Management of Pain and Distress during CS under Neuraxial blockade

UPMA MISRA
SUNDERLAND ROYAL HOSPITAL
Ten Years of Maternity Claims
An Analysis of NHS Litigation Authority Data

October 2012
<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Claims</th>
<th>(%)</th>
<th>Total value</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident</td>
<td>58</td>
<td>1.14</td>
<td>£728,796</td>
<td>0.02</td>
</tr>
<tr>
<td>Anaesthetic</td>
<td>172</td>
<td>3.38</td>
<td>£19,249,853</td>
<td>0.62</td>
</tr>
<tr>
<td>Antenatal care</td>
<td>391</td>
<td>7.68</td>
<td>£144,811,665</td>
<td>4.64</td>
</tr>
<tr>
<td>Antenatal investigations</td>
<td>230</td>
<td>4.52</td>
<td>£149,986,770</td>
<td>4.81</td>
</tr>
<tr>
<td>Bladder</td>
<td>72</td>
<td>1.41</td>
<td>£8,824,269</td>
<td>0.28</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>674</td>
<td>13.24</td>
<td>£216,167,223</td>
<td>6.93</td>
</tr>
<tr>
<td>Cerebral palsy</td>
<td>542</td>
<td>10.65</td>
<td>£1,263,581,324</td>
<td>40.52</td>
</tr>
<tr>
<td>CTG interpretation</td>
<td>300</td>
<td>5.89</td>
<td>£466,393,771</td>
<td>14.95</td>
</tr>
<tr>
<td>Drug error</td>
<td>83</td>
<td>1.63</td>
<td>£8,759,430</td>
<td>0.28</td>
</tr>
<tr>
<td>Management of labour</td>
<td>715</td>
<td>14.05</td>
<td>£424,039,851</td>
<td>13.60</td>
</tr>
<tr>
<td>Maternal death</td>
<td>38</td>
<td>0.74</td>
<td>£20,253,906</td>
<td>0.64</td>
</tr>
<tr>
<td>Nursing care</td>
<td>35</td>
<td>0.68</td>
<td>£511,700</td>
<td>0.01</td>
</tr>
<tr>
<td>Operative vaginal delivery</td>
<td>160</td>
<td>3.14</td>
<td>£93,659,223</td>
<td>3.00</td>
</tr>
<tr>
<td>Other</td>
<td>265</td>
<td>5.20</td>
<td>£40,252,783</td>
<td>1.29</td>
</tr>
</tbody>
</table>
NHSLA CLOSED CLAIMS 1995-03/12

- Pain during CS: 11%
- Epidural related: 49%
- Lack of consent: 1%
- Nerve damage: 12%
- Back pain: 38%
NHSLA 1995-2012

- Painful Labour: Epidural, spinal, then GA
  £10,000 (15,877)

- Ineffective epidural, patient claims she felt pain during cs
  £7,000 (33,231)

- Elective section: epidural didn’t work
  £25,000 (69,466)
Failure to test spinal block £10,000

inadequate spinal causing pain during section, claimant alleges severe pain, now post traumatic stress disorder £14,769 (57,540)

obstetric reg did not arrive till 20 mins after spinal....£3000 (3000)
The Royal College of Anaesthetists

Raising the Standard: a compendium of audit recipes for continuous quality improvement in anaesthesia
### Suggested indicators

- % CS carried out with RA – divided into Cat 4, Cat 1–3, Cat 1.
- % pain during RA – divided into Cat 4, Cat 1–3, Cat 1.
- % conversion from RA to GA – divided into Cat 4, Cat 1–3, Cat 1.

