Caesarean Section

Background

The rate of Caesarean section has risen from about 3% in the 1950s to 15% in 1994-1995. While there is no "perfect" Caesarean rate it should be remembered that this is a major surgical procedure with maternal mortality five times that of vaginal birth.

Counselling

It is important that this is non-directive.

When counselling women of the risks of Caesarean section:

- Pregnant women should be given evidence-based information on caesarean section (CS)
- About 1 in 4 will have a CS
- Explain indications, risks and benefits *within the current clinical context*, what the procedure involves, and implications for future pregnancies
- Difference between CS in Labour and when not in labour
- Risks / Benefits are different for Mother compared to Baby
- There are Surgical and Anaesthetic Risks
- The true risk of elective Caesarean section is difficult to ascertain from the literature.
- The maternal mortality for Caesarean section is of the order of 1 in 10,000

Planning Caesarean Section.

It is appropriate to Discuss / Offer planned CS to women with:

- A term singleton breech (if external cephalic version is contraindicated or has failed)
- A post dates transverse lie (if external cephalic version is contraindicated or has failed)
- A twin pregnancy with breech first twin
- HIV (consider whole picture including viral load and presence of Hep C)

Do <u>not</u> routinely offer planned CS to women with:

- Twin pregnancy (If first twin is cephalic at term)
- Preterm birth
- A “small for gestational age” baby
- Hepatitis B Virus
- Hepatitis C Virus
- Recurrent genital herpes at term

"Maternal request" for CS without obvious Obstetric indications

- Maternal Request is not on its own an indication for CS
- Explore and discuss specific reasons / issues raised by the woman
- Discuss benefits and risks of CS in context
- Offer counselling if fear of childbirth
- The clinician can decline a request for CS, but should offer referral for a second opinion.

Basic information:

Planning place of birth

Inform healthy pregnant women with anticipated uncomplicated pregnancies that:

- Home birth reduces CS
- Birth in a ‘midwifery-led unit’ does not affect CS rate

Methods that have been shown to reduce CS rates

- Involve consultant obstetricians in CS decision
- Offer external cephalic version if breech from 36 weeks
- Facilitate continuous support during labour
- Offer induction of labour beyond 41 weeks
- Use a partogram with a 4-hour action line in labour
- Do fetal blood sampling before CS for abnormal cardiotocograph in labour
- Support women who choose vaginal birth after caesarean section (VBAC)

Factors that have NO influence on likelihood of CS

- Walking in labour
- Non-supine position during the second stage of labour
- Immersion in water during labour
- Epidural analgesia during labour
- Active management of labour or early amniotomy to augment the progress of labour
- Raspberry leaves during labour.

Summary of the effects of CS compared with vaginal birth for women and their babies

Increased with CS	No difference after CS	Reduced with CS
• Abdominal pain • Bladder injury • Ureteric injury • Need for further surgery • Hysterectomy • Intensive therapy/high dependency unit admission • Thromboembolic disease • Length of hospital stay • Readmission to hospital • Maternal death • Antepartum stillbirth in future pregnancies • Placenta praevia • Uterine rupture • Not having more children • Neonatal respiratory morbidity	• Haemorrhage • Infection • Genital tract injury • Faecal incontinence • Back pain • Dyspareunia • Postnatal depression • Neonatal mortality (except breech) • Intracranial haemorrhage • Brachial plexus injuries • Cerebral palsy	• Perineal pain • Urinary incontinence • Uterovaginal prolapse

Vaginal Birth After CS

Maternal request for CS in a woman with previous CS

It is important to remember that many requests for elective CS in women with a previous CS are informed by maternal choice based on previous positive or negative experiences of CS or complicated vaginal birth. The risks and benefits should be discussed along with the risk of uterine rupture and associated perinatal mortality and morbidity.

Women who want VBAC should be supported and:

- Be informed that uterine rupture is very rare but increased with VBAC (about 1 per 10,000 repeat CS and 50 per 10,000 VBAC)
- Be informed that intrapartum infant death is rare (about 10 per 10,000 – the same as the risk for women in their first pregnancy), but increased compared with planned repeat CS (about 1 per 10,000)
- Be offered electronic fetal monitoring during labour
- Should labour in a consultant unit where there is immediate access to CS and on-site blood transfusion
- If having induction of labour should be aware of the increased risk of uterine rupture (80 per 10,000 if non-prostaglandins are used, 240 per 10,000 if prostaglandins are used)
- Be informed that women with both previous CS and a previous vaginal birth are more likely to give birth vaginally

It is reasonable to expect that properly selected women will have a > 50% chance of successful VBAC if they labour spontaneously.

