



Book of Abstracts

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The World Health Organisation systematic review of causes of maternal death

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Abstract

Objective

We updated the original WHO systematic review with studies and vital registration data from 2003 to 2009 to populate a model for predicting cause of death distribution and to produce global and regional estimates with uncertainty ranges.

Methods

A systematic review of the literature identified research study data and vital registration data came from the WHO Mortality Database. Demographic, social, and economic predictor variables were incorporated into a multinomial model. Estimates for seven cause of death categories were grouped into Millennium Development Goal regions and uncertainty ranges calculated using a bootstrap approach.

Results

Four hundred and one datapoints from 110 countries contributed to the model. Globally, indirect causes of death, including the effects of HIV, malaria, and cardiac disease, accounted for 29% (uncertainty range 25–34%) of the total deaths. This was followed by haemorrhage, which accounted for 23% (21–24%) of the deaths, and 21% (19–25%) due to sepsis. The remainder of maternal deaths were hypertensive disorders 15% (13–16%), abortion and miscarriage 4% (3–4%), with another 7% (6–9%) attributable to all other direct causes of death. Regional estimates varied considerably, for example hypertensive disorders were the leading cause of death in Latin America and Caribbean but were only the joint fourth cause of death in developed countries.

Conclusion

Indirect causes are responsible for over one quarter of maternal deaths globally. Haemorrhage is the leading direct cause of maternal mortality. These estimates should inform the prioritization of health policies to reduce maternal deaths at a regional and global level.

Reducing the number of antenatal visits in low- and middle-income countries

Therese Dowswell

The optimum number of visits for antenatal care developed without evidence of how many are necessary. A recent Cochrane review examined trials where standard care was compared with a reduced number of antenatal visits. Seven trials (60,000+ women) were included. In studies (4) in high income countries, women in the reduced visits groups, attended between 8.2 and 12 times. In low and middle income country trials (3), many women in the reduced visits group attended on fewer than five occasions, although the content as well as the number of visits was changed, so as to be more 'goal oriented'.

In low- and middle- income countries perinatal mortality was increased with reduced visits. For high-income countries the number of deaths was small (32/5108), and there was no clear difference between groups (2 trials; RR 0.90; 95% CI 0.45 to 1.80). For low- and middle-income countries perinatal mortality was significantly higher in the reduced visits group (3 trials RR 1.15; 95% CI 1.01 to 1.32); reduced visits were associated with a reduction in admission to neonatal intensive care that was borderline for significance (RR 0.89; 95% CI 0.79 to 1.02). There were no clear differences between the groups for the other reported clinical outcomes.

Women in all settings were less satisfied with reduced visits and perceived the gap between visits as too long. Reduced visits may be associated with lower costs.

The implications of these findings will be discussed.

Barriers to the implementation of evidence-based obstetric interventions in the developing world: views from the frontline

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Background

The scientific community has tested interventions which, when implemented successfully, have resulted in significant reductions in maternal mortality and morbidity. Unfortunately, these have not been consistently used in regions with the highest mortality and morbidity rates. The perspectives of, and pragmatic input from, local healthcare providers about the barriers to the adoption of evidence-based practices have rarely been sought on a large scale, nor sufficiently considered in planning global efforts to improve maternal health.

Methods

We conducted an extensive online survey and ‘crowdsourcing’ exercise between July 2010 and March 2011, targeting facility-based, direct maternal healthcare providers working in low-income countries. Participants were randomised to one of five surveys on postpartum haemorrhage; sepsis; pre-eclampsia/eclampsia; obstructed labour, and post-abortion complications. Participants were asked to rate the availability of internationally-recommended interventions in their facility, and to identify specific barriers to their implementation. They were also invited to contribute to an online ‘crowdsourcing’ forum where they submitted, discussed and ranked solutions to overcome these barriers.

Results

Participants were drawn from 963 birthing facilities, which together deliver over 3 million women annually. Of the 35 key interventions evaluated, only 15 were reported as being routinely implemented in at least 70% of the facilities surveyed, including several low-tech interventions. The main barriers identified were: the inadequate availability, content and enforcement of clinical guidelines; inadequate pre-service and in-service training; lack of specific resources, and the cost of treatment for patients. A total of 142 solutions were proposed via the crowdsourcing forum and the ‘crowd’ voted for twelve winning ideas.

Conclusions

Using online technologies, we have demonstrated that a large-scale consultation of frontline health workers is feasible in developing country settings. The views of direct healthcare providers must be routinely included in the development of strategies to implement best practices in maternal healthcare.

Post-operative African Maternal Early Warning Scores (AMEWS) in Mulago National Referral Hospital, Kampala, Uganda.

Authors

Emilie Lewis, Andrew Weeks, Sarah Nakubulwa, Mark Muyingo, Louise Ackers, Josephat Byamugisha, Helen Schofield, Claire Fitzpatrick, Kate Alldred, Paul Westhead.

Introduction

Mulago Hospital has 33,000 deliveries per year with a maternal mortality ratio (MMR) of 576/100,000 live births. Inadequate monitoring of vital signs especially in the postnatal period was identified a key factor contributing to the high MMR. A modified obstetric early warning score was introduced with the aim of improving patient monitoring. AMEWS gives a score of 0-3 for each of the following parameters: systolic BP, heart rate, respiratory rate and conscious level. A score greater than 3 triggers a response pathway.

Methods

A pilot study looking at AMEWS post emergency caesarean section was conducted in Mulago Hospital in September 2011. Consecutive women were scored in the post-operative period to assess the prevalence of abnormal indicators.

Results

70 women were included in the study. Most frequent indications for caesarean section were obstructed labour and previous caesarean section. 2 women had abnormal scores, of 5 (with pre-eclampsia) and 3 (with obstructed labour). Both were admitted to HDU and recovered without further complication.

Discussion

In this small study, a single postoperative AMEWS failed to identify women with complications. It remains to be seen whether repeated measures would have been more successful. However, collection of the AMEWS was feasible in a busy government hospital.

The challenges with implementing AMEWS include: lack of equipment, high turnover of patients and poor motivation of staff. Initiatives to improve compliance include introduction of obstetric monitoring kits and continued training. AMEWS has been introduced into Hoima Regional Referral Hospital, Uganda with encouraging results.

Meeting the complex needs of women with female genital mutilation

Authors

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Background

An estimated 66,000 women in England and Wales have undergone female genital mutilation (FGM). FGM is associated with significant longterm morbidity, including genitourinary infection, chronic pain, dyspareunia and obstetric complications. The West London African Women's Service (WLAWS), delivered by Chelsea and Westminster NHS Trust, gives comprehensive accessible care for women with FGM, before and during pregnancy. A Somali outreach worker provides support and language facilitation.

Methods

A retrospective review of STI and symptom data was performed for women attending WLAWS Community Gynaecology Clinic, at the West London Centre for Sexual Health, between October 2011 and May 2012 (n=85). Information was obtained from computerised records.

Results

Over 90% of women were of Somali origin. Eighty one received STI screening at the same centre. None had HIV or Hepatitis C. Four (5.1 %) were HBsAg positive and 31 (39.2 %) had cleared hepatitis B (anti-HBc and anti-HBs positive). Late latent syphilis was diagnosed in 4 women. Although 67% had either previously undergone de-infibulation or had less severe FGM not requiring de-infibulation, women had a range of gynaecological complaints, including pelvic pain (40%), primary infertility (21.2%), dyspareunia (18.8%), and recurrent UTI (9.4%). For many, symptoms were not directly attributable to FGM. Eleven women (12.5%) had de-infibulation (n=9) or division of labial adhesions (n=2) at their clinic visit.

Conclusions

The prevalence of co-existing STIs and gynaecological symptoms in this cohort of women with FGM highlights the value of a multiprofessional approach to care, with the potential to optimise reproductive health prior to pregnancy.

Successes and challenges of introducing facility based reviews of maternal deaths in Ethiopia

Authors: Mary Macintosh, Gwyneth Lewis, David Taylor, ESOG representative

More than 350,000 women die annually from complications during pregnancy or childbirth, and 99 per cent of these deaths occur in developing countries. In sub-Saharan Africa, a woman's maternal mortality risk is 1 in 30, compared to 1 in 5,600 in developed regions. Maternal mortality rate is declining slowly and remains off track, especially in sub Saharan Africa, to meet the MDG target of reducing by three quarters the maternal mortality ratio by 2015.

Responding to this, the International Federation of Gynecology and Obstetrics (FIGO) introduced a five year programme in 2008 entitled the Leadership in Obstetrics and Gynaecology for Impact & Change (LOGIC) with a remit to improve maternal and newborn health in low-resource countries through strengthening the role of obstetric and gynaecological national associations. Part of the LOGIC programme includes working with the relevant associations to promote the introduction of a national programme of maternal death reviews (MDR) to improve quality of care and influence policy. To date eight countries Burkina Faso, Cameroon, Ethiopia, Mozambique, Nigeria, Uganda, India and Nepal are participating. The format for the Maternal Death Reviews is determined at country level. This presentation will describe progress in relation to Ethiopia, where between 2000 and 2005 reported maternal death rates were 871 and 673 maternal deaths per 100,000 live births respectively. The presentation is based on a stakeholder analysis exercise undertaken in July 2012 to understand the challenges and successes of introducing maternal death reviews at national level in Ethiopia since 2010.

Incidence and aetiology of stillbirth in Mbarara Hospital, Uganda

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Background

Annually, there are 2.65 million stillbirths worldwide. Almost 90% occur

in low-resource settings, but only 3% of all stillbirth research was performed in this context. Global estimates of the incidence of stillbirth are likely to be conservative, particularly in the highest mortality settings for which data is sparse.

Methods

We undertook a prospective observational study of 154 women who gave birth to stillborn infants in the third trimester at Mbarara Hospital in Uganda.

Results

There were 3040 births and 156 stillbirths at a rate of 51/1000 total births. Most stillbirths were singleton pregnancies (96.3%) with a maternal age range of 16-42 years. Parity ranged from 0-10 with primiparous women forming the largest group (32.1%). 31.3% of women were unbooked or without recorded antenatal care. 10.4% of stillbirths were pre-term (<37/40) and 18% weighing <2.5 kg. Verbal autopsy was performed and the 62% were fresh stillbirths, 58.8% occurring in the intrapartum period. Causes of stillbirth included acute intrapartum events (58.2%), infection or chorioamnionitis (6.7%), congenital cause (3%) and fetal growth restriction or placental insufficiency (4.5%). In 27.6% no cause was identified. Associated maternal factors include uterine rupture (16.4%), maternal systemic infection (6.7%), maternal hypertension (5.2%), antepartum haemorrhage (4.5%), spontaneous preterm labour (3%) and prior pathology (0.8%).

Discussion

In this study, most stillbirths were term pregnancies weighing 2.5kg or more and occurred during the intrapartum period. In low-resource settings, many stillbirths could be prevented by improved care. Progress could be better assessed and accelerated with improved availability and analysis of data.

The effect of demand side financing in promoting institutional births in rural Mozambique.

Authors

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Introduction

The promotion of institutional births has been a long standing policy of the Mozambican government. Socio-economic factors have meant that progress is slow. This intervention study looked at the effect of giving a 12 USD baby package to those women giving birth at rural health centres instead of at home.

Methods

From June 2010 to December 2011 a baby package comprising 3 reusable nappies, a basin, soap, and a traditional cloth was given to all those who had an institutional birth in the district of Ancuabe. Data was collected on age and distance travelled. Expected number of births was estimated as 4.5% of the district population, using the census of 2007 and applying a yearly growth rate of 2.2%.

