Suxamethonium sensitivity and guidance on the use of Sugammadex (Bridion) on delivery suite guideline (GL770)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>9th January 2015</td>
</tr>
</tbody>
</table>

Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>June 2004</td>
<td>Dr R Jones, Consultant Anaesthetist</td>
<td>Trust requirement</td>
</tr>
<tr>
<td>2.0</td>
<td>Dec 2006</td>
<td>Dr R Jones, Consultant Anaesthetist</td>
<td>Reviewed</td>
</tr>
<tr>
<td>3.0</td>
<td>Dec 2009</td>
<td>Dr R Jones, Consultant Anaesthetist</td>
<td>Reviewed</td>
</tr>
<tr>
<td>4.0</td>
<td>Oct 2012</td>
<td>Dr G Jackson, Consultant Anaesthetist</td>
<td>Reviewed and combined with Sugammadex guideline</td>
</tr>
<tr>
<td>4.1</td>
<td>Nov 2014</td>
<td>Dr G Jackson, Consultant Anaesthetist</td>
<td>Reviewed – no changes</td>
</tr>
</tbody>
</table>
Overview
Difficult intubation may occur in up to 1:300 obstetric general anaesthetics. Suxamethonium is used for rapid sequence inductions on delivery suite due to its fast onset of action and predictable offset in most patients in the event of failed intubation. For women with a known sensitivity to suxamethonium (anaphylaxis or suxamethonium apnoea) there is now an alternative using rocuronium so long as Sugammadex is available for reversing the effects of rocuronium in the event of failed intubation / ventilation.

Antenatal care
Refer to the anaesthetic antenatal clinic. If this has not been possible then they should be seen by the duty Anaesthetist on the labour ward.

Assess
1. Full Airway assessment
2. Palpate spinous processes
3. Past obstetric and anaesthetic history and current obstetric condition
4. Patient’s understanding of the implications of suxamethonium sensitivity

Explain
1. What the condition involves.
2. Proposed anaesthetic management plan which will depend upon the above assessment.
3. Consider
   - Anticipated difficulty of intubation
   - Anticipated need for obstetric intervention
   - Anticipated difficulty of epidural insertion
The worse these would appear to be the greater the indication for persuading her to have an early epidural inserted.

General guidelines:
- Consider epidural for analgesia in labour
- CSE or spinal for LSCS or instrumental delivery if epidural in not in situ.
- If a GA has to be given use Propofol or thiopentone and Rocuronium for induction and intubation.
- Consider the need for Sugammadex in the case of a difficult or failed intubation
All patients should:

- Be seen by the duty Anaesthetist during labour to review anaesthetic assessment.
- Be given regular Ranitidine.
- Given only water or isotonic sports drinks, orally, once labour is established.
- Given sodium citrate pre - LSCS.

Post delivery:

If they have not had the relevant tests for Suxamethonium apnoea done in the past they should be encouraged to have them checked at 3 months post partum by their GP. (Dibucaine and fluoride number. Write letter for them to give to their GP)

Guidance for use of rocuronium and Sugammadex in the event of general anaesthesia

- Calculate dose of sugammadex required for emergency reversal before induction but only draw up if required
- For reversal of rocuronium (1mg/kg) give sugammadex (16mg/kg)
- The median recovery time (T4/T1 ≈ 0.9) ≈ 1.5 minutes when 16mg/kg is given 3 minutes after a bolus dose of 1.2 mg/kg rocuronium

Cautions for use of Sugammadex

1. Sugammadex is not recommended for the immediate reversal of a vecuronium induced block
2. Neuromuscular block can recur following administration of sugammadex and further doses may be required in recovery (usually 2mg/kg, titrated to effect)
3. There should be a minimum of 24hrs between administration of sugammadex and the use of rocuronium – use a nonsteroidal neuromuscular blocking agent (eg: atracurium) if muscle relaxant required within this timeframe
4. Not recommended in patients with severe renal failure
5. In the obese base dose on actual body weight
6. Sugammadex may interfere with some laboratory tests of coagulation (APPT, PT and, therefore, INR)
7. Side effects:
   - Dysgeusia (metal or bitter taste) – very common
   - Recurrence of block
References:

   Holdcroft A, Thomas TA Chapter 16

Written by: Dr Jones (Consultant Anaesthetist) June 2004
Reviewed: December 2006, December 2009, October 2012 (Dr G Jackson) and now combined with “Guidelines for the use of Sugammadex (Bridion) on labour ward”, written by Dr G Jackson (August 2009), November 2014
Review due: January 2017