Placenta praevia – Anaesthesia guideline (GL766)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
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<tbody>
<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>1st September 2017</td>
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Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
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<tbody>
<tr>
<td>3.0</td>
<td>Oct 2012</td>
<td>Dr G Jackson, Consultant Anaesthetist</td>
<td>Reviewed</td>
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<td>4.0</td>
<td>Nov 2014</td>
<td>Dr G Jackson, Consultant Anaesthetist</td>
<td>Reviewed</td>
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<tr>
<td>5.0</td>
<td>Jun 2017</td>
<td>Lauren Williams, Consultant Anaesthetist</td>
<td>Reviewed and changes throughout to reflect current practice and add reference to Green top guideline No 27. RCOG</td>
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<td>5.1</td>
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<td>Lauren Williams, Consultant Anaesthetist</td>
<td>Minor changes – pg 2, 3 &amp; 4</td>
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Overview: Placenta praevia occurs when the placenta is implanted in the lower segment of the uterus making a normal vaginal delivery impossible because of the risk of major haemorrhage. It occurs in about 1 in 200 pregnancies. All women must be delivered by LSCS. This is ideally performed as an elective procedure.

Precautions for ALL Placenta Praevias:

• Discuss with the surgeon their preference ideally before seeing the patient.
• Ensure risk factors for placenta accreta or other abnormally invasive placentas have been investigated, such as previous caesarean section(s), short inter-pregnancy duration, increasing maternal age.
• Discussion with the patient should honestly address the risks of bleeding, the need for blood transfusion and the possibility of intensive care post-operatively. The obstetricians should have mentioned the possibility of a hysterectomy. There is a separate consent form for caesarean section for placenta praevia.
• Very careful airway assessment (as always!)
• Senior/experienced help should be available for the anaesthetic and surgery.
• Cross matching advice
  o 2 unit cross match if risk factors:
    ▪ Major praevia
    ▪ Low haemoglobin
    ▪ Anterior placenta praevia
    ▪ Placenta accreta – suspected or diagnosed (see abnormally invasive placenta guideline)
    ▪ Multiple fibroids
• If antibodies cross match additional units. Discuss with blood transfusion
• 2 large bore cannulae. Intravenous fluids should be run through the warmer.
• Refresh memory with major haemorrhage guidelines.
• Consider rapid fluid infuser and cell saver – see accreta guidelines.
• Make sure paediatrician available
• Particular vigilance at time of delivery
• Carbetocin following delivery plus availability of ergometrine and haemabate
• Maintenance of contraction of uterus and keeping up with blood loss is the first priority. Intravascular monitoring is of secondary importance
• Consider prophylactic use of a Rusch balloon if placental site inadequately contracting
Some relevant points

It is well known that there is a significant increase in maternal and foetal morbidity and mortality with this condition.

This is a technically difficult operation to perform for the obstetrician

The placenta praevia is normally graded from I-IV depending upon how far it encroaches / covers the os. This grading is less important at LSCS than whether it is anterior (i.e. under where the incision will be) or posterior (i.e. at the back of the uterus).

Bleeding from the placental site is more likely because the lower third of the uterus contracts poorly in comparison to the upper two thirds. It is this contraction which is paramount in cessation of bleeding.

The major hazards are from:

- Haemorrhage from either the incised placenta, bleeding placental site, placenta accreta
- Interruption of the foetal blood supply after incision of the placenta

Choice of anaesthetic:

There is no ideal form of anaesthetic technique for this condition. Both regional and general anaesthesia have been used successfully. The decision of which anaesthetic technique to choose is made after consultation with the anaesthetist, surgeon and patient. The advantages and disadvantages of both techniques are outlined below:

Regional technique:

Advantages:

- Mother awake
- Baby more awake and partner present
- Avoid risks of GA
- Pain relief /recovery better
- Probably less blood loss

Disadvantages:

- As surgery has to be hurried/rapid MUST have a good functioning block. Discuss incision with surgeon. Classical caesarean with midline incision unlikely to be tolerated with regional block.
- If substantial haemorrhage more difficult to maintain haemodynamic stability
- Blood loss/difficult LSCS may be distressing for patient/partner
- If surgery complicated/prolonged may well need to convert to GA at that point. Combination of major haemorrhage + regional block + GA not for the fainthearted
- Intubation in the face of the above should be slick and straightforward
**Maternity Guidelines – Placenta Praevia Anaesthetic guidelines (GL766)**

**General anaesthesia**

**Advantages:**
- Better placed to deal with bleeding/difficult surgery if it should occur
- Less stressful once anaestheticised if problems are encountered for the patient / partner / theatre staff

**Disadvantages:**
- Risks of GA
- More postoperative pain
- Mother and partner miss out on birth of baby
- Increased (temporary) neonatal depression with the GA.

**Factors to consider when making the decision in each case:**
- Surgical wishes
- Patient wishes
- Position of placenta: anterior placenta makes it more difficult to deliver the baby
- Surgical technique- midline skin incision and classical caesarean section make regional block alone unlikely to be sufficient.
- Previous uterine surgery: risk of placenta accreta much greater, commonest scenario is previous LSCS and anterior placenta. Communicate with surgeon and ultra-sonographers about risk of accrete.
- Potential difficult intubation: much better to secure the airway when patient is in stable condition than when bleeding/complications are encountered
- Ante partum bleeding of any significance

**References:**

1. Why Mother’s Die 2000 –2002 CEMACH