the introductions of clinical guidelines in the management of O & G cases in the country.

Methodology: A structured questionnaire was administered to the practising obstetrician/gynaecologists during the 2004 SOGON conference in Makurdi.

Results: The mean age of obstetrician/gynaecologists in Nigeria is 42.41(8.82) years, with 75% less than 50 years old. 86% of respondent accepts the introduction and agree to implement the recommendation of guidelines. Noticeable resistance was seen in those who have practised for more than 10 years but this trend was not statistically significant. SOGON was most favoured as the agency to develop the guidelines. The Federal Ministry of Health was suggested to finance the project.

Discussions: Clinical guidelines contain recommendation manuals in managing specific cases. It simplifies the treatment and generally produce predictable favourable outcome. If main causes of maternal death are so treated in the guidelines, the high death rate is more likely to be reduced considerably. This will compliment the existing measures at reducing maternal death in Nigeria.

Conclusion: Nigerian obstetricians will implement the recommendation from clinical guidelines in the treatment of O & G cases when introduced. Introduction of clinical guidelines will benefit the patients according to this survey.

008 Assessing Clients' Satisfaction in A Free Antenatal Care Setting

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Background: Antenatal care is of paramount importance in the drive to reduce maternal and perinatal morbidity and mortality. Cost and care providers' altitude among others have been cited as a major reasons for poor utilization of antenatal care services in the developing countries.

Objective: To assess client satisfaction with the free antenatal care services offered by a tertiary health institution in a low-resource setting.

Methods: An exit interview using semi structured questionnaires was conducted by the investigators on randomly selected antenatal clinic attendants who consented over a month period.

Results: Two hundred women participated in the study. Even though majority (75.5%) was satisfied with the services at the center, a lot also (65%) complained of lack of feedback from the providers. Delay in service, lack of privacy and the rowdy nature of the clinic were the recurring reasons for dissatisfaction in 25.5% of the clients.

Conclusion: With the elimination of cost, patient satisfaction becomes a major factor in uptake of antenatal care services. However, other major factors might still persist, especially in a tertiary health institution where a limited number of care providers have to attend to a large number of clients in the presence of numerous medical and nursing students and within a limited time and space. Improvement in numerical strength and attitude of the manpower in tertiary health institutions, coupled with improvement in infrastructure are desirable in improving client satisfaction and hence increase uptake of services where free antenatal care services are provided.

009 Raising an Army of Trained Midwives

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Introduction: Maternal Mortality Rate (MMR) of over 1000 per 100,000 live births in Nigeria (UNICEF2003) is among the highest in the world. This figure is unacceptable in the 21st century. Our women die from pregnancy-related causes in all three trimesters. Interventions needed to reduce maternal mortality rate include health sector reforms, training of more obstetricians to deal with obstetric emergencies and the training of an army of midwives to operate at the family, community, primary, secondary and tertiary levels of health care.

Objective: To compare and contrast the contributions of health sector reforms and the training of more obstetricians and more midwives to the reduction of maternal mortality rate.

Methodology: Review of maternal deaths in a tertiary institution in relation to poor antenatal care facilities and scarcity of midwives in the country.

Results: Health sector reforms in Nigeria (1999) gave low priority to Reproductive Health and to maternal mortality rate, and favoured tertiary care medicine, immunization, sophisticated surgery and the fight against HIV/AIDS.

Discussion: With such low priority given to reproductive health, and with the fall in socio-economic indices, the maternal mortality rate is rising. Doubling or even quadrupling the number of consultant obstetricians cannot bring about a quick fall in maternal mortality rate because their range of operation is limited to tertiary care. Many of the pregnancy-related maternal deaths take place before they reach the primary health care centres. Fewer of the high-risk cases reach the secondary health care centres, and still fewer reach the tertiary care level where obstetricians operate. The absence of trained midwives at the family, community, primary and secondary health care levels is the reason many high-risk mothers die without being diagnosed and without being treated.

Conclusion: Of the major interventions required to reduce maternal mortality rate (health care reforms, more obstetricians and more trained midwives), the raising of an army of trained midwives to operate at the family, community, primary and secondary health care levels is the intervention most likely to bring about the desired change. SOGON should therefore spearhead this revolution, and earn the accolade "SAVIOUR OF WOMEN" which young Ignaz Semmelweis (1818-1865) had earned for introducing, in 1846, the washing of hands thoroughly in chlorinated water before taking deliveries in the labour room, thus drastically reducing maternal deaths from puerperal fever.

010 Post Abortion Care: Knowledge, Attitude and Practice of Health Care Providers in Ibadan

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Context: Unsafe abortion is a major public health issue. Globally one in eight pregnancy-related deaths (an estimated 13%) are due to unsafe abortion.

Objectives: To evaluate knowledge of health care providers in Ibadan about unsafe abortion and post abortion care. Also to determine the level of post abortion care offered victims of unsafe abortion in health care facilities in Ibadan.

Methodology: Structured self administered questionnaires were administered to health care providers (Doctors & Nurses) working in various health care facilities in Ibadan between October 1st and December 31st 2002 using stratified random and convenience sampling methods: Data generated were analysed using SPSS software package and significance of association by χ^2 test.

Results: Thirty-eight medical doctors (33.6% of the respondents) and 75 nurses (66.4%) working in different health care facilities in Ibadan filled the questionnaire. Most respondents demonstrated partial knowledge (83-85% among doctors and 77-92% among nurses) of what constituted unsafe abortion. This was not influenced by length of practice post qualification or area of specialisation, but by the type of health care facilities where respondents were working as evidenced by higher proportion of nurses in government hospitals having partial or complete knowledge compared to those in private and missionary hospitals. However, the respondents demonstrated substantial knowledge of post abortion care (66-100%) and this was significantly affected by experience, increasing with length of practice up to 15 years post qualification. Manual vacuum aspiration is the most commonly used treatment modality for incomplete abortion. In missionary hospitals however, metal curettes were the most commonly used.

Conclusion: Knowledge of the health care providers in Ibadan about unsafe abortion is at best inadequate. Efforts should be made to promote a more widespread use of manual vacuum aspiration to treat incomplete abortions, especially in missionary hospitals.

011 The Contributions of Delays in Institution of, and Inappropriate Emergency Obstetric Care To Maternal Mortality in the Niger Delta, Nigeria

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Background: Maternal mortality rates remain unacceptably high in Nigeria. While poverty and non-utilisation of antenatal care are recognized risk factors, access to and provision of appropriate emergency obstetric care is poor in many health facilities

Objective: To determine the contributions of delays in the institution of, and inappropriate emergency obstetric care at referral centres to maternal mortality at a tertiary hospital in the Niger Delta, Nigeria

Method: An audit of 115 consecutive maternal mortalities over a ten-year period at the Baptist Medical Centre, Eku.

Results: The Maternal Mortality Ratio (MMR) was 2232 per 100,000 live births; 420 per 100,000 live births for women who booked for antenatal care and 4123 per 100,000 live births for unbooked women. The common causes of death were puerperal sepsis (33.0%), abortion and its complications (22.6%), severe pre-eclampsia/eclampsia (17.4%), prolonged obstructed labour and its sequelae (13.0%), and obstetric haemorrhage (7.8%). Of all abortion-related mortalities (26), 17 cases were managed inappropriately in private hospitals/maternalities for at least 3 days before presentation. Nine presented at least five days after the onset of severe morbidity from home. Thirty-four (38.2%) of the deaths unrelated to abortions had been managed for at least 48 hours by traditional birth attendants (TBAs) before presentation. Seventeen (19.1%) had been managed by both TBAs and at least one private clinic before presentation. Twenty-eight patients (31.5%) had prior management in private clinics only. Of these, 64.5% were inappropriately managed for at least 48 hours before patients' relatives took them away. Ten (35.7%) were referred after 1-5 days of inappropriate management. Doctors in General Hospitals referred patients promptly, although patients generally presented there after more than 2 days of morbidity at home.

Conclusion: Delays in referrals from private clinics and by traditional birth attendants, and delays in the institution of a appropriate emergency obstetric care were major contributors to maternal mortality in this study. Urgent programmes to ensure continuous training of private medical practitioners in emergency obstetric care and training and incorporation of TBAs into the health sector need to be instituted to enhance avertion of maternal mortality in Nigeria.

012 Companionship in Labour: The Practice in Obstetric Centres in Osogbo and Ile-Ife.

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Introduction: One-to-one support offered by a lay person or a professional- either accompanied or unaccompanied by a relative- to women during labour has a positive effect on medical interventions during labour and on mothers' emotional well-being.

Objective: To determine the knowledge and attitude towards continous companion in labour among pregnant women in Osogbo and Ile-Ife and also the its practice in the major hospitals in these two towns.

Methodology: Structured questionnaire were administered to pregnant women at booking in LAUTECH Teaching Hospital, Asubiaro General Hospital, Jaleyemi Catholic Hospital all in Osogbo and OAUTHC in Ile-Ife between 1st of May, 2005 and 31st of July, 2005.

Results: A total of 836 pregnant women completed the questionnaire. There were 307(36.7%) nulliparous women in all. Majority (95.3%) of the nullipara wish to have a continous companion in labour. Husband topped (45%) the list of the preferred companion among this group. The multiparous women constituted 63.3% (529) of the participants. Among this group, 96.3% have had previous hospital delivery. Only 411(80.9%) of the multipara had a companion in their last labour. The companion was the husband in 27.7% of cases followed by midwife in 26.4% of cases. However, greater percentage (40.9%) of them wished that a doctor will be their companion in their next labour.

Conclusion: There is need to increase awareness and encourage the practice of continuous companion in labour if its full benefit will be realized.

013 Common Gynaecological Conditions at the Jos University Teaching Hospital, North Central Nigeria.

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Introduction: Knowledge of the common gynaecological conditions in a centre is important in alerting the clinicians to prepare for their management, and helping the hospital administration provide supplies.

Objectives: To determine the frequently encountered gynaecological conditions in the gynaecological clinic at the Jos University Teaching Hospital, Jos, Nigeria.

Methodology: This was a retrospective analysis of all gynaecological consultations at the Jos University Teaching Hospital, Nigeria between January 1999 and December 2003. The clinic records were retrieved and the demographic and clinical findings were collated and analysed, using Epi-Info 2002^R software.

Results: A total of 2,820 gynaecological conditions were reported. The patients were between the age of 1 and 91 years, with a mean [SD] of 31.5 [9.5] years. Hausa women were the commonest attendees at the clinic (12% of the women). Infertility was the commonest gynaecological condition, accounting for 43.8% of the cases. Secondary infertility accounted for 68.2% of all the cases of infertility. Infectious disorders accounted for 15.7%, with pelvic inflammatory disease accounting for up to 61.1% of all the gynaecological infections. Benign gynaecological tumours were reported in 15.0%, and uterine fibroids formed the bulk of these tumours (75.1%). Menstrual disorders were recorded in 12.0%. Malignant tumours made up 3.7% of the cases and cancer of the cervix constituted 74% of all the malignancies.

Conclusion: Despite the high fertility rate among our women, infertility still remains the commonest reason for gynaecological consultation in the centre. Cancer of the cervix was the commonest gynaecological malignancy recorded.

014 Utilisation of Maternity Services at the Secondary Health Care Level in a Low-Resource Setting.

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Background: Improving maternal health remains central to achieving the millennium development goals. Utilization of prenatal and maternity services will reduce maternal and perinatal morbidity and mortality in a population. In Nigeria, a low percentage of pregnant women attend prenatal clinics or deliver in hospitals.

Objective: To evaluate the level of and factors militating against utilization of prenatal and maternity services at the secondary level health care facility.

Methods: The researchers, using semi-structured questionnaires in a cross-sectional study that spanned 3 months, interviewed consenting expectant mothers from 3 randomly selected communities.

Result: About 90% of the 150 respondents were aware of the prenatal/maternity services in the General hospitals in their communities. Only a fraction of those who had utilized such facilities were willing to continue further patronage. The non-availability of doctors, cost, poor quality services, lack of drugs and equipment, transport difficulties and negative attitudes of personnel were reasons for their disinterest. The willingness to utilize the facility was directly related to their educational status.

Conclusion: Improving access to quality prenatal & maternity care services at all levels of the healthcare system remains paramount to the effort at improving maternal health. The secondary level is an important link: receiving and managing cases from primary health centres, and referring complicated ones to tertiary centres. There is an urgent need for community mobilisation, improvement in staffing, equipment, drug supplies and infrastructure while minimising cost implication, to achieve optimal use of prenatal and maternity services at the secondary health care level.

015 Obstacles to Safe Motherhood in Benue State, Nigeria

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Context: Safe motherhood is a prerequisite for human survival.

Objectives: To determine the contraceptive prevalence, hospital delivery rate, manpower, drugs and services in obstetric facilities in Benue State, Nigeria

Materials and Methods: This was a one-year descriptive study of obstetric service data of the 100 busiest maternities in Benue State from 1st April 2002 to 31st May 2003. Data was obtained from routine obstetric registers in the maternity, theatre and the gynaecology ward. Information obtained included signal functions performed, total deliveries, caesarean sections, obstetric complications and maternal deaths. The study was conducted between 2nd and 19th June 2003.

Results: Benue State has a population of 3.8 million people. Women of childbearing age make up 20% (760,000) of the population. 5,158 women were using modern method of contraception during the period giving a contraceptive prevalence of 0.67%. During the study period, a total of 28,399 (19 % of expected) pregnant women booked for antenatal care. There were a total of 13,825 deliveries (9% of expected deliveries) in all the surveyed facilities, and 1,700 of these (only 1% of expected) were in places with facilities for emergency obstetric care. About 52% of the deliveries were booked. In 25% of the facilities, the clinics were locked and staff had to be called from their houses for the assessment. The average number of deliveries per midwife during the period was 3/month (36/year). Community health extension workers (CHEWS) conducted majority of the deliveries. There were 1,240 members of staff in the facilities (13/facility), with 438 (35%) being skilled. Only 84 (7%) of the entire staff attended an update course in any area of reproductive health in the five years prior to the study. Midwives were not employed in Government hospitals in the previous 10 years. The health management information system was poor as evidenced by poor record keeping and lack of data analysis in the facilities. Maternal mortality was underreported. Only 24 (24%) of the health facilities recorded maternal deaths and 49 (49%) recorded direct obstetric complications in their registers. There were no protocols for managing obstetric complications in the facilities. Referral registers were available in 2(2%) of the facilities. Communication between the facilities was ineffective though available in 40% of the facilities. The case fatality rate from direct obstetric complication was 7%. The partnership for transforming health systems has thereafter trained 300 midwives on life saving skills and 30 doctors on expanded life saving skills in addition to distribution of drugs, supplies and consumables to the facilities.

Conclusion: The contraceptive prevalence is very low and quality emergency obstetric care facilities were lacking, resulting in underutilisation of the facilities. There is the need to strengthen the health systems in the state to cope with obstetric emergencies.

016 Knowledge and Use of the Partograph Among Healthcare Personnel at Peripheral Maternity Centres in Ogun State, Nigeria

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Introduction: In an attempt to evaluate the contributory factors to the high frequency of referred cases of obstructed labour at the State's referral hospital, this study was embarked upon to evaluate the knowledge and use of the partograph among the primary healthcare personnel in Ogun State, Nigeria.

Materials and Methods: Questionnaire-based survey of 396 personnel in 66 randomly selected peripheral maternity units in Ogun State, Southwestern Nigeria between November and December 2004. Information was obtained on awareness and knowledge of the partograph, main source of knowledge, its benefits and routine use for labour management. A 'knowledge score' for each personnel was obtained by summing up scores for correct answers to selected items on the questionnaire and the level of knowledge was rated as poor, fair or good depending on the total score.

Results: Majority of the personnel were Nurses/midwives (45.5%) and Community Health Extension Workers (CHEW) (42.7%). Of the 216 personnel (54.5%) who were aware of the partograph, 119 (55.5%) and 61 (28.2%) of them demonstrated fair and good levels of knowledge respectively. No junior CHEW had good knowledge of the partograph. Only 39 (9.8%) of all the personnel routinely use the partograph and most of these individuals had poor knowledge scores.

Conclusion: The level of awareness, knowledge and use of the partograph at the primary healthcare level in this State falls below expectation. Efforts to limit the frequency of referred cases of obstructed labour at the State's referral hospital should include training of careproviders at the peripheral delivery units, especially junior personnel in the effective use of the partograph in addition to employing quality assurance measures to check inappropriate use.

017 The Determinants of Duration of Breastfeeding Among Antenatal Patients in Ibadan
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Introduction: Breastfeeding has been shown in recent times to be closely related to infant survival. On one hand, prolonged and adequate breastfeeding is critical to most infants' nutritional health and growth. On the other hand, in HIV positive mothers, breastfeeding may jeopardise infant survival.

Objectives: To determine the factors related to the total duration of breastfeeding of infants of antenatal patients at the University College Hospital (UCH) Ibadan and Oluyoro Catholic Hospital (OCH), Ibadan.

Methodology: The study was conducted among 200 antenatal clinic patients at UCH and 200 antenatal patients at OCH, Ibadan. The cross-sectional study was conducted between 1st September and 30th October 2005. Nulliparous patients were excluded. The structured questionnaire sought information on age, parity and previous deliveries including the sex of infants, length of both exclusive and total breastfeeding. Factors related to this and family support was also explored.

Results: Preliminary analysis showed that the duration of breastfeeding is longer in younger patients and in patients of low socio-economic status. Duration of total breastfeeding ranged from 0-36 months with a mean of 14.24 months. For exclusive breastfeeding, the mean was 4.2 [SD 2.55] months. However, using a linear regression model, the only factor that significantly affected the duration of breastfeeding was the socio-economic status of the woman.

Conclusion: Socio-economic status is an important determinant of the duration of breastfeeding. This information should assist in targeting the appropriate population for intervention that will improve infant health and survival.

018 Patients Assessment of Quality of Obstetric Care in a Nigerian Tertiary Hospital

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Background: Providing good quality reproductive health services is one of the objectives of safe motherhood. Assessing quality of care helps sensitize researchers to women' concerns, priorities and preferred expression.

Objectives: To describe patients' views of antenatal and delivery care services and to determine deficient areas in the service system from the patients' perspective.

Methods: This was a descriptive study done at the University College Hospital, Ibadan. One hundred and thirty seven women who had both antenatal and delivery care in this hospital were randomly selected and interviewed, using structured questionnaires.

Results: About half (74/136) of the respondents had post secondary education and 59.5% booked in the 2nd trimester. The desire to be cared for by qualified staff and specialists was the commonest reason for booking. Among the respondents, 43% had complaints about the antenatal clinic, the most common being lateness of the doctors, and 77 of the women had recommendations for improving the clinic. Seventy one percent of the respondents wanted a relative at her bedside in labour and 75% would have liked to have some form of analgesia in labour. Majority (87%) of the women would like to use UCH in subsequent pregnancies.

Conclusion: Pregnant women have expectations of their care providers and their assessment of the quality of care they receive matters. The desires of pregnant women are simple and can be easily achieved by better information, education, and counselling, as well as positive modification of protocols.

019 Do Nigerian Women Prefer Female Gynaecologists? A Survey in an Urban Specialist Hospital Setting.

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Context: Gender issues remain a topical matter in our world of today. In Nigeria there still appears to be little insight on the basic issue of provider gender preference from our patients' point of view. In order to encourage our women to access available healthcare institutions emphasis must now be placed on their expectations without compromising on quality and ethics. This study on provider gender preference as related to Obstetrics & Gynaecology will go a long way in shedding light on this matter.

Objectives: To investigate patients' gender preferences for Obstetrician/Gynaecologist and factors influencing their choice, in a private hospital setting

Methods: A total of 347 women attending three hospital-based outpatient clinics in Lagos completed a self-administered questionnaire designed to assess women's gender preference for Obstetrician/ Gynaecologist and the factors influencing their choice.

Results: Overall, 51.9% of women had no gender preference, 30% preferred a female gynaecologist and 17.9% a male. However, 81.3% of women chose professional competence as the most important factor in determining choice of gynaecologist followed by good reputation (4.3%) and gender (2.3%). Out of 82 respondents who gave reasons for their choice of female gender, 68.3% were simply more comfortable with the female whilst 77.6% of the 49 respondents who choose male gender felt they were more attentive, understanding and competent compared to their female counterparts.

Conclusion: Our study showed that about half of our female population have no particular gender preference. Among those who do, a clear majority prefer a female gynaecologist. Nevertheless, the majority of our women still rank professional competence and good reputation above gender in determining choice of physician.

020 Health Sector Reform and Maternal Mortality Reduction in Nigeria.

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Introduction: Health sector reform is a broad-based, purposeful and sustainable fundamental change in the function, structure, and performance of health systems, in order to improve efficiency, equity, quality of care, effectiveness and sustainability of the health sector as well as replicating best practices and making optimum use of the existing resources. Safe motherhood on the other hand is defined as the concerted, collective efforts by a pregnant woman herself, her spouse, other members of the family, the community and health care providers at all levels of care to ensure the safety of the mother and baby in pregnancy, childbirth and the puerperium.

Objective: To review the role of Health Sector Reform (HSR) in reducing maternal and neonatal mortality in Nigeria.

Methodology: Available publications on HSR and Safe Motherhood (SM) were reviewed and synthesised in order to determine the contribution of the reform towards improving maternal and neonatal health.

Findings: HSR is meant to reposition public health sector to be more responsible and responsive to the health needs of Nigerians, who will live healthier, longer and more productive lives. Currently, Nigeria has no national health act which describes the National Health Service delivery system. There is also insufficient and unbalanced resource allocation between the three tiers of government. Nigeria has one of the lowest national health budget in Africa (\$4 Vs \$14 per capital), a global minimum for developing countries and poor quality health services and facilities. There is also non-functional referral system while consumers are unaware of their rights and therefore do not demand for it. Fake and substandard drugs are prevalent in all parts of the country. Another important defect in the health system in Nigeria is the abundance of inefficient poorly skilled attendants at childbirth. In addition, the weak health service delivery system could not deliver the minimum package of quality of care, including routine immunization, Emergency Obstetric Care (EOC), malaria prophylaxis and management of HIV/AIDS. This is further compounded by poor coordination and collaboration among donor and development partners

Conclusion: HSR could be central to maternal mortality reduction, including the improvement of the cost-effectiveness of essential health care services, strengthening the capacity for decentralised management, improving the quality of obstetric and neonatal care, improving the ability of the private sector to provide sound obstetric and neonatal care, strengthening drug supply and management, cost saving, and supporting the new role of the ministries of health. The basic package of essential health services is an important HSR strategy. The package consists of cost-effective intervention to prevent or control the major causes of maternal morbidity and mortality in Nigeria. An integrated approach to maternal mortality reduction through the Safe Motherhood Initiative increases the efficiency of services as the resources needed for implementation such as drugs, supplies, human resources and transport for referral overlap with those needed for other components of maternity care. HSR recognizes the private sector as a key partner in health care delivery services particularly, obstetric and neonatal care. This is considered to be pivotal to the Safe Motherhood Initiative. Improvement in quality of care, leading to greater patient satisfaction, are expected to lead to increased utilisation of health services, making the investment on staff, clinics and equipment for health care delivery yield greater dividends.

021 Pattern and Maternal Outcomes of Referrals from Traditional Birth Attendants to a Rural Mission Hospital.

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Background: Traditional birth attendants (TBAs) play crucial roles in maternity care delivery in the low-resource communities of sub-Saharan Africa. Lack of consensus trails their role and effectiveness.

Objectives: To examine the nature and outcomes of cases referred by TBAs to a rural mission hospital.

Methods: This descriptive study involved a review of data collected prospectively over a two-year period. Cases referred from the TBAs were recruited upon consent and interviewed using the research proforma.

Results: Of the 747 maternities seen, 241 (32.2%) were referred from the TBAs and 108 of these attended antenatal clinics at the mission hospital. Majority (76.8%) had obstructed labour. Thirteen (5.4%) had ruptured uterus while two were dead on arrival. They accounted for eleven of the eighteen maternal mortalities during the period and had a specific MMR of 4564 / 100,000 when the hospital's figures were 1452 / 100,000 livebirths.

Discussion: Delays in instituting appropriate interventions in obstetric emergencies are key factors responsible for maternal mortality in developing countries. Parturients spend time with the TBAs, who keep them without effective management protocols and who are ignorant of grave obstetric signs and symptoms. Such patients are eventually verbally referred *in extremis* with resultant high maternal and perinatal morbidity and mortality.

Conclusion: Maternal mortality among patients referred from the TBAs are alarming. The role of the TBAs can no longer be discountenanced. They need to be trained in recognising danger signs in parturients and be encouraged to initiate early referrals.

022 Companionship in Labour: What Motivates the Menfolk?

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Background: In recent times, the men's involvement in all aspects of reproductive health is being appreciated. Labour and delivery constitute enduring experiences for women. Companionship through these critical moments with medical personnel and/or relatives has been shown to be beneficial.

Objectives: To evaluate factors motivating men who accompany and stay with their wives during childbirth.

Methods: Men who stayed with their wives during childbirth were randomly recruited into the study upon verbal consent. They were interviewed using a pre-tested standardised questionnaire. The women were also interviewed. The study spanned 6 months.

Results: Responses from 149 respondents were analysed. They cut across all social and educational strata. The human desire to be with loved ones during their difficult moments (81.2%), the feeling that their presence was needed (67.8%) and the fact that they had to bear the fees (64.4%) were the commonest motivating factors among the respondents. All parturients were satisfied with the presence of their spouses.

Conclusions: Childbirth, though a physiological process may be attended by severe pains, uncertainties and frustrations. The parturient feels naked and vulnerable and desires companionship through the birthing process. The presence of their spouse is always desirable. The spouses are motivated by a variety of factors. Men accompanying their wives through childbirth deserve encouragement and would be further motivated if the attending medical and health personnel positively reinforce their actions.

023 The Partograph - Is it Available in our Labour Wards?

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Background: Maternal and perinatal morbidity and mortality attributable to prolonged obstructed labour are major complications of childbirth in developing countries. The partograph is a cost-effective tool that will reduce these complications. Despite promotion of its use, morbidity and mortality from prolonged labour remain a major complication of labour.

Objectives: To determine the rate of utilisation of the partograph among selected health facilities and assess the knowledge of health care workers regarding the partograph.

Methods: This descriptive study was conducted in Ogun, Osun and Oyo States. Respondents were selected by a multi-stage sampling method in two local governments in each state from primary health care centres, private health care facilities and public secondary level facilities. One tertiary level facility was also included in each state. Interviews were conducted with a semi-structured questionnaire.

Results: There were 668 respondents comprising of Community Health Extension Workers (CHEWS) - 15.3%, Auxiliary Nurses (20.1%), Nurse/Midwives (49.7%) and Physicians (14.7%). Distribution of respondents by level of care was primary (33%), secondary (42.4%) and tertiary (24.6%). There were 51.1% and 48.9% respondents from public and private health facilities respectively. Only 34.2% of respondents use the partograph to monitor women in labour. Partograph use was reported significantly more frequently by respondents in tertiary level compared with respondents from primary/secondary levels of care (74.9% vs. 21.8%; $\chi^2 = 162.8, p < 0.0001$). About three quarters of all respondents did not know that the partograph could be employed at all levels of care. Only about 40% of all respondents could correctly mention at least one component of the partograph. Respondents from tertiary facilities were significantly more likely to correctly mention at least one component of the partograph ($\chi^2 = 87.5, p < 0.0001$). Only 17.6% of respondents could explain the function of the alert line while 26.2% could explain the function of the action line. Working in a public health facility was significantly associated with correct explanation of the function of the action line, but not with function of the alert line. More tertiary level respondents correctly explained the function of the alert line compared with respondents from the primary and secondary levels of care (61.1% vs. 44.9%; $\chi^2 = 5.9, p < 0.05$), but there was no difference in their understanding of the function of the action line ($\chi^2 = 0.4, p > 0.05$).

Conclusion: The partograph is available mainly in tertiary health care facilities. Health workers have poor knowledge of the partograph. Though affordable, the partograph is neither accessible nor available to the parturient woman. Well coordinated training programmes and dedicated efforts are recommended for effective introduction of the partograph at all levels of care.

024 An Audit of the Use of the Partograph in a Nigerian Tertiary Hospital

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Background: The partograph has been identified as a cost-effective tool that will save women's lives by preventing complications during labour. Despite the promotion of its use, it remains unpopular.

Objectives: To assess the level of documentation on the partograph, its influence on decision-making and the outcome of labour for both mother and child at the University College Hospital, Ibadan.

Methods: This retrospective study was conducted by reviewing the partograph records of parturients managed during 2004. The medical records of all women who were monitored during the first stage of labour were retrieved and relevant information recorded on a data sheets. Details of all findings were recorded including the women's booking and risk status, interventions and outcome for mother and infant. Data were entered on SPSS software, and associations explored with chi-square and student's t-test as appropriate. Level of significance was set at $p < 0.05$.

Results: Total delivery in the year 2004 was 1 319. Four hundred and forty five women had partographic monitoring during labour of whom 241 (54.2%) were low risk and 202 (45.8%) were high risk. Previous caesarean section (CS) scar was the commonest risk factor in labour. The mean gestational age was 38.8 ± 1.9 weeks. Fetal heart rate was monitored half-hourly in 170 (81.0%) of low risk women. High-risk patients were more likely to receive closer (quarter-hourly) monitoring than low parity women ($\chi^2 = 45.7, p < 0.0001$). Documentation was generally high and not influenced by the woman's risk or booking status, but the descent of the presenting part and the liquor status were the least recorded parameters. When the labour tracing crossed the alert line (31.2%) or reached the action line (10.1%), augmentation of labour was more often resorted to than emergency CS. When the tracing crossed the action line however, the intervention significantly more likely to be emergency CS than augmentation of labour (88.2% vs. 11.8%; $\chi^2 = 5.3, p < 0.05$). Intervention for inadequate uterine contractions was more likely to be augmentation of labour than emergency CS (81.4% vs. 18.6%; $\chi^2 = 3.9, p < 0.05$). This decision was not significantly influenced by the risk status ($\chi^2 = 0.003, p > 0.05$). The high-risk woman and the unbooked woman were significantly more likely to be delivered by operative delivery than their low-risk and booked counterparts respectively. However, the outcome of labour was favourable for the majority of low and high-risk women and their infants.

Conclusion: The partograph is universally employed in monitoring of labour at the University College Hospital, Ibadan. Its use significantly influences decision-making and also significantly associated with positive labour outcome among low and high-risk parturients. The partograph is recommended as the sine qua non tool for labour monitoring in all health facilities in Nigeria in order to reduce maternal and perinatal morbidity and mortality.

025 External Cephalic Version in Nigerian Women

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Objective: To reduce the number of caesarean sections for breech presentation at term.

Materials and Methods: In a study done at the Abia State University Teaching Hospital, Aba, Nigeria between 1st January 2000 and 31st December 2004, women who had breech presentation and met the other inclusion criteria had external cephalic version performed.

Results: One hundred and eleven patients had external cephalic version at term. The mean age of the patients who had the procedure done was 30.5 ± 8.0 years and mean parity was 5 ± 4. Sixty-one fetuses out of the 74 (82.4%) who had a successful cephalic version had vaginal delivery.

Conclusion: External cephalic version can be performed to reduce caesarean section in patients. It is cheap and reduces the morbidity and mortality associated with a caesarean section.

026 Comparison of Elective Caesarean Section to Misoprostol Induction for the Delivery of Antepartum Eclampsics

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Context: Eclampsia has now emerged as the commonest cause of maternal mortality in Nigeria. There is need for research on the best modality of delivery for eclamptic patients.

Objective: To compare the maternal and fetal outcome of primigravid antepartum eclampsics delivered either by caesarean section (CS) or induction of labour using misoprostol.

Methodology: The study was a prospective study conducted on 50 antepartum eclampsics at the Federal Medical Centre, Azare. The patients were systematically randomized for delivery either by CS or induction of labour using misoprostol. The fetomaternal outcome of the two groups was compared.

Results: 25 of the patients had CS and 25 had induction of labour with misoprostol. The mean age of the CS group was 19.6 years while that of the misoprostol group was 17.7 years. The mean decision delivery interval was 4.1 hours and 13.08 hours for the CS and misoprostol groups respectively. Misoprostol failure was recorded in 4 (16%) patients and they were subsequently delivered by CS. The duration of admission was longer in the CS group (mean of 10.1 days) compared to the misoprostol group (mean of 6.08 days). There were more maternal complications and admissions of babies into the special care baby unit in the CS group. Maternal mortality in the two groups was similar (2% each).

Conclusion: Misoprostol is cheap, available and safe for delivery of antepartum eclampsics. It may however fail in which case caesarean section should be resorted to.

027 Fetal Macrosomia: Maternal and Fetal Outcome

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Objectives: To determine the incidence, maternal and fetal outcome in pregnancies complicated by macrosomia in AKTH, Kano.

Methods: The maternity records of 10, 538 patients who delivered in AKTH between January 2001 and December 2004 were reviewed. Patients whose singleton infants weighed 4000g or more at birth were identified. Characteristics and outcome of labour for both mother and infant were analysed in detail.

Results: The incidence of fetal macrosomia was 3.38%. The mean birth weight of infants in the unit over the period was 3.1kg compared to 4.3kg in macrosomic infants. About 33% of the mothers weighed more than 90kg, and 67.6% were above 160 cm tall. Majority of the patients are literate and gainfully employed.

Pregnancy induced hypertension and malpresentation were the main pregnancy complications. Some 15.3% had previously given birth to a big baby and 11.0% had prolonged pregnancy. The caesarean section rate in this population was 16.0%, compared to 2.5% in controls. Primary PPH and second-degree perineal tears were each seen in 1.8% of patients while shoulder dystocia and third-degree perineal tears were each observed in 1.1% of cases. Male babies predominated. Asphyxia, sepsis and jaundice were the main fetal complications. The perinatal mortality rate was 54 per 1000.

Conclusion: Fetal macrosomia increase the risk of morbidity and mortality for both mother and baby. Birth asphyxia, perineal injury and shoulder dystocia pose specific challenges. Increased clinical vigilance may reduce the associated high perinatal mortality rate.

028 Non-Pneumatic Anti Shock Garment (NASG) Resuscitation in Patients With Post Partum Haemorrhage

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Objective: This report concerns treatment and recovery of 32 Nigerians with postpartum haemorrhage (PPH) and American College of Surgeons Class III or IV shock treated with the Non-Pneumatic Anti Shock Garment (NASG).

Methods: Upon admission, they met 3 of 4 criteria: blood loss > 1500 ml, PCV < 20%, pulse > 120, blood pressure (BP) < 80/50 mmHg, altered mental status. During resuscitation, the vital signs were recorded every 15 minutes. The protocol advised giving 1500 ml saline rapidly and additional saline to achieve minimum BP of 80/50, corresponding to a mean arterial pressure (MAP) of 60 mmHg, which is considered adequate for organ perfusion.

Results: When the NASG was placed, the estimated mean blood loss was 1471 ml and mean PCV 18.9% (N = 24). Mean blood loss with the NASG was 220 ml. Mean volume of blood transfused was 1442 ml; discharge PCV 23.8% (N = 30). After placing the NASG, 28 of the 32 women had improvement of vital signs by the next 15-minute recording. Resuscitation interval, the time from placement of the NASG until achieving MAP ≥60, was 52 minutes. Patients with more rapid IV saline infusion responded more quickly; those getting infusion at >1000ml/min recovered in 24 minutes (N-17); those receiving <1000 ml/min took 83 minutes (N=15). None of the survivors experienced morbidity.

Conclusion: Prompt resuscitation using the NASG was enhanced by rapid saline infusion, but intravenous fluids were not immediately accessible for all the women. However, vital signs began to improve almost immediately after placing the NASG, even when fluid infusion was delayed.

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029 Obstructed Labour: The University of Uyo Teaching Hospital Experience.

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Objective: To establish the incidence of obstructed labour, the socio-demographic and reproductive characteristics, source of patients and outcome of obstructed labour in Uyo, Nigeria.

Design and Setting: Retrospective descriptive study at the University of Uyo Teaching Hospital, Uyo, the main referral centre for obstetric cases in Akwa Ibom State, South-South Nigeria.

Methods: The case notes of patients with obstructed labour managed at the University of Uyo teaching hospital over a five-year period were studied.

Results: The incidence of obstructed labour was 3.7%. Most of the patients were nulliparous (48.7%) and between 21-30 years of age (67.9%). About 48.7% of them had no formal education and the largest group (35.9%) was from Ibibio tribe. Forty-two (53.8%) of the patients booked for antenatal care in conventional health centres while 46.2% were unbooked. Twenty-two (52.4%) of the booked patients were referred from conventional health centres after their labour had become obstructed. About 47.6% of the booked patients defaulted from antenatal care and were brought from unorthodox health facilities in very debilitating states. Most of the patients were (75.6%) were delivered by caesarean section. The commonest maternal complication was wound sepsis (25.6%) while the commonest neonatal complication was birth asphyxia (23.1%). The maternal mortality and perinatal mortality rates were 7,692/100,000 and 333.3/1000 births respectively

Conclusion: Obstructed labour contributes significantly to maternal and perinatal morbidity and mortality in our environment. Investment in midwifery training, replacement of traditional birth attendants with trained professional midwives in all our communities and early referral of patients with complications in labour to health facilities where they would be appropriately managed, will help reduce the incidence of obstructed labour and improve its outcome.

030 The Effect of Education on Pain Perception in Labour Among Parturients at the University College Hospital Ibadan

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Context: Pain perception as perceived by the parturient is determined by physical and psychological factors. The interplay of these factors is important to healthcare professionals managing these women in labour.

Objectives: To assess the influence of educational attainment, taken as a proxy for westernisation, on pain perception by parturients.

Methodology: A cross-sectional study was conducted among 765 parturients using a questionnaire with the Box Numerical Scale to assess pain score within 48 hours of delivery at the University College Hospital Ibadan Nigeria, between August 2003 and July 2004.

Results: A thousand consecutive parturient were enrolled into the study but 765 were included in the analysis after excluding Caesarean Section cases. Multiple linear regressions with robust estimation of the Standard Error of the Mean (SEM) were utilized. Pain scores were obtained within 48 hours of delivery using the Box Numerical Scale (BNS). The mean pain score was highest among other ethnic groups other than the predominant Yoruba ethnic group - 9.43 (95% CI: 9.30-9.56) and lowest among those with no formal education. Multivariate analysis revealed educational attainment as a significant predictor of BNS. A contrarian interaction between age and educational attainment was seen among women aged 25-30 years who showed lower mean pain scores among the educated compared to those without formal education.

Conclusion: In conclusion findings in this study support the hypothesis that westernisation through education tends to increase perception of pain by parturients in this environment.

031 Maternal Intrapartum Nalbuphine and Neonatal Respiratory Depression

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Introduction: Systemic analgesia is an integral part of intrapartum pain relief. Nubain® (Nalbuphine), a semi-synthetic narcotic agonist-antagonist analgesic has been reported to provide maternal relaxation and pain relief with minimal newborn respiratory depression due to a "ceiling effect". Conversely, neonatal distress has been reported after maternal Nalbuphine and similar anecdotal observations have been made at our community teaching institution.

Objective: To study the prevalence of adverse side effects in neonates of mothers treated with intrapartum Nalbuphine compared with a non-treated group, and to assess whether the severity or frequency of adverse events was related to dose and time interval between dose and delivery.

Method: The medical records of three hundred and thirty-eight women, who delivered infant(s) at a community hospital between May and December 2002, were reviewed for Nalbuphine treatment within 6 hours prior to delivery. The Nalbuphine-treated women (n=169) were matched with demographically similar controls (n=169). Infant's medical records in both groups were then evaluated for length of hospital stay and evidence of adverse events in transition i.e. the presence of dusky spells, unexpected transfers to Special Care Nursery, hypoglycemia and hyperbilirubinemia.

Results: There was no significant difference in the number of adverse reactions in the exposed group when compared to the non-exposed group.

Conclusion: Though the study lacked the required power to reveal a statistical difference between the two groups, a case could be made for a "ceiling effect". The use of Nalbuphine is generally safe

032 Duration of the Second Stage of Labour in Spontaneous Vertex Deliveries in Ilorin, Nigeria

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Objective: To determine the duration of the second stage of labour in spontaneous vertex deliveries at the University of Ilorin Teaching Hospital, Ilorin Nigeria.

Method: Women in spontaneous, labour were prospectively monitored during labour. Duration of second stage of labour was determined as the time interval between the patients feeling of urge to push (confirmed by vaginal examination as fully dilated cervix) and delivery of the fetus.

Result: During the period of study between 1st May and 30th June 2004, 238 parturients were monitored. The duration of second stage of labour ranged between one and 180 minutes with a mean, median and mode of 12.3 minute, 10.0 minute and 5 minute respectively. The duration was between 1 and 10 minute in 163 (68.5%) of cases and between 121 and 180 minutes in 2 (0.8%) of cases respectively. Mean duration in the nullipara was 11.7 minutes while it was 12.6 minutes for multiparae. Pearson correlation did not show any correlation between parity, birth weight, Apgar score at 5 minute and duration of second stage of labour

Conclusion: The duration of second stage of labour in the present study is shorter than the generally known duration. This finding needs further confirmation

033 Critical Care in Late Second Stage as a Strategy to Prevent Primary Post-Partum Haemorrhage in a University Hospital Setting

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Objective: To assess the effectiveness of a novel strategy called critical care in late 2nd stage of labour in preventing the primary post-partum haemorrhage (1^o PPH) associated with uterine atony in the 3rd stage of labour in a University hospital setting, in comparison with the previous traditional management of the 3rd stage of labour.

Material and Methods: In a five year period, all women having vaginal delivery were managed as follows: (a) A doctor was always present to administer ergometrine 0.5mg or (5-10) units of oxytocin intravenously (IV) with the delivery of the anterior shoulder in a singleton cephalic presentation. (b) After the delivery of the neonate, the placenta was delivered by controlled cord traction (CCT) without waiting for signs of separation of the placenta. (c) If the woman had any risk for 1^o PPH such as grandmultiparity etc. there was synchronous infusion of oxytocin drip at the time of the administration of the IV ergometrine, with the oxytocin mixture being (20-40) units per 500ml of fluid at a flow rate of (16-32) milliunits per minute, depending on the parity (d) If in spite of the above, 1^o PPH still occurs, the IV oxytocic was repeated and other usual steps taken to deal with the 1^o PPH. Prior to this strategy, the 3rd stage management was by the traditional method which consisted of the followings (a) All women of 0-4 parity had intra-muscular (IM) syntometrine or ergometrine administered by the midwife at the delivery of the anterior shoulder and placenta was delivered by CCT, after observing signs of placental separation. (b) For the women with risk for 1^o PPH such as grandmultipara, a doctor was called to administer IV ergometrine at the delivery of the anterior shoulder and the placenta was delivered by CCT without awaiting signs of separation. (c) If in spite of this 1^o PPH still occurs, the doctor was called who treated further with oxytocin infusion at a fast rate after repeating the IV oxytocic and other measures to arrest the 1^o PPH.

Results: In a five-year study period of 3rd stage management with critical care, there were 4950 deliveries, with 83.3% (4125 cases) being vaginal deliveries and 16.7% (825 cases) being caesarean sections (CS). There was 1^o PPH in 16.6% (823 cases) of all deliveries but in only 5% (205 cases) of the vaginal deliveries. The 205 cases of 1^o PPH after vaginal deliveries consisted of 35 primigravida (17.1%) and 45 grandmultipara (22%). In the prior five year period before the critical care strategy, there were 9625 deliveries with 7315 (76%) being vaginal deliveries and 2310 (24%) being CS. Primary PPH occurred in 3350 patients (34.8%), but in only 29% of the vaginal deliveries. Of the 2117 cases of 1^o PPH after vaginal deliveries, 550 (26%) were primigravida while 507 (33.4%) were grandmultipara.

Conclusion: The strategy of critical care in late second stage was very effective in reducing the incidence of 1^o PPH from the previous 29% to only 5% of vaginal deliveries in our unit. This approach is recommended to all tertiary healthcare centres to reduce the incidence of 1^o PPH.

034 Duration of Lochia Flow Amongst Postpartum Women in Zaria, Nigeria.

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Background: Lochia is expected after childbirth, usually from the day 1 through day 42 postpartum. It is commonly reported to last on the average between 2-3 weeks postpartum and to change from red, yellow to white in colour within the first few days, 1st and 2nd weeks postpartum. There is however little information on duration of lochia flow and associated factors in this environment.

Objective: To study the duration of lochia flow and associated factors amongst postpartum women, who attended the postnatal clinic of the Ahmadu Bello University Teaching Hospital, Zaria.

Method: A cross sectional study, using questionnaires administered to women, attending the postnatal clinic in May - August 2005. A total of 195 women were interviewed.

Results: Among the women, 62 (31.8%) were aged 26-30 years and 89 (45.6%) had 0-2 previous pregnancies. Fifteen (7.7%) of them had abdominal delivery while 128 (65.7%) of them were in the 1st two weeks postpartum. The average duration of lochia flow from this study was 14 days as against the 21 days reported from other studies.

Conclusion: A re-appraisal of the teaching on change in lochia colour through the postpartum period is necessary as the classical teaching differs significantly from what obtains in practice.

035 Management of Birth Asphyxia by Traditional Birth Attendants in Bayelsa State.

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Background: Birth asphyxia is an important cause of perinatal mortality, especially in developing countries. A study in Bayelsa State has shown that most of the traditional birth attendants (TBAs) can recognize this condition but cannot deal with it. They used various traditional methods, which lack scientific basis for management of birth asphyxia. The fallout of this is the high perinatal mortality and morbidity in the state.

Objective: To determine the various methods used by TBAs for infant resuscitation and management of birth asphyxia.

Methodology: This is a cross-sectional study carried out in two Local Government Areas (Yenagoa and Southern Ijaw) of Bayelsa State, between October and December 2004. Data was collected through the use of In-depth interview, from 11 trained and 42 untrained TBAs. Data analysis was by simple percentages.

Results: A total of 53 TBAs were interviewed, of whom 11 were trained and 42 untrained. There were 48 females and 5 males. Most of them are elderly postmenopausal women. Lack of spontaneous cry after birth is attributed to the following reasons - tiredness of the baby, failure of closure of the anus and the fontanelles; excessive compression of the chest by the liver and intestines; reduced or absence of water inside the stomach of the neonate because the mother did not drink enough water during labour; and caused by evil forces. The methods used in management include: (i) use of the mouth to suck out liquor from the baby's nostril or mouth (96.2%) (ii) use of water, sand, salt or salt water blown into the baby's face or applied to parts of baby's body (37.7%); (iii) lifting of baby's leg to turn the baby upside down so as to facilitate drainage of liquor, followed by continuous beating of baby (90.6%); (iv) massage of various parts of the baby to stimulate crying (34%), placing the placenta still joined to the baby in a basin of water to enable the baby to drink enough water (15%); (v) use of a finger to press down the tongue, then blowing salt water into the baby's face (13.2%); (vi) use of a finger to close the anus and other fingers to force the fontanelles to close (10%); and (vii) use of massage to force down the liver and the intestines, so as to free the lungs for breathing (12%). Other methods of infant resuscitation include the use of prayers and singing of praise worship songs near the asphyxiated baby, use of 3 broom sticks to beat infant's body, use of cocoyam stem or leaves to beat the infant and the use of dry salt placed on the back of the neck of the infant to stimulate crying.

Conclusion: This study has shown that the TBAs lacked adequate knowledge for the diagnosis and management of birth asphyxia. Their methods of management are very crude and lack scientific basis. There is an urgent need for the training and retraining of TBAs in infant resuscitation and the management of birth asphyxia.

036 Management of Obstetric Complications by Traditional Birth Attendants in Bayelsa State

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Background: Obstetric complications are major direct causes of maternal death; hence they are responsible for high maternal mortality ratio. To reduce the high maternal mortality ratio caused by them, they must be detected early and adequately managed by all those who take care of pregnancy, labour and delivery. Traditional Birth Attendants (TBAs) lack adequate knowledge about the management of these obstetric complications.

Objective: To determine how TBAs in Bayelsa State manage common obstetric complications

Methodology: This is a cross-sectional study carried out in two Local Government Areas of Bayelsa State, between October and December, 2004. Data was collected through the use of in-depth interview of 11 trained and 42 untrained TBAs. Data analysis was by simple percentages.

Results: For obstetric haemorrhage, 26.4% of them make use of herbal mixture as drink; 18.7% use leaves inserted into the vagina to close the cervix while 11.2% use abdominal massage to control bleeding. Other methods include drinking kerosene or salt water, use of ice blocks, use of cotton wool and sanitary pad soaked in methylated spirit to pack vagina, use of native chalk plus leaves to close the cervix and drinking of palm oil. Inpatients with eclampsia, 64% of them use abdominal massage as a means of treatment, 30% make use of herbal mixtures given to the patient to drink, 18.7% make cuts on the body at specific sites and apply herbal mixtures to the cut sites. Other methods are the use of ground pepper inserted into the vagina, eyes or ears; use of smoke from burning leaves allowed to enter the nostrils, eyes and ears; use of prayers and use of relatives (men) to hold down the eclamptic patient until she delivers. Some use 'lasix' tabs to remove excess water. For obstructed labour 94.3% of them make use of abdominal massage, 90.6% use fundal pressure, 53.8% give a herbal mixture drink, 22.6% use a mixture of substances such as honey, olive oil, palm oil, palm kernel oil, alligator pepper, native chalk and leaves, all inserted into the vagina. Use of deliberate dislocation of the hip-bone to relieve obstructed labour also occurs as is the use of boiled water or 'Lipton' tea to warm up the patient to relieve obstructed labour. In patients with sepsis/infections, they all lacked knowledge about the risk factors, causes and management. In patients with retained placenta, 98% use fundal pressure and abdominal massage, 35.8% use a bottle usually given to patients to blow into, 28.3% give the patient a salt-water solution to drink, 15.1% give a herbal drink and insert leaves inside the vagina while 11.3% just pray. Other methods include use of emesis inducers, drinking of kerosene or a mixture of ashes and kerosene.

Conclusion: The TBAs' methods of management of obstetric complications are very crude and lack scientific basis. There is urgent need for training the untrained and re-training the previously trained TBAs to recognise these complications and refer patients to hospitals for treatment.

037 Knowledge of Obstetric Complications and Practices of Maternal and Child Care by Traditional Birth Attendants

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Background: Majority of the birth in most developing countries, particularly in the rural areas, take place at home, assisted by traditional birth attendants or relatives. 60% of all births in developing countries take place outside modern health facilities. TBAs are reported to be handling between 30% and 45% of all births in Nigeria. The study was conceived to evaluate their knowledge and practices in maternal and child health, so as to provide information to plan for their training in the State.

Objective: To determine the knowledge of major obstetrics complications and the practice of maternal and infant care.

Method: This is a cross-sectional study carried in two Local Government Areas (Yenagoa and Southern Ijaw) of Bayelsa State between July 2004 and January 2005. The data was collected through focus group discussions and in-depth interview. Analysis was performed using simple percentages.

Result: Generally, most of the TBAs have very poor knowledge of the risk factors and causes of obstetric complications. Concerning the causes of obstetric haemorrhage, 28.3% believed bleeding is due to having too much of blood, 24.3% attribute it to evil forces and 13.2% to malaria fever. Causes of eclampsia given were too active nerves (56.6%), malaria fever (43.4%), evil forces, lack of enough blood or by excessive bad

water inside the body. For obstructed labour, cause given were infidelity or sin committed by the woman (58.5%), lack of opening of the cervix (52.8%), evil forces (22.6%) and lack of sexual intercourse during pregnancy. The causes given for sepsis were poor personal hygiene (11.3%), poor feeding (5.7%) and malaria. For the conduct of labour and delivery, procedures are done inside their living rooms. There is no routine cleaning of the vulva before examination to assess progress of labour. They all use ungloved hands to carry out vaginal examination and to take delivery. Delivery is conducted on top of cellophane or a piece of cloth spread on the floor. The second stage of labour is shortened by use of abdominal massage and fundal pressure. Placenta is delivered by use of fundal pressure and abdominal massage. All of them except one male TBA deliver both the baby and placenta before clamping cord to separate the placenta.

Conclusion: The study has shown that the TBAs have very poor knowledge of causes of obstetric complications. Their obstetric practice is also very crude. There is need for training of the TBAs to improve their knowledge so as to be able to recognise women with complications and effect referral.

038 "Near-Miss" Obstetric Events and Maternal Deaths in Sagamu, Nigeria

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Aim: To determine the frequency of 'near-miss' (severe acute maternal morbidity), the nature of 'near-miss' (NM) events and the ratio of maternal deaths to NM cases among pregnant women managed over a 3-year period in a Nigerian tertiary centre.

Methods: Retrospective facility-based reviews of medical records of women admitted for obstetric complications between 1 January 2002 and 31 December 2004. Case definition was based on validated disease-specific criteria, comprising of five diagnostic categories: haemorrhage, hypertensive disorders in pregnancy, dystocia, infections and anaemia. The prevalence of NM morbidity was calculated and analysed according to timing of NM events in relation to hospital admission. The death-to-'near miss' ratios for the three years were compared to assess the trend of the quality of obstetric care.

Results: There were 1501 deliveries, 211 NM cases and 44 maternal deaths. The total NM events were 242 with a decreasing trend from 2002 to 2004. Hypertensive disorders in pregnancy (31.4%) and haemorrhage (30.2%) were the most common types of NM morbidities. Haemorrhage due to abortion was not responsible for any NM complication. Most (84.8%) of the patients arrived at the hospital with NM morbidity while 15.6% occurred while on admission in the hospital. Almost a quarter of the NM events due to haemorrhage occurred in already hospitalised patients. Organ-system failure and intensive care unit admission were recorded in 9.0% and 4.3% of NM cases respectively. Maternal mortality ratio for the period was 3193 per 100,000 live births. Maternal death to NM ratio was 1: 4.8 and this remained relatively constant throughout the three years.

Conclusion: The quality of care received by women with life-threatening obstetric complications in this centre is sub-optimal, with no evident changes between 2002 and 2004. Reduction of the present maternal mortality ratio should focus on developing protocols for managing severe morbidities due to hypertension and haemorrhage in the context of the review findings. Tertiary hospitals in Nigeria could also benefit from evaluation of their standard of obstetric care by conducting 'near miss' audits.

039 Maternal Deaths in Sagamu, Nigeria: Experience in the New Millennium

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Introduction: For health institutions to contribute their quota towards the Millennium Development Goals (MDG) with respect to maternal health, current data on maternal mortality is essential for their care providers and policy makers to appreciate the burden and understand how best to distribute resources. This study presents the magnitude and distribution of causes of maternal deaths at the beginning of the 21st century in a Nigerian referral hospital and derives recommendations that can enhance the quality of obstetric care.

Materials and Methods: A retrospective descriptive study of all maternal deaths recorded at Olabisi Onabanjo University Teaching Hospital, Sagamu, Nigeria between 1 January 2000 and 30 June 2005.

Results: There were 2728 deliveries, 2509 live births and 75 maternal deaths during the study period. Sixty three (84.0%) of the deaths were direct maternal deaths while 12 (16.0%) were indirect maternal deaths. Major causes of deaths were hypertensive disorders in pregnancy (28.0%), haemorrhage (21.3%) and sepsis (20.0%). Overall, eclampsia was the leading cause of deaths singly accounting for 24.0% of maternal deaths. Abortion and HIV-related mortality accounted for 1.3% and 4.0% of maternal deaths, respectively. The maternal mortality ratio of 2989.2 per 100,000 live births was higher than the ratio reported for 1988-1997 in the same institution. Up to 67/794 (8.4%) patients referred from other facilities died compared to 8/1934 (0.4%) booked patients (OR: 22.1; CI: 10.2-50.1).

Conclusion: At the middle of the first decade in the new millennium, our women continue to die from preventable causes of maternal death in large numbers. Adoption of evidence-based protocols for the management of eclampsia and improvement in the quality of emergency obstetric care for referred patients would go a long way to significantly reduce the frequency of maternal deaths in this institution.

040 Maternal Mortality Reduction in Nigeria: An Achievable Goal.

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Context: The reduction of maternal mortality is one of the millennium development goals set by member states of the United Nations. The realization of this goal in Nigeria is threatened by a fragile and weak health care system.

Objective: To assess the quality of emergency obstetric care at the Federal Medical Centre Makurdi, Nigeria using maternal mortality ratio, stillbirth rate and case fatality rate for direct obstetric complications following an emergency obstetric care intervention.

Materials and Methods: This was a cross-sectional study using emergency obstetric care register, maternity, theatre, gynaecological ward and medical records registers, patient case files and direct observation from 1st May 2004 to 31st August 2005.

Main Outcome Measures: Maternal mortality ratio, caesarean section rate, case fatality and stillbirth rates.

Results: During the study period there were a total of 1,631 deliveries, 176 caesarean sections, 112 stillbirths (61 fresh stillbirths, 51 macerated) and 28 maternal deaths. There were 283 direct obstetric complications and 21 direct maternal deaths giving a case fatality rate of 7%. Direct maternal deaths accounted for 75% of the maternal deaths. The maternal mortality ratio for the period was 1,843/100,000 live births. The stillbirth rate was 68/1000 births (37 fresh stillbirths and 31 macerated stillbirths /1,000 births). The caesarean section rate was 11%. During the period clinical auditing of cases managed in the department was institutionalized, drugs for managing obstetric complications were provided by the hospital management and UNICEF. The use of vacuum extractor to assist vaginal delivery was introduced.

Conclusion: The maternal mortality ratio was 1,843/100,000 live births and the caesarean section rate was 11%. The case fatality rate for direct obstetric complications was 7% and direct maternal deaths accounted for 75% of the maternal deaths. Interventions to reduce maternal deaths were institutionalised. The reduction of maternal mortality in Nigeria is an achievable goal if there is commitment of all concerned.

041 Delayed Non-Pneumatic Anti Shock (NASG) Treatment for Obstetric Haemorrhage and Maternal Mortality

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Background: The non-pneumatic anti shock garment (NASG) was used to manage 63 women suffering severe obstetric haemorrhage between August 2004 and June 2005. Sixty survived (95%). This abstract describes the clinical course and factors contributing to the deaths of two of these patients who were post partum.

Case Series: 32 year-old, Para 2 Nigerian woman delivered outside the hospital, suffered PPH due to uterine atony, arrived at the hospital 5 hours postpartum with PCV 7%, and no vital signs. NASG was not applied for at least one half hour. She received 2 litres of saline over two hours. She had feeble pulse of 120-130beats/minute, and no measurable blood pressure (BP). She suffered cardiac arrest and failed to respond to CPR. Contributing factors in this death were delayed transport, delayed NASG, and delayed insufficient saline infusion. Another Nigerian, 35 year-old G6P5, was admitted to hospital with ruptured uterus, pulse 98

per minute, BP 100/70, and PCV 28%. Laparotomy was delayed for 9.5 hours awaiting donor blood. The NASG was applied after her BP dropped to 70/-. Emergency surgery required one hour during which she received 1000 ml saline. Following surgery she remained clinically hypovolaemic (pulse 121-136, BP 90/55-70/40) while receiving another litre of saline over 2 hours. The first blood transfusion was initiated 1.5 hours post operatively. She had cardiac arrest 3.5 hours after surgery and failed to respond to CPR. Autopsy findings were acute renal failure, intraventricular haemorrhage, and enlarged heart with findings of chronic hypertension. Contributing factors included being an unbooked patient with prolonged labour, chronic hypertension, delayed application of NASG, delayed blood transfusion, and insufficient saline infusion.

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042 Maternal Mortality in a Mission Hospital in South-Western Nigeria

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Objective: To determine the maternal mortality rate and causes of death at the Catholic Hospital, Oluyoro, Oke-Offa, Ibadan and possible means of prevention of subsequent mortality from these causes.

Methodology: A retrospective analysis of all maternal deaths at this centre between the 1st January 1999 and 31st December 2003, a 5-year period was done

Results: During the 5-year period there were 11,609 deliveries with 41 maternal deaths, giving a maternal mortality rate of 353 per 100,000 deliveries. The age range of the patients was between 15 and 40 years with a mean of 28.2 ± 6.7 years and parity between 0 and 6 with a mean of 2. The highest mortalities occurred between the ages of 21-25 and 26-30 years with 26.8% of patients dying in each of these age groups. More of the deaths (56.1%) occurred in the post-partum period, with 26.8% and 17.1% occurring in the antepartum period and post-abortally respectively. Of the deaths not complicated by abortions, 85% were unbooked patients. The most common causes of mortality were sepsis (46%), occurring after abortions or in the puerperium, haemorrhage (34.1%) and abortion and its complications (17.1%).

Conclusion: Our maternal mortality rate, though low compared to many other centres in the region and indeed the country, is mostly associated with sepsis and haemorrhage. We are presently using more effective antibiotics and have now provided a more efficient 24-hour blood bank service.

043 Pregnancy in Women With Sickle Cell Disorder in Lagos – a Case-Control Study.

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Objectives: Women with the sickle cell disorder are historically known to have high maternal and perinatal morbidity. This study was done to examine if this is still the case at the Lagos University Teaching Hospital.

Methods: This was a retrospective, case-controlled study. Records of all pregnant women with haemoglobin SS who delivered in LUTH between January 1996 and December 2000 were examined and the next 2 delivering haemoglobin AA women were used as control. A total of 75 women with haemoglobin SS and 150 women with AA were studied. Data was analysed using the chi-square test for categorical variables and the independent t-test for continuous variables.

Results: The total number of antenatal and intrapartum complications in the women with sickle cell disorder was significantly higher than those with haemoglobin AA. There was however no significant difference in the incidence of pre-eclampsia and other antenatal complications apart from bone pain crisis between the two groups. Birth weight and 1 and 5 minute Apgar scores were significantly lower in the haemoglobin SS women than those with AA.

Conclusion: Pregnancy in women with sickle cell disease is still fraught with maternal and fetal complications. Larger studies may help clarify the relationship between sickle cell anaemia and specific maternal complications such as pre-eclampsia.

044 Artemisinin in the Treatment of Malaria in Pregnancy.

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Introduction: Due to the increased resistance to chloroquine treatment of malaria fever, artemisinin-based combination therapy (ACT) has been introduced.

Objective: To highlight the increasing use and effectiveness of Artemisinin in the treatment of malaria in pregnancy.

Methodology: A review of patients treated for malaria in pregnancy. Out of the 71 patients who presented with malaria in pregnancy between January 2005 and August 2005, 42 cases were suitable for analysis.

Results: The mean age of these patients was 30.83 [SD: 6.7] years and mean parity was 1.69 [SD: 1.7]. Mean gestational age at presentation was 27.52 weeks [SD: 9.03]. At presentation 71.4% had fever, 47.6% body aches, 45.2% headache, 40.5% rigors and 42% had chills. Nineteen of 31 patients (61.3%) had a positive blood film before treatment. Some 43% of the patients had artemisinin based treatment either as monotherapy or combination therapy while only 6 (14.3%) had chloroquine alone.

Conclusion: This shows the growing inclination towards the use of artemisinin-based treatment in the management of malaria in pregnancy since its introduction into the Nigerian market.

045 Anaemia in Pregnancy : Maternal and Fetal Outcome at the University College Hospital, Ibadan

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Introduction: Anaemia in pregnancy is a major public health issue all over the world. It has been reported to be associated with increased risks of premature labour, low birth weight babies and, in combination with obstetric haemorrhage, is responsible for about 17% of maternal deaths.

Objectives: To determine the prevalence of anaemia in pregnancy among women attending the antenatal clinic at the University College Hospital and to determine pregnancy outcome among these patients.

Materials and Methods: This longitudinal study was conducted among 1,027 patients that booked for antenatal care at the University College Hospital Ibadan between January 1st and October 30th 2002. Those found to be anaemic at booking were followed up till delivery to determine pregnancy outcome.

Results: Sixty eight of the patients were found to be anaemic at booking with a prevalence of 6.6%. Forty five (4.4%) and 23 (2.2%) had mild and moderate anaemia respectively. No patient had severe anaemia. The mean gestational age at booking was 24.6 weeks. Only 40 (58.8%) of the patients with anaemia at booking presented for delivery at the University College Hospital, of whom 13.9% were still anaemic. The mean gestational age at delivery was 38 weeks. Spontaneous vaginal delivery occurred in 77.5% and 97.5% had live births. There was one fresh stillbirth and a perinatal mortality rate of 25 per 1000 births. The mean birth weight of the babies was 3.113gm. Low birth weight occurred in 5% of patients. The mean APGAR scores at 1 & 5 minutes were 8 and 9.7 respectively. Two (5%) of the patients who presented for delivery developed primary post partum haemorrhage.

Conclusion: Mild to moderate anaemia in pregnancy are not associated with significant adverse pregnancy outcome. Early booking for antenatal care to correct severe anaemia should be encouraged.

046 Obstetric Performance of Sickle Cell Disease Patients in a Nigerian Tertiary Hospital *Omo-Aghoja LO¹ and Okonofua FE²*

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Aims and Objectives: To evaluate the cases of sickle cell anaemia in Obstetric practice, and to highlight their problems in pregnancy and their contribution to maternal and fetal outcome in Nigeria. We believe that the findings would be useful for designing interventions to reduce the obstetric burden of sickle cell disease.

Materials and Methods: The course and outcome of pregnancies in patients with sickle cell disease that presented at the University of Benin Teaching Hospital (UBTH) between January 2000 and December 2004, was retrospectively reviewed.

Results: The incidence of sickle cell disease in this study was 8.7/1000 deliveries. Majority of the patients, 61.9%, were within the 25-34 years age bracket, while 76.2% of the patients were either nulliparous (Para 0) or primiparous (Para 1). There was one grandmultipara (2.4%). Anaemia (95.25%), malaria (33.3%), bone pain crisis (23.8%) and pneumonia (19.1%) were the commonest morbidities in pregnancy and accounted for the major indications for admission. The perinatal mortality rate was 250 per 1000 births while the maternal mortality rate was 47.6 per 1000 pregnancies. In all, 60% of cases at delivery had operative intervention.

Conclusion: Early booking, good antenatal care and supervised delivery produced a better obstetric outcome.

047 Asymptomatic Bacteriuria in Pregnancy in Sokoto, Nigeria.

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Objectives: Asymptomatic bacteriuria in pregnancy is a condition that, hitherto, had attracted very little attention from most obstetricians in this part of the world. The purpose of this study therefore was to assess the extent of its significance to obstetric practice at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria

Method: A hospital-based cross-sectional semi-quantitative screening for asymptomatic bacteriuria was carried out at the antenatal booking clinic of the Department of Obstetrics and Gynaecology of UDUTH Sokoto between March and June 2003. Statistical analysis was performed using the EPI INFO 2002.

Result: Of the 300 women screened, 24 clinical specimens showed significant bacteriuria on two occasions, representing an incidence of 8.0%. The incidence was highest in the mid-trimester, 9.7%; among the Para 2, 11.6% and the Para 3, 12.5%. *Escherichia coli* constituted the commonest cultured organism, 8(33.3%). Other organisms were *Klebsiella* spp, 25.0%, *Colliform* spp, 25.0%, *Proteus* spp, 8.3% and *Staphylococcus aureus* 8.3%. On the average, the sensitivities of the organisms were: nitrofurantoin, 75%, gentamicin, 75%, ofloxacin, 66.7%, augmentin, 66.7%, nalidixic acid, 50%, cotrimoxazole, 41.7% and tetracycline, 25.0%. All the organisms were resistant to Ampicillin. One of the patients developed pyelonephritis before the commencement of treatment. Cure rate after the first course of treatment was 87.5% and 100% following a second course.

Conclusion: Asymptomatic bacteriuria is relatively common during pregnancy. Its screening and treatment will result in reduction of acute pyelonephritis, which is more expensive to manage, as it requires hospital admission and use of more expensive drugs. Routine screening of pregnant women for asymptomatic bacteriuria is hereby recommended.

048 Microbiological Pattern of Post-Caesarean Wound Infection at Ibadan.

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Introduction: Despite the introduction of antibiotics and aseptic techniques, post-caesarean wound infection is still a common occurrence. Studies have shown that most cultured organisms from wound infection site following either emergency or elective caesarean section are direct contamination from skin or vagina flora and nosocomial infections. The organisms that have been reported are *Staphylococcus* species, *Enterococcus faecalis*, *Escherichia coli*, *Proteus mirabilis*, *Pseudomonas* etc. Anaerobic organisms are rarely isolated.

Objective: The objective was to determine the pattern of microorganisms isolated in cultured wound swabs of patients with post-caesarean wound infection at the University College Hospital Ibadan.

Method: A cross-sectional study was carried out on all patients who had caesarean section at the University College Hospital, Ibadan over a 3-month period. Microbiologic culture results of those that had wound infections was analysed.

Results: During the study period, there were 256 deliveries and 74 had caesarean section representing 16.2% of total deliveries. Out of the 74 patients that had caesarean section, 11 (16.2%) of them had wound infection. The cultured microorganisms were *Pseudomonas* species (25%), *Klebsiella* species (16.7%), *Escherichia coli* (16.7%) and *Staphylococcus aureus* (41.6%).

Conclusion: This pattern suggests that most of our post-caesarean wound infections are due to contamination.

049 Post-Caesarean Complications at the University College Hospital, Ibadan.

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Introduction: Caesarean delivery is a common surgical procedure but it is not without risks. The trend of post-caesarean complications is similar to those of other laparotomy procedures, apart from endometritis. These complications constitute a major cause of maternal morbidity and mortality.

Aim: The aim was to identify the various post-caesarean section complications seen in patients at the University College Hospital, Ibadan.

Methods: The study was an observational study conducted over a period of 3 months on all patients that had caesarean delivery in our hospital.

Results: During the study period, 256 deliveries were recorded out of which 74 had caesarean section. Among those that had caesarean section, 4 (5.4%) had postpartum haemorrhage, 20 (27.4%) had post operative pyrexia, 11 (16.2%) had wound infection, 3 (4.1%) had pneumonia and 1 (1.4%) ureteric ligation.

Conclusions: Though, these complications are similar to those observed in other studies, majority can be reduced by always conducting the operation under aseptic conditions. Trainees should also be taught the proper way of carrying out the procedure.

050 Tertiary Hospital Staff and Caesarean Section Risk

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Introduction: There are recognized non-clinical risk factors for caesarean section and efforts to minimise the rising rate would be incomplete if such factors are not addressed. This study was conducted to determine whether pregnant employees of a Nigerian tertiary hospital who deliver in its obstetric unit are more at risk of caesarean section than vaginal delivery.

Materials and Methods: A matched case-control study at the obstetric unit of Olabisi Onabanjo University Teaching Hospital, Sagamu, Nigeria. Cases (n=167) were booked patients who had singleton emergency caesarean delivery in their last confinement at term while controls (n=167) were similar patients who had vaginal delivery (spontaneous or assisted) during the same period. Cases and controls were matched for known clinical risk factors for caesarean section. Association between hospital personnel and caesarean delivery was examined by matched analyses. Level of significance was put at $p < 0.05$.

Results: The proportion of hospital staff members among the cases was 36/167 (21.6%) compared to 21/167 (12.6%) among the controls, a difference that reached statistical significance ($P=0.03$). Matched analysis examining the association of place of work with caesarean delivery indicated that hospital staff members are almost twice at risk of caesarean section than vaginal delivery (Mantel-Haenszel OR: 1.83; CI: 1.08-3.85). Multivariate conditional logistic regression analysis examining the association of hospital personnel with caesarean delivery while controlling for confounders revealed an adjusted odds ratio of 1.79 (CI: 1.02-3.74).

Conclusion: As part of the efforts to reduce the caesarean section rate, clinicians in tertiary hospitals need to consciously exclude the influence of place of work of their parturients on their caesarean section decision. Appraisal of caesarean section rate in tertiary hospitals in southwest Nigeria could benefit from critical evaluation of the risk of caesarean section among parturients who are members of staff.

051 Post-Caesarean Wound Infection at the Aminu Kano Teaching Hospital, Kano

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Objectives: To determine the incidence of caesarean wound infection, the common bacterial pathogens and their antibiotic sensitivity pattern.

Methods: Patients delivered by caesarean section in AKTH, Kano between 1st January 2001 and 31st December 2002 were prospectively followed. Those who had postoperative wound infection were reviewed using clinical and bacteriological methods. Their clinical and microbiological details were compared with those that had the same procedure over the period without infectious complication. The p was set at < 0.05 .

Results: In the period under review, the caesarean section rate was 10.1%. The incidence of wound infection was 9.1%. Risk factors associated with caesarean wound infection were longer duration of labour before caesarean section ($p = 0.001$), longer operation time ($p = 0.009$) and excessive intraoperative blood loss ($p = 0.001$). The booking status, type of caesarean section, rank of the surgeon, number of pelvic examinations and the pre-operative haematocrit were not significant determinants. *Staphylococcus aureus* was the most frequently isolated pathogen (31.5%). Cephalosporins and quinolones were the most effective antibiotics.

Conclusion: Staphylococcal wound infection is a frequent complication of caesarean section. The principal risk factors are prolonged labor, long operation time, and excessive blood loss. Improved skills to limit duration of surgery and blood loss are recommended. Antibiotics prophylaxis with cephalosporins is advised.

052 Review of Caesarean Section Indices in Makurdi, Nigeria

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Context: Caesarean section is one of the life saving functions in an emergency obstetric care facility but it could be unsafe in our environment due to poor skills, lack of blood, antibiotics and good anaesthesia. To ensure its safety, there is a need to review its indices.

Objective: To determine the caesarean section rate, its indications, morbidity and mortality.

Materials and Methods: This was a 16-month study from 1st April 2004 to 31st August 2005 of all caesarean sections at the Federal Medical Centre, Makurdi using the Emergency Obstetric Care register, the theatre and maternity registers and patient folders.

Results: During the study period, there were a total of 1,631 deliveries, 176 caesarean sections, 1,519 live births, 28 maternal deaths, 7 caesarean section deaths and 23 caesarean section perinatal deaths. The caesarean section rate was 11% with a case fatality rate of 4%. Caesarean section morbidity rate was 22% with a perinatal mortality rate of 13%. Direct obstetric complications accounted for 56.6% of the sections while previous caesarean section, indirect complications and fetal distress accounted for 20%, 17.4% and 6.6% respectively. During the period, clinical auditing of cases managed in the department was institutionalised; the hospital management and UNICEF provided drugs for managing obstetric complications. The use of vacuum extractor to assist vaginal delivery was introduced.

Conclusion: The caesarean section rate is 11% with 22% morbidity and 4% mortality compared to a caesarean section rate, from a previous similar study, of 15% with a morbidity rate of 80% and a case fatality rate of 7%. The study shows a reduction in caesarean section rate with a concomitant fall in morbidity and mortality due to improved quality of care in the centre. Clinical auditing with commitment to better care is very useful in improving the safety of caesarean section in our environment.

053 The Role and Experiences of Nigerian Women at Caesarean Section

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Introduction: The Nigerian woman has a general aversion to caesarean section because of the general belief of our women that abdominal delivery is a sign of reproductive failure.

Objective: To examine the role and experiences of Nigerian women at caesarean Section.

Methodology: This cross-sectional study was carried out amongst postnatal patients that had caesarean section at the University College Hospital, Ibadan and attended the postnatal clinic 6 weeks following delivery. The study was carried out between July and December 2003. The attending doctor administered a structured questionnaire.

Results: One hundred and fifty six consecutive patients were selected for the study. The ages of the patients ranged between 20 and 44 years with a mean of 31.26 ± 5.2 years and the parity ranged between 0 and 6 with a mean of 1. Most of the women, 116 (74.4%) were booked for antenatal care and delivery at the centre and the most common type of caesarean section performed was emergency lower segment caesarean section in 104 (66.7%) of women with 59% of patients having their surgeries done under spinal anaesthesia. The most common indications for surgery were fetal distress (20.5%) and poor progress in labour (12.9%). Most of the patients (87.2%) were involved in the decision for surgery and 43.6% initially hesitated when told they required surgery. The consent form for surgery was signed by 46.2% of patients with 94.9% being satisfied with the decision to have surgery. More of the patients (51.3%) agreed to have another caesarean section if necessary with 0.03% being unsure.

Conclusion: Caesarean Section is a life saving operation in Obstetric practice and its safety has been demonstrated from studies done all over the world. Women should be educated more on the safety of the procedure so that they can easily consent to the operation when it becomes necessary, as this decision has to be made urgently

054 Review of Instrumental Vaginal Delivery in Makurdi Nigeria.

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Context: Assisted vaginal delivery is one of the life saving functions in an emergency obstetric care facility. The alternative to instrumental vaginal delivery in the first stage of labour is caesarean section with its attendant complications.

Objective: To determine the instrumental vaginal delivery rate, indications, morbidity and mortality associated with instrumental vaginal delivery in Federal Medical Centre, Makurdi.

Materials and Methods: This was a cross sectional study using Instrumental vaginal delivery register, maternity, theatre, gynaecological ward and medical records registers, patient case files and direct observation from 1st January 2005 to 31st August 2005.

Main Outcome Measures: Instrumental vaginal delivery rate, indications, morbidity and mortality.

Results: During the study period there were a total of 723 deliveries, and 28 Instrumental vaginal deliveries giving a rate of 3.9%. 94% (27) of these are vacuum while 3.6% (1) was craniotomy. Perineal laceration was the commonest maternal complication occurring in 22% (6) of the patients. 64.3% of the patients were booked. Delayed second stage of labour and maternal exhaustion accounted for 81.3% (22) of the indications while hypertensive disorders of pregnancy accounted for 14.8% (4). The perinatal mortality rate was 14.2%. The patient with craniotomy died from overwhelming sepsis.

Conclusion: Vacuum extraction is the preferred instrument to assist delivery in our centre. Delayed second stage of labour and maternal exhaustion were the two commonest indications for the procedure whilst perineal laceration was the commonest maternal complication. Training and retraining of health workers on the use of the vacuum extractor to reduce its complications and the dangers of delayed second stage of labour is recommended in our unit.

055 Avoiding Blood Transfusions in Obstetrics and Gynaecological Surgeries in a Low-Resource Setting.

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Objective: The article is a review of techniques employed to reduce the incidence of blood transfusions in obstetric and gynaecologic surgeries in a low resource setting.

Methodology: A review article based on current evidence and the experience of the author operating on Jehovah's witnesses. The emphasis is on the techniques that work in a low resource setting. Case studies are used for illustration.

Results: Traditional teachings in medicine suggest that a packed cell volume of less than 30% is detrimental to both anaesthesia and the outcome of surgery. The awareness of the risks of blood transfusion especially the risk of being infected by HIV and the refusal of Jehovah's Witnesses to accept blood transfusions have resulted in these doctrines being reviewed. Reducing the threshold to transfuse to 18% and a range of surgical techniques can be employed to significantly reduce transfusion rates. The aim of resuscitation should be to initially restore normal blood volume and not correct anaemia. When the patient would not accept a transfusion, this should not result in substandard care. Instead it should be seen as a challenge and appropriate referral is indicated if the surgeon is not familiar with the techniques of bloodless surgery. In some circumstances, transfusion of salvaged blood through a single continuous circuit may be acceptable to Jehovah's Witnesses. For those who accept blood transfusions, it is still desirable to avoid transfusions and use autologous blood whenever possible.

056 Are Destructive Operations Relevant in Contemporary Obstetric Practice? Experience from the Federal Medical Centre, Azare, Bauchi State, Nigeria

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Objectives: To determine the place and outcome of destructive operations in the centre, which is a tertiary centre serving the semi-urban and rural areas in Bauchi and the surrounding states of North-Eastern Nigeria.

Methodology: A study of all destructive operations carried out in the centre from 1st June 2002 to 31st May 2005 was done. Case records and additional information were obtained from the Records Department, Labour Ward, Postnatal Ward and the Theatre, and analysed using the EPI INFO VERSION 6 software.

Results: During the study period, there were 56 destructive operations; 51 folders were available for analysis. There were also 9398 deliveries, making the frequency of destructive operations to be 0.54% or 5.4 per 1000 deliveries. The commonest destructive operation was decapitation (51%), followed by craniotomy with 45%. Evisceration accounts for only 2%. No case of cleidotomy was recorded. The mean age of the patients was 24 ± 3.6 years. Grandmultipara accounted for 57% of the cases. Forty seven (92.2%) of the patients were unbooked and 41 (80.3%) had only Quoranic education. In none of the patients was information available to ascertain the gestational age at presentation.. Complications were recorded in 41% of patients the common ones being anaemia (10 patients), primary post partum haemorrhage (4 patients) and vaginal laceration (3 patients). Three patients had genital sepsis.

Conclusion: Destructive operations still has an important place in contemporary obstetrics practice. Experience is needed to reduce complications rate. Booking, hospital delivery and skilled attendants at delivery are a prerequisite for reducing difficult labours, intrauterine deaths and destructive operations.

057 Utero-Cutaneous Fistula Following Caesarean Section and Termination of Pregnancy

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A 21 year student Para 1 + 1 presented with a 6 month history of intermittent pain and drainage of pus from a wound just below the umbilicus. There was bleeding from the same site during menstruation over the period. As a teenager 2 years before, she underwent emergency caesarean section for prolonged labour, and termination of pregnancy a year later. Unqualified personnel performed both operations.

Examination revealed an opening just below the umbilicus along a sub-umbilical midline scar, draining offensive pus. Swabs were taken and appropriate antibiotics prescribed. Failure to heal led to wound exploration under local infiltration anaesthesia, three weeks thereafter. Several fetal bones were extracted. Laparotomy was then performed under general anaesthesia. Dense adhesions were noted with plastering of the uterine fundus to the anterior abdominal wall. Adhesiolysis with freeing of the fundus and fistulectomy were performed. More fetal bones were recovered. There were no problems post-operatively.

This case illustrates the severe problems inherent in teenage pregnancies and which are exacerbated when non-qualified persons undertake major procedures. It also shows that restrictive abortion laws in Nigeria drive patients to quacks with severe consequences.

058 Domestic Violence Amongst Pregnant Women in Abuja, Nigeria

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Introduction: Violence against women is a human rights violation, which is increasingly becoming a serious public health issue. When it occurs in pregnant women, victims are recognized to be at higher risk of complications of pregnancy.

Objective: To document the prevalence, knowledge and perception of domestic violence (DV) amongst pregnant women attending the antenatal clinic of the National Hospital, Abuja.

Methodology: A cross-sectional questionnaire survey of pregnant women attending the antenatal clinic of the National Hospital, Abuja was carried out over a three-month period from May to July 2005. Questionnaires were administered to a total of 400 pregnant women over the period. There were 334 respondents, giving a response rate of 83.5%. DV can be characterized into physical, sexual or psychological abuse. Psychological abuse for the purpose of the study meant public humiliation, constant criticism or instilling fear, threats and the like. Confidence levels of 95% were employed. Statistical analysis was with EpiInfo 2002.

Results: The mean age of the respondents was 31.46 ± 4.25 years with a range of 20-42 years. Most (85.2%) had attained tertiary education. While most (92.9%) were aware of DV in pregnancy, 128 women (38.3%) had experienced DV. Psychological abuse ranked highest with 68%, while physical and sexual abuse accounted for 21.6% and 10.4% of the group. Of this group, 21.2% required medical treatment, and all were aware of possible pregnancy complications such as abortion, premature labour and depression. Most (81.9%) of the respondents felt DV was illegal. On reaction to DV, majority (39.6%) kept it secret with lesser numbers reporting to family, doctors, clergy or close friends. With higher educational status, the experience of DV was less, although this was not statistically significant ($p > 0.05$). Similarly with higher parity, although this tended to reverse after parity of 3.

Discussion: The prevalence of DV found here is higher than that from the study in Zaria (28%). This is cause for concern, and points to a rising trend in this region of the country although the centres are different. Similarly, the husband/spouse was the commonest culprit, responsible here for 74.2% of cases. This may give justification to recent calls for paternal classes for spouses.

Conclusion: DV is still a problem in our society, with a reported prevalence in pregnant women at this centre of 38.3%. Increasing public awareness remains the key, through education and public enlightenment campaigns, with more emphasis on the identified perpetrator class.

059 Screening for Intimate Partner Physical Violence Against Women in the Outpatient Clinics of a Nigerian Tertiary Hospital

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Background: Intimate partner physical violence (IPV) against women is a common health problem worldwide. However, not much is known about its nature and extent in Nigeria and women are not routinely screened for it in hospitals.

Objective: To determine the incidence and risk factors for IPV against Nigerian women attending outpatient clinics in a tertiary hospital.

Methods: A cross-sectional questionnaire based survey of 332 women attending outpatient clinics for reasons apparently unrelated to physical violence.

Results: The response rate was 95.4%. The past year incidence of IPV was 14.5% while lifetime incidence was 20.2%. The risk factors were: belonging to the lower social class ($p = 0.03$), level of education of the woman being primary school or no formal education ($p = 0.002$), and secondary education ($p = 0.01$), and the male partner having secondary education ($p = 0.02$).

Conclusion: This study found a substantial incidence of IPV in Nigerian women attending outpatient clinics. It is recommended that all women seen in hospitals be asked routinely about IPV. Health education programmes to increase awareness, to educate women, and to advocate for appropriate legislation against IPV need to be pursued with vigour.

060 Domestic Violence in Pregnant Nigerian Women

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Introduction: Pregnancy is supposed to be a time of peace and safety. Domestic violence is increasingly recognized as an important public health issue, resulting in significant physical, psychological and social impairment. It occurs everywhere and at anytime of the day but under-reported in Nigeria. When it occurs in pregnancy, complications can result where the health and safety of two potential victims are placed in jeopardy.

Objective: To determine the prevalence and types of domestic violence in pregnancy as well as the assailants amongst Nigerian women.

Methodology: A female nurse / mid-wife administered a questionnaire to women attending the antenatal clinic of the Catholic Hospital, Oluyoro, Ibadan who consented to the study between June and July 2005.

Results: Three hundred and forty-seven women consented to the study. The mean age of the patients was 30.4 ± 4.6 years (range 18-44 years) and mean parity was 1 (range 0-7). Most, 286 (82.4%) were Yoruba women and 97% were married. Twenty nine (8.4%) admitted to abuse in the index pregnancy and 43 (12.4%) in a previous pregnancy. Of the women who admitted to violence in the index pregnancy, the types of abuses were harassments or threats, physical abuse and sexual assault in 21 (72.4%), 6 (20.7%) and 2 (6.9%) of women respectively. The assailants were their husbands, husband's relations, neighbour and co-worker in 22 (75.9%), 4 (13.8%), 2(6.9%) and 1 (3.4%) of women respectively. Two (6.9%) women sustained physical injury. Seven (2%) of all the women studied were afraid of their husbands.

Conclusion: Women are afraid to report violence in pregnancy. These women should be identified during the antenatal visits so that counselling and assistance may be offered to them.

061 Experiences of Victims of Rape in Jos, Nigeria

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Introduction: Rape is defined as physically forced or otherwise coerced penetration even if slight- of the vulva or anus, using a penis, other body parts or an object. Accurate estimation of the prevalence of sexual violence in developing countries including Nigeria is difficult due to the limited amount of research done on the subject. Although a lot has been said about the rampant cases of rape in Nigeria, little has been documented on the magnitude, causes and effects of this reproductive health problem, particularly in northern part of Nigeria.

Objectives: To determine the characteristics of rape victims in Jos, the effects of rape on the victims and suggest ways of reducing the incidence of rape.

Patients and Methods: A structured questionnaire was developed, pre-tested and self-administered to different female groups (Medical students, student Midwives, student Nurses and women organizations/groups) within Jos metropolis. The information obtained included personal knowledge, attitude and perception of sexual violence. Additional information obtained included if the respondents had been victim of sexual violence. The victims of rape were asked to document their experiences, effects of rape and to suggest ways of reducing incidence of rape. A total of 302 respondents returned the questionnaire, out of which thirty five (12%) women had experienced rape at some point in their lives.

Results: The age range of the victims of rape was 20-36, (SD= 25.7± 3.4) years. Ethnic distribution did not show any ethnic preponderance. 22(64.7%) were still single. 32 (91.4%) defined rape as forceful sexual intercourse without consent with 24 (68.6%) respondents knowing at least someone other person who had been raped. 18 (54.5%) did not report the case because it would bring shame to the family, while 13 (39.4%) was because of Stigma of not getting married and 2(6.1%) for fear of being killed. 12(40%) admitted that rape was most commonly committed by strangers. The effects of rape included emotional trauma (10), HIV/AIDS (15), STIs (22), low self esteem (12), unwanted pregnancy (15), shame (8) and death (6). The suggested ways of reducing the incidence of rape included campaign on sexual violence (9), avoiding walking alone at night (10), decent dressing (10) and sexuality education (8). The experiences expressed by victims of rape were: felt like the end of life, horrible experience, emotionally traumatised and very painful.

Conclusions: Rape is common in Jos and females are mostly at risk. Majority of the victims are single girls. Rape victims did not report due to stigma and fear of not being able to get married, and shame to the family. Emotional trauma, HIV/AIDS, STIs, low self-esteem and unwanted pregnancy are the commonest effects of rape. Sensitisation campaigns on sexual violence, avoid working alone at night, descent dressing and sexuality education are the suggested ways of reducing cases of rape in Jos.

062 Sexual Assault: Incidence and Management in a Tertiary Facility

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Introduction: Sexual assault is unlawful carnal knowledge of a woman or a girl without her consent or by force or with consent by means of threat or intimidation of any kind, by fear of harm or false and fraudulent representation. Sexual assault is a common problem that might present initially to the gynaecologist. Most doctors, however, are not even clear about the medico-legal meaning and implications of sexual assault. Hence, they may not assess and manage the patient adequately.

Objective: To determine the incidence of sexual assault in our environment, their clinical features and management and to provide a possible management protocol for the future cases.

Methods: A retrospective analysis of thirteen sexual assault patients seen over a three-year period, August 2002 to July 2005.

Results: The incidence of sexual assault was 0.86%. The mean age affected girls was 7.7 ± 0.43 years. All the patients were pre-menarcheal. Most (61%) were primary school pupils. Majority (46%) of assaults took place in the assailant's room. The patients knew the assailants in all the cases.

Conclusion: Sexual assault is a violent crime that can happen to a child or a woman of any age or status. The incidence is increasing, so parents and guardians of young girls should be educated on how to protect this vulnerable group. A systematic approach has to be adopted by the gynaecologist in the evaluation of the patient for appropriate management.

063 Female Genital Mutilation in Rural Areas of Kwara State

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Objective: To determine the knowledge, attitude and practice of female genital mutilation among women in rural areas of Kwara State.

Method: The knowledge, attitude and practice of genital mutilation among women was obtained through a structured questionnaire. Medical students administered the questionnaires during their community-based experience posting.

Result: Six hundred women of childbearing age were interviewed, but only 520 questionnaires were fully completed for meaningful analysis. All (520) respondents were aware of female genital mutilation and knew that it meant cutting off part(s) of the female "private part". Of these, 327 (62.9%) had got their female children circumcised. The procedure was carried out by a "traditional doctor" in 287 cases (87.8%), healthcare personnel in 23 (7%) and by a relation in 17 (5.2%). The decision to undertake the procedure was made by the father in 274 (83.8%) of cases, relations in 33 (10.1%) instances and by the mother in 20 (6.1%). The reason for the procedure included preventing promiscuity in 274 (83.8%), integration into the community in 130 (39.8%), prevention of head coming into contact with clitoris in 90 (27.5%), tradition in 72 (22%) and maintenance of good health in 70 (21.4%) cases. Complications that followed the procedure included fever 143 (43.4%), acute urinary retention 121 (37%), infection 73 (22.3%), bleeding 33 (10.1%) and shock 14 (4.3%)

Conclusion: Female genital mutilation is still prevalent in the rural areas of Kwara State. Increased health education is needed to eradicate this harmful and potentially dangerous practice in our community.

064 Anthropometric Measurements at Menarche Amongst In-School Girls and their Reproductive Implications.

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Background: Reports from various parts of the world show a reduction of age at menarche. Knowledge of age at menarche of a given society is important as this has implication for subsequent reproductive health events and socio-economic indices in that society.

Objectives: To determine the anthropometric and socio-cultural characteristics at menarche amongst *in-school* girls.

Method: A cross sectional study, using structured questionnaires to interview eligible girls in selected public and private schools in Zaria, Nigeria.

Results: A total of 120 girls were interviewed. The mean age at menarche was 14.2 years, mean height was 155.6cm and mean weight was 48.5kg. Parent's social class, irrespective of religion and ethnicity, influenced age at menarche ($p = 0.00026$).

Discussion: The age at which a girl attains menarche is closely related to the age of coital debut, age at marriage, first pregnancy and childbirth in most traditional societies. As age at menarche declines in most societies, reproductive health will be affected, perhaps negatively.

Conclusion: Amongst the Hausa/Fulanis, who are the main inhabitants of Zaria and who practice early marriage, attainment of menarche at 14 years implied that a girl is likely to marry before she is 15 years and thereafter start early child bearing. This has adverse reproductive and socio-economic impact on the society.

065 Pattern of Adolescent Gynaecological Clinic Consultations at a Tertiary Health Institution

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Background: The adolescent period represents a time of considerable change in a woman's lifetime. She attains puberty and reproductive capacity is achieved. Sexual activity commences and in some cases marriages are undertaken. This period might be attended by different gynaecological disorders.

Objectives: To determine the commonest gynaecological disorders among adolescents, who presented at the gynaecological clinic of the Ebonyi State University Teaching Hospital.

Methods: This was a retrospective study reviewing all cases of adolescent gynaecologic presentations seen in the gynaecologic clinic. Emergency cases seen at the Accident and Emergency clinic were excluded. The study spanned 5 years – September 2000 to August 2005. Information was extracted from their case notes retrieved from the central records department.

Results: Adolescents constituted 5.4% of the 3,703 new gynaecologic patients seen during the review period. They presented mainly with menstrual disorders (21%), abortion complications (18%) and reproductive tract infections (15%). Other presentations included: infertility 6.5%, pelvic masses 6%, sexual assault 4%, labial fusion 3% and utero-vaginal prolapse 2%. Urethral prolapse, vesico-vaginal fistula, Bartholin's cyst and Asherman's syndrome were also seen.

Conclusions: Adolescents constitute a significant number of gynaecological clinic patients with varied disorders. These are often a source of great distress amongst them especially for those presenting with infertility. They may also entertain anxieties about their future reproductive career. Doctors and other health care personnel directly involved in the management of adolescents in gynaecology must be equipped to treat this delicate group with empathy and expertise. Early marriages should be discouraged.

066 Prevalence of Menopausal Symptoms and Attitude to Menopause in a Nigerian Female Population

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Background: Menopause heralds a period of transition in the reproductive life of women and is commonly associated with features that may compromise the health of women at this stage of life.

Objectives: To determine the prevalence of menopausal symptoms and describe the attitudes to menopause among Nigerian women.

Study Design: This was a descriptive cross-sectional study carried out among 255 post menopausal market women in Ibadan, Oyo State, Nigeria. A multistage sampling technique was used. Information was obtained using a pre-tested structured questionnaire, administered by trained interviewers.

Results: The mean age at menopause in Nigerian women studied was found to be 49.4 (± 4.7 yrs). Majority (94.1%) women interviewed had at least one post menopausal symptom bothering them. The most prevalent symptoms were bone pain (54.9%), loss of libido (43.5%), poor memory (36.1%), increased sweating (36.1%) and hot flushes (28%). Most of the women (61.2%) described menopause as being part of life but 53.3% sought treatment for relief of their symptoms. Only 11.3% of these women were firmly rooted in cultural beliefs or taboos related to menopause.

Conclusion: Menopausal symptoms are prevalent in Nigerian women and the average age of menopause is identical to that of other populations. Our women though, need more education on menopause to improve their perception of and adaptation to it. Further work is required to understand better the pattern of menopause in general among Nigerian women.

067 Socio-Cultural and Religious Determinants of Maternal Mortality in North-Central Nigeria

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Introduction: While the great burden of maternal deaths placed on population makes the reduction of maternal mortality in African countries a global priority, the problem of high maternal mortality ratios has proved difficult to overcome in many developing countries including Nigeria. The maternal mortality ratio in Nigeria is one of the highest in the world, but there are regional disparities with the worst figures in the Northern geopolitical zones of the country.

Objectives: To study the social, cultural and religious determinants of maternal mortality in north central Nigeria and use the study findings to develop comprehensive programmes that will address the specific needs of these women in the maternal mortality reduction plans in this part of Nigeria.

Methodology: Between January 1991 and December 2001, the case files of all women of Hausa/Fulani ethnic origin who died during pregnancy and childbirth at the JUTH, Jos, were retrieved. The record of all deliveries, including complications and maternal deaths among this Ethnic group was also kept. All the relevant information was transferred into the forms designed for the study. The variables analyzed were, age, booking status, educational level, parity, mode of delivery, date and time of admission, cause(s) of maternal deaths and the date and time of death.

Results: A total of 78 maternal deaths occurred among 4,818 deliveries of women of Hausa/Fulani ethnic origin. The maternal mortality ratio (MMR) was 1,619/100,000 livebirths. During the same period, there were 25,357 total deliveries and 211 maternal deaths. The maternal deaths among the Hausa/Fulani ethnic group accounted for 37% of all deaths. The majority, (26.6%) of the deaths occurred between the age group 35 to 39 years. All the Hausa women in this study were of Islamic faith. The parity distribution showed that 11(14.1%) were nulliparous while 34(43.6%) were grand multiparous. 96.1% of the women had no formal education. Not one of these patients who had had a higher education (University education or its equivalent) died during pregnancy and childbirth during this study. 84.5% either had inadequate (<3 attendances) or no antenatal care. Only 10% of the Hausa/Fulani were booked for antenatal care in JUTH; 20% of the women had delivered at home before coming to the hospital because of complications. One-third of the patients died undelivered. The main direct causes of maternal deaths were haemorrhage, (25.6%), eclampsia (22.1%), sepsis (11.6%) and anaemia (6.9%). Forty-five percent of the patients died within 24-hours of admission.

Discussion: The study showed that the maternal mortality ratio among the Hausa/Fulani women was 1,619 per 100,000 deliveries. This figure is more than double the MMR ratio in the general population in JUTH Jos, Nigeria, but less than the MMR of 2,420 per 100,000 deliveries in Kano State. As is the case in many cultures, pregnancy and delivery are often recognised by the Hausa/Fulani ethnic group as a normal and natural event. Over 96% had no formal education and 84.5% had inadequate (<3 visits) or no antenatal care.

Conclusion: The social and cultural indicators that increase maternal mortality ratio among women of the Hausa/Fulani ethnic origin include high level of illiteracy, non-utilization of antenatal care services, home deliveries, and high parity. Extensive social mobilization of the Hausa community and high level advocacy campaigns to the religious leaders and traditional rulers on the values of maternity care and institutional delivery will reduce the high risks of dying during pregnancy and childbirth. Universal basic education for girls will complement the other strategies for maternal mortality reduction among Hausa/Fulani women.

068 Outcome of Teenage Pregnant Mothers in Uyo, Nigeria

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Introduction: Teenage pregnancy is a high-risk pregnancy due to the relative physical immaturity of the mothers and the associated adverse socio-economic factors.

Objectives: To determine the incidence and pregnancy outcome of teenage pregnancies in this environment.

Methodology: A retrospective analysis of teenage pregnancies at the University of Uyo Teaching Hospital, Uyo, Nigeria between January 2001 and December 2003.

Results: Teenage mothers constituted 9.8% of mothers who delivered in this hospital during the study period. Majority of them (57.4%) were unmarried and belonged to the lower socio-economic classes. The commonest maternal complications were anaemia (30%) and malaria (21.7%). The caesarean section and instrumental delivery rates of the teenage mothers (22.5% and 13.6%) was significantly higher than of the mature mothers 9.5% and 5.9%), $p < 0.001$. There were also statistically significant differences between teenage and mature mothers in the number of preterm deliveries (19.2% vs 9.2%, $p < 0.001$), low birth weights (21.6% vs 6.2%, $p < 0.001$) and still births (9.9% vs 4.6%, $p < 0.001$)

Conclusion: Teenage pregnancy is associated with significant maternal and fetal risks. Adolescent friendly reproductive health services are recommended to improve the use of contraception, as well as effective utilization of antenatal/delivery facilities and social support.

069 Teenage Pregnancy: Still an Obstetric Risk

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Introduction: Teenage births remain common globally accounting for more than 10% of all births with variations between countries. Pregnancies in teenagers were recently considered less risky especially with improved Obstetric practices. However, the evidences are conflicting. A study comparing Obstetric performances of teenage and older mothers managed in University College Hospital (UCH), Ibadan, Nigeria over a 10-year period was conducted.

Methodology: A retrospective, cohort study comparing case notes of Teenage mothers (age ≤ 19 years) with singleton fetus who delivered in UCH between 1st January 1993 and 31st December 2002 with those of the older mothers aged 20 to 29 years.

Results: During the period, 2.4% (201) of the 8,487 deliveries were to teenage mothers. The mean age for the study group was 18.1 years and 26.2 years for the control group. Of the teenage mothers 36.5% and 69.2% were single and of economically disadvantaged social classes 4 and 5, respectively, compared with 4.8% and 32.2% of the older mothers ($p < 0.05$). Lack of antenatal care, preeclampsia/eclampsia and anaemia were 4 times, 3 times and 2 times more common among the teenage mothers, respectively, compared with the older mothers. Preterm deliveries with associated birth asphyxia were slightly more common (21.2% vs 16.4%). Vesico-vaginal fistulae and maternal mortalities were 3 times more common.

Conclusion: Young maternal age still represents an important risk factor during pregnancies and deliveries with associated higher perinatal morbidity. Emphasis on family life education, Reproductive Health Services like family planning clinic and wide antenatal coverage may improve outcome.

070 Socio-Demographic Characteristics of Teen Mothers in Aba

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Introduction: Adolescents are a focal point of discussions of sexuality and reproductive health matters because they comprise a most active segment of the population and because of practical concerns in resolving problems such as unintended pregnancy and sexually transmitted diseases including HIV/AIDS.

Objective: To determine the prevalence of teenage pregnancy and the socio-demographic characteristics of teen pregnant girls in Aba.

Methodology: A cross-sectional study of all pregnant girls of 19 years of age or below who registered for antenatal care or delivered in three centres in Aba comprising a private hospital, a missionary hospital and a maternity home from the 1st January 2004 to December 31st 2004.

Results: The prevalence of teenage deliveries was 45 per 1000 deliveries. 75.4% were booked patients whilst 24.6% were unbooked 98.6% were married whilst 61.4% were single. 92.1% were aged between 15 to 19 years and 8% were aged 10 to 14 years. The mean age at first sexual experience was 15 years. 12.3% had no formal education. 40.4% had only junior secondary education whilst none completed their senior secondary education. 86.8% had not received any form of sex education. Only 35.1% had ever used contraception. Consented sex was admitted to by 77.2% and 22.8% were rape victims. 40.4% tried unsuccessfully to terminate their pregnancies.

Conclusion: Adolescent pregnancy was mostly associated with early age of sexual intercourse, poor educational background, lack of knowledge of reproductive health issues and negative attitude toward contraception. Teenage pregnancy is still a public health problem. There is therefore need to reduce the teenage pregnancy rate through attention to both formal and informal education, adequate sex education and provision of reproductive health services for adolescents.

071 Knowledge, Perception and Practices of Infertile Women Seen at the University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt.

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Introduction: Infertility is the commonest presenting complaint in our gynaecological clinics and can be psychologically, socially, physically and financially devastating. There is a need therefore to evaluate not only the level of awareness of the causes and treatment of infertility by our patients but also the social, financial and psychological impact it has had on their lives.

Objectives: To assess the knowledge, perceptions and practices relating to infertility among subfertile women seen at UPTH, Port Harcourt.

Methodology: A cross sectional questionnaire survey of 300 randomly selected subfertile women.

Results: A sample size of 296 at 95% confidence level was calculated from the infertile population of 1500. The response rate was 295/300 (98.3%). The mean age of respondents was 28.3 [SD: 6.0] years, and the mean duration of infertility was 3.2 years. Knowledge of the causes of infertility was high. Few respondents were knowledgeable about investigations and 90% perceived prayer to be a treatment modality. Effects of infertility included marital disharmony, depression and anger. Divorce rate was low (2.7%)

Discussion: Adequate knowledge is required to seek appropriate health care in any condition. The perceptions of subfertile women in Port Harcourt were negatively influenced by social and cultural beliefs.

Infertility also had adverse psychological effects on affected women. Despite low divorce rates, separation and marital disharmony was common.

Conclusion: There is a need to improve the knowledge of infertility among women in Port Harcourt. Prevention of infertility, not treatment, should be the aim. Counselling and psychotherapy are recommended for infertile couples.

072 Semen Analysis and Routine Semen Culture at LAUTECH Teaching Hospital, Osogbo

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Context: Infertility remains a major problem in Africa because of the high premium placed on childbirth vis-a-vis marriage security. Male factor is a significant contributor to this, accounting for nothing less than 30% of the aetiological factors.

Objective: To evaluate the relevance of routine semen culture after semen analysis.

Study Design, Setting and Subjects: A descriptive study of all cases of infertility presenting in the Gynaecology Clinic of LAUTECH Teaching Hospital, Osogbo between July 2001 and June 2005.

Results: Abnormalities were found in 74.2% of all the analysed semen samples and 25.8% were normal. The abnormalities found were azoospermia (22.9%), oligozoospermia (23.3%) and asthenozoospermia (22.9%). All specimens were routinely cultured. There was no bacteria growth in 54.2% of the samples cultured regardless of whether normal or abnormal. In the abnormal samples no organism was cultured in 50.3%. *Staphylococcus aureus* was cultured in 39.6% of the samples with abnormal semen analysis result constituting the major pathogen cultured (*Klebsiella* 3.66%, *E. coli* 1.67%, *Proteus* 0.56%, *Pseudomonas* 1.12%, others 3.09%). In the samples with normal semen analysis no bacterial growth was observed in 65%. In 45% of the sample there was observed bacterial growth. 27% of the sample cultured was *Staphylococcus aureus*, also constituting the major pathogen (*Klebsiella* 1.64%, *E. coli* 1.64%, *Proteus* 0.80%, others 3.2%). There was no statistical significance ($\chi^2 = 10.301, p = 0.113$) when the culture outcome for cases with normal and abnormal semen results was analysed.

Conclusion: Though the need for semen analysis is established in investigating infertility, routine culture may not be helpful in unveiling the causes of semen abnormality as in most of the cases organism grown has no correlation with the abnormalities detected.

073 Clinical Features of Infertility in Abakaliki, Nigeria

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Background: Infertility remains a common gynecological and social problem especially in sub-Saharan Africa where fertility reflects a women's status.

Objective: To evaluate various ways infertile couples present in the clinic.

Method: A retrospective review of clinical presentations of 50 randomly selected women attending the gynecological clinic at the Ebonyi State University Teaching Hospital, Abakaliki was done. Documentations of the history and full physical examination of each patient were reviewed and analyzed.

Result: 76% of the patients were between 25 - 34 years. Only 20% presented within 2 years of infertility. 78% had secondary infertility. Coital frequency of 2 or more times per week was recorded in 62% of patients. Other features were: chronic pelvic pain 34%, induced abortion 40%, and menstrual abnormality 60%. 78% had sought medical attention somewhere before presenting. Expressible galactorrhoea was noted in 28% of case, abdominal pelvic mass 24% and abnormal vaginal discharge 34%.

Conclusion: Late presentation and secondary infertility were the commonest feature, among the patients. Majority sought help from multiple sources indicating the degree of pressure on them. Menstrual abnormality, induced abortions and chronic pelvic pain were also common. Our women should be enlightened on the need to present early for management and also to stick to one specialist for full evaluation and treatment.

074 Endometriosis Presenting as Haemorrhagic Pleural Effusion and Ascites.

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A case of endometriosis presenting as haemorrhagic pleural effusion and ascites in a 40 year old multiparous woman is described. Her main clinical features were groin swelling 12 years ago which was confirmed at

histology (after excision) to be endometriosis; secondary infertility of same duration; peri-umbilical nodule with cyclic painful swelling, secondary dysmenorrhoea, dyspareunia, irregular menses, intermenstrual bleeding, dyspnoea, abdominal swelling. Investigations revealed pleural effusion on chest X ray; complex pelvic-abdominal mass and ascites on ultrasonography; and normal haematological indices. She was initially managed conservatively with danazol. However, surgery was indicated with worsening ascites and severe abdominal pains. At exploratory laparotomy, the peritoneal fluid was confirmed to be haemorrhagic. The abdominal mass was found to be uterine with characteristic features of endometriosis interna (adenomyosis) and ruptured haemorrhagic cystic mass at uterovesical fold. The tubes and ovaries were morbidly adherent to the enlarged uterus and the posterior aspect of the uterus had filmy adhesions involving the intestines also. Subtotal hysterectomy with bilateral salpingo-oophorectomy was performed after generous adhesiolysis. The cervix was not removed because of morbidly adherent urinary bladder anteriorly and intestines posteriorly. Histological examination of the tissues confirmed endometriosis and endometriosis interna (adenomyosis). She made a dramatic recovery post operatively and has resumed normal activities except that she is worried about her aborted reproductive carrier.

075 Minilaparotomy and Dye Test: Alternative to Laparoscopy in Low-Resource Settings?

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Objective: Laparoscopy is a very important technique in the investigation of the infertile woman, however the cost and maintenances of the equipments makes it unavailable to many practitioners in the developing countries. There is therefore the need to find an alternative that is comparable.

Methods: The case records of 38 patients who had minilaparotomy and dye test at our centre on account of infertility were retrospectively analyzed.

Results: The age of the patients ranged from 24 to 44 years with a mean age of 28.4 years. The duration of operation ranged from 20 to 85 min. Some of the other operations carried out at the time of the procedure include pelvic adhesiolysis 14(36.8%), fimbriolysis 6(15.8%), cuff salpingostomy 5(13%), myomectomy 4(10.5%), and ovarian cystectomy 4(10.5%). Estimated blood loss during the procedure ranged from 30 to 250 ml with the higher blood loss in those that had myomectomy. Duration of hospital stay following the procedure ranged from 8-48 hours with a mean hospital stay of 16 hours. There was 1 case of wound sepsis.

Conclusion: Minilaparotomy and dye test may be a minimally invasive alternative to laparoscopy in the investigation and treatment of the infertile woman in low resource settings. In addition, some of the procedures carried out during the operation will require specialized training with more expensive operating laparoscopes which may not be readily available in resource constraint countries.

076 Egg Sharing in In-Vitro Fertilization (IVF)/Intra-Cytoplasmic Sperm Injections (ICSI) Treatment.

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Background: A significant proportion of infertile couples in Nigeria require assisted conception techniques like in vitro fertilization (IVF) and intra cytoplasmic sperm injection (ICSI). Accessibility to these modern techniques is limited because of the high costs involved. Egg-sharing programmes become very essential in helping couples who cannot afford IVF, as they have their treatment paid for by an egg-recipient couple.

Setting and Study Design: The first 34 consecutive egg sharing and 46 egg recipient cycles in Nordica Fertility Centre Abuja (@ Nisa Premier Hospital) were analyzed. Sharer donors were less than 35 years of age with FSH level of ≤ 10 iu/l. They were screened for HIV, hepatitis and syphilis. The sharer donors were matched with recipients for ethnic background and physical characteristics. Both the prospective donors and recipients were adequately counselled and written consent obtained. Standard down-regulation and super-ovulation protocol was used.

Results: The average age of share donors was 28.2 years which was significantly less than those of the recipients 42.6 years ($P < 0.0001$). The average number of eggs retrieved per donor was 10.7. The fertilization, cleavage, clinical pregnancy and live birth rates were 71.1%, 98.8%, 35.3% and 23.5% respectively for sharers and 67.6%, 96.6%, 28.3% and 21.7% respectively for recipients. The average number of embryos transferred was 2.1 for sharers and 2.2 for recipients. Both groups were similar in all the above parameters (statistical analysis was done using the Fisher's exact probability test and the student t test)

Conclusion: Egg sharing programmes produce satisfactory pregnancy and live birth rates among sharers and recipients. It improves the chances of financially disadvantaged infertile couples achieving their desire to have children.

077 Secondary Infertility Due to Iatrogenic Bone Intrauterine Device: A Case Report.

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Background: Infertility constitutes a major problem in gynaecological practice. Majority of the infertility cases seen in Nigeria are secondary. Antecedent complication following a previous pregnancy is a recognized causal factor. Therefore careful and thorough unbiased assessment of the infertile couple is necessary to obviate delay in achieving a desired result and also prevents waste of limited resources and valuable time.

Case Report: Mrs OJ a 30-year-old Para 0¹ presented to the Fertility Clinic in Nisa Premier Hospital Abuja on 08/08/2003 with a 6-year history of infertility. Her previous pregnancy was terminated by dilatation and evacuation at 15 weeks in 1997 due to severe hypertensive disease in pregnancy. Hysterosalpingogram (2002) revealed bilaterally patent tubes and she used clomiphene citrate for 4 cycles before presenting to us. Her husband's seminal fluid analysis parameters were within normal limits. Ultrasound scan revealed normal uterus with a hyper-echogenic shadow within the endometrial cavity. The ovaries were polycystic. Hysteroscopy (04/09/2003) showed bone spec 10mm x 6mm lying in the mid portion of the endometrium. This was removed with hysteroscopic grasping forceps. Her hormonal assay parameters were within normal limits. She was given a 2-month follow-up appointment but she defaulted. She later came on 19/01/2004 with 16 weeks amenorrhoea. Ultrasound scan confirmed a 16-week viable intrauterine pregnancy. She had an uneventful antenatal care and a normal delivery of a live 3.65 kg male neonate at 40 weeks gestation on 07/07/2004.

Conclusion: Infertility could be of iatrogenic aetiology and thorough clinical evaluation may result in using simple measures to restore fertility.

078 Factors Affecting Successful Embryo Transfer in Assisted Reproduction

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Since the birth of Louise Brown in 1978, the process of *in vitro* fertilization had gone through remarkable modifications, with the aim of maximizing the efficiency of each step of the procedure. Given the increasing trend towards single embryo transfer, efforts are being made to explore factors that will yield optimal results in terms of implantation and pregnancy rates. Embryo transfer is the final and important step in *in vitro* fertilization treatment cycle, and events around this step often account for the failure of most cycles. Though many factors have been reported to affect the success of embryo transfer, only a few have been found to be effective, many have no significant effects and some are deleterious to successful transfer and pregnancy outcome. Exploration of these factors with the aim of concentrating efforts and resources on those with proven benefits especially in low resource settings would be a worthwhile exercise. This review thus focuses on the various factors that affect the success of embryo transfer in assisted reproduction.

079 Ultrasonic Detection of Testicular Lesions in Severe Oligozoospermia

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This is the report of a pilot study aimed at reviewing the characteristics of testicular lesions diagnosed clinically and by ultrasonography in a population of men with severe oligozoospermia presenting with infertility in a private fertility clinic. Severe oligozoospermia is defined as sperm concentration less than 5 million/ml (WHO 1999). Conditions that affect male fertility are still under-diagnosed and under-treated in this environment. While testicular causes of infertility may be chromosomal in origin, severe oligozoospermia can also be an indication of the presence of tumours, which may be benign or malignant. Ultrasonography is a cheap, cost effective method of detecting testicular tumours, which could be very useful and lifesaving in a resource-constrained setting such as ours.

080 Exploring the Pattern of Abortion Complications in a Rural Tertiary Health Centre in the Niger Delta, Nigeria.

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Background: Unsafe abortion remains a major cause of maternal morbidity and mortality in developing countries including Nigeria. Only very few studies have explored the peculiarities of the complications of unsafe abortion in rural areas.

Objectives: The aim of the study was to determine the incidence, pattern of presentation and management of complications from unsafe abortion in a rural tertiary hospital in the Niger Delta.

Materials and Methods: A descriptive review of 118 consecutive cases of illegally induced abortions managed over a 10-year period in a rural tertiary health centre.

Results: Patients with complications of Induced abortion constituted 2.3% of maternal admissions, 5.6% of gynaecological admissions and 22.6% of maternal deaths. The case fatality rate was 22.0%. The mean duration of hospital stay was 5.3+/-6.9days..More than half of the women (59.1%) were married. The mean age was 25.6+/-7.9 years. Majority (54.3%) were less than 24 years old. The mean parity was 2.6+/-3.9. The mean gestational age at induced abortion was 12.6+/-3.5 weeks. In 59 cases (51.7%), doctors were responsible for the induced abortion followed by nurses (13.9%). Amongst the mortalities, medical doctors, traditionalists and nurses were responsible for 69.2%, 7.7% and 7.7% of cases respectively. Most cases were referred from private hospitals. Mestrogen, quinine, native oral and vaginal herbal concoctions were the most commonly used self-administered abortifacients. Sepsis was the commonest cause of death (73%) and also the commonest complication (61.0%). Evacuation of retained products of conception was the most common surgical treatment given (55.0%).

Conclusion: While the restrictive abortion laws in Nigeria remains, there is an urgent need for a redirection at preventing unwanted pregnancies. Promotion of moral values, family life education and contraception will aid in this direction. There is also an urgent need for the training and retraining of doctors in post abortion care.

081 Pattern of Septic Abortion at the Olabisi Onabanjo University Teaching Hospital, Sagamu, Nigeria: A 10-Year Review

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Background: Abortion can be complicated by sepsis and the attending morbidity and mortality is often grave. The sequelae on the reproductive function and health can destabilize family life. Septic abortion can occur in any woman in the reproductive age group; procurement of abortion in the appropriate place and using appropriate techniques and instruments will limit the amount of septic cases. This may be a reality if the abortion law in Nigeria is less restrictive.

Aim: The aim of the study was to determine the demographic and management pattern of septic abortion cases in the hospital as well as the morbidity and mortality and the of interval of presentation on the eventual outcome of the patient within a 10-year period

Design: The study was a retrospective review of all the 34 cases of septic abortion in the hospital between 1995 and 2004. Supplementary data were obtained from the medical records and analyses was by the statistical software SPSS.

Findings: The age range of the patients was between 15 and 41 years (Mean: 24.53). They were between Para 0-6 (Mean: 1.56). Nulliparous patients represented 47.1%. The mean duration of hospital admission was 17.59 days and 93.1% of the abortion cases were induced. Most of them were traders (35.3%) and five of them were screened or consented to being screened for HIV with only one patient being positive. Majority of them (58.8%) had undergone previous abortions, 50% of which were done by quacks. The preferred method of abortion was by dilatation and curettage (61.8%). Severe anaemia was the commonest morbidity (20.6%) and conservative management with antibiotics alone was used in 26.5%. There was no relationship between the interval of presentation or the gestational age at abortion and the outcome of the patient

Conclusion: Septic abortion is a cause of prolonged morbidity and mortality. Appropriate technique of dilatation and curettage should be taught to reduce the risk of complications and abortion laws should be made to be less restrictive to reduce patronage of quacks. Promotion of safer sex practices should be strengthened to reduce the frequency of induced abortions

082 Management of Tubal Ectopic Pregnancy With the Non-Pneumatic Anti-Shock Garment (NASG).

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Objective: This is a small comparative study of 18 patients with ectopic pregnancy and hypovolemic shock to ascertain the effectiveness of the Non-Pneumatic Anti-Shock Garment (NASG).

Methods: Nine patients with ectopic gestations were treated with standard protocol (no-NASG) and nine were treated with standard protocol and NASG. The NASG was applied from the time of admission and removed once patients' vital signs were stable. All women had salpingectomy for definitive treatment. Criterion for admission to the study was hypovolemic shock.

Results: The no-NASG women had less severe hypovolemia [mean blood pressure (BP) 95/53 mmHg], compared to the women in the NASG group whose mean BP was 49/26. On admission to the study, Class III shock was noted in 22% of the no-NASG women versus 78% of the NASG women. Despite being in worse condition on admission to the study, the time required to restore MAP > 60mmHg was 48% faster for the NASG women, 34 minutes compared to 65 minutes. The time between admission and laparotomy was the same in both groups, 62 minutes. Total blood loss was greater for the no-NASG women (2203 ml) compared to 1980 ml for the NASG group and the volume of blood transfusion required was also greater - 1778 ml versus 1083 ml. However the admission and discharge hematocrits were similar (17.7% and 26.3% versus 18.4% and 25.1% respectively).

Conclusion: Women managed with the NASG, though they were more severely hypovolemic and had more severe shock upon admission, were resuscitated more quickly, had less blood loss during treatment, and required a lower volume of blood transfusion.

083 Risk Factors for Ectopic Pregnancy in Lagos, Nigeria.

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Introduction: Ectopic pregnancy is an important cause of maternal deaths in Nigeria as in other developing countries. In Lagos, it is responsible for 8.6% of maternal deaths, and has a case fatality rate of 3.7%.

Objective: The objective of this study was to determine the risk factors for ectopic pregnancy.

Methodology: This was a case-control study of 100 patients and 280 controls performed in 3 hospitals: Lagos University Teaching Hospital, Lagos State University Teaching Hospital [Ayinke House], and Lagos Island Maternity Hospital from June 1999 to December 1999. Data were analysed using logistic regression.

Results: The incidence of ectopic pregnancy was 23.1/1000 (1:43) deliveries and was responsible for 48.5% of gynaecological emergencies. Age, marital status, socioeconomic status, and parity were not significant risk factors for ectopic pregnancy. An early age of sexual debut increased the risk of ectopic pregnancy almost two-fold (adjusted OR: 1.93; 95% CI: 1.71-2.93), whereas a late age of sexual debut was protective (adjusted OR: 0.37; 95% CI: 0.19-0.59). History of multiple lifetime sexual partners, induced abortions, pelvic inflammatory disease, sexually transmitted disease (STD), miscarriages, and pelvic surgery independently and significantly increased the risk of ectopic pregnancy. Induced abortion and STD increased the risk almost 14-fold and 9-fold respectively. Previous use of intrauterine contraceptive device increased the risk almost four-fold (adjusted OR: 3.76; 95%CI: 2.12-6.69), whereas the use of condom was protective (adjusted OR: 0.35; 95% CI: 0.17-0.71).

Conclusion: Proper sex education, prevention of unwanted pregnancy and prevention and proper treatment of sexually transmitted infections will reduce the incidence of ectopic pregnancy.

084 Psychological Impact of Prenatal Diagnosis and Post Sampling Options

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Background: Prenatal diagnosis is associated with psychological challenges, which may affect the comportment of women before, during or after the procedure, as well as their decision on the future of an affected pregnancy.

Objectives: This prospective study was to evaluate the psychological impact of prenatal diagnosis on the women, factors that may be contributory as well as the post sampling options.

Methods: Fifty pregnant women underwent counselling for the prenatal diagnosis of SCD between 1st August 2004 and 31st August 2005. Questionnaires were completed after the pre-procedure counselling and their responses revalidated after the procedure. The period of maximum anxiety in relation to the procedure, factors that may contribute to the anxiety state and the possible decision on an affected pregnancy were determined.

Results: Seventy-one women were counselled 50 (70.4%) of whom participated in the study. All of them demonstrated anxiety. The post-procedure period was where anxiety was most heightened (44.0%). The fear of an unfavourable result was the predominant factor (74.0%) while cost was the least factor (14.0%) that contributed to their psychological anxiety. Post sampling anxiety was commoner among women with a previous SS child. Seventy percent would terminate pregnancy with an affected fetus and 20.0% would decide when the results were out. Majority (88.0%) would choose to have the procedure in a future pregnancy

Conclusion: The psychological impact associated with prenatal diagnosis was most profound in the post-sampling period and should be considered during counselling.

085 Chorionic Villus Sampling Through Transabdominal Needle Aspiration – A Preliminary Report.

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Background: Chorionic villus sampling was conducted in Lagos using the biopsy forceps. The desire to improve on the quality of service necessitated the introduction of the aspiration needles for biopsy.

Objective: To assess the impact of the transabdominal needle aspiration method on the outcome of sampling and the women's tolerance of the new method.

Method: All the women that underwent CVS following the introduction of the transabdominal aspiration needles between 1st May 2005 and 31st August 2005 had their data recorded. They were routinely counselled and prepared. The ease of introduction and aspiration, number of attempts, weight of sample and frequency of complications associated with the sampling were analysed. The procedure time for each client was recorded.

Results: All the twenty-seven clients evaluated had transabdominal sampling. The aspiration needle was easily and painlessly introduced in all of them. The mean number of attempts was 2.03. The tissue yield was comparatively higher ($t = 30.29$, $p < 0.00001$) Complication was less likely with the aspiration needles than the biopsy forceps (OR 0.22, 95% CI 0.04-0.79). It took the form of mild abdominal pain (7.4%) and accidental rupture of membranes in one (3.7%) client. Average procedure time was 20 minutes. Twelve (85.7%) out of the women with a previous experience prefers the needle aspiration method.

Conclusion: The transabdominal aspiration needle has been found useful for all cases. It is a safer and better alternative to the use of forceps for chorionic villus sampling.

086 Fertility Desires and Intentions of HIV-Positive Nigerians

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Introduction: To determine the extent of fertility desires and intentions of HIV-positive patients receiving care at a suburban specialist clinic and assess how these may vary by their sociodemographic and health related factors.

Materials and Methods: Questionnaire-based interview of a consecutive sample of HIV-positive men (18-55 years) and HIV-positive women (18-45 years) who presented at the HIV Clinic of the Center for Special Studies, Sagamu, Nigeria between November and December 2004.

Results: Sixty three point three percent of the 147 studied participants expressed the desire for childbearing even though 50.4% of them already had ≥ 2 children. Respectively, 71.5% and 93.8% of men and women who desired children intended to have >2 in the near future. Only 4.3% of those who desired children did not intend to have any All the 30 individuals who had no children intended to bear children in the future and

they constituted 32.3% of those who expressed the desire for childbearing. Multivariate logistic regression analyses of associated factors indicated that decreasing age, shorter time since diagnosis of HIV infection and non-disclosure of serostatus to current partner significantly increase the odds of desire for childbearing while having no children and poor most-recent CD4 count significantly increase the odds of intention to have ≥ 3 children instead of 1-2.

Conclusion: The extent of the fertility desires and intentions of these patients poses a threat to the preventive strategies against vertical and heterosexual transmission of HIV in this region. In view of their compelling desire for parenthood, it may be wise for caregivers to desist from the conventional systematic advice against pregnancy but in addition to laying emphasis on the risks, provide adequate information on practicable reproductive options for HIV-positive individuals.

087 Voluntary Counselling and Testing for the Prevention of Mother-to-Child Transmission of HIV in Makurdi, Nigeria.

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Context: The human immunodeficiency virus infection is one of the most life threatening infections of our time. The prevention of mother to child transmission of this virus therefore offers a bright hope for the future.

Objective: To assess the prevalence and acceptance of voluntary counselling and testing for HIV among patients at the Federal Medical Centre, Makurdi.

Materials and Methods: Antenatal care register, voluntary counseling and testing registers, labour ward records from 20th June 2005 to 31st August 2005.

Results: During the study period, 332 clients booked for antenatal care. All of them were counselled pretest (98% group, 2% individual); 10.7% in June, 36.8% in July and 52.5% in August. A total of 217 patients accepted HIV testing, giving the acceptance rate of 73.1% (28% in July and 72% in August). Out of these, 34 tested positive for HIV, giving a prevalence of 15.7%. Out of the 34 seropositive patients, 23.5% (8) received antiretroviral drugs for the prevention of mother to child transmission of HIV. No client received counselling on infant feeding. Three (1.4%) of the tested clients had indeterminate result and 2 (5.9%) of the HIV positive clients agreed to partner notification. There were no records of HIV testing acceptance in June because same day result was not practiced then, accounting for the low acceptance rate of 73.06%.

Conclusion: The HIV prevalence rate in our pregnant women is 15.7%, which is higher than the national prevalence rate. It is also higher than the 10.7% reported from the centre before PMTCT activities in the centre. The increase might be due to increased utilization of PMTCT services by HIV positive clients. There is the need to train more counsellors and to scale up antiretroviral prophylaxis for PMTCT in the centre.

088 Evaluation of Bacterial Vaginosis (BV) Using a New Point-of-Care Chromogenic BV Blue Test, Detecting Elevated Vaginal Sialidase Before and After 15 Days of Oral Intake of Probiotic-Ure x cap 5 and Metronidazole

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Introduction: Bacterial vaginosis (BV) is a condition consisting of mucosal inflammation, Gram negative anaerobic bacteria colonising the vagina of premenopausal women at the expense of lactobacilli, elevated pH > 4.5, and in some cases odour and discharge. BV significantly increases the risk of sexually transmitted infections, including HIV. The etiology of BV is diverse and the diagnostic methods currently adopted for BV are 'arguably' Amsel signs, which are subtle and Nugent criteria requiring expert interpretation.

Objectives: To determine the BV status of premenopausal women by detecting elevated vaginal sialidase, before and after oral intake of placebo-controlled probiotic Urex cap5 and metronidazole.

Methodology: In a randomised trial, 60 women (18-40 years) diagnosed with BV by clinical signs and detection of elevated vaginal sialidase, were enrolled. The subjects were given a single oral dose of metronidazole (1g) daily from days 1-7, plus oral Urex cap5 [*Lactobacillus rhamnosus* GR-1 (2.5×10^9) and *L. reuteri* RC-14 (2.5×10^9)] or placebo twice daily from days 1-15. Primary outcome was cure of BV as determined by negative sialidase test.

Results: A total of 54 subjects returned for 15-day follow-up, and 21 (88%) in the metronidazole/probiotic group (24) were cured compared to 40% in the antibiotic/placebo group (30) ($p < 0.001$). Nine (30%) subjects in the placebo group and none in the probiotic group had BV, while 30% in the placebo and 3 (12%) in the probiotic group fell into the Intermediate category based upon Nugent score and weak sialidase result.

Conclusions: This study demonstrates the efficacy of using probiotic Urex cap5 as an adjunct to metronidazole in treating bacterial vaginosis. Various studies using antibiotic treatment alone for BV have resulted in failure rates ranging from 15-39%, as found with the antibiotic/placebo group results obtained in this study. The restoration of a normal vaginal microbiota with probiotics may have an important impact to treating BV, which is a major risk factor of HIV acquisition in sub-Saharan African women. The BV Blue test is a simple, rapid, and objective test for the diagnosis of BV and has the potential to facilitate prompt diagnosis and appropriate treatment at the point-of-care.

089 Determinants of Postpartum Infant Feeding Practice among HIV Positive Women

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Introduction: Breast milk is the ideal infant food for babies. WHO recommends that all infants should be exclusively breastfed for the first six months of life. However, with the risk of HIV transmission to the infants through breast milk, infant feeding counselling and options become a challenge in a PMTCT programme. The postpartum infant feeding practices by mothers are influenced by a number of factors apart from the HIV status.

Methodology: The PMTCT Programme at UCH, Ibadan, provides infant feeding counselling and options for all HIV positive ANC patients apart from providing free infant formula for all the HIV exposed babies, though by choice. In our Behavioural Surveillance Study (BSS) in 2003, pregnant women who accessed PMTCT services were interviewed about their intended infant feeding practices. Their responses were compared with the practices of HIV positive women at postpartum follow up. The factors determining the postpartum practices compared with antenatal intentions were identified.

Results: In the BSS study 554 antenatal women were interviewed. Intention to breastfeed was shown by 94.8% of the women. At follow up of the HIV-positive mothers in the programme, 10.7% of the 144 mother-infant pairs exclusively breastfed their babies 71.8% used infant formula and 8.7% practiced mixed feeding.

Conclusion: In a PMTCT program, feeding option for HIV-exposed infants may pose a challenge. Despite the potential for stigmatisation, appropriate counselling, support and availability of free infant formula can encourage the choice by HIV-positive mothers to exclusively formula feed their babies.

090 HIV Serodiscordance Among Couples: A Challenge to PMTCT Service Delivery

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Introduction: With increasing response and access to treatment, care and support for HIV/AIDS patients in resource-poor countries many partners of pregnant women now seek counselling and testing for HIV. However, in HIV serodiscordant couples with the man sero-negative, the challenges posed to PMTCT can be enormous. The implications of serodiscordant HIV results are highlighted.

Methodology: University College Hospital (UCH) is one of the 11 primary PMTCT centres in Nigeria commencing activities in August 2002. The intention was to administer Nevirapine monotherapy to the positive mothers in labour and the babies within 72 hours of delivery among other treatment plans. There is linkage with other service delivery centres in the hospital like the Virology Laboratory and ARV, Paediatric, STI and Family Planning clinics.

Results: From August 2002 to May 2005, 4393 pregnant women assessed PMTCT services with 94.8% tested. In all 5.2% were positive for HIV. Of these, 54.4% returned with their spouses for testing of which only 23.7% were concordant for HIV infection.

Conclusion: Partner notification by HIV infected women should be encouraged and forms one of the strategies for the prevention of HIV infection. However, Male sero-discordance rate of 76.3% in a PMTCT programme poses a lot of challenges including domestic violence, family rejection and abandonment. These make Adherence to PMTCT follow up services and interventions becomes difficult because the care and support expected from the partners are denied as most of the women are thrown out of homes. Couple counselling and women empowerment are viable solution.

091 The National PMTCT Programme: Implications for Women's Health.

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Introduction: Mother to Child Transmission (MTCT) of HIV accounts for over 90% of the infections among the 5 million children living with HIV in Sub-Saharan Africa. In Nigeria the use of Nevirapine monotherapy forms one of the secondary interventions in prevention of mother to child transmission (PMTCT) of HIV since 2002. However, there are convincing evidences that pregnancy is an eligibility criterion for Highly Active Antiretroviral Therapy (HAART) in all HIV positive women for better maternal and fetal outcome. This paper reviews peripartum CD4 counts results of the mothers seen in the PMTCT program between January 2003 and June 2005.

Methodology: Prevention of Mother to Child Transmission (PMTCT) of HIV program in Nigeria started at 11 primary sites in 2002. Nevirapine monotherapy constitutes the national protocol of antiretroviral treatment for PMTCT. As part of the program, monitoring of the maternal CD4 counts is done to assess their immunological status in preparation for eligibility for HAART treatment.

Results: During the 30 months period random review of 310 HIV positive antenatal patients seen in UCH as part of the 2556 HIV Positive cases managed nationally showed that 77(24.8%) and 100 (32.3%) had their CD4 counts below 200/mm³ and 250/mm³ respectively.

Conclusion: The implication of these results is that a quarter of our HIV positive women need HAART treatment for their own disease apart from the well documented evidences of its benefits in PMTCT of HIV. There is, therefore, the need for the development of a National protocol that makes the use of HAART for National PMTCT program a must.

092 Counselling and Voluntary Testing of Unbooked Parturients for Human Immuno-Deficiency Virus Infection at the University College Hospital, Ibadan: A Pilot Study.

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Introduction: A significant proportion of the patients managed at our centre are not booked, thus unable to benefit from routine prevention of mother-to-child transmission (PMTCT) services.

Objectives: To evaluate the acceptability of counselling and testing of unbooked women in labour so as to offer them the appropriate services, and to assess the prevalence of HIV infection in this group.

Methodology: A questionnaire survey of consecutive "unbooked" pregnant women in labour ward was done to assess their acceptability of HIV test. Blood samples were taken from consenting patients for rapid screening for HIV and ELISA. Reactive results were sent for confirmation by Western blot. Data analysis was by frequency tables and percentages.

Results: 104 women were counselled. 91 (87.5%) accepted testing, all re-iterated their consent 48 hours after delivery. 6 (6.59%) of these had reactive rapid results, of which 5 (5.49%) were reactive to ELISA, all these confirmed by Western blot. One non-reactive rapid result was reactive to ELISA, but indeterminate on Western blot. Traders were the most likely acceptors with OR 95.9 (2.98-3091.4). Professionals (18.18% of them) had highest prevalence of HIV reactivity.

Conclusion: Acceptance rate was lower than for booked antenatal clients. The ethical challenge of testing in labour is discussed. The prevalence was higher than published national data (5%) for pregnant women. Counselling and testing appear acceptable in labour, so a formal PMTCT service can be designed for unbooked patients. The high prevalence shows the magnitude of the problem, thus justifying the extension of PMTCT to them.

093 Knowledge and Practice Related to the Human Immuno-Deficiency Virus Infection Among Traditional Birth Attendants in Ebonyi State.

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Background: Ebonyi State has an HIV prevalence rate of 11.1%. Her 1.8 million inhabitants are mainly rural dwellers where traditional birth attendants play pivotal role in healthcare delivery.

Objectives: This study assesses the awareness of HIV infection and its route of transmission among the traditional birth attendants in Ebonyi State.

Methods: A total of 109 traditional birth attendants (TBAs), randomly selected, were interviewed, using a semi-structured questionnaire in their local dialects by trained Community Health Extension Workers.

Results: The respondents conduct 6 120 deliveries annually amongst them. Most of them 88.9% had no formal education. Only 65.1% have heard of HIV and this was mainly through their peers in the markets and the churches. None of the respondents had any practices related to HIV prevention and asepsis/sterilisation procedures are minimal.

Conclusion: More than 75% of the Nigerian population live in the rural areas. This important segment of the society seems neglected in the crusade against HIV/AIDS. Most urban-based programmes disseminated via the print and electronic media hardly filter through to the rural communities. Traditional birth attendants form the entry point and a vital link in health care delivery in these communities as in other African rural communities. Their practices therefore must impact either positively or negatively on the spread of HIV/AIDS. The level of awareness of the HIV pandemic is minimal and grossly inadequate among TBAs. A strategy considering the unique characteristics and needs of this set of healthcare providers is advocated.

094 Knowledge and Attitude of Expectant Mothers in Rural Nigeria to Voluntary Counselling and Testing (VCT) for HIV Infection / AIDS.

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Background: Massive awareness campaigns have been mounted in the past against the HIV/AIDS but it is not immediately clear if these have filtered down the rural communities.

Objectives: To ascertain the level of awareness of HIV/AIDS among pregnant women in rural Nigeria and their knowledge and attitude to voluntary counselling and testing (VCT).

Methods: A cross sectional study was undertaken over six months in eight rural communities of Ebonyi State. Consenting expectant mothers were interviewed using semi-structured questionnaire administered in their local dialects. Respondents were educated on VCT before proceeding to the section on VCT.

Results: Many of the mothers had knowledge of HIV/AIDS. The churches were the primary source of information, others were: peers, radio, health personnel/facilities and television. None got the information from newspapers. Prior to the interview, only thirty-one expectant mothers had heard of VCT. However, after education, 66.3% and 57.0% respectively believed it would be of benefit to their babies and themselves and 69.8% would want to undergo VCT.

Conclusion: The willingness of a majority of the expectant mothers to accept voluntary counselling and testing was encouraging. This was due to the perceived benefits to themselves and babies. With proper education therefore, uptake of VCT will increase and if backed with appropriate referrals to VCT sites, the preventive strategies against HIV/AIDS must have been placed on sure footings. There is an urgent need for more organized health education on HIV/AIDS among pregnant women in the communities to increase uptake of VCT services.

095 Knowledge, Attitudes and Behaviour Related to the Transmission and Prevention of Sexually Transmitted Infections (STIs) Among Students of Higher Institutions in South-Western Nigeria

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Objective: To assess the knowledge, attitudes and behaviour of students of higher institutions in relation to the transmission and prevention of sexually transmitted infections.

Materials and Methods: The study was a self-administered questionnaire-based survey among 150 randomly selected students of three higher institutions in the South-Western part of Nigeria. The responses were collated and analysed using Epi-Info software.

Results: The response rate was 90%. Fifty-one percent were males and 49% were females, with an average age of 22.9% years. There was above average knowledge of gonorrhoea (95.4%), syphilis (79.2%) and HIV (77.7%) but the knowledge of chlamydial infection was poor (16.2%). Most respondents (77.4%) correctly identified the route of transmission of HIV though few still demonstrated misconceptions about the mode of

transmission such as inhalation (8%) and hugging (6%). The male students engaged in high risk sexual behaviours than their female counterparts such as early age (< 15 years) at sexual debut (12.2% vs 7.8%) and multiple sexual partners (37.7% Vs 8.7%). Electronic media (83%) constitute the main source of information about STIs; others are friends (18%) and parents (15%). Only 34% mentioned condoms as a protective method against transmission of STIs. Other cited methods included abstinence (50%) and mutual monogamy (18%).

Conclusion: The study demonstrated average knowledge of STIs, except for chlamydial infection. There is a high prevalence of high-risk sexual behaviour among the students and their awareness of preventive methods, especially condom use, is poor.

096 Success Rate of Patient-Performed Artificial Insemination After Ovarian Stimulation in Sero-Discordant Male-Negative Couple

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Background: Advances in anti-HIV therapy and improved treatment of opportunistic infections have produced a significant increase in the life expectancy and quality of life of HIV-infected adults. Since the majority of HIV-infected men and women are of reproductive age, many are likely to consider becoming parents. In order to prevent transmission of HIV to the uninfected male partner in sero-discordant couples, artificial insemination (AI) using male partner semen is recommended. However because most of PLWHAS in our centre are unable to afford Gynaecologist assisted AI we started a novel method of self-insemination.

Objective: To determine the success rate of clients performed AI after ovarian stimulation.

Patients & Interventions: HIV sero-discordant male-negative couple with normal reproductive functions after infertility evaluation. Following ovarian stimulation using clomiphene citrate, couple performs AI using male partner's semen at home with a 5 ml syringe after education on the technique.

Outcome: The clinical pregnancy rate

Results: Presently five couple have benefited from the programme. There were 5 pregnancies in 16 AI cycles (31.3%) patients. The number of cycles before becoming pregnant ranges from 1- 5 with a median of 3. All patients were below 30 years and nulliparous. All patients were receiving ARV at the time of AI.

Conclusion: AI after ovarian stimulation with clomiphene citrate is a useful tool in sero-discordant male-negative couples planning pregnancy.

097 Infertility Among HIV-Positive Nigerians: a Study of Incidence and Aetiological Factors

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Objective: To determine the prevalence and aetiological factor of infertility in HIV-positive Nigerians receiving care at the Nigerian Institute of Medical Research, Lagos.

Methods: All HIV positive patients presenting with infertility at the Gynaecology clinic at NIMR between July 2004 and August 2005 were enrolled. All the patients, apart from routine infertility investigation, had CD4 count, viral load, FBC, LFT and RFT determined. Data obtained were entered prospectively and analysed using SPSS for Windows.

Results: Of the 109 patients seen at the clinic during the period under review, 31 presented with infertility (28.4%). Duration of infertility ranged from 12 to 44 months [Mean: 21.8; SD:10.0]. Their ages ranged between 21 and 43 years [Mean: 27.5; SD: 6.5]. Twenty one (67.7%) had primary infertility, while 10 (32.3) had secondary infertility. The CD4 count ranged from 215 to 874 [Mean: 421.6; SD: 219.0]. History of secondary dysmenorrhoea, amenorrhoea, scanty period, previous induced abortion, previous treatment for infertility, chronic pelvic pain, milky discharge from the breast and previous PID were common.

Anovulation (64.5%) and tubal factors (48.4%) were the leading causes of infertility. Male factors accounted for 32.3%.

Conclusion: Infertility is a common finding in PLWHAS and anovulation and tubal factors are the leading aetiological factors.

098 Ovarian Germ Cell Tumours in Zaria, Northern Nigeria: A Clinico-Pathological Review.

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Introduction: Most studies of ovarian tumours in our setting focused on general characteristics of ovarian neoplasms as a group. More information is needed on specific histological subtypes.

Objectives: Documenting the clinico-pathological characteristics of ovarian germ cell tumours in Zaria.

Methodology: Analysis of 78 consecutive histologically confirmed cases of ovarian germ cell tumours at ABUTH Zaria over a ten-year period (Jan. 1995 – Dec. 2004). Clinical data were from the case records of patients and histological features were studied.

Results: A total of 261 ovarian neoplasms were diagnosed during this period. Ovarian germ cell tumours accounted for 78 (29%) and 57 (21.8%) of these tumours were malignant, with malignant germ cell tumours accounting for 14 (24%) cases. Clinical records of three patients were not traced. 61 (81.4%) of the germ cell tumours were mature teratomas, while the remaining 14 (18.6%) were malignant germ cell tumours (6.6% immature teratoma, 5.5% dysgerminoma, 5.5% endodermal sinus tumour and 1.4% choriocarcinoma). The clinical presenting features were abdominal swelling with palpable abdominal mass in 32 (42.7%), palpable abdominal mass with abdominal pain in 32 (42%), abdominal pain alone in 9 (12%), urinary symptoms in 16 (20%), vaginal bleeding/irregular menstruation in 3 (4%), asymptomatic in 2 (2.7%) and ascites in 4 (5.3%). About 16.3% of tumours were bilateral and 11 (78%) of the 14 with malignant germ cell tumours presented with early stage disease.

Conclusion: Ovarian germ cell tumours are common in Zaria. Increasing awareness and utilization of health facilities resulting in early diagnosis will improve the prognosis especially of malignant germ cell tumours.

099 Malignant Tumours of the Female Genital Tract in Zaria, Nigeria.

An Analysis of 513 Cases (1993 – 2003).

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Background: Female genital tract malignant tumours mainly the young female population. Unfortunately, the preventable carcinoma of the cervix is still the leading cause of cancer morbidity and mortality.

Methods: This is a retrospective histopathological analysis of female genital tract malignant tumours diagnosed over an eleven-year period (1993 – 2003). The information required was retrieved from histology bench books and request cards.

Results: In an analysis of 513 cases in Zaria, 77% were carcinoma of the cervix and this was the commonest and compares with findings in other centers in Nigeria. Tumours of the corpus uteri (10.1%) and ovarian tumours (8.4%) were next in order of frequency. Tumours of the vagina and vulva were uncommon. One case of adenocarcinoma of the fallopian tube, which accounted for 0.2% was noted. The commonest type of cervical cancer was squamous cell carcinoma (89.5%). Choriocarcinoma (57.7%) was the most common tumour of the corpus uteri and among ovarian tumours, serous papillary cystadenocarcinoma was the commonest (25.6%), followed by malignant granulosa cell tumour (20.9%). One case of ovarian Burkitt's lymphoma (2.3%) was noted. Malignant tumours of the corpus uteri and the cervix are more common in the fifth decade, while ovarian tumours are commoner in the fourth decade of life.

Conclusion: Carcinoma of the cervix was the commonest malignancy encountered in this study. Fortunately it is preventable by the routine Pap smear. Therefore governments of African countries should establish and sustain such screening centres.

100 Screening for Premalignant Lesions of the Cervix: Determinants of Patients' Practices.

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Introduction: Carcinoma of the cervix is the commonest genital tract malignancy in developing countries. The observed difference in its incidence in varying population reflects availability of effective pre-malignant screening programmes. However, poor practices among the target population can be a major contributor to ineffectiveness of such programmes. A study to assess the determinants of the practices of patients presenting for Pap smear test was conducted.

Methodology: This study was conducted using a self administered structured questionnaire among consenting patients at the Obstetrics and Gynaecology Department of University College Hospital, Ibadan, between 1st of August, 2003 and 31st January, 2004.

Results: Of 120 questionnaires, 97 were found suitable for analysis. The mean age of the respondents was 43.5 [SD: 9.3] years and 77.3% had at least secondary education. Only 35.1% of the respondents had Pap smears before but at varying intervals, ranging from 6 months to 13 years. Annual screening interval was suggested by 57.7% of the respondents, biennial by 6.2%, 3-5 yearly by 3.1% while 33% suggested varying intervals from one to nine months. Referral of 77.4% of the respondents was by health care providers.

Conclusion: This study showed that the practices of screening for pre-malignant lesions of the cervix was poor among the respondents and this was greatly influenced by demonstrated poor knowledge of the principle of the Pap smear test. This might be a reflection of the quality of information provided by the health care providers who referred most of the patients.

101 Gynaecological Tumours in Children and Adolescents, a Ten-Year Histopathological Review in the Pathology Department of ABUTH Zaria (1995 – 2004).

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Introduction/Context: Gynaecological tumours are rare in children and adolescents and the malignant variety are particularly rare. Their rarity however may lead to problems as the diagnosis may not be considered and individual clinicians may have insufficient experience to ensure appropriate treatment.

Objective: To determine the incidence of gynaecological tumours in children and adolescents in Zaria.

Method: The pathology (histology) reports of all the children and adolescents between January 1995 and December 2004 were analyzed. Information on the age, presence of gynaecological tumour and histological slides and tissue blocks were retrieved and analyzed in conjunction with a consultant pathologist.

Results: 40 (14.8%) of the 270 cases analysed had gynaecological tumours. 85.0% (34) were adolescents while 15.0% (6) were children. The commonest tumours were teratoma and hydatidiform mole, which constituted 27.5% (11) each. Choriocarcinoma accounted for 10.0% (4) of the tumours while one case of Kaposi's sarcoma of the cervix (2.5%) was seen.

Conclusion: Gynaecological tumours among children and adolescents are not as rare as previously thought and with a high index of suspicion these tumours can be detected early and prompt treatment instituted.

102 Paradigm Shift in the Management of Vesico Vaginal Fistula (VVF)

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Context: Traditionally, large and juxta-urethral fistulae are repaired with the patient in face down or knee-elbow position. This allegedly made the fistula more accessible for repairs when compared to putting the patient in lithotomy position. The knee-elbow position however required continuous elevation of the posterior vaginal wall by an assistant and more importantly necessitated anaesthetic dexterity to free the abdomen for respiratory excursions, and to prevent the often fatal mishap of endotracheal tube kinking or blockage. But such anaesthetic expertise is only sparingly available in developing countries. The challenge therefore has been to overcome these difficulties by avoiding the knee-elbow positions.

Objective: This report looks at the results of repair of large and juxta-urethral VVF in both positions.

Methods: The clinical records of 116 fistulae repaired in the knee-elbow position prior to 1992 and 124 patients repaired in the lithotomy position afterwards were analysed. The repairs were done using No 2/0 or 0 chromic catgut or vicryl sutures at University College Hospital, Ibadan, VVF Centre Kano and the VVF Hospital in Birnin-Kebbi, Kebbi State.

Results: Fistula closure rates were 89% for the knee-elbow position and 92% for lithotomy position. The success rates were equally comparable when segregated to fistula types. Other factors such as continence rates and time taken for the repairs were slightly but not significantly better in cases repaired in lithotomy.

Conclusion: With the exception of ureteric fistula, majority of vaginal fistula can be repaired in the lithotomy position with appropriate head-down tilt. This position allows use of spinal anaesthesia, which is mostly used in repairs outside teaching hospitals, avoids the additional anaesthetic risk associated with knee elbow position and overcomes the demand for posterior wall elevation by an assistant and the pooling of blood at operation site. The field is less crowded and obscured, especially if the 'Lone Star Retractor' is available. Fistula enthusiasts are urged to employ this position in subsequent repairs.

103 Local Anaesthesia as a Low Technology Approach in the Repair of Simple Fistula in Resource-Poor Settings

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Context: Current estimates put the number of patients living with obstetric fistula in Nigeria at 400,000 – 800,000 and about 40,000 new cases are added every year. Despite the current efforts at clearing the backlog and improving care during childbirth to prevent new cases, the current rate of repair of about 2,500 cases annually imply that it may take centuries before vesico vaginal fistula (VVF) is eliminated in Nigeria unless creative approaches are developed to expand access to repair services in addition to processing new cases. Such low technology approaches will be cheaper for the poor clients, safer and help to expand access base to fistula repair

Objective: To explore the possibility of using local anaesthesia for VVF repair in Nigeria.

Methods: Twenty-one patients were carefully selected for this trial using 10 – 20 mls of 1% xylocaine infiltration round the edges of the fistula up to 1.5 – 2.0 cm. from the fistula edge. All were mid vaginal fistula. All had fistulae of 2cm or less. The vaginal capacity was normal with no fibrosis. The surgical steps followed the technique used commonly for fistula repair. Separating the bladder from the vagina wall, the bladder hole was closed in one layer using 2/0 chromic or vicryl sutures followed by closure of vagina skin. Drainage was by indwelling Foley's catheter for 10 days.

Results: All fistulae were successfully healed on discharge on 11th or 12th day. Only 4 patients (19%) needed mild sedation.

Conclusion: Care for fistula patients can be decentralized, leaving room for carefully selected uncomplicated cases with small fistulae to be repaired at peripheral facilities equipped to do so under local anaesthesia. Only more difficult cases would be referred along the referral system to tertiary levels or dedicated fistula centres. This framework will break the myth around fistula that 'frightens' physicians and even gynaecologists, thereby preventing patients from being cared for within a familiar and supportive environment/community. We intend to expand the scope of this technique.

104 The Practice of Gynaecological Laparoscopy in a Nigerian Tertiary Hospital.

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Objectives: The aim of this study was to analyse the practice of gynaecological laparoscopy at the University of Benin Teaching Hospital with particular reference to survey of the procedure and its immediate complications. This would serve to increase our present knowledge about the procedure within the country and hopefully stimulate other centres to publish similar studies so that a national overview of the practice can be made available.

Materials and Methods: A five-year review of the practice of gynaecological laparoscopy in UBTH is made in this study by analysing the respective patient's case notes, theatre records and ward records.

Results: The incidence of the procedure remains low because the equipment is often not functional, coupled with incessant strike actions by health workers. 98.9% of laparoscopic procedures were for diagnostic purposes and 1.1% was for therapeutic purposes. The procedures were largely elective (85.7%). Most cases were done for secondary infertility (73%) investigation in women aged 25-34 years. 40.2% and 0.5 % of patients had significant postoperative pain and infection respectively; otherwise no major complication was recorded. The senior cadre of gynaecologists performed most of the procedures (97%).

Conclusion: The practice of gynaecological laparoscopy is epileptic and largely diagnostic in this centre.

105 Post Operative Haematocrit and Duration of Hospital Stay Following Myomectomies at Irrua Specialist Teaching Hospital.

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Objective: To find out if having a packed cell volume (PCV) of less than 30% in the post operative period following a myomectomy would increase the duration of hospitalisation

Methodology: A retrospective case study in a tertiary institution. The records of 67 consecutive myomectomies were retrieved from a one year period (2002). 52 cases had sufficient information for a

meaningful analysis. The cases were grouped into two based on a post operative PCV of 30% as a cut off. Statistical analyses were done using the SPSS® 10 package.

Results: The average pre-op PCV was 33.31%, the average post op PCV was 28.02%. The patients who had a post op PCV of less than 30% had an average drop in haematocrit following surgery of 8% vs. 2% in the non anaemic group. The blood transfusion rate was 7.7%. The mean duration spent on admission was 6.17 days. All patients were followed up for a minimum of 6 weeks. There were no complications during this period. In spite of having a significantly higher blood loss and lower PCV in the post op period, there was no clinically significant or statistically significant difference in the duration of hospitalisation in both groups.

Conclusion: The value of correcting anaemia as defined by a PCV of 30% is therefore questioned.

106 Surgical Haemorrhage For Uterine Fibroids at the University College Hospital, Ibadan.

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Introduction: Uterine fibroids are common tumours in our environment. They are one of the most common reasons for hospital admissions to the gynaecology unit in most centres in our region. Surgery is the most available mode of management in this environment and, depending on the type of operation performed, may be associated with complications. Haemorrhage is one of the most common complications.

Materials and Methods: The study aims to compare blood loss between myomectomy and total abdominal hysterectomy and to determine the factors that influence blood loss at surgery. It was a retrospective review of 250 patients over a Five-years period (1st January 1997-31st December 2001) at the University College Hospital, Ibadan.

Results: Hysterectomy was the more commonly performed operation (66.6%). Patients who had hysterectomy were significantly older (mean age 47.5 yrs and 34.5yrs) and of higher parity (mean. 4.1 and 0.8) than those offered myomectomy. The preoperative uterine size, which was determined using the symphysio-fundal height in centimetres, was comparable in the two groups (mean uterine size; hysterectomy 17.5cms and myomectomy 16.4cms) with no statistical significance. The mean blood loss was more in the total abdominal hysterectomy group, though the difference was not statistically significant (583.3mls compared to 521.8mls). Pearson's correlation coefficient between uterine size and blood loss was found only in the myomectomy group. Age and parity were not found to correlate with blood loss in the two groups.

Conclusion: The degree of blood loss appears to be related to uterine size when myomectomy is performed but not with hysterectomy.

107 Operative Endoscopy for Severe Asherman's Syndrome: Hysteroscopic Adhesiolysis

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Case Summary

Hysteroscopic surgery is the current method of choice for operations inside the uterus in the developed world. It allows clear vision of the uterine cavity and direct surgical operation. Miss UA presented with secondary amenorrhoea of 2 years duration following myomectomy. She had had "blind" adhesiolysis with Lippes loop insertion twice without success. Clinically she was in good health. Investigations revealed severe Asherman's syndrome. Main finding at surgery was a thick band halving the endometrial cavity and absence of endometrium in most of the uterine cavity. Only a few islands of endometrium were seen near the internal os. Using bipolar electrodes under continuous saline irrigation, the adhesive band was released thereby re-creating the cavity of the uterus. Her recovery was uneventful and she was discharge home 2 hours later. She is on hormonal therapy and is still being followed up. The best chance of division of this thick band which had been attempted twice was hysteroscopic surgery. Most of the endometrium must have been damaged at the myomectomy and this would not have been accurately diagnosed without visualization of the cavity. The common occurrence of Asherman's syndrome in our environment and its association with infertility makes hysteroscopic surgery welcome.

108 Misconception of Emergency Contraception Among Tertiary School Students in Akwa Ibom State, South-South, Nigeria.

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Objective: To asses the degree of awareness and use of emergency contraception among tertiary school students in Akwa Ibom State, Nigeria.

Method: Data was obtained using self-administered questionnaires distributed to 1,000 randomly selected female students by trained health personnel at the Akwa Ibom State Polytechnic, Ikot Osura, Nigeria between 1st April 2002 and 31st April 2002.

Results: The students were aged between 16 and 43 years. Five hundred and eighty-nine (68.5%) of the respondents had heard of products that could be used as emergency contraceptive. However, only 49 (5.7%) of the respondents had practised some form of emergency contraception, which was most commonly practised by those between 16 and 25 years (71.4%). Menstrogen (30.6%), gynaecosid (24.5%), and quinine (14.3%) were the commonest medications used for emergency contraception. Patent medicine dealers (40.9%) and friends/coursemates (29.7%) were the sources of knowledge about emergency contraception.

Conclusion: This study shows that awareness and use of emergency contraception by our youths is low. Community enlightenment about emergency contraception using specifically designed programmes, the formation of reproductive health clubs in our tertiary institutions and training of peer group educators in all our communities are advocated. Patent medicine dealers in our communities should have basic training in modern contraceptive methods and periodic evaluation should be carried out to asses their knowledge and practice of emergency contraception.

109 Contraception with Levonorgestrel Subdermal Implants (Norplant[®]) in Benin-City, Nigeria: a 12-Year Review.

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Introduction: Levonorgestrel implants (Norplant[®]) is a long-term reversible contraceptive method suitable for many women who are either spacers or limiters of child bearing. Like all other methods, it has its side effects. This study therefore evaluated the safety, efficacy, acceptability and role of Norplant as a long-term contraceptive method in Benin City.

Method: This was a retrospective study in which the case notes of 377 clients who accepted Norplant at the family planning clinic of the Department of Obstetrics & Gynaecology University of Benin Teaching Hospital, between January 1985 and December 1996 were retrieved and also analysed for socio-demographic characteristics of the clients, side effects and complications reported and reasons for discontinuation in relation to duration of use. The daily register of the acceptors were analysed for new acceptors of other methods during the same period and confirmed with their case notes.

Results: There were 11961 acceptors of family planning methods giving an incidence of Norplant acceptance rate as 3.2%. The mean age and parity of the acceptors were 32.2 ± 4.5 years and 3.9 ± 1.8 respectively. The duration of use ranged between 6 months and 13 years. 65% of the acceptors reported menstrual abnormalities. 48% of them reported reduced bleeding pattern, while 7.5% (25) discontinued method under 4 years of use because of increased bleeding episodes. Other side effects reported were headache 6%, weight gain 3%, mastalgia 1.8%, decreased libido 1.8%, abdominal pain 1.5% and hypertension 1.2%. 20.4% (68) discontinued the use under 4 years because of desire to have another baby. 38.6% (129) had implants removed at 5 years, while 20.1% (67) continued the use for 6-13 years before removal and replacement with another set. Husband's request for removal constituted 7.2% (24). The effectiveness was 100% as no pregnancy was reported during the study period. The continuation rate at 5 years was 58.7%. 43 clients were however lost to follow up.

Conclusion: Norplant was an effective and acceptable method of long-term reversible method of contraception with minimal side effects. The low incidence was attributed to the fact that the implants were donor driven and not included in the country contraceptive logistic system. Norplant acceptors who continued the use after 5 years did so, because they enjoyed it and did not want to part with them without replacement of new sets.

Norplant[®] is the registered trademark of the Population Council for six-capsule subdermal levonorgestrel implants.

110 Contraceptive Intentions Among Antenatal Patients in JUTH, Jos, Nigeria

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Introduction: The Jos University Teaching Hospital provides health care services to patients in addition to providing contraceptive services to desiring clients. Women attending antenatal clinic particularly the grandmultipara are expected to use contraception following the delivery of the index pregnancy.

Objective: To identify women who do not intend to use contraception following the index pregnancy.

Methodology: A self-administered questionnaire of 676 antenatal patients in the month of July 2005. Verbal consent was obtained from the patients. Illiterate patients were assisted by the nurses on duty to obtain the required information. The data was analysed using the Epi-Info 2002^R statistical software.

Results: A total of 676 women were recruited within the time of the study. No patient refused recruitment. The age of the patients ranged from 18 to 49 years with a mean of 28.8 years. All the patients were married. Patients that intend to use contraception after this pregnancy were 427 (63.4%); those that do not intend to use contraceptives after the index pregnancy were 173 (25.7%), those that have not made up their minds, 73 (10.8%); and those that made no response 3 (0.4). The women not willing to contracept were mainly the Hausa/Fulani, grandmultipara, illiterate and full time housewives who were unemployed.

Conclusion: One quarter (¼) of antenatal patients do not intend to contracept after their pregnancy. We therefore need further study to identify the reason for their reluctance to use contraception despite their disadvantaged position economically, educationally and the obstetric risks they face.

111 Contraceptive Use Among University of Ibadan Female Undergraduates.

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Background: The 2003 National Demographic Health Survey showed that contraceptive use in Nigeria is low generally, despite the high level of awareness. This is a worrisome revelation in a country where sexually active youth and married women form a substantial part of the population. They will be faced with problems of unwanted pregnancy, unsafe abortion and sexually transmitted infections including HIV/AIDS.

Aim: To determine the prevalence of contraceptive use among female undergraduates at the University of Ibadan, Nigeria.

Methods: A self-administered structured questionnaire given to 880 female undergraduate students.

Results: Of the 865 analysed, 725 (83.8%) of them were sexually active. A total of 567 (65.6%) among the sexually active had used one form contraceptive method before. 272 (48%) – spermicides, 116 (20.5%) – diaphragms, 40(7.1%) - cervical caps, 465 (82.0%) – male condom, 350 (61.7%) – oral pills, 42 (7.4%) – injectables, 9 (1.4%) – implants, 92 (16.2%) –IUCD, 96 (16.9%) – female condom, while 250 (44.1%) and 265 (46.7%) use safe period and withdrawal method respectively.

Conclusion: The use of effective modern contraceptive methods was still low among university undergraduates in Ibadan, especially the use of barrier methods. Since majority of them are single, contraceptive usage needs to be encouraged to reduce the incidence of sexually transmitted infections.

112 Awareness, Attitude and Practice of Emergency Contraception Among Female University Students in Abakaliki, Southeast Nigeria

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Background: Unprotected sexual exposure leading to unwanted pregnancy and unsafe abortion contributes significantly to reproductive ill health, especially in developing countries. Unsafe abortion is a major contributor to maternal mortality and morbidity. Promotion of emergency contraception (EC) has been advocated as a way of reducing these problems. Our youth, the most vulnerable group, should therefore be the target for this form of contraception.

Objective: To evaluate the awareness, attitude and practice of emergency contraception among our female University students.

Methods: A structured self-administered questionnaire was developed and distributed to 250 randomly selected female students of Ebonyi State University, Abakaliki, Nigeria, in August 2005. Information regarding their awareness, attitude and practice were sought. The response rate was 100%.

Result: About 56% of the respondents were aware of EC. Of these, only 10.5% had used it. However, 41.2% agreed to use EC if they are exposed to unprotected intercourse. For those who knew about EC,

73.6% were aware it could be started within 72 hours of unprotected sexual exposure. Most students (46.8%) cited peer groups as the sources of information while 6.0% knew about it from their parents. 86% of the respondents were sexually active.

Conclusion: There is limited knowledge and poor practice of EC among the students of Ebonyi State University. There is an urgent need to improve knowledge and practice of EC through reliable and accessible contraceptive information. This will help to reduce the gap between knowledge and practice

113 Should Family Planning Services be Extended to Immunisation Clinics?

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Introduction: Nigeria has high maternal mortality, infant mortality and general fertility rates. In certain areas of the country, the use of modern contraceptives is low. The Lactation Amenorrhoea Method (LAM) is available and acceptable to most women. It encourages child spacing, thus reducing maternal and infant mortality rates. As the efficacy of LAM depends largely on breastfeeding practices, knowledge of these practices is useful in educating women about LAM.

Objectives: To investigate breastfeeding practices, duration of lactation amenorrhoea and contraceptive practices among women in Kaduna.

Methodology: Cross-sectional survey of breastfeeding mothers attending immunisation clinics of 12 health facilities in Kaduna.

Results: Of 569 women less than 12 months postpartum, 57% were sexually active but only 29% of them used contraceptives. Most (90%) of 400 women less than 6 months postpartum knew about exclusive breastfeeding but 33% of them did not practice it, mainly because they felt their babies needed supplements. Menstruation had resumed in 30% of women less than 6 months postpartum and in 81% of those more than 6 months postpartum. The median duration of lactation amenorrhoea was 20 weeks.

Conclusion: The possibility exists that many of the women could become pregnant less than a year postpartum. Family planning programs should focus on improving breast-feeding practices, in particular encouraging exclusive breastfeeding and addressing mothers' concerns about breastfeeding. This could be part of a general health talk given in immunisation clinics. Advice could also be given about other forms of contraception to those women who desire them.

114 Post Caesarean Section Contraception Amongst Nigerian Women

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Introduction: Most women who have had Caesarean Section are afraid to resume sexual intercourse in the first few months following delivery and don't want to get pregnant because of the presumed dangers that this can result.

Objectives: To determine when Nigerian women resume sexual intercourse following caesarean section and the contraceptive methods that are practiced.

Methodology: This cross-sectional study was carried out amongst postnatal patients that had caesarean section at the University College Hospital, Ibadan. Patients were recruited at the postnatal clinic at 6 weeks following delivery and seen at 3 and 6 months postpartum.

Results: One hundred and fifty six women consented to the study between July and December 2003. Eighty-One (51.9%) and 37 (23.7%) of the women were seen at 3 and 6 months post delivery. At the onset of the study 35 (22.4%) had resumed sexual intercourse and this increased to 81.5% and 91.9% at 3 and 6 months respectively. The contraceptive rates were 11.5%, 43.2% and 78.4% at 6 weeks, 3 months and 6 months post partum. At 6 weeks the methods of contraception practiced were barrier methods, IUDs and female sterilization in 44.4%, 33.3% and 22.2% of women respectively. At 3 and 6 months post operation the rates with barrier methods were 60% and 55.2%; IUD 22.9% and 24.1% and sterilization 8.6% and 10.3% respectively.

Conclusion: It is important that during pregnancy and soon after delivery patients are counselled on contraception.

115 Knowledge, Attitude and Practice of Emergency Contraception Among Antenatal Attendees at the Federal Medical Centre, Owerri.

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Context: The consequences of an unplanned pregnancy can be serious and may in turn lead to social and psychological problems. Information on emergency contraception, which can be used to prevent pregnancy following unprotected sexual intercourse, has been known in the medical community for decades, but only recently has this information come to the general public.

Objective: To find out the knowledge, attitude and practice of emergency contraception among antenatal attendees at the Federal Medical Centre, Owerri.

Design, Setting and Subjects: A cross-sectional study carried out at the Federal Medical Centre, Owerri from 1st May 2004 to 31st October 2004. The study group comprised 500 randomly selected antenatal attendees.

Main Outcome Measures: Their parity, desired family size, contraceptive awareness and use, as well as their knowledge and possible use of and attitude towards emergency contraception.

Results: Only 21.4% (107) of these women had used a form of contraception in the past. 18.2%(91) had knowledge of emergency contraception. 51.6% (47) of the women with knowledge of emergency contraception thought it was a means of abortion while 58.24% (53) of them would not support its sale over the counter in shops and pharmacies. 13.8% (69) of the women studied did not plan the index pregnancy. Of the latter, only 13%(3) knew a method of emergency contraception.

Conclusion: There is a paucity of knowledge on emergency contraception among the women studied. Efforts need to be made both at our educational and social institutions to enlighten women on the use and availability of emergency contraception.