### Urgency classification\(^\text{10}\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Category 1</td>
<td>Maternal or fetal compromise, immediate threat to life of woman or fetus</td>
</tr>
<tr>
<td>Category 2</td>
<td>Maternal or fetal compromise, no immediate threat to life of woman or fetus</td>
</tr>
<tr>
<td>Category 3</td>
<td>No maternal or fetal compromise, requires early delivery</td>
</tr>
<tr>
<td>Category 4</td>
<td>Delivery at a time to suit the woman and maternity services</td>
</tr>
</tbody>
</table>

_Elective = Category 4. Emergency = Category 1–3._

### Proposed standard or target for best practice

<table>
<thead>
<tr>
<th></th>
<th>Cat 4</th>
<th>Cat 1–3</th>
<th>Cat 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS carried out with RA</td>
<td>&gt; 95%</td>
<td>&gt; 85%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>Pain during CS</td>
<td>&lt; 5%</td>
<td>&lt; 15%</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>RA to GA conversion</td>
<td>&lt; 1%</td>
<td>&lt; 5%</td>
<td>&lt; 15%</td>
</tr>
<tr>
<td></td>
<td>Cat 4</td>
<td>Cat 1–3</td>
<td>Cat 1</td>
</tr>
<tr>
<td>------------------------------------</td>
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Avoid the problem

Houston, We Have A Problem
- Nurture your epidurals
- Visit every shift, have a plan
- Start top-up in delivery room
Choice of Drug for epidural top

- Lignocaine + Adrenaline + bicarb
- Lignocaine + l-bupivacaine
- l-bupivacaine
- Ropivacaine
Spinal Anaesthesia

- SSS
- CSE

Use adequate dose
Prepare the mum
Is preparation for emergency obstetric anaesthesia adequate? A maternal questionnaire survey

C. Fortescue et al IJOA 2007
PAIN FREE, NOT SENSATION FREE

TEST YOUR BLOCK

SHOULD SURGEON TEST BEFORE STARTING

TO BE GENTLE
Sensory testing of spinal anaesthesia for caesarean section: differential block and variability
Kucarev et al IJOA 2010

Table 3  Coefficient of variation for each sensory test

<table>
<thead>
<tr>
<th>Sensory testing</th>
<th>Coefficient of variation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold</td>
<td>24.08</td>
</tr>
<tr>
<td>Sharp</td>
<td>15.31</td>
</tr>
<tr>
<td>Pressure</td>
<td>18.88</td>
</tr>
<tr>
<td>Light touch: Neurotip</td>
<td>11.91</td>
</tr>
<tr>
<td>Light touch: monofilament</td>
<td>10.77</td>
</tr>
<tr>
<td>Light touch: cotton wool</td>
<td>10.45</td>
</tr>
</tbody>
</table>
Assessing blocks after spinal anaesthesia for elective caesarean section: how different questions affect findings from the same stimulus

N.M. Nor, I.F. Russell

Department of Anaesthesia, Hull Royal Infirmary, Hull, UK
EDITORIAL
Height of confusion: assessing regional blocks before caesarean section
Yentis, IJOA 2006

Height isn’t everything!

Quadriceps motor block
Preoperative anxiety
How UK obstetric anaesthetists assess neuraxial anaesthesia for caesarean delivery: National surveys of practice conducted in 2004 and 2010

Hussain, Liu, Fernando, Columb

IJOA Sept. 2013

Fig. 1

Caesarean section

November 2011

NICE Clinical Guideline
Exteriorisation of the uterus is not recommended because it is associated with more pain and does not improve operative outcomes such as haemorrhage and infection.

NICE 2011
Management of pain
Before start

- Apologise
- Repeat block: low dose CSE
- Offer GA
- Document everything
Pain after incision before delivery

- Reassure, empathise
- Oxygen and nitrous oxide (50-70%)
- Stop, assess situation
- Offer GA, document everything
Pain/Distress

- Alfentanil / fentanyl
- Ketamine 10mg.  
  Lavand, Anesth. 2009  
  Menkit IJOA 2012
- Midazolam [anxiety]
- Local anaes. infiltration
- Document everything
Remifentanil 50mcg bolus

0.1mcg/kg/min. infusion
Conclusion

- Avoidance/prevention
- Good communication
- good documentation
- Empathy
- Adequate dose/drug/testing
- Debrief/follow up
- critical incident reporting
- personal post op visit
- prevent/TREAT PTSD
- Discuss events/future pregnancy