Results

8434 pregnant women (mean age 24.9 [SD=6.68], age range 12-50, average distance travelled 8km [SD=7.74] and range 0-60kms) were given the baby package. The institutional birth rate increased by 96% (95% CI 95.2-97.1) in the last 6 months of 2010 compared to the last 6 months of 2009, and by 32% (95% CI 30.5-33.3) in 2011 compared to 2010. In the rest of the Province the increase was 15% (95% CI 15.3-16.2) and 5.5% (95% CI 5.3-5.7) respectively. Both groups showed a significant increase in institutional births (χ^2 for trend, $p<0.0001$).

Conclusion

A 12 USD baby package is an effective incentive in rural Mozambique for women to change their birthing behaviour despite serious socio-economic difficulties. It is not yet clear whether this intervention translates to improved morbidity and mortality figures.

Women's four year trajectories after pregnancy related 'near-miss' in Burkina Faso: a qualitative longitudinal analysis

Authors: **Susan F Murray** (King's College London), Katerini T Storeng (University of Oslo and London School of Hygiene & Tropical Medicine), Melanie Akoum (AFRICSAnté)

Aim: to understand longer term effects of women's contact with maternal healthcare for pregnancy-related complications in situations where high financial or social costs have been incurred

Design: Prospective qualitative longitudinal research (QLR), is an approach which aims to 'walk alongside' individuals and households over time. A QLR study was conducted in Burkina Faso over the period 2005 -10, nested within a large epidemiological study that examined different facets of women's lives and health in the four years after an obstetric 'near miss'. In-depth interviews with 16 participants were conducted during three waves, supplemented with informal contacts. Longitudinal data analysis of each case focused on dimensions of change and continuity, and a synthesis of the case studies drew on theory of social and bodily capital to examine women's lives after costly pregnancy-related health crises, and their trajectories in the years that follow.

Findings: Healthcare crises play out over time for the people they afflict and affect. Weaknesses in health systems interact with existing inequities to reproduce and reinforce them. Women's capacity to harness or exploit bodily capital in its various forms (beauty, youthfulness, physical strength, and /or fertility) to some extent determines their ability to confront and overcome adversities. With this, they further mobilise social capital without incurring excessive debt, or access and accumulate significant new social capital. Conversely, diminished bodily capital due to the physiological impact of an obstetric event or its complications can lead to reduced opportunities, and to circumstances of interlocking disadvantage.

The Impact of Teamwork and Practical Skills Training in Obstetric Emergencies and Neonatal Resuscitation at a Tertiary Referral Hospital in Ethiopia

Authors

Sarah Philip, Tsitsi Chawatama, Zerihun Abebe

Background

Ayder Referral Hospital (ARH) serves 6 million people across the Tigray region of Ethiopia and has busy obstetric and neonatal intensive care units. Although the benefits of teamwork and practical skills training in obstetric emergencies and neonatal resuscitation are widely acknowledged, no such training is currently provided in-house for ARH hospital staff.

Methods

Intervention

A 2 day training programme in the multi disciplinary management of obstetric emergencies and neonatal resuscitation was provided at ARH. This started with the training of local trainers who then delivered 6 further workshops to 140 hospital staff. Course materiel was derived from the Ethiopian Federal Ministry of Health's obstetric guidelines, WHO guidelines and Ethiopian Paediatric Society's guidelines on 'Essential Newborn Care' and neonatal resuscitation.

Outcomes

The mean stillbirth rate over a 3 month period before and after the intervention was calculated. Objective improvements in the knowledge of participants attending the workshops were assessed using a pre and post course test. Results compared using a 2 tailed students t test. Participant's attitudes towards the training were assessed subjectively using feedback questionnaires.

Results

The mean still birth rate fell from 7.6% (SD 2.1%) to 5.3% (SD 1.1%). This reduction was not statistically significant ($p = 0.08$). Participants' knowledge increased significantly in the pre and post course test and 97% of respondents reported having learned something new.

Conclusions

Multi disciplinary training in obstetric emergencies and neonatal resuscitation at ARH brought about objective and subjective improvements in knowledge, and may have contributed to a reduced stillbirth rate. A 'train the trainers' model provides a sustainable resource that should continue to impact maternal and neonatal mortality.

Maximising participant retention in maternal health trials in low- and lower middle-income countries: a mixed methods study

Waite SL, Coomarasamy A, Lissauer D.

Objective: To identify strategies to improve follow-up rates in maternal health trials in low- and lower middle-income countries.

Design: A multiple methods approach triangulating themes and strategies through a combination of researcher questionnaires, participant interviews and a literature review.

Setting: The College of Medical and Dental Sciences at the University of Birmingham and the gynaecology ward of a tertiary hospital in Blantyre, Malawi.

Sample: 109 maternal health publications, 23 researchers and 51 Malawian women.

Methods: Literature review of maternal health trials published in 2010 to identify published retention strategies. Corresponding authors completed a questionnaire electronically and semi-structured interviews were conducted with a maternal population in Malawi. Interview and questionnaire data was analysed using conventional framework analysis.

Results: 47 strategies important to participant retention were identified, classified into five main themes: communication, staffing, operational issues, participant motivation and the acceptability of a study. These could be implemented across five time points during the research process. A striking difference was noted between the number and breadth of strategies described in the questionnaires and the strategies published in the corresponding papers.

Conclusions: Participant retention can be maximised in developing countries through a wide variety of strategies often not reported in publications. The best combination of the strategies depends on the local people, culture and the research setting. It is vital to consider participant attrition in the planning stages of a study. This study describes a range of interventions which researchers may consider.

Keywords: Participant retention; Follow-up; Low-income country; Lower middle-income country; Maternal Health.

Factors Affecting Survival After Uterine Rupture. An Analysis of 386 Consecutive Cases.

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KB & JW were volunteers with Maternity World Wide U.K.

Introduction

Obstructed labour accounts for 4% of all maternal deaths in sub Saharan Africa, the leading cause of death being haemorrhage (34%) and sepsis (10%),¹ however as the commonest complication of obstructed labour is either anaemia or sepsis these figures under estimate the incidence of obstructed labour. Obstructed labour can lead to uterine rupture and maternal loss which is variously reported as between 16-28%.²³⁴ We report the outcome for 386 consecutive women who presented at Aira hospital with uterine rupture of whom 19 (4.8%) died, a significant reduction in maternal death from this cause. All but 5 (1.2%) women were treated by primary uterine repair rather than hysterectomy which is frequently carried out in other centres.

Results

MORTALITY FROM UTERINE RUPTURE AT AIRA HOSPITAL JANUARY 2000 TO DECEMBER 2010 DEMOGRAPHIC AND CLINICAL DATA

Age	Parity	Duration of labour	Duration of cessation of labour	Distance from Hospital
<35 16/322 > 35 3/35 Odds ratio 1.8 (95% CI 1.7-1.9 X ² 0.3)	<4 14/227 >5 5/140 Odd ratio 0.6 (95% CI 0.5-0.6 X ² 1.6)	< 24 hrs. 3/141 >24 hrs. 16/226 Odds ratio 3.3 (95% CI 3-3.6 X ² 3.)	<24hrs. 15/135 >24 hrs. 4/32 Odds ratio 2.8 (95% CI 2.6-3 X ² 2.0)	< 100 Km. 4/171 >-100 Km. 15/196 Odds ratio 3.3 (95% CI 3.0-3.4 X ² 5.8)
Admission blood pressure	Time from admission to start of surgery	Duration of surgery in hours	Type of rupture	Status of surgeon
< 90/60 15/207 > 90/60 4/160 Odds ratio 2.9 (95% CI 2.7-3.0 X ² 2.9)	< 1 hr. 2/52 > 1 hr. 17/315 Odds ratio 0.7 (95% CI 0.7-0.8 X ² 0.5)	< 1hr. 9/145 > 1hr. 10/222 Odd ratio 0.7 (95% CI 0.7-0.8 X ² 0.9)	Posterior 6/60 Other 13/307 Odds ratio 2.4 (95%CI 2.2-2.5 X ² 2.0)	Surgeon/obstetrician 14/204 General duties 5/163 Odds ratio 2.2 (95%CI 2-2.4 X ² 1.7)

19 deaths in 386 women shown as died/survived

The odds of dying were greatly increased if labour lasted more than 24 hours or there was a delay of greater than 24 hours from rupture to presenting at hospital.

Conclusion

Survival following uterine rupture would be improved if women were able to seek help if labour exceeded 12 hours or they presented less than 24 hours after rupture occurred. Treatment by primary repair is effective and safe.

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Assessing Intrauterine Pressure with Bimanual Compression Using a Mannequin Model

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Postpartum haemorrhage (PPH) remains the major cause of maternal mortality worldwide. The treatment of PPH has for many years focused on the provision of uterotonics. However, there are problems not only with the provision of the drugs to low resource community settings, but also in the escalation of care for those women who continue to bleed despite oxytocics. For treatment of atonic PPH, bimanual uterine compression and massage is an appropriate procedure to initiate the management, followed by uterotonic drugs. However, the technique has never been formally evaluated.

The study will be carried out at Liverpool Women's Hospital with experienced obstetricians or midwives who are expert at bimanual uterine compression, and a group of learner clinicians and midwives, who had not done bimanual compression before. The mannequin (Limbs and Things Ltd) has an 'atonic uterus' into which we have inserted a pressure sensor attached to an oscilloscope to measure the pressure exerted on the uterus. Each participant will be asked to carry out bimanual uterine compression on the mannequin model and the amount of compression will be measured over a 5-minute period. We will use the data from the experts to assess the level of compression needed for effective therapy and evaluate the skill of the novice groups against this. The results will be presented at the conference. The results will assist with the development of training models for training skilled birth attendants.

A hundred years of changes in the management of the third stage of labour as described by Ten Teachers.

Nasreen Aflaifel and Andrew Weeks

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Until recently, the active management of the third stage of labour (AMSTL) was thought to be the only safe way to deliver the placenta. However, recent studies have shown that although prophylactic oxytocics are beneficial, early cord clamping is of no benefit, and controlled cord traction has little benefit.

This historical study reviewed the development in the management of the third stage of labour between 1917 and 2011 as described in the 'Ten Teachers' text books. Copies were obtained from the Harold Cohen library of the University of Liverpool and from interlibrary loans as necessary. Teaching on the routine management of the third stage of labour, the treatment of atonic postpartum haemorrhage and retained placenta were tabulated and graphically displayed. The result showed that the book published in the year 1966 was the first to separate management options into conservative and active methods.

The use of different components of AMSTL fluctuated throughout the century, as did the techniques used for treatment of post partum haemorrhage and retained placenta. The review has given an insight into how management practices have tended to ebb and flow according to the experts' opinion and cultural acceptability. It was also obvious that the change in teaching shows clearly a lowering of the threshold for invasive therapies. As safe anaesthetics and antibiotics became available, so invasive therapies could be introduced at a much earlier stage. Finally, several recent 'innovations' are found to simply be rediscoveries of old technologies that have been used successfully in the past but went out of fashion.

Injection Methotrexate (MTX) in the Management of Ectopic Pregnancy and Pregnancy Of Unknown Location(PUL) – Review of Cases over 15 month period at Princess Alexandra Hospital, Harlow, UK

Authors: **Ms S Ajjawi**, Ms J. Putran

Abstract

Objective: Injection methotrexate (MTX) is a treatment option for ectopic pregnancy and Pregnancy of Unknown Location (PUL). Patients are selected according to the local Trust guidelines. These guidelines are based on the RCOG recommendations. The objective of the study was to audit patients who received methotrexate injection between November 2010 and March 2012 in our early pregnancy unit (EPU). The study looked at efficacy of methotrexate, time to resolution of the pregnancy, the need for a second dose, need for hospital admission or surgery for a ruptured ectopic pregnancy.

