

Title: Epidural Anaesthