Safer Maternity Care

Issue 4 / December 2010

SMC is published by the Endowment for Training and Education in Reproduction (www.womenshealthcare.co.uk).
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A quarterly e-magazine promoting safety in maternity services

From the editorial suite

Season's greetings to all our readers. Thank you for the huge support we have had in the first year of publication. We hope to wax stronger next year. Readers' feedback, safety tips and improvement stories are welcome

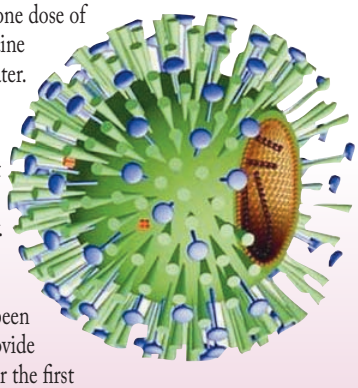
H1N1 winter flu: Urgent advice for providers of maternity services

Following a rise in influenza activity, the Department of Health has issued urgent advice for providers of maternity services. The influenza A H1N1 (2009) and B are the predominant viruses this season, and pregnant women are considered a high-risk group for severe H1N1 (2009) infection. Increased severity from influenza H1N1 (2009) infection in pregnancy is associated with pre-existing asthma, maternal smoking and obesity. The mortality rate is several times higher than that for non-pregnant women in the same age group. As in every year, the seasonal influenza vaccine for 2010-2011 contains three different flu virus strains. One of these generates immunity to the H1N1 (2009) flu virus

Pregnant women in the high-risk groups for severe and complicated flu should be actively encouraged to have this trivalent vaccine.

All pregnant women who have not previously received the pandemic flu vaccine (during the pandemic of 2009-2010) should also be encouraged to have one dose of the seasonal flu vaccine, to protect them from infection with the influenza H1N1 (2009) virus.

The exception to this is those pregnant women who are immunocompromised. In this situation, if they have not previously received monovalent H1N1 vaccine then one dose of monovalent vaccine should be offered followed by one dose of seasonal vaccine four weeks later.



It is safe to give seasonal flu vaccine at any stage of pregnancy. Vaccination of pregnant women has been shown to provide protection for the first 4-6 months of life of the infant, through transfer of maternal antibodies.

Health professionals too…

All healthcare professionals working in maternity services should be actively encouraged to accept vaccination against seasonal flu, offered through their employer's Occupational Health Service. This will protect both staff from infection and the pregnant women from exposure to infected staff [Editor's note: I've had mine]

For details, see

http://www.rcm.org.uk/college/policy-practice/guidelines/rcm-guidance-notes-}swine-influenza-h1n1/

http://www.rcog.org.uk/news/swine-flu-alerts

Obesity carries a higher risk of pregnancy problems, CMACE report confirms

The Centre for Maternal and Child Enquiries (CMACE) has just published the findings of a survey which showed that pregnancy outcomes for severely obese women are poorer when compared to the general population.

About 5% of the UK maternity population were severely obese. Only 55% of women with a BMI 35+ gave birth naturally. The caesarean section rate for singleton babies was 37%, which is 1.5 times higher than the rate in the general maternity population.

- The stillbirth rate in women with a BMI 35+ (8.6 per 1000 singleton births) was twice as high as the overall national stillbirth rate (3.9/1000 singleton births).
- Intrapartum stillbirths were three times higher than the overall national rate in England, Wales and Northern Ireland.
- Obese women were at least four times more likely to suffer from primary postpartum haemorrhage.
- They were also more at risk of developing venous thromboembolism (VTE) but fewer than 50% of the women at moderate or high risk of VTE were offered appropriate prophylactic treatment.

Significantly, each BMI unit increment was associated with a 6% increased risk of stillbirth and a 2-3% increased risk of induction of labour, caesarean section and primary postpartum haemorrhage – which means that even if they are unable to achieve a normal BMI, any reduction in BMI could help reduce the risk of complications.

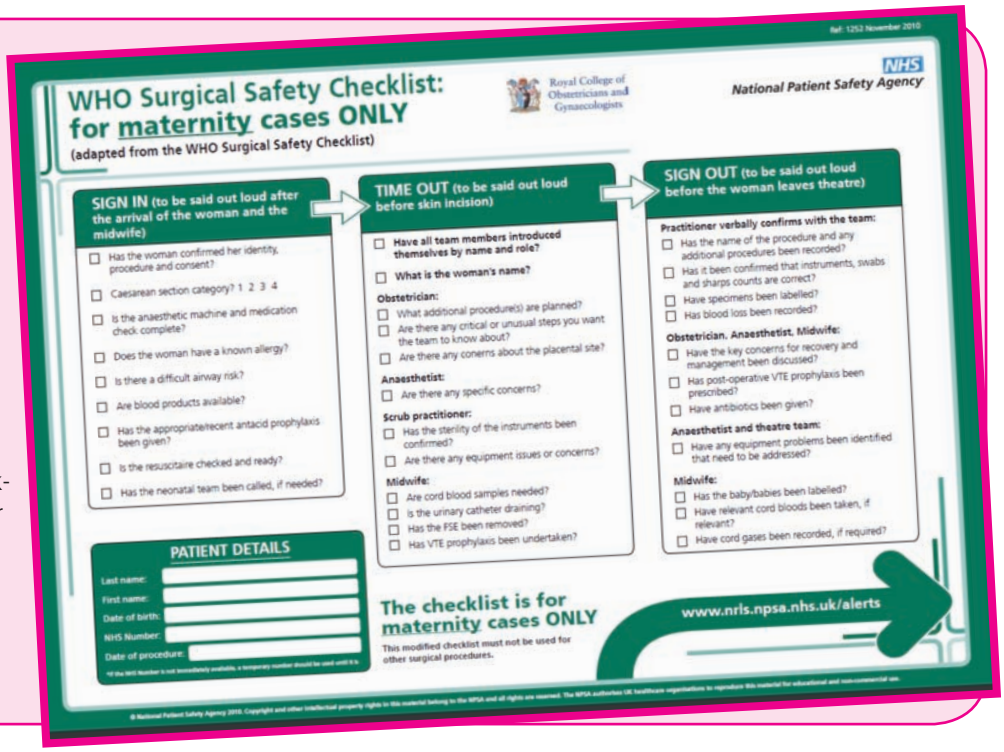
For details, see

Centre for Maternal and Child Enquiries (CMACE). Maternal obesity in the UK: Findings from a national project. London: CMACE, 2010

Surgical Safety Checklist for Maternity services

The National Patient Safety Agency (NPSA), working in collaboration with the Royal College of Obstetricians and Gynaecologists, has adapted the WHO Surgical Safety Checklist for use in maternity units.
The NPSA has openly encouraged further local adaptation of the checklist. This is welcome, as there is likely to be disquiet about some elements of the published checklist. It is arguable, for example, that a number of items under 'TIME OUT' should more appropriately be checked under 'SIGN IN'.

Has your unit adapted this checklist? If so, how about sharing your version with SMC readers?



Ref: 1252 November 2010

WHO Surgical Safety Checklist: for maternity cases ONLY

(adapted from the WHO Surgical Safety Checklist)

Royal College of Obstetricians and Gynaecologists

NHS National Patient Safety Agency

SIGN IN (to be said out loud after the arrival of the woman and the midwife)

- Has the woman confirmed her identity, procedure and consent?
- Caesarean section category? 1 2 3 4
- Is the anaesthetic machine and medication check complete?
- Does the woman have a known allergy?
- Is there a difficult airway risk?
- Are blood products available?
- Has the appropriate/recent antacid prophylaxis been given?
- Is the resuscitaire checked and ready?
- Has the neonatal team been called, if needed?

TIME OUT (to be said out loud before skin incision)

- Have all team members introduced themselves by name and role?
- What is the woman's name?

Obstetrician:
- What additional procedure(s) are planned?
- Are there any critical or unusual steps you want the team to know about?
- Are there any concerns about the placental site?

Anaesthetist:
- Are there any specific concerns?

Scrub practitioner:
- Has the sterility of the instruments been confirmed?
- Are there any equipment issues or concerns?

Midwife:
- Are cord blood samples needed?
- Is the urinary catheter draining?
- Has the FSE been removed?
- Has VTE prophylaxis been undertaken?

SIGN OUT (to be said out loud before the woman leaves theatre)

Practitioner verbally confirms with the team:
- Has the name of the procedure and any additional procedures been recorded?
- Has it been confirmed that instruments, swabs and sharps counts are correct?
- Have specimens been labelled?
- Has blood loss been recorded?

Obstetrician, Anaesthetist, Midwife:
- Have the key concerns for recovery and management been discussed?
- Has post-operative VTE prophylaxis been prescribed?
- Have antibiotics been given?

Anaesthetist and theatre team:
- Have any equipment problems been identified that need to be addressed?

Midwife:
- Has the baby/babies been labelled?
- Have relevant cord bloods been taken, if relevant?
- Have cord gases been recorded, if required?

PATIENT DETAILS

Last name:
First name:
Date of birth:
NHS Number:
Date of procedure:

*If the NHS Number is not immediately available, a temporary number should be used until it is.

The checklist is for maternity cases ONLY

This modified checklist must not be used for other surgical procedures.

www.nrls.npsa.nhs.uk/alerts

Hypothermia as a sign of sepsis in the newborn

Doctors and midwives commonly look for fever as a sign of sepsis but in newborn babies hypothermia is a more common sign. The National Patient Safety Agency (NPSA) has drawn the attention of care providers to the risk of failing to recognise this.

The risk was highlighted by an incident involving a baby born at 37 weeks gestation following expectant management of pre-labour rupture of the membranes (35 hours). His mother became unwell with a fever and the infant had some problems in maintaining his temperature.
He collapsed at 24 hours of age and died a few days later from complications of septicaemia.
A review identified that the infant's inability to maintain his temperature had not been recognised as a potential sign of infection.
Signs of early-onset sepsis in newborn babies are often vague and therefore a greater level of vigilance is required to ensure the monitoring of infants who are identified as having a higher risk of developing neonatal sepsis. These include infants born to mothers with the following risk factors:

- Group B Streptococcus in this pregnancy
- chorioamnionitis
- fever during labour
- early post partum pyrexia
- intravenous antibiotics
- prolonged rupture of membranes
- preterm labour.

A search of the National Reporting and Learning System (NRLS) identified 22 further relevant incidents that occurred over a three year period. All of these infants had a low temperature and there was evidence of, or concerns about, sepsis. Themes identified included environmental issues leading to the infant getting cold, a failure to review an infant, a delay in checking an infant's temperature or prescribing antibiotics and a failure to document prolonged ruptured membranes. Although the review suggested that these infants did not appear to suffer any lasting harm, there is potential for a more serious outcome.

See NPSA 'Signal' issued 29 October 2010
http://www.nrls.npsa.nhs.uk/resources/type/signals/?entryid45=83754

Shortage of midwives would place babies at risk, warns the RCM

Professor Cathy Warwick, General Secretary of the Royal College of Midwives has accused the Government of breaking its promise to increase staff to ensure labour wards were run safely.

Prof Warwick was 'very concerned' that the quality of care will fall and that safety could be compromised as many staff were being axed despite a rising birth rate.

At the general election David Cameron had pledged to increase the number of midwives by 3,000 if elected but it now appears that that up to one in three maternity units is having to cut staff. The number of live births in England rose by 19 per cent between 2001 and 2009 to approximately 700,000 a year.

…and leaves postnatal mothers isolated

A report by the National Childbirth Trust (NCT) has blamed staff shortages for increasing numbers of postnatal mothers feeling isolated. The charity's poll of more than 1,200 first time mothers found 59 per cent did not get the "emotional support" they felt they needed after giving birth – compared with 51 per cent in a similar survey a decade ago. Women who had under gone a caesarean section were the least happy about their experience.

Asked about the 24 hours following birth, 66 per cent said they had not received enough support, compared to 57 per cent of those who had a natural labour in hospital, and 24 per cent of those who gave birth at home. Mothers who had gone through traumatic labours said they had been left to cry themselves to sleep, while others said overstretched midwives had no time to offer a kind word of reassurance. In total, 42 per cent said there were not enough midwives to care for them, compared with 33 per cent, when the question was posed in 2000.

Snapshot review: Fetal Scalp Blood Sampling

The appropriate use of fetal scalp blood sampling (FBS) in labour could not only reduce the rate of Caesarean sections but also facilitate recognition and speedy delivery of babies at risk of perinatal brain injury. FBS should usually be done if a cardiotocograph is pathological.

Doing an FBS

- The procedure should be explained to the woman (and partner, if applicable), including the possible outcomes
- Consent should be obtained
- Avoid supine hypotension; a left lateral position is usually preferable
- Watch for continued bleeding from the puncture site [see Box]

When not to do FBS

- When the baby is premature (<34 weeks)
- When the baby has or may have a bleeding disorder, e.g haemophilia
- When the mother has an infection which could be transmitted to the baby such as hepatitis virus, HIV or herpes simplex virus
- When acute compromise (e.g. prolonged bradycardia for >3 mins) mandates immediate delivery of the baby

What to do after FBS

- Dispose of sharps appropriately
- Explain result and management to woman/couple
- Document result (see below)
- If vaginal bleeding and/or fetal tachycardia occur, suspect continued bleeding from scalp
- Obtain paired cord blood at delivery

Post-FBS management

pH ≥7.25	Normal. Repeated no more than 1 hour later if the CTG remains pathological
pH 7.21 - 7.24	Borderline. Repeat FBS within 30 minutes or consider delivery if rapid fall since last sample.
pH ≤7.20	Deliver the baby

CNST requirements

The Clinical Negligence Scheme for Trust (Maternity) standards require maternity units to produce, implement and monitor local guidelines for the management of FBS and cord pH, which as a minimum must include:

- when FBS should be undertaken
- the documentation of FBS results in the health record
- the requirement and timing of repeated FBS with appropriate documentationthe process for referral to a consultant obstetrician where a third FBS is considered necessary
- \when paired cord samples should be taken
- the documentation of paired cord sample results in the health record
- the process for audit, multidisciplinary review of audit results and subsequent monitoring of action plans.

At St Mary's Hospital, Manchester, a purpose-designed sticker is used to document the FBS procedure, result and management.
This promotes complete documentation and facilitates audit.

Organisational issues

- Is access to the gas analyser restricted to those who are trained and competent in its use?
- Does your unit have measures in place for regular quality control and quality assurance of the gas analyser?
- Are there formal back-up arrangements in the event of a breakdown or other problem with the gas analyser?

Continued bleeding after FBS

This is not common but it may well be that most cases go unrecognised because they have not been severe enough. In severe cases reported in the literature, the baby has had profound anaemia, haemorrhagic shock and, in some cases, neonatal death. In some but not all cases, the bleeding has been due to an unrecognised coagulopathy.

Obstetricians and midwives should be alert to the possibility of continued bleeding after FBS. It is best to avoid multiple punctures and ensure that bleeding has stopped before the feto-scope is withdrawn.

Further reading:

Sabir H et al, Perinatal hemorrhagic shock after fetal scalp blood sampling. Obstet Gynecol. 2010;115(2 Pt 2): 419-20.

Jaiyesimi RK, Hickey WP Fetal haemorrhage after fetal scalp blood sampling. Lancet. 1990;336(8718):819-20

Reti L et al, Excessive bleeding from fetal scalp blood sampling. Austr NZ J Obstet Gynaecol 1980;20: 55-57

750

The approximate number of pregnant women in England and Wales who had to travel to other units, up to 100 miles away, to give birth last year.

Protecting patient safety through skilful anticipation

A study of maternity nurses has shown that they perceive 'skilful anticipation' as the prime route to prevention of patient safety incidents and enhancement of user experience. Skilful anticipation involves (a) understanding the current situation and (b) active consideration of the situation may evolve in the future and (c) determining what needs to be done in preparation for what may happen. It requires integration of experience, clinical and technical know-how, and knowledge of both the individual woman and the local context. Seeing the whole picture, preparing one's self and the environment, knowing the woman, and knowing the staff were identified as conditions promoting skilful anticipation.

A Lyndon. Skilful anticipation: maternity nurses' perspectives on maintaining safety. Qual Saf Health Care 2010 19: 1-5 doi: 10.1136/qshc.2007.024547

Where does the money go?

Achieving CNST Maternity Level 3 saves the Trust about £¼m in premium which should, ideally, be reinvested in quality and safety of care. If your Trust has achieved Level 3 and there is evidence of how this money has been reinvested, how about sharing that with SMC readers?

Variation in adjusted caesarean section rates among Trusts

A study based on administrative data has found there is large variation in caesarean rates around England and most of the differences are due to decisions taking in emergency situations. The research published in the BMJ found there were 620,604 births of single babies in 2008 with 24 per cent delivered by caesarean section. When the mothers' characteristics and clinical factors were taken into account the rate varied from 15 per cent in some hospitals to almost one third in others. There was little variation in adjusted rates of elective caesarean section. NHS trusts, strategic health authorities and commissioners have been urged to examine the reasons for variation in caesarean section in their regions and how the consistency of care for pregnant women can be improved

Bragg F et al. Variation in rates of caesarean section among English NHS trusts after accounting for maternal and clinical risk: cross sectional study. BMJ. 2010;341:c5065. doi: 10.1136/bmj.c5065.

Following our feature on retained swabs in the August issues, we received this feedback from Dr Paul Fogarty, FRCOG:

Feedback: Retained swabs revisited

"Like every unit we have struggled to sort this one out. I won't bore you with the details but all staff are very poor at counting swabs and blame all sorts of things. We have got round this by banning small raytecs from our delivery & suture trolleys. Now we supply 5 large wipes with tails. Easy to count to five and Very difficult to lose even if you stuff it into the vagina. Since we introduced this 3 years ago no lost swabs".

In Manchester, small swabs have also been replaced by large ones and the same has been done in London. It is worth noting, however, that this may not necessarily be the answer.

The NPSA notes that the reported incidents on their database include retention of large swabs (up to 30cm x 30cm).

Newsletter Design & Layout, Clinical Photography and Medical Illustration Services, Central Manchester University Hospitals NHS Foundation Trust