If problems develop in labour: early consideration and discussion with Senior Obstetrician is necessary with regards to recommending repeat intrapartum CS.

Making the decision for CS

• A senior obstetrician should be involved in the decision to perform any CS • Communication and information should be provided in a form that is accessible • Consent for CS should be requested after providing pregnant women with evidence-based information	• A competent pregnant woman is entitled to refuse the offer of treatment such as CS, even when the treatment would clearly benefit her or her baby's health.

Timing of planned CS: CS should be carried out after 39 weeks' gestation to decrease the risk of respiratory morbidity **Emergency CS:** In cases of suspected or confirmed acute fetal compromise, delivery should be accomplished as soon as possible. Thirty minutes has become accepted as the gold standard for decision to delivery time in cases of confirmed fetal compromise.(RCOG Evidence Based Clinical Guideline number 8) "Category 1 CS". Documentation of decision to delivery time is essential for all CS.	**Document the urgency of CS and ensure all members of the team are aware of your opinion immediately when Level 1 and 2 cases.** 1. Immediate threat to the life of the woman or fetus 2. Maternal or fetal compromise which is not immediately life-threatening 3. No maternal or fetal compromise but needs early delivery 4. Delivery timed to suit woman or staff

Procedural aspects of CS

Preoperative assessment	**Anaesthetic care**
• Check haemoglobin • Prescribe antibiotics (one dose of first-generation cephalosporin or ampicillin / co-amoxiclav) • Assess risk for thromboembolic disease (offer graduated stockings, hydration, early mobilisation and low molecular weight heparin) • Site in indwelling bladder catheter **For healthy women with an uncomplicated pregnancy, do not offer:** • Cross-matching of blood • Clotting screen • Preoperative ultrasound to localise the placenta (consider if previous CS or APH)	• Discuss post-CS analgesia options • Offer antacids and H_2 receptor analogues • Offer anti-emetics • Offer regional anaesthesia • Reduce the risk of hypotension using: o Intravenous ephedrine or phyenylephrine infusion o Volume preloading with crystalloid or colloid o Lateral tilt of 15^0 • General anaesthesia for emergency CS should include preoxygenation and rapid sequence induction to reduce the risk of aspiration

Senior obstetrician should be present for:

CS in second stage of labour

Placenta praevia. **NOTE - A Consultant should always be present for an emergency Caesarean section for placenta praevia.**

Multiple pregnancy

Pre-term CS < 32 weeks

Transverse lie

> 2 previous CS

Fetal Anomaly expected to cause difficult delivery

CS with IUD

Suspected/Actual Uterine Rupture

Cord pH Blood Sampling – perform if suspected or confirmed fetal distress or had FBS during labour. Double clamping the cord allows samples to stay stable for 30 mins. Perform arterial and venous sampling, this allows confirmation that one of the arteries has been sampled.

Antibiotic Prophylaxis

All patients should receive intra-operative antibiotic prophylaxis

Low Molecular Weight Heparin

All women should get thromboprophylaxis as per protocol.

Notes

SGH routine admitted tues / Friday am lists pm. attend daycare mon / thurs. complicated cases booked mornings with daycare / lw / surgeon and anaesthetist
RAH CS performed daily – seen on consultant obstetric clinic week prior to CS
QMH CS performed daily – seen in pre-op clinic on Friday pm in antenatal clinic

PRM CS performed daily - seen in pre-op clinic Friday pm in antenatal clinic

Further information is available at:
http://www.rcog.org.uk/index.asp?PageID=694
http://www.nhsggc.org.uk/content/default.asp?page=s331
http://www.rcog.org.uk/resources/public/pdf/efm_guideline_final_2may2001.pdf

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Approved by Gynaecology, Obstetrics and neonatology Effectiveness Committee.

Reviewed Signed by A.M. Mathers, Clinical Director..... Apr 09