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Safer Maternity Care

A quarterly e-magazine promoting safety in maternity services

From the editor

When women are asked what matters most to them in childbirth, most of them say 'safety'. Safety in maternity services has been the focus of a number of national enquiries and reports in the last few years, and remains topical. For 10 years the Endowment for Training and Education in Reproduction (ENTER) has organised an annual conference addressing issues of safety in women's health. Presentations from the conferences are available on our web site **(www.womenshealthcare.co.uk).**

With this quarterly newsletter we take a step further to disseminate news and features aimed at promoting safer maternity care.

Patient safety

Safety is defined as 'the avoidance, prevention and amelioration of adverse outcomes or injuries stemming from the process of health care'

(Charles Vincent, BMJ 2007;334:51).

Safety in maternity services:

what do staff think?

A total of 591 health professionals (mostly midwives but also included obstetricians, neonatal nurses, general practitioners, managers, and paediatricians) were asked to identify aspects of maternity care that were less safe than they should be, and to offer solutions.

They identified the following:

- The increasing social and medical complexity of the pregnant population
- Low staffing levels, especially the lack of experienced midwives
- Inappropriate skill mix
- Inadequate training and education
- Lack of resources
- The increasing medicalisation of birth
- Poor management
- Low staff morale
- Reconfiguration

They suggested the following solutions:

- More staff
- Better teamwork
- Improved training
- Learning from incidents
- More resources
- Better guidelines
- Better management

For details, see

Smith et al, Health-care professionals' views about safety in maternity services: a qualitative study. Midwifery 2009; 25:21–31.

Does your antenatal education include advice on dental care?

Pregnant women with untreated gum disease may have more at stake than just their teeth. It has previously been shown that the risks of preterm delivery, stillbirth and neonatal and perinatal deaths increase with the severity of periodontal disease. Now, for the first time, bacteriium from a mother's gums has been linked to an infection in a full-term stillborn baby. Plaque samples from the woman's teeth were found to be positive for the exact same strain of the oral bacteria found in the dead baby's stomach and lungs.

Postmortem microbial studies of the baby found Fusobacterium nucleatum in the lungs and stomach. Using DNA cloning technologies, it was found that the bacterium in the mother's mouth matched the bacterium in the baby's infected lungs and stomach. Vaginal and rectal swabs did not show the presence of F. nucleatum. Earlier studies by the same researchers showed that F. nucleatum could spread from the bloodstream to the placenta in mice.

THM: For most women, gum bleeding in pregnancy is benign and they should be reassured. For others, it may be a sign of severe disease and they need dental assessment. Women should be advised of the importance of maintaining good dental health before and during pregnancy. Periodontal disease should be excluded in cases of 'unexplained' stillbirth.

For further details, see

Han et al, Term Stillbirth Caused by Oral Fusobacterium nucleatum. Obstetrics and Gynecology, 2010; 115 (supplement): 442
DOI: 10.1097/AOG.0b013e3181cb9955

Antibacterial medication use in first trimester and risk of birth defects

A case-control study in the US showed that sulfonamides significantly increased the risk of anencephaly, hypoplastic left heart syndrome, coarctation of the aorta, choanal atresia, transverse limb deficiency and diaphragmatic hernia. Nitrofurantoins, commonly used in the treatment of urinary tract infection, were associated with anophthalmia or microphthalmos, hypoplastic left heart syndrome, atrial septal defects, and cleft lip with cleft palate. Reassuringly, penicillins, erythromycins, and cephalosporins, although used commonly by pregnant women, were each associated with only 1 or 2 cases of birth defect in this population study.

THM: Avoid nitrofurantoin in the first trimester of pregnancy.

For details see

Crider KS et al, Antibacterial medication use during pregnancy and risk of birth defects: National Birth Defects Prevention Study. Arch Pediatr Adolesc Med. 2009;163:978-85.

Progress made on Group B streptococcus vaccine

A Phase II clinical study has indicated that a vaccine to prevent Group B Streptococcus (GBS) infection is possible. Researchers at the University of the Pittsburgh found that the vaccine used in the study can cause a modest but sustained reduction in genital and gastrointestinal GBS bacterial colonization. Although the vaccine had a modest effect on bacterial colonization (36 percent in the vagina and 43 percent in the rectum), it provided some protection over the entire period of the study. The GBS vaccine also was found to be safe and well-tolerated, and elicited a strong immune response.

The next step to prevent GBS disease would be to develop vaccines that provide protection against a broader range of GBS types and test them in clinical trials.

Although intrapartum antibiotic prophylaxis for GBS is highly effective, the broad use of antibiotics in pregnant women is of concern. Many women are allergic to penicillin and penicillin-type antibiotics that are the preferred treatment, and GBS is increasingly resistant to other common antibiotics.

Higher stillbirth rates with independent midwives?

Andrew Symon and team from the University of Dundee have reported that women employing an independent midwife were more likely to experience a stillbirth or neonatal death than pregnant women using NHS services – 1.7% compared to 0.5%. They studied 7,214 women who used NHS birth services between 2002 and 2005, and 1,462 who employed the services of a member of the Independent Midwives Association. Health outcomes across a range of other variables (such as spontaneous onset of labour, normal delivery, use of pharmacological analgesia and breastfeeding) were significantly better for women accessing an independent midwife.

Symon et al, BMJ 2009;338:b2060

International perspectives

To see how various organisations are working together to improve maternity care in California, visit the website of the California Maternal Quality Care Collaborative

(www.cmqcc.org)

Implementing solutions: the King's Fund programme

The King's Fund service improvement project *Safer Births* aims to improve the safety of maternity care through prioritisation of team working and communication; staffing and training; leadership; and the use of information and guidance. The 12 participating units will have regular networking sessions, receive expert support, and use a dedicated website to exchange information. The units have identified a focus for their improvement activity and are piloting and implementing safety tools and approaches. They will be evaluating their impact and sharing learning with other trusts. The participating trusts are Barts and The London trust, Derby Hospitals foundation trust, Ipswich Hospital trust, Kingston Hospital trust, Medway foundation trust, Mid Cheshire Hospitals foundation trust, Mid Essex Hospital Services trust, North Middlesex University Hospital trust, Northampton General Hospital trust, Northern Devon Healthcare trust, South Warwickshire General Hospitals trust and Stockport foundation trust.
(www.kingsfund.org.uk)

Implementing solutions: the Health Foundation programme

The Health Foundation has commenced a programme of work to improve the safety and reliability of maternity care through better teamwork. The two-year programme, which commenced in June 2009, will develop clinical leadership skills, team practices and improvement capability in four UK sites:

Calderdale and Huddersfield NHS Trust,

Luton and Dunstable NHS Foundation Trust,

NHS Tayside and

North Bristol NHS Trust.

It aims to improve not only teamwork practices but also clinical outcomes.
www.health.org.uk

Care Quality Commission calls for accelerated improvements at Milton Keynes maternity unit

The Care Quality Commission (CQC) has said Milton Keynes Hospital NHS Foundation Trust must accelerate improvements to its maternity services and improve planning to meet long-term demand.

CQC said temporary measures are in place to ensure there are enough midwives to provide safe and effective care for mothers and babies.

However, these are not sustainable and CQC said the trust must concentrate on plans to recruit more permanent midwives and open more beds permanently.

It also said the trust must plan better for emergency situations, such as complicated births or staff shortages, and ensure that staff know what to do in these circumstances.

CQC checked progress in implementing recommendations made in 2008 by the previous regulator. It conducted inspections of the maternity unit in September 2009, reviewed a range of documentation and interviewed staff.

CQC said the trust has made important progress, such as improved leadership, supervision and training and 24 hour access to a dedicated obstetrics theatre.

They've done it; you can too…

According to reports reaching SMC, King's College Hospital Foundation Trust has aligned obstetricians' and midwives' shifts, eliminating staggered shift changes which are not conducive to teamworking and efficient handover. Staff have daily multi-disciplinary meetings on the Labour Ward at shift handover so everyone knows what is happening

End note

What constitutes quality in maternity services?
A study in the 1990s which compared the perceptions of women and midwives showed that similarities included beliefs about the importance of the relationship between the two parties, desired attributes of staff, and the environment of care. Key differences included underestimating the importance of information antenatally and postnatally, the importance of continuity during labour, need for control and confidence in adjusting to the maternal role, and involvement of the woman's partner in the delivery of care. A decade later, has this changed? Send your views (in brief) to the editor. A selection of responses will be published in future editions of SMC.

Safer Maternity Care (SMC) is published four times a year by the Endowment for Training and Education in Reproduction (ENTER).

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