Anaesthetic guidance for Twin delivery (GL950)

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>7th April 2017</td>
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</tbody>
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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>1.0</td>
<td>December 2014</td>
<td>Guy Jackson (Consultant Anaesthetist)</td>
<td>Clinical requirement</td>
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<tr>
<td>1.1</td>
<td>Feb 17</td>
<td>Guy Jackson (Consultant Anaesthetist)</td>
<td>Reviewed – no changes</td>
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To be read in conjunction with:

- Twin delivery guideline (GL928) V8.1 onwards
Introduction

When discussing and planning anaesthetic intervention with women with twin pregnancy, it is worth considering the likelihood that operative delivery (vaginal or abdominal) will be required.

The approximate rates for operative intervention in twin delivery RBH are represented below in figure 1:
Guidance for anaesthetic management:
The anaesthetist should be made aware of any woman with twin pregnancy who is in labour at the time of her admission to delivery suite. They should visit the woman to:

- review her anaesthetic and medical history
- make an assessment of the airway
- discuss her plans/preferences regarding analgesia/anaesthesia for labour and delivery

As part of the discussion regarding analgesia/anaesthesia, it may be useful to provide the information in figure 1. It may also be useful to discuss the case with the obstetrician and midwife in order to establish whether there are particular features that make operative intervention more likely. These features, in addition to your anaesthetic assessment, may influence your recommendations and the woman’s choice of labour analgesia.

Planning for delivery
Discussions should take place between midwife, obstetrician and anaesthetist with particular reference to:

- Location - in nearly all cases, this will be in theatre due to the increased rate of obstetric intervention
- Whether the woman should remain on the delivery bed or move to operating table? If she remains on the delivery bed, this will delay progression to emergency caesarean section.
- Specific features or requirements e.g. high BMI
- Anaesthetic concerns e.g. airway features or contraindications to regional anaesthesia
- Surgical concerns e.g. second twin in breech position

The anaesthetist should be informed prior to the patient being transferred to the operating theatre.

Options for analgesia / anaesthesia:

No epidural analgesia
Occasionally requested by mother
Possibly best performed on the delivery bed rather than operating table (although would need to be transferred in event of needing operative delivery)

- Potential advantages:
  - will have full sensation of urge to push
- Potential disadvantages:
  - not able to perform instrumental delivery of either/both twins without significant pain. Analgesic options include: pudendal nerve blocks performed by the obstetrician, entonox offered via cylinder and mouthpiece obtained from delivery suite (the anaesthetic machine should not be used)
  - if caesarean section is required it should be assumed that this will require a general anaesthetic

**Epidural inserted for labour analgesia**

90% of the time this works well enough to be used in the operating theatre. There are broadly 2 ways in which a labour epidural may be managed for delivery:

**Option 1:**
Top up epidural to provide anaesthesia as would be suitable for caesarean section

- Potential advantages:
  - Good quality analgesia
  - Operative delivery (instrumental vaginal or abdominal) can occur without delay
  - A general anaesthetic can be avoided

- Potential disadvantages:
  - Sensation of contractions and urge to push will be lost
  - This may result in an increased rate of instrumental delivery

**Option 2:**
Less than full caesarean anaesthesia dose top up (0.1% low dose epidural mix or 0.25% bupivacaine)

- Permits analgesia (for forceps delivery & manoeuvres etc.) but does not provide surgical anaesthesia.

- Potential advantages:
  - Good quality analgesia
  - Sensation of contractions etc. may be retained, making it easier for women to push
  - May still be able to establish regional anaesthesia for caesarean section if time allows

- Potential disadvantages:
  - A general anaesthetic may still be required for caesarean delivery if there is insufficient time to allow further top up
**Spinal anaesthesia in theatre**

If epidural analgesia has not been established in labour, spinal anaesthesia (suitable for caesarean section) may be performed in the operating theatre prior to attempts at vaginal delivery.

- **Potential advantages:**
  - Reliable good quality analgesia and surgical anaesthesia is provided (failure rate 1-5%)
  - Operative delivery (instrumental vaginal or abdominal) can occur without delay
  - A general anaesthetic can be avoided

- **Potential disadvantages:**
  - Sensation of contractions and urge to push will be lost
  - This may result in an increased rate of instrumental delivery
  - Limited duration of surgical anaesthesia: reliable for approximately 60-90 minutes. May not provide sufficient duration for caesarean section for twin 2
  - Prolonged attempts at vaginal delivery, followed by caesarean section may still require a general anaesthetic

The above options will be influenced by maternal choice, obstetrician’s view of likelihood of vaginal delivery and anaesthetic issues, particularly if there are airway concerns which prevent or make general anaesthesia increasingly high risk.

At time of transfer to operating theatre the choice between above options should be explained and discussed with the patient and communicated to all members of the team: midwifery, obstetric, theatre, and anaesthetic.

**References**