Study design: The study was a retrospective audit of 12 cases over a 15 month period. We reviewed the case notes from The Early Pregnancy Unit and hospital admission notes when applicable.

Results: Of the 12 cases who received injection methotrexate, 6 were for an ectopic pregnancy and 6 for PUL. One of the ectopic pregnancies was a cornuel pregnancy. A review of 12 cases over the 15-month period showed a 100% success rate with none of the patients needing a second dose of methotrexate or laparoscopy for a ruptured ectopic pregnancy. One patient had two hospital admissions for lower abdominal pain and needed pain relief.

Conclusion: The review concluded that injection methotrexate is a safe option for medical management of ectopic pregnancies and PUL in carefully selected cases with careful and close follow up. It is a safe alternative to surgery for an ectopic pregnancy.

Exploring the lived experiences of first-time breastfeeding mothers: A phenomenological study in Ghana

Miss Georgina Afoakwah

Supervisors: Doctor Rebecca Smyth and Professor Tina Lavender

Background: Breastfeeding is the most practiced method of infant feeding in Ghana. Nevertheless, many women do not breastfeed as recommended. An in-depth knowledge about breastfeeding from the mothers' perspective is limited. It is against this backdrop that I seek to explore the lived experiences of breastfeeding mothers in order to inform strategies that enable mothers to breastfeed optimally.

Aim: To develop an in-depth understanding of the lived experiences of breastfeeding mothers.

Design: A longitudinal, hermeneutic phenomenological study based on in-depth, semi-structured interviews that will be conducted in the third trimester, 2 weeks following childbirth and 4 to 6 months postpartum. Ethical approval will be obtained (University of Manchester and Ghana Health Services).

Recruitment: purposive sample of 30 primiparas women, recruited in their third trimester, at the Manhyia Government Hospital in Ghana.

Deliverables: Study findings have the potential to; broaden the understanding of breastfeeding from the perspective of women who breastfeed; facilitate insight regarding clinical practice applications: providing individualized, sensitive care and realistic support that reinforce mothers' decision to breastfeed exclusively; validating the knowledge of women regarding the meaning and benefits of breastfeeding; to facilitate breastfeeding teaching in the Nursing and Midwifery training; and lastly to support future policies by the Ghana Health Services on infant feeding practices and consequently reducing infant morbidity and mortality in Ghana.

Increasing health facility delivery in women with high obstetric risks: A prospective cohort study of women in the rural highlands of western Ethiopia.

Karen Ballard

Introduction

The Ethiopian government have recently reported that the maternal mortality of 671 per 100,000 live births has remained static over the past 5 years. Acknowledging the lack of public awareness over the hazards associated with pregnancy and the need for antenatal care, the government embraced the WHO recommendations for focused antenatal care and birth preparedness. Indeed, in 2003 they introduced 30,000 health extension workers to help with this task. This newly expanded community workforce, charged with the task of improving maternal health, delivered vital education messages about the danger signs of pregnancy, the need to have antenatal care and the importance of health facility deliveries to their community-based audiences.

Whilst it is undoubtedly important to heighten public awareness about the risks associated with pregnancy, messages often have limited meaning at an individual level, the perception being that 'it will never happen to me'. Presenting specific risks to women, however, may be an effective accompaniment to the broader population based messages.

Methods

A structured risk assessment was imbedded into the 4th antenatal appointment at 2 health centres. Having first been asked questions about their birth plans, details of obstetric history, clinical observations of the current pregnancy, and an ultrasound scan to identify malpresentation, twins, and placenta praevia were undertaken. Based on these findings, women were provided with explanations about their specific risks and offered advice about the safest place to deliver their baby. Once women had delivered, details of the birth were obtained and compared with the birth plans.

Results

310 women with a gestation of greater than 32 weeks were assessed. 14% were considered high risk and 26% were considered medium risk. Results so far reveal that most women identified as high risk heed the advice to birth in hospital but those identified as medium risk do not appear to accept the advice and tend to resume their plans to birth at home.

Conclusion

It may be possible to reduce maternal mortality by identifying high-risk women and providing them with individualised advice about birthing in hospital. Medium risk women, however, may not be so acquiescent to advice and are likely to continue to birth at home.

Review of postnatal preventative interventions to reduce major maternal mortality and morbidity.

Carol Bedwell

Background:

The vast majority of maternal deaths are avoidable. The largest proportions of such deaths are caused by obstetric haemorrhage, obstructed labour, hypertension and sepsis. Additionally, these major obstetric complications can lead to severe morbidity, such as obstetric fistula. Psychological morbidity is also a major cause for concern. Such mortality and morbidity frequently arises in the postnatal period, however, this is an area often neglected within maternity care and by researchers.

Aims:

The aim of this review is to comprehensively review and synthesise the available evidence, to inform international practice guidelines and identify areas that warrant further investigation.

Methodology:

We are conducting a systematic review, commissioned and funded by the World Health Organisation, into preventative postnatal interventions. Studies are included if the intervention occurs immediately after birth and up to one year post birth. We searched the *Cochrane Library*, MEDLINE, EMBASE and POPLINE. We will assess and grade the quality of evidence to answer the review aims, using the GRADE methodology. GRADE tables will be prepared for the highest levels of evidence available; systematic reviews and RCT's or, in their absence, observational studies will be used. In addition, qualitative work will be reviewed and used to inform barriers and facilitators to utilisation and implementation of quantitative research findings.

Results:

This review is in progress and due to be completed by the end of June 2012. The results of the review will be available for presentation at this conference.

Delivering maternity care training in Uganda – the Bristol experience

V.L. Bills Royal United Hospital, Bath NHS Trust

In May 2011, myself and 2 other O&G trainees travelled to Mbarara Regional Referral Hospital, South West Uganda to deliver maternity care teaching to local doctors and midwives.

Uganda is a developing country in East Africa with a population of 34 million and female life expectancy of only 53.81 years. The dictatorship of Idi Amin in the 1970s was replaced by democracy in 1986. The economy is driven by agriculture, and the landscape is dominated by tea and banana plantations. Mbararans are poor; most live rurally in mud huts, earning just \$1 per day.

Just 15 midwives and 15 doctors perform 6,500 deliveries annually in Mbarara Hospital's O&G department. Around 40 maternal deaths occur annually and perinatal mortality rates are high at 40 per 1000 pregnancies.

Our aim was to deliver hands on, practical training in obstetric emergencies, basic ultrasound skills and recognition of the sick patient to midwives, and trainee O&G doctors. We discovered many obstacles (such as corruption, apathy and workload pressures) that attempted to prevent us from achieving our goals of improving maternal care. Translating first world healthcare methods to the low resource developing world setting also posed a challenge.

Overall, our massive efforts did result in some successes. We ran small group practical simulation sessions on managing obstetric emergencies and one to one obstetric ultrasound tuition. I will return to Mbarara with the Bristol-Uganda Exchange Link in September 2012 to continue efforts towards the long term goal of improving maternal health in Mbarara, Uganda.

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Improving obstetric and neonatal care in Malawi: the role of work place training and audit for non-physician clinicians.

Saliya Chipwete, Siobhan Quenby, David Davies, Doug Simkiss, Paul O'Hare

ABSTRACT

This EC funded project, Enhancing Training and Appropriate Technologies for Mothers and Babies in Africa (ETATMBA), is training 50 Non-Physician Clinicians (NPCs) with at least three years experience in emergency obstetric care, newborn care and leadership skills including teaching skills so that training is cascaded.

The residential component of the training is minimised as removing NPC's from their districts reduces health service capacity. The BSc degree has six weeklong intensive theory teaching modules, but the emphasis is on workplace based training, with obstetric visits for three weeks, and access to Malawi and UK based tutors to facilitate implementation of learning. Workplace based training includes supervision of clinical procedures, mentoring of audit projects and practical demonstration of leadership skills. Assessment involves use of logbooks, OSCEs, MCQs and written audit projects.

Assessment demonstrates that NPC's have high levels of knowledge with MCQ marks averaging 72% prior to training and 79% after training and all passing clinical OSCEs for module 1. However the audit projects show problems in implementation, "the know-do gap". The workplace based training supported implementation through one-to-one supervision of clinical skills, audits and teaching. Examples include improvement in partogram completion from an average score of 24% to 60%, teaching of pfannenstiel incisions reducing hospital stay from 8 to 5 days, use of ventouse delivery preventing Caesarean Sections at full dilatation and teaching midwives neonatal resuscitation skills. In conclusion, NPC's have a major role in improving health care across Africa and should be a focus for training.

Ruptured Uterus in Ethiopia: A series of 67 cases

Authors; **Dr Kate Darlow**, Dr Hans Wolf and Dr Ruth Lawley

Abstract

Background; uterine rupture continues to be an important cause of maternal and perinatal mortality. Its incidence decreases with improvement in obstetric practice.

Objective; to benchmark the facility incidence of ruptured uterus, identify risk factors, assess the roles of the three delays and outcomes for mother and fetus.

Setting; Felege Hiwot, Bahir Dar, Amhara Region, Ethiopia. Felege Hiwot is one of five referral hospitals in Amhara and serves a population of up to 5 million, of which 88% live rurally.

Methods; women with ruptured uterus were identified post operatively and data collected from hospital notes and by patient interview over a seven months, October 2011 – May 2012.

Results; 67 cases were identified giving a facility incidence of 1 in 35 deliveries (2.9%).

89.5% were in unscarred uteri and 8.9% were primigravidae. 51% had one or more risk factors for ruptured uterus.

45.6% of women had been in labour for more than 24hours on arrival at the hospital and a further 16% had been in labour for more than 48hrs. Long journey times contributed to this delay. 41.8% of patients were in theatre within 2hours of arrival.

Maternal mortality was 2.9% and perinatal mortality 98.5%.

Conclusion; Uterine rupture is a common obstetric emergency in this referral hospital in Ethiopia. It contributes to the high maternal mortality rate and reflects the lack of maternity care. The major delays were in accessing care and transport to an obstetric unit.

Keywords; uterine rupture, maternal mortality, three delays.

Manual rotations; Are they really the safer alternative for rotational vaginal delivery?

Da Silva L, Tempest N, Hart A, Walkinshaw S, Hapangama D

Background: Rates of caesarean sections (CS) are increasing globally. Malposition of the fetal head is a common reason for emergency caesarean section (EMCS) during the 2nd stage of labour. Manual rotation is increasingly being used to correct malposition with no clear guidelines on the use or documentation by any of the royal colleges or organisations with authority.

Aims: To compare outcomes of all successful manual rotation deliveries with other methods of delivery for malposition in the 2nd stage of labour in a tertiary hospital.

Methods: Retrospective review of outcomes of all successful manual rotation deliveries over a 50 month period with reference to all other methods of delivery utilised in delay due to malposition during the 2nd stage of labour (successful rotational ventouse, kielland forceps and EMCS).

Results: The outcomes of 1494 malposition deliveries were analysed. 265 successful manual rotations were observed. Most maternal and neonatal outcomes were comparable between successful manual rotations and other methods. However, manual rotation had a higher rate of massive obstetric haemorrhage (2.3% vs rotational ventouse (1.2%) vs kielland forceps (1.7%) vs EMCS (2.1%)) and admissions to SCBU (12.8% vs rotational ventouse (9.6%) vs kielland forceps (10.2%) vs EMCS (11%)).

Conclusions. Despite general perceptions, outcomes for manual rotations are not obviously more favourable than other methods, with some areas showing possible worse outcomes. It is likely that manual rotation is potentially more harmful than performing a traditional rotational delivery. If clinicians are to continue using manual rotation, more stringent regulations need to be enforced and guidelines produced meaning documentation can be used for outcome and audit purposes.

What are the lessons from international comparisons of postpartum care provision in Africa? Results of a comparative policy and situation analysis across four countries

*Mann S^{*1}, Nambiar B¹, Barros H², Lopes S², Duysburgh E³.*

For the MOMI consortium (www.momiproject.eu).

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**Presenter*

Background

The Missed Opportunities in Maternal and Infant care (MOMI) project is a five-year multi-country collaboration across eight African and European partners implemented in Burkina Faso (Kaya district), Kenya (Kwale District), Malawi (Ntchisi district) and Mozambique (Chiúta district). It aims to design and evaluate tailored interventions in post-partum care to improve maternal and infant outcomes. Detailed situation and policy analysis at the outset has ensured that intervention design is context specific.

Comparative analyses across health systems where policy contexts are similar can bring learning opportunities and inform international debate. We have carried out comparative policy and situation analyses across the four countries and study sites and present our findings.

Methods:

A mixed-methods approach that incorporated documentary review, stakeholder interviews and focus group discussions as well as collection of routine data at national and health facility level was carried out. Qualitative and quantitative analyses and triangulation of findings were undertaken in each country setting. Common and contrasting factors that influence post-partum care delivery were identified and we undertook comparative critical analysis of the main challenges to implementation of international postpartum policy.

Results

We describe the findings of this comparative policy and situation analysis and contrasting system facilitators and constraints across the different African settings. Synthesis of findings is presented with reference to international post-partum policy identifying common themes and contrasts of relevance on a wider global health scale.

Post-partum care is relatively under-represented in maternal and child health policies across all settings and a lack of national dissemination strategies have limited implementation of guidelines at the local level. Contrasting community-led strategies to enhance home-based care and stimulate healthcare demand are hampered by poor access and differing traditional beliefs and customs in each of the four settings.

The cross-country findings on postpartum policy and its implementation will be presented and critical analyses of insights into factors relevant to international debate on post partum care policies in Africa.

The MOMI consortium:

ICRH, Belgium: Marleen Temmerman, Els Duysburgh, Wei-Hong Zhang, Birgit Kerstens;

IRSS, Burkina Faso: Seni Kouanda, Danielle Belemsaga, Wendyam Charles Kabore;
ICRHK, Kenya: Kishor Mandaliya, Christine Katingima, Irene Jao;
PACHI, Malawi: Gibson Masache;
ICRHM, Mozambique: Beatrice Crahay, Gilda Gondola;
UEM, Mozambique: Nafissa Osman, Severiano Foia;
FMUP, Portugal: Henrique Barros, Sofia Lopes;
UCL, United Kingdom: Bejoy Nambiar, Tim Colbourn, Sue Mann.

Planning, financing and implementing maternal and neonatal health programmes: a review of progress in Africa 2008-2009

Ekechi C, Wolman Y and De Bernis L

Abstract

Many countries are still to provide universal coverage of sexual and reproductive healthcare and many are off track to reach the Millennium Development Goals related to maternal and newborn health by 2015. An integrated sexual reproductive health and rights plan called the Maputo Plan of Action (MPoA) initiated in 2006 aimed to aid African countries in implementing national sexual, maternal and reproductive healthcare plans.

In 2009 UNFPA reviewed the progress of 33 African countries in the development of their national maternal and newborn health plans through a self assessment survey. The survey showed that many plans lacked the key components required for a complete national maternal and newborn plan which included sexual and reproductive health. The missing components included poor integration of family planning, lack of a budgetary plan, an infrastructure plan or a plan for human resources.

Despite the health Road Map initiative being the single most important factor for the initiation and development of national maternal and newborn health plans for many African countries, many are still struggling to produce detailed plans capable of impacting on woefully high rates of maternal and newborn mortality. Current interventions have failed to deliver their desired impact and this is due to many factors. Better targeted and tailored support is needed before significant reduction in maternal and neonatal mortality in these areas can realistically be achieved.

To assess the incidence and risk of misoprostol-induced fever with different doses and routes when used for the prevention of postpartum haemorrhage

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Data sources

We searched MEDLINE, the Cochrane CENTRAL and PUBMED free text terms, misoprostol and third stage of labor or labour, misoprostol and postpartum haemorrhage or haemorrhage. Randomized trials with at least one group randomized to misoprostol administered by any route to prevent or treat postpartum haemorrhage between were included.

Methods of Study Selection

231 studies were initially identified and 61 of them were assessed for eligibility. We excluded the non-randomized trials, studies without control group and trials which have not recorded the outcome of interest, fever as defined by authors. The date of last search was July 20. 2010. Data were extracted, tabulated and analyzed with Reviewer Manager (RevMan 5) software.

Tabulation, integration and results

We included 33 trials with 38478 participants in the final analysis. The highest reported incidence of fever was in the sublingual route (15%) with lower rates with the oral (9%) and rectal (3.9%) routes. The mean risk ratio of fever with misoprostol in comparisons with placebo and other uterotonics was around 5. There was frequent heterogeneity, however, which could not be explained by study quality or publication date.

Conclusion

The incidence of fever with misoprostol is related to both its dosage and route with the highest incidences found in the high dose sublingual routes. However, this is not the only influence on postnatal fever. There appear also to be effects related to genetic variation between ethnic groups.

Association of genetic polymorphisms with misoprostol induced fever

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Introduction

Misoprostol is a prostaglandin analogue and has been demonstrated as a safe and effective alternative treatment option for PPH. its use has been associated with chills and high fever in some populations. one hospital in Quito, Ecuador, documented a temperature ($\geq 40.0^{\circ}\text{C}$) in 35% of all women receiving misoprostol treatment (800 mcg sublingually) . We therefore hypothesize that some women may be more susceptible to experience elevated body temperature than others due to genetic polymorphisms.

Methods

Our population involved 50 women from Ecuador and 93 women from Liverpool. The genotyping was carried out for 33 SNPs representing 14 genes that involved in the metabolism and transport of PGs as well as target genes for PGs function. The genotyping was conducted using the Sequenom MassARRAY iPLEX Platform. The association of SNPs genotypes was determined using analysis of variance (ANOVA) for continuous outcome.

Results

The incidence of fever $>38^{\circ}\text{C}$ was 88% in Ecuadorian population where 18% of them have fever $>40^{\circ}\text{C}$. On the other hand, the incidence of fever ($>38^{\circ}\text{C}$) in Liverpool population was 0%. There was positive association between SNP genotypes in two PG transporters, SLCO1B1 and SLCO2A1 and fever in the Ecuadorian population (rs 114869610, $P=0.017$) (rs4149085, $P=0.027$) and (rs4149087, $P=0.0005$).

Conclusion

This is the first study to determine a genetic association of misoprostol induced fever. 3 SNPs in two PG transporters genes were associated with misoprostol induced fever in the Ecuadorian population. Therefore, genetic polymorphisms may affect the response to misoprostol and the susceptibility of women to adverse drug reactions.

A community intervention for maternal health of Tribals in Tamil Nadu, India

Sophie Epstein

The Association for Health Welfare in the Nilgiris (ASHWINI) is an NGO serving the Adivasi Tribal population of the Gudalur area of Tamil Nadu. Since 1987 it has been running a comprehensive community health programme (CHP) and a small hospital for a population of approximately 20,000 Adivasis from five tribes.

ASHWINI operates within the Adivasi Munnetra Sangam (AMS), a network of village committees which meet to discuss all issues affecting the community and make decisions regarding the activities of the health programme and other local institutions. All the health workers are Adivasis and have been trained within ASHWINI.

As part of the CHP, the health workers, supported by doctors, provide antenatal and postnatal care and family planning services in the hospital, subcentres, mobile clinics and on village visits. Since the start of the CHP, through a combination of education of the community and the provision of healthcare which is geographically, financially and culturally accessible, not only has the health seeking behaviour of the community substantially improved but there has also been a significant reduction in fertility rate and maternal and infant mortality. All of the above indicators, as well as antenatal care attendance and institutional delivery rate are now superior to the national tribal averages and many are superior to local and national averages for the general population.

This presentation summarises the data to support the above achievements and discusses the aspects of the intervention which have contributed to these, many of which may be applicable to other communities.

Assessing women's quality of life in rural Malawi: a Capability Index

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Authors: Giulia Greco (London School of Hygiene and Tropical Medicine) , Jolene Skordis-Worrall (University College London. Centre for International Health & Development) and Anne Mills (London School of Hygiene and Tropical Medicine. Faculty of Public Health)

Abstract (249 words)

MaiMwana Women's Group (WG) is a community-based participatory intervention that organizes women in rural Malawi. During the meetings, women discuss, develop and implement strategies to overcome maternal and neonatal health issues. This intervention combines educational and social strategies with promotion of empowerment and knowledge across different sectors. The effectiveness of WGs on maternal and neonatal mortality has been tested with a cluster RCT. However, the impact is likely to occur on different aspects of wellbeing. Standard economic evaluation measures fail to address the complexity and multidimensionality of these interventions.

The research aims at developing a broader outcome measure based on Sen's capability framework to assess women's wellbeing in Malawi. The specific objectives are:

- i. Identify a set of capabilities relevant to the study and context
- ii. Propose methodologies to measure robustly these capabilities
- iii. Translate the measurement into a single metric
- iv. Validate and test the index
- v. Recommend a framework for using this approach

During the exploratory phase, a series of focus groups has been held for identifying valuable attributes of quality of life. These attributes have been translated into a questionnaire. The data collection took place in control and intervention clusters. The dimensions have been combined into an index, assigning the weights with a participatory exercise and statistical techniques. Finally, the index has been validated (construct validity, content validity, reliability, sensitivity).

This study provides a starting point for critically investigating the feasibility of using an outcome measure based on Sen's framework alongside a cluster randomized controlled trial.

Methodological approaches to evaluation of complex interventions in maternal and newborn health: IDEAS project

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IDEAS (Informed DEcisions for ActionS) is a 5-year project funded by Bill & Melinda Gates Foundation (BMGF), in three areas with high burden of maternal and newborn mortality: Ethiopia, North-Eastern Nigeria and Uttar Pradesh in India. The objectives are to (1) strengthen BMGF grantees' capacity for measurement, learning and evaluation; (2) gather, analyse and synthesise evidence for enhanced interactions between families and frontline workers, whether these lead to increased coverage of maternal and newborn health (MNH) interventions; (3) assess the extent to which MNH innovations implemented by grantees are scaled-up, and investigate enabling and inhibiting factors; (4) gather, analyse and synthesise evidence on the impact on newborn survival of MNH innovations implemented at scale; and (5) develop and disseminate best practices for learning and actionable measurement in MNH.

IDEAS is thus undertaking a multi-method evaluation of innovations in MNH implemented by BMGF grantees, including household and front-line worker surveys, qualitative interviews with key stakeholders, and economic analysis. The evaluation aims to answer the following questions:

- Have the grantees' innovations been successful in enhancing interactions between families and frontline health workers, and have these meant that life-saving, critical interventions have reached more mothers and babies?
- Have the innovations been successfully scaled up to reach other areas of Ethiopia, North-Eastern Nigeria and Uttar Pradesh? What helps and what hinders scale-up?
- Where the innovations have been taken up more widely, has newborn survival improved as a result?

We will present the methodological approaches to the evaluation and early findings.

Maternal emergency transport in low to middle income countries: A systematic review and thematic synthesis of qualitative studies

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Abstract

Background: Progress towards the Millennium Development Goals 5a (reducing maternal mortality) and 5b (improving universal access to reproductive maternal health) has been uneven. Most maternal deaths are preventable with emergency obstetric care; therefore ensuring access to healthcare services is essential. A core component of access to care is emergency transportation. Despite the acknowledged link between accessibility and health, there is little information on emergency transport of pregnant women.

Objective: To systematically review and synthesise the literature on emergency transportation of pregnant women in low to middle income countries, and to explore current practices, barriers and facilitators for utilisation of transportation.

Design: Systematic review and thematic synthesis of qualitative studies on transportation for emergency obstetric care.

Data Sources: MEDLINE, EMBASE, BNI, Cochrane library, CINAHL, African Index Medicus, ASSIA, QUALIDATA, the Reproductive Health Library, and the Science Citation Index (inception-April 2012) without language restriction. Studies using qualitative methodology were included.

Results: Searches identified 29 relevant articles. Eight major themes were identified: time for transport, lack of transport options, geography, local support, autonomy, culture, finance, and ergonomics. Key barriers were availability and speed of transport, terrain, meteorological, support, dependence on others for decision-making, cultural issues, cost, lack of comfortable and safe positioning during transport. The key facilitators were easy access to a suitable method of transport, including collaboration with local minibus taxi syndicate, and motorcycle ambulance, community education, subsidies, insurance schemes and vehicle and road maintenance.

Conclusions: Individual themes should be appreciated within local context to provide illumination on local barriers and facilitators.

Low-cost automated blood pressure monitors for the detection of pre-eclampsia in rural Tanzanian health clinics: 3 year follow-up

NL Hezelgrave, Fofie F, Dass F, C Unwin, EC Baker, S Edmunds, A Shennan

Introduction

Regular blood pressure (BP) monitoring is a cost-effective means of early identification and management of hypertensive disease in pregnancy. Yet in much of rural sub-Saharan Africa, the ability to measure BP is hindered by poorly functioning/inadequate or absent equipment, poor staff knowledge and low antenatal care attendance.

In Tanzania only 2/3 of women are reported to have their BP measured in pregnancy and the results are frequently inaccurate¹. The introduction of a cheap, automated BP monitor suitable for use in low resource settings into rural clinics has the potential to increase detection of pre-eclampsia and reduce perinatal and maternal mortality.

Method

20 validated automated BP devices were distributed to 10 rural clinics in July 2008 together with training about their use. Quantitative and qualitative follow-up was conducted at 36 months.

Results

At 36 months, tally of use was 12-21 times/month (median 19). 4/20 devices had broken (one cuff leak, 3 leakage of locally bought batteries) and 2 required new batteries). All devices were reported as useful for antenatal care, with good perceived reliability.

Discussion

That all 10 clinics were still using a functional machine 3 years after their introduction is evidence of their acceptability. Batteries have been replaced from staff own wages, a sign of dedication to offering effective care and trust in the device. Concerns remain regarding the long term maintenance of devices; development of machines using solar power, wind-up chargers or sealed lithium batteries is a priority. Their impact of referrals for pre-eclampsia and effect on fetal and maternal morbidity and mortality must be assessed.

Women's Health Academic Centre, King's Health Partners, London, United Kingdom

Urassa DP, Nystrom L, Carlstedt A, Msamanga GI, Lindmark G. Management of hypertension in pregnancy as a quality indicator of antenatal care in rural Tanzania. *Afr J Reprod Health* 2003; 7(3):69-76

Should oral misoprostol be used to prevent postpartum haemorrhage in home birth settings in low resource countries? A systematic review of the evidence.

Vanora A Hundley, Bilal I Avan, Candice Sullivan, and Wendy J Graham

Abstract

Background: Using misoprostol to prevent postpartum haemorrhage (PPH) in home birth settings remains controversial.

Objective: To review the safety and effectiveness of oral misoprostol in preventing PPH in home birth settings.

Search Strategy: the Cochrane Library, PubMed, and POPLINE were searched for articles published until 31 March 2012.

Selection criteria: Studies, conducted in low resource countries, comparing oral misoprostol to a placebo or no treatment in a home birth setting. Studies of misoprostol administered by other routes were excluded.

Data collection and analysis: Data were extracted by two reviewers and independently checked for accuracy by a third. Quality of evidence was assessed using GRADE criteria. Data were synthesised and meta-analysis performed where appropriate.

Main results: Ten papers were identified, describing two randomised and four non-randomised trials. Administration of misoprostol was associated with a significant reduction in the incidence of PPH (RR = 0.58, 95% CI: 0.38 to 0.87), additional uterotonics (RR = 0.34, 95% CI: 0.16 to 0.73) and referral for PPH (RR = 0.49, 95% CI: 0.37 to 0.66). None of the studies was large enough to detect a difference in maternal mortality and none reported neonatal mortality. Shivering and pyrexia were the most common side effects.

Conclusions: The finding that misoprostol is effective in preventing PPH has the potential to translate into many lives saved. However, adverse effects have not been systematically captured, and there has been limited consideration of the potential for inappropriate or inadvertent use of misoprostol.

Decision-making on delivery care in urban India

Eleri Jones, PhD Student, London School of Economics

Aims

The research aims to understand how decisions are made on delivery care for first births among the urban poor in India. The research asks the following questions:

1. How do urban poor households make decisions on delivery care for first births?
2. What are the factors influencing decisions?
3. What are the temporal dynamics of decisions on delivery care?
4. What is the nature of delivery care planning and preparation?

Methods

Qualitative data collection methods are used. In-depth interviews are conducted with urban poor women living in slums, their husbands and mothers-in-law during the third trimester of pregnancy and the same participants are followed up after the birth. Matched data allow intra-household dynamics to be examined and the longitudinal design allows investigation of the temporal dynamics of decision-making.

Findings

Institutional delivery is increasingly considered both acceptable and desirable among the urban poor. Yet, some poorly integrated communities continue to be excluded from these changing norms. With some exceptions, women remain at the periphery of decisions on delivery care due to a combination of societal norms and a lack of mechanisms for learning about the services and facilities available. Households negotiate the complex health system in urban areas to identify facilities for delivery; yet, health system barriers pose challenges even to the most 'prepared' households.

Pain management for women in labour: an overview of systematic reviews

Leanne Jones, Mohammad Othman, Therese Dowswell, Zarko Alfirovic, Simon Gates, Mary Newburn, Susan Jordan, Tina Lavender, James P Neilson

The Cochrane Pregnancy and Childbirth Group has been reviewing the evidence on pain management interventions for 20 years and, in view of the range of different interventions available and the importance of the topic, the Group has pulled together the evidence from many different systematic reviews into a single accessible and usable summary document.

Based on the volume and quality of evidence, we found that epidurals, including combined spinal epidural and inhaled analgesia effectively manage pain in labour, but may give rise to adverse effects. Women receiving inhaled analgesia were more likely to experience nausea, vomiting and dizziness; while epidurals increased the number of assisted vaginal births.

There was some evidence to suggest that immersion in water, acupuncture and massage may improve management of labour pain, with few adverse effects. However, evidence on these interventions was mainly limited to single trials. For other pain management options such as hypnosis, sterile water injection or opioids, there was insufficient evidence to make a judgement on their overall effectiveness.

In summary, most non-pharmacological methods of pain management are non-invasive and appear to be safe for the mother and baby; but their effectiveness is unclear because of a lack of reliable evidence from research studies. There is more evidence to support the use of pharmacological interventions, but alongside their beneficial effects, one must consider their known adverse effects. Most evidence was from trials in high resource settings.

Mortality due to non communicable diseases in pregnancy and women of reproductive age: a systematic review

Authors: Kanguru, L., Hussein, J., Bell, J University of Aberdeen

Background: Indirect causes of maternal mortality such as non communicable diseases (NCDs) have a potential of aggravating the normal physiologic effects of pregnancy. They may develop during pregnancy or be a pre-existing condition. This review seeks to determine the mortality due to NCDs in pregnancy and women of reproductive age (15-49) in developing countries.

Method: MEDLINE, MEDLINE-in-process, EMBASE, COCHRANE (CENTRAL and DATABASE OF SYSTEMATIC REVIEWS), CAB and African Index Medicus databases were searched with no date restrictions. Epidemiological studies investigating mortality due to NCDs during pregnancy and in women of childbearing age were eligible for inclusion. Our primary outcome measure was mortality due to any NCD. All articles were screened and relevant data extracted from included studies.

Results: A total of 14 studies (all verbal autopsies) from Bangladesh, Nepal, Pakistan, India, Ethiopia, Cape Verde, South Africa, Kenya, Burkina Faso, Indonesia, Vietnam, Thailand, Egypt and West Bank were included. Maternal deaths due to NCDs ranged from 1% in West Bank to 3.5% in Cape Verde. Cardiovascular or circulatory diseases and neoplasm were the main causes of death. NCD mortality was highest in women of reproductive age in lower middle income countries of Asia, Middle East and North Africa.

Conclusion: Conclusive evidence in this review is limited. Maternal deaths due to NCDs were poorly reported probably due to misclassification, underreporting or being reported as non maternal. There is a need for consistent classification of maternal deaths.

Preterm Premature Rupture of Membranes in Western Uganda: a case controlled study

Kasalirwe L., Siedner M., MacLeod K.

Background

There is limited data on the epidemiology of PPRM in developing countries, which is urgently needed to develop optimal prevention and management strategies specific to these settings.

Methods

We performed a case-control study to assess correlates of PPRM in women presenting to Mbarara Regional Referral Hospital, in western Uganda. For each case, we enrolled the next three women without PPRM presenting for delivery at 37-42 weeks of gestation. We performed surveys of participants to collect information on sociodemographic, general health, and obstetrical characteristics. We fit univariable regression models to estimate the association between PPRM and exposures of interest. We also collected data on birth outcomes for children of mother's with PPRM.

Results

A total of 282 women were enrolled, of which 73 had PPRM and 219 were controls. In univariable regression models, PPRM was associated with unemployment (OR:2.5; 95%CI 1.4-4.3), alcohol use (OR:3.8; 95%CI 1.8-8.1), attendance at <3 antenatal visits (OR 6.7; 95%CI 3.3-13.8), inter-pregnancy interval <1 year (OR 2.1; 95%CI 1.2-3.7), history of antepartum haemorrhage (OR 15.3; 95%CI 1.8-133.5) and a poor outcome in the prior pregnancy (OR 5.6; 95%CI 2.7-11.4). Babies of mothers with PPRM had high rates of abnormal outcomes, including 57% with low birth weight (<2.5kg), 51% requiring admission to the neonatal unit, and a 22% perinatal mortality rate.

Conclusion

Interventions focussing on lengthening inter-pregnancy interval, reducing alcohol intake in pregnancy and increasing attendance at antenatal clinics could reduce incidence of PPRM and improve neonatal outcomes in rural Uganda.

Title: Hyperemesis day centre audit

Author: Dr T Khan (ST1 in Obstetrics and Gynaecology, Miss M Shehmar (Consultant in Obstetrics and Gynaecology)

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Background

Hyperemesis in early pregnancy is a common cause for gynaecology emergency admissions routinely taking several days to manage symptoms enough for discharge, contributing to bed pressures. Patient experience is usually poor and disruptive as they often have other young children at home who then need other care. We have devised an outpatient nurse run protocol for hyperemesis where patients are fast hydrated over a period of a few hours and then discharged.

The hyperemesis day centre (HDC) was opened in the Birmingham Womens Hospital in December 2010. A service evaluation was undertaken between December 2010- January 2012. The objectives were to find ways to improve the service, gain patient experience feedback, assess if HDC protocol were being followed, and to assess if the HDC was successful in reducing inpatient admissions.

Results

We found that 60% of patients were discharged after one fluid hydration cycle. There were no complications and patient feedback was positive. There was room for improvement where some women were admitted due to protocol violation.

Conclusion

The introduction of HDC has been successful in reducing inpatient admissions following hyperemesis, has improved patient experience and is safe and efficient. We now have patients from other areas who have asked to be referred to us and we are now hoping to share our experiences and protocol to encourage other units to adopt this approach.

Title: Smear testing leading to a diagnosis of fimbrial end tubal cancer

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POSTER PRESENTATIONCase history

A diagnosis of fimbrial end tubal cancer was made in a 53 year old patient following an abnormal smear result, showing malignant cells in July 2009.

Her clinical symptoms consisted of constant right iliac fossa pain and irregular periods. She had been on HRT for the past 4 years.

Radiology was inconclusive and subsequently she underwent radical surgery. No macroscopic abnormalities were seen during surgery. Histological findings confirmed serous adenocarcinoma (see histology images) of the right fallopian tube with positive peritoneal washings, staged as FIGO staging 3a.

Discussion

Fallopian tube malignancy accounts for approximately 1% of all gynaecological malignancy. Pre-operative diagnosis of this primary fallopian tube malignancy is rare. This was an atypical presentation diagnosed following an incidental finding after abnormal smear test. The cervical smear test is clearly not for this purpose. It is difficult to estimate risk factors due to the rarity of this malignancy and late presentations. Family screening for the BRCA mutation may be the way forward in early detection as associated with higher risk of gynaecological malignancies.

Title:	An acute presentation of confusion in pregnancy with a background of essential hypertension
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Address:	Birmingham Womens Hospital, Birmingham, B15 2TH 07737948367
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Email address:	

Background

Hypertension in pregnancy is becoming more common due to increasing maternal age at pregnancy, better antenatal care resulting in improved pick-up of high risk pregnancies, assisted conception, obesity and increasing maternal co-morbidities present during pregnancy. Many patients can present with acute confusion in pregnancy with a background of hypertension. However there may be a considerable delay in diagnosing hypertensive encephalopathy. Hypertensive encephalopathy typically first presents to medical professionals in acute medicine. The presenting symptoms are non-specific and can fit into the criteria of other neurological diagnoses. Lesions can be identified by MRI head scan and there is evidence that these changes are potentially reversible if the hypertension is treated aggressively at an early stage.

Case history

A 36 year old lady at 36/40 presented to A&E with acute confusion, slurred speech, headache, confusion, nausea and agitation. She had a background of essential hypertension and was on Labetolol 100mg twice a day.

Clinical examination revealed a significantly raised BP, urine dipstick with +4 protein with normal PET bloods. Neurological examination was positive showing hyperreflexia, right sided visual disturbance and right upper limb weakness.

MDT approach was used with the involvement of a Consultant Obstetrician and Neurologist. A differential diagnosis of hypertensive encephalopathy, sinus thrombosis and CVA was made at this stage.

After aggressive anti—hypertensive treatment and caesarean section the symptoms resolved. A diagnosis of hypertensive encephalopathy was made.

Discussion

Hypertensive encephalopathy can be a common acute neurological presentation easily misdiagnosed. It is important to raise awareness of the presentation of this condition, when symptoms are present in pregnant women to prevent adverse outcomes to the mother and baby. Increased awareness of this condition amongst medical professions will lead to earlier involvement of Obstetricians. There are also issues related to consent as patients are normally acutely confused and unable to give fully informed consent. In this situation a 2 doctor consent was required to ensure prompt and safe delivery of the baby.

A qualitative study of women's perceptions of miscarriage in Malawi.

Suzanna Lake, BMedSc with honours in International Health

Abstract

Objective: To investigate women's perceptions of miscarriage and its complications.

Design: A qualitative design was used. Data were collected using semi-structured interviews.

Setting: Gynaecology ward of the Queen Elizabeth Central Hospital, Blantyre, Malawi, during February-March 2012.

Participants: 30 women (aged between 18-39) presenting with miscarriage.

Findings: 14 of the women interviewed knew what a miscarriage was. Perceived causes included contraceptives, prohibited medicines, hard labour, stress, HIV, malaria, witchcraft, traditional medicines, lack of child spacing, and abuse by their male partners. Women obtained knowledge from their own experience of miscarriage and through the shared experiences of female family members and friends. Women were found to have concerns about death from miscarriage; facing stigmatising attitudes of community and health workers; and the treatment they would receive in hospital, particularly the surgical procedure.

Key conclusions: Women are concerned about dying from miscarriage, the treatment in the hospital and how their miscarriage will be perceived by the hospital staff.

Implications for practice: Incorporating education about miscarriage into the school syllabus may help to improve women's awareness and understanding. Women should be encouraged to discuss their miscarriage with female friends and relatives to improve knowledge of women on miscarriage and to help dispel the stigma surrounding this topic. To improve maternal health in Malawi, the stigma surrounding abortion needs to be addressed, in addition to legislative changes. Providing information to women on the treatment they will receive whilst in hospital may help to allay women's concerns.

Keywords: miscarriage; developing countries; perceptions; semi-structured interviews.

Developing the Eleanor Bradley Fellowship (EBF): what has been achieved at Mulago National Referral Hospital, Kampala, Uganda over the past four years?

Authors

Emilie Lewis, Andrew Weeks, Louise Ackers, Owen Sloman, Carol Porter, Kate Lightly, Kate Alldred, Paul Westhead, Josephat Byamugisha, Sarah Nakubulwa, Mark Muyingo

Background

In conjunction with the Liverpool Mulago Partnership and the AC Body Trust, the EBF was established in 2008, sending a UK trainee in Obstetrics and Gynaecology to Mulago Hospital for 12 months. The aim of the EBF is to raise standards of care, implement initiatives to reduce maternal mortality and to gain skills in obstetrics in a low resource setting.

Achievements

Each fellow has worked closely with midwives, providing teaching on important aspects of care such as neonatal resuscitation and emergency obstetrics. Patient safety has been improved through implementing a triage system and developing the African Maternal Early Warning Score (AMEWS). A six bed high dependency unit was opened in October 2010 which aimed to reduce maternal deaths in the postnatal period. Recent work has concentrated on improving the functionality of local health centres with the capacity to perform caesarean sections in order to decongest Mulago Hospital.

Discussion

Spending a year in Mulago allows the fellow to become part of the team and gain a greater understanding of the intricacies of the system. Mulago gains from a knowledge and skills transfer and implementation of novel ideas to reduce maternal mortality. With over 33,000 deliveries per year, Mulago Hospital provides a great opportunity for the fellow to develop skills in obstetrics that they are unlikely to encounter in the UK.

HAVELIAN TRANSPORT PROJECT: Providing life-saving transport for labouring or critically ill pregnant women

Miss Sadia Malick (sadia.malick@nhs.net)

Ammalife is a UK registered (1120236), evidence informed charity, and is committed to finding ways to reduce the maternal mortality in the resource poor countries. The causes of a high maternal mortality are complex and varied in the developing world. One of them is delaying treatment (The 3 Delays Maine, 1997.) We propose a simple solution to avoid delay in reaching a place of care, through a simple idea.

The Man with the Van

- To educate the community that women in labour or their attending traditional birth attendants, can communicate to a central office that they need urgent transport. The person running the project will then send any means of transport (man with a van) to immediately transport the woman in labour to a place of care.(Hospital/District general Hospital etc)
- The women, their families or their traditional birth attendants can arrange the transport themselves at times of emergency.
- The charity's office will reimburse the costs in exchange for authentic information and evidence of transport and birth record.

Implementation Guidelines:

Any country where there is availability of roads either in good condition or make shift ones.



Barriers:

Lack of transport systems, e.g. extant taxi services or roads.

Indicative Costs:

It required £10-15 per transfer of a woman in labour in Pakistan. Initial cost of set up was £1000. Total 345 women were transported in 5 years with approximately £7000.

(http://www.ammalife.org/index.php?option=com_content&view=article&id=10:life-saving-journeys&catid=2:what-we-do&Itemid=5)

Liverpool Mulago Partnership Maternal Hub Benchmarking Project.

Abigail Mather & Oliver O'Sullivan

Intro

Liverpool Mulago Partnership has been working to improve maternal health and obstetric care at Mulago hospital Kampala, Uganda in partnership with Liverpool Women's Hospital since 2007. In 2011 the charity received a grant from Tropical Health Education Trust (THET) to set up a maternal hub which aims to improve collaboration between projects already working in regions of Uganda with British project partners.

Aim

Increase awareness of the importance of accurate record keeping and how this can improve the development of maternity services. Maternal mortality in Uganda remains high; this collaborative project aims to develop recognition of good practice within Uganda and enable knowledge transfer. Areas where North-South co-operation could improve patient care will be identified and training and knowledge sharing developed.

Methods

Student volunteers went to centres in Uganda and worked with administrative and clinical staff. Trends in numbers and complications of delivery amongst other routine data were examined. Challenges facing staff and how these could be overcome were also discussed.

Results

Common problems observed in all centres: lack of staff, difficulty in staff retention, lack of basic medical equipment and high numbers of patients. All centres had increased the number of women tested and treated for HIV.

Conclusions

Data collection was variable in consistency and quality across different centres. Maternal mortality rates vary across the country, this requires further study.

Implications for future policy

Investment in staff training is essential. Provision of basic monitoring equipment for patients could save lives. HIV testing take up has improved but work needs to be continued to ensure this continues. Clinical staff need to be more involved with data collection and how it can be used to improve future patient outcome.

Demand-side financing measures to increase maternal health service utilisation and improve health outcomes: a systematic review of evidence

Authors: **Susan F Murray**, Ben Hunter, Debra Bick (King's College London), Ramila Bisht (Jawaharlal Nehru University), Tim Ensor (university of Leeds)

Abstract

Background: In many countries financing for health services has traditionally been disbursed directly from governmental and non-governmental funding agencies to providers of services: the 'supply-side' of healthcare markets. 'Demand-side financing' (DSF) offers a supplementary model in which some funds are instead channelled through, or to, prospective users. Such measures have become increasingly popular in settings where service utilisation is known to be low due to the costs of transport, costs of treatment or loss of earnings. In maternal healthcare programmes focussed on increasing service utilisation these DSF measures typically take the form of conditional cash transfers or of schemes giving vouchers, coupons or cards directly to users, sometimes in conjunction with a choice between providers. While many DSF-for-health schemes are conditional, some schemes leave the actual purchase of the goods or services to user discretion, and others use unconditional cash transfers to improve the purchasing power of poor households. This paper will present the findings of a recently completed (Aug 2012) systematic review of quantitative and qualitative evidence

Aim: The overall objective is to assess the effects of demand-side financing interventions on maternal health service utilisation and on maternal health outcomes in low- and middle-income countries.

Design: The review uses the Joanna Briggs Institute review methodology. It examines evidence on the *effectiveness* of the interventions, their *appropriateness* and *meaningfulness* of DSF for meeting the needs of rural, poor or socially excluded women. It also considers the evidence on the *feasibility* and appropriateness of DSF in terms of quality of care, sustainability and institutional capacity, and capacity to run such schemes.

The Impact of Medical Students on the the Patient-Centered Care Model in a Gynaecology Outpatient Setting

Chang Park BSc (Hons)

Francesca Conway BSc (Hons)

Dr. Naila Kamal MBBS, DFFP, CertASLAT, MRCOG, FHEA

Background:

All clinical medical students are expected to be present and involved in outpatient clinic appointments including gynaecology. Whilst the educational benefit to the student cannot be argued, the impact it has on the patient-centered model of care has yet to be determined, especially in this particularly sensitive setting.

Method:

A 7-point questionnaire was completed by 32 consecutive patients at two Northwest London gynaecology outpatient clinics. It investigated the impact the presence of students had on; 1) patient understanding of the a) investigation b) diagnosis c) treatment due to the teaching process and 2) the quality of care in terms of; a) time dedicated to consultation b) ownership of decision making c) overall quality. Finally, the patient ranked on a 5-point scale where they felt the focus of the consultation lay, from 1 being 'medical student-centered' to 5 being 'patient-centered'.

Results:

64.5% either agreed or strongly agreed that the presence of the student enhanced understanding with a further 32.3% answering neutral. 53.8% either agreed or strongly agreed that the quality of care was improved by the presence of the medical student and 37.6% remained neutral. Finally 77.4% felt that the consultation was patient-centered. A further 12.9% felt that the focus was equally split.

Conclusion:

This study has shown that the presence of the medical student aids patients' understanding and enhances the quality of the consultation for the patient. All this has been achieved whilst maintaining the patient-centered care model, even in the sensitive settings of gynaecology outpatient clinics.

Deficits in emotional face processing in women at risk of postpartum psychosis

Astrid M Pauls 1,2), Mitul A Mehta(2), Owen G O'Daly(2), Susan Pawlby(3), Simone Ciufolini(1), Katie Hazelgrove(1), Costanza Vecchio(1), Steven CR Williams(2), Carmine M Pariante(3), Paola Dazzan(1)

(1)Department of Psychosis Studies, (2) Department of Neuroimaging, (3) Department of Psychological Medicine, Institute of Psychiatry, King's College London

Introduction: Women are at risk of developing postpartum psychosis (PP) if they have a diagnosis of bipolar or schizoaffective disorder or a personal/family history of PP (Spinelli, 2009, American Journal of Psychiatry, 166). While bipolar disorder and psychoses unrelated to childbirth are associated with deficits in emotional face processing (Liu, 2012, Bipolar Disorders, 14; Li, 2011, Schizophrenia Research, 134), it is unknown, whether women at risk of PP share similar impairments.

Methods: Forty-six women were scanned on average 15 weeks postpartum (range 4-43 weeks) using functional magnetic resonance imaging (fMRI); 25 at-risk and 21 healthy controls (HC). Women had to indicate the gender of 60 faces consisting of three emotional intensities (Ekman faces: neutral, fearful50%, fearful100%). Data were pre-processed and analysed in SPM8. Statistical significance was defined as $p < .05$ cluster-corrected for multiple comparisons.

Results: There was no significant difference in task performance. The at-risk group had greater activation than HC in similar regions when looking at neutral faces compared to a fixation cross or fearful faces including the left supplementary motor area (SMA); mid cingulum ($Z=4.09$, $p_{cor}=.001$) and the right postcentral gyrus ($Z=4.43$, $p_{cor}=.024$).

Discussion: The activation differences appear to be due to HC discriminating emotional states within the SMA and other regions, while the at-risk group fails to do so. This novel finding might reflect an impaired top-down modulation of responses to facial stimuli (impaired contingent attentional capture), which has previously been associated with differences in SMA activation in high anxious groups (Reeck, 2012, Journal of Cognitive Neuroscience, 24).

Informing an evidence response mechanism to support the implementation of RMNCH interventions in Asia and the Pacific

Emma Pitchforth, Celine Miani, Ellen Nolte
RAND Europe, Cambridge

Considerable achievements have been made in reaching global consensus and commitment to improving women's and children's health in low- and middle- income countries. Yet, while consensus has been reached on 56 essential interventions to improve reproductive, maternal, newborn and child health (RMNCH), their implementation and/or scale-up remains a challenge in many settings. We will report on work designed to inform the process of developing effective mechanisms to support evidence-informed policy making in RMNCH through: 1) developing a protocol to support rapid and systematic identification of data and decision-requirements for the implementation of RMNCH interventions; and 2) testing and applying the protocol in four countries (Bangladesh, India, Indonesia, Nepal). The study uses 6-8 'tracer interventions' as a means to identify information needs to inform implementation at macro, meso and micro levels. Data collection and analysis will be informed by an analytical framework assessing the degree to which actors at each of these levels have the information, incentive and capacity to act. We will present key findings from the four case studies as well as transferable lessons for developing rapid evidence response mechanisms in Asia and the Pacific and other world regions.

An audit of the current triage system in place in the obstetrics department in Mulago Hospital: looking at the journeys of mothers presenting to the department.

Stephanie Raybould

The Liverpool-Mulago Partnership is a charity which focuses on reducing the levels of maternal mortality in Mulago Hospital, Uganda, with established links to Liverpool Women's Hospital. Mulago is the largest national referral hospital in Sub-Saharan Africa, delivering over 33,000 babies yearly.

The Eleanor Bradley Fellowship based in Mulago has already undertaken many projects to enhance current practice in the obstetric department. The proposed audit would integrate with the on-going work, aiming to take an in-depth look into the current triage system.

At present the women with evidently urgent conditions are seen immediately by a healthcare professional and the other women are seen on a queue basis. There have been previous suggestions of implementing a traffic light system to categorise the women by severity, however as yet no formal system exists.

The audit will collect data regarding the time a woman enters the department, time of triage, time of first contact with a healthcare professional, the urgency of their presentation and final diagnosis. Data will be collected using a simple paper collection tool which will follow the women through the department.

Analysis of the journey data will demonstrate the number of women presenting to the department, the urgency of their presentation and will highlight any barriers to the varying needs being met.

As part of the project, recommendations on how to enhance the current practice of triage will be created if appropriate, with the aim of enabling these to take place, and re-auditing in the future.

Miscarriage at the Queen Elizabeth Central Hospital, Blantyre, Malawi: a cross sectional observational study

Harriet Rhodes

Abstract:

Objective: To define the frequency, management and outcomes of miscarriage and explore the backgrounds of women with miscarriage.

Design: Descriptive cross-sectional study

Setting: The Queen Elizabeth Central Hospital (QECH) is Malawi's largest government run hospital.

Sample: All 306 women admitted with miscarriage during 6 weeks in February and March 2012.

Methods: An orally delivered questionnaire was used to interview women with miscarriage. Audit was used for women unable to complete the questionnaire. Data were compared with published findings by Lema et al from 1994.

Main outcome measures: Demographics and social history, past medical and obstetric history, diagnosis, management and outcomes.

Results: Analysis of demographics of the women found median age was 24 years (IQR 20-28) and 36.7% were employed. Women travelled for up to 10 days to reach hospital. The most common diagnosis was incomplete miscarriage and 206 women underwent uterine evacuation for which routine management was sharp curettage. 12.1% of women experienced complications of surgery. 48 women were diagnosed with an infection during their admission and 49.7% of women were prescribed antibiotics. Median length of hospital stay was 2 days. Historical comparison demonstrated contraceptive use increased from 9% to 80%, however women who had never used contraception in 2012 were significantly younger than those who had ($p < 0.0005$).

Conclusions: Miscarriage and its complications continue to put pressure on resources in the QECH. Further strategies to remove delays in women receiving care and a review of the management of miscarriage may benefit women and staff.

Keywords: Miscarriage, Malawi, Maternal health, Sepsis

Three cases of caesarean scar ectopic pregnancy in a District General Hospital

Dr James Rowland ST4 O+G, Dr Sarah Cassidy ST3 O+G, Dr Beth Hammersley Consultant
Obstetrician and Gynaecologist.

Abstract

Introduction

Caesarean scar ectopic is considered to be the rarest form of ectopic pregnancy and can be associated with significant morbidity and mortality. Although it is possible to identify certain risk factors there is a dearth of evidence available on the subject. There are no published guidelines to inform practice, and a lack of published case series. This creates a particular challenge when managing these cases. There is nothing in the literature to inform decision making in subsequent pregnancies. With an increasing caesarean section rate, managing pregnancies after caesarean scar ectopic is an growing problem for clinicians.

Case Histories

We report three cases of women in whom a diagnosis of caesarean scar ectopic pregnancy was made. All three women had successful management with an intramuscular methotrexate regime as per RCOG guidance for pregnancy of unknown location. Two of these women have had subsequent pregnancies which have lead to delivery of live infants in both cases with minimal fetal and maternal morbidity. In both cases delivery was planned to be elective caesarean section.

Discussion & Conclusions.

What our cases illustrate is that management with methotrexate of caesarean scar ectopic pregnancy was safe. This seems to be supported by the limited evidence within the literature. We have also gone on to manage two of these women in their subsequent pregnancies with successful outcomes in both cases. Our case series fills a valuable gap in the clinical workup of these patients as it illustrates that subsequent pregnancies can be managed up to full term with minimal extra antenatal care.

Why are women dying when they reach hospital on time?: a systematic review of the ‘third delay’

H Knight, [A Self](#) & S Kennedy

Objectives

The ‘three delays model’ attempts to explain delays in women accessing emergency obstetric care. The third delay, although under-researched, is likely to be a source of considerable inequity in access to emergency care in low-resource countries. We aimed to identify facility-level barriers that contribute to the third delay in low-resource countries.

Methods

We used a 4-way strategy to search 5 electronic databases to identify original research articles. The frequency with which barriers relating to the third delay were reported was recorded in order to identify any trends.

Results

3,389 papers were retrieved and imported into reference management software. Of these, forty-two studies were eligible to be included in the review. We identified 32 conceptually unique barriers at the facility-level, which were categorised into 6 emerging themes (Drugs and equipment; Policy and guidelines; Human resources; Facility infrastructure; Patient-related and Referral-related). The five most commonly cited barriers were inadequate training/skills mix (90%); drug procurement/logistics problems (67%); staff shortages (60%); lack of equipment (52%) and low staff motivation (45%).

Conclusions

This review highlights the fact that many health facilities in low-resource countries are still chronically under-resourced and unable to cope effectively with serious obstetric complications. We stress the importance of addressing supply-side barriers alongside demand-side factors if further reductions in maternal mortality are to be achieved, as women and their families will be disinclined to travel to facilities that offer second- or third-rate care. The development of simple, replicable tools to assess facility-level barriers should be a priority for future research.

Audit in Post-natal management of Gestational diabetes in a General Practice

Jaideep Sharma

Abstract

Aim: The aim of this audit, performed retrospectively at Folly lane medical centre, was to compare the postnatal management of women diagnosed with Gestational Diabetes Mellitus against set standards.

Method: There were two main components to this audit. One was the literature search (to base the rationale for the audit) and select criteria (mostly from NICE guidance) which was accompanied by setting standards (derived from professional opinions of General practitioners at Folly Lane Medical Centre). Computerised data of patient records was then searched to compare the standards achieved versus the standards set.

Results: Literature search confirmed the increased risk of overt diabetes following gestational diabetes, and the strong recommendation for careful monitoring and follow up. There were three criteria audited and all of them had standards achieved lower than standards set. The criteria related to GTT performed at 6 week check (18.2% performed vs 90% expected) , annual fasting glucose (18.2% performed vs 82.5% expected) and documented evidence of counselling on lifestyle modification (13.6% performed vs 82.5% expected).

Discussion: There are few relatively cheap and easy recommendations including the incorporation of a reminder and recall system as well as adding 'alerts' on the electronic medical records database, and also enhanced role of diabetic specialist nurse. A planned re-audit should reflect improvement in adherence to these guidelines following the implementation of the recommendations.

Community Participation in Improving Maternal Health: a Grounded Theory

Study in Aceh Indonesia

Suryane Susanti, Christine Furber, Tina Lavender

Background

Indonesia has one of the highest rates of maternal mortality (MMR) in South East Asia. Community participation has been effective in reducing maternal mortality in some areas; in Aceh province, the prevalence remains higher than the general Indonesian MMR.

Aim

To gain understanding of pregnancy and childbirth experiences from multiple perspectives in relation to the use of maternal health services in Aceh.

Objectives:

- To explore the role of the community in influencing maternity practices/decisions.
- To explore factors which promote and hinder engagement with the maternal health programme.

Methodology

The conceptual framework is based on the importance of community engagement in improving maternal health. Ethical approval was gained. A qualitative study design, with a Grounded Theory approach was utilised. This approach was chosen to gain understanding of social processes and ways in which the experience of pregnancy and childbirth occurs. The processes inherent in the method enables emergence of important theoretical concepts. A theoretical sampling strategy has been employed. Data collection involves a series of in-depth interviews and focussed observations, with women, family members, village leaders and health professions. Sample size is determined by data saturation.

Analysis and Result

Interviews are recorded, transcribed verbatim and subjected to a constant comparison analysis, following Grounded Theory principles. Data collection is ongoing and will be complete by June 2012. To date, interviews have been conducted with 16 women, 10 family members, 2 midwives, 2 kaders, 1 student midwife and 1 village leader. Four observations have been conducted at private clinics, health facilities and in the community.

Implications

Understandings of social processes related to maternal health can assist in informing strategies to improve the quality of maternal health care in Aceh Indonesia.

Opinions of Antenatal Care and Barriers to Access for Internally Displaced Women, Ciudad Bolívar, Bogotá, Colombia 2011: a Qualitative Study.

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Over 3.5 million people have been forcibly displaced in Colombia as a result of the internal violence. The displaced suffer significant deterioration in health and quality of life, particularly women who are over-represented. This small qualitative study investigates the access to antenatal care (ANC) for displaced-women living in Ciudad Bolívar, the main area of settlement in the capital, and attempts to identify potential barriers to access. A sample of 12 displaced women and health workers were recruited and interviewed using a semi-structured guide. An additional focus group of health workers was conducted. All of the displaced women were pregnant at the time of interview or had been within the past 18 months and all participating health workers worked regularly with displaced-women. Thematic analysis identified a number of key themes that influence displaced women's access to ANC in Ciudad Bolívar. Significant barriers to access included: identification document requirements; insurance affiliation; transport and medication costs; geographical distance; discrimination; and cultural factors. The inequity in access to health services and barriers to access found were consistent with those described in previous research. While limitations are acknowledged, the findings have implications for interventions to improve displaced women's access to ANC. Most importantly, documentation requirements must be reduced and coordination between health and non-health facilities could aid early identification of displaced-women in need of ANC. There is also scope for further research into cultural attitudes towards pregnancy and ANC amongst displaced-women.

Title: Giving me hope: women's reflections on a breastfeeding peer support service

Gill Thomson

Background: Despite the recognised superiority of breastfeeding for the growth and development of infants, many women do not breastfeed their infants. One of the main reasons identified for breastfeeding discontinuation relates to a lack of support in the post-natal period. A key intervention to help improve breastfeeding and exclusive breastfeeding is the provision of breastfeeding peer support,; with the World Health Organization (WHO) recommending implementation of breastfeeding peer support projects (WHO 2003). Nationally, and globally there is a lack of consensus or clarity as to how breastfeeding peer support should be provided; together with a paucity of qualitative research undertaken to explore women's experiences of breastfeeding peer support

Methodology: As part of an evaluation to a UK based breastfeeding peer support service (Star Buddies service), 46 women were interviewed to explore why the women chose to breastfeed their infants; the numbers and types of support received by the Star Buddies; the perceptions of the support; whether there were any benefits of engagement with the peer support programme; and suggestions and recommendations for future peer support provision. During initial reading of the women's transcripts, a recurrent theme emerged in relation to the concept of 'hope'. Women directly or indirectly described how the Star Buddies had promoted and developed hope for their infant-feeding expectations and breastfeeding goals. Through consideration and application of the behavioural manifestations of hope described by Morse & Doberneck (1995) and insights into the health care-based strategies to augment hope (*The Hope Assessment Guide*; Penrod & Morse 1997), the women's data was re-interpreted to identify the strategies that peer supporters utilised to augment hopefulness for women's breastfeeding goals

Findings: The theoretical and practice-based findings offer insights into how the breastfeeding peer supporters provided realistic assessments across varying situational contexts, formed strategies and plans to help women overcome any obstacles, made women aware of any negative outcomes, mobilised external and personal resources to facilitate goal attainment, provided evaluations and feedback on women's (and infants') progress, and through praise, reassurance and instilling calm, the peer supporters helped women to focus their energy to achieve their breastfeeding goals.

Conclusion: These findings have implications within a national and global context of breastfeeding support. Strategies of realistic and repeated assessments, ongoing development and formulation of plans, flexible access to support, promotion of support networks, and ongoing feedback, praise and reassurance should be integrated into breastfeeding peer support provision.

Joint Hypermobility and Pelvic Floor Disorders

Purnima Upadhyaya

Objective: To determine the association between joint hypermobility, lower urinary tract symptoms and pelvic organ prolapse in women, and its relationship with urodynamic diagnosis.

Methods: 270 women were recruited from a tertiary urogynaecological centre having undergone conventional or video urodynamic investigations as part of their assessment for lower urinary tract symptoms or pelvic organ prolapse. Patients were assessed for prolapse at examination prior to urodynamics and were assessed for joint hypermobility using a validated five-item questionnaire.

Results: The prevalence of joint hypermobility was 31%, higher than in previous population representative surveys. As expected there was a negative association between joint hypermobility and age. There was no association with either symptomatic or urodynamically confirmed stress incontinence and joint hypermobility. There was a trend towards higher prolapse staging in women with joint hypermobility, which was significant after adjustment for age as a confounder (OR=1.26, 95% CI 1.06-1.46, $p<0.05$). The joint hypermobility score demonstrated adequate test-retest reliability in this population.

Conclusions: Women with lower urinary tract symptoms or pelvic organ prolapse, have a high prevalence of joint hypermobility relative to the general population. Although we did not detect associations with specific lower urinary tract symptom complexes, women with stage II or above prolapse were more likely to report joint hypermobility. These findings are consistent with current understanding of collagen polymorphisms as central to the pathophysiology of both conditions. Women with joint hypermobility should be proactively screened for pelvic floor disorders.

Metformin for the treatment of diabetes in pregnancy: better outcomes for both mother and baby

Abstract:

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Introduction: Up to 20% of women fail to achieve glycaemic targets in pregnancy with dietary and lifestyle modification techniques and are subsequently treated with insulin as recommended by NICE. Metformin is advised but currently unlicensed for use in pregnancy.

Method: Twenty women were identified retrospectively as being treated with Metformin for diabetes in pregnancy, with an average age of 31, and an average BMI of 32kg/m². 85% were of white Caucasian origin and 15% of South Asian origin.

Results: Of the 20 patients included, 4 suffered from Type 2 Diabetes Mellitus. The remaining 16 were diagnosed with Gestational Diabetes. The average HbA1c at diagnosis was 6.0%. The median daily Metformin dose required to achieve glycaemic targets was 1500mg. Tolerability was found to be high –only 2/20 patients required alternative therapy. Insulin was given as a supplemental treatment to 35% of patients on Metformin at a median gestation of 30 weeks. 30% required steroids for foetal lung maturity. A total of 25% of women required an insulin sliding scale for delivery. 50% of deliveries were vaginal and 50% were caesarean section. In women treated with Metformin alone, only one case of neonatal hypoglycaemia occurred. No neonatal mortality was found. The average baby weight was 3.1 Kg –a difference of 0.675Kg in the group requiring supplemental insulin and the group treated with Metformin alone.

Conclusion: Metformin was not found to be associated with adverse maternal or neonatal outcomes, but rather more favorable for both mother and baby.

A comparison of clinical officers with medical doctors on outcomes of caesarean section in the developing world: meta-analysis of controlled studies

Amie Wilson, David Lissauer, Shakila Thangaratinam, Khalid S KhanChristine MacArthur, Arri Coomarasamy

ABSTRACT

Objective To review the effectiveness and safety of clinical officers (healthcare providers trained to perform tasks usually undertaken by doctors) carrying out caesarean section in developing countries compared with doctors.

Design Systematic review with meta-analysis.

Data sources Medline, Embase, Cochrane Central Register of Controlled Trials, CINAHL, BioMed Central, the Reproductive Health Library, and the Science Citation Index (inception-2010) without language restriction.

Study selection Controlled studies.

Data extraction Information was extracted from each selected article on study characteristics, quality, and outcome data. Two independent reviewers extracted data.

Results Six non-randomised controlled studies (16 018 women) evaluated the effectiveness of clinical officers carrying out caesarean section. Meta-analysis found no significant differences between the clinical officers and doctors for maternal death (OR 1.46, 95% CI 0.78 to 2.75; $P=0.24$) or for perinatal death (1.31, 0.87 to 1.95; $P=0.19$). The results were heterogeneous, with some studies reporting a higher incidence of both outcomes with clinical officers. Clinical officers were associated with a higher incidence of wound infection (1.58, 1.01 to 2.47; $P=0.05$) and wound dehiscence (1.89, 1.21 to 2.95; $P=0.005$). Two studies accounted for confounding factors.

Conclusion Clinical officers and doctors did not differ significantly in key outcomes for caesarean section, but the conclusions are tentative owing to the nonrandomised nature of the studies. The increase in wound infection and dehiscence may highlight a particular training need for clinical officers.

Effectiveness of strategies incorporating training and support of traditional birth attendants on perinatal and maternal mortality: meta-analysis

Amie Wilson, Ioannis D Gallos, Nieves Plana, David Lissauer, Khalid S Khan, Javier Zamora, Christine MacArthur, Arri Coomarasamy.

Abstract

Objective To assess the effectiveness of strategies incorporating training and support of traditional birth attendants on perinatal, neonatal, and maternal death in developing countries.

Design Systematic review with meta-analysis.

Data sources Medline, Embase, the Allied and Complementary Medicine database, BNI, Cochrane Library, CINAHL, BioMedCentral, PsycINFO, LILACS, African Index Medicus, Web of Science, RHL, and SCI (from inception to April 2011). Search terms were “birth attend*”, “traditional midwife”, “lay birth attendant”, “dais”, and “comadronas”.

Review methods We selected randomised and non-randomised controlled studies with outcomes of perinatal, neonatal, and maternal mortality. Two independent reviewers undertook data extraction. We pooled relative risks separately for the randomised and non-randomised studies, using a random effects model.

Results We identified six cluster randomised controlled trials (n=138 549) and seven non-randomised controlled studies (n=72 225) that investigated strategies incorporating training and support of traditional birth attendants. All six randomised controlled trials found a reduction in adverse perinatal outcomes; our meta-analysis showed significant reductions in perinatal (RR 0.76, 95% CI 0.64 to 0.88, P<0.001) and neonatal death (0.79, 0.69 to 0.88, P<0.001; 98, 66 to 170). Meta-analysis of the non-randomised studies also showed a significant reduction in perinatal (0.70, 0.57 to 0.84, p<0.001; 48, 32 to 96) and neonatal mortality (0.61, 0.48 to 0.75, P<0.001; 96, 65 to 168). Six studies reported on maternal mortality and our meta-analysis showed a non-significant reduction (RR 0.79, 0.53 to 1.05, P=0.12; non-randomised studies, 0.80, 0.44 to 1.15, P=0.26).

Conclusion Perinatal and neonatal deaths are significantly reduced with strategies incorporating training and support of traditional birth attendants.

Word Count: 249 excluding titles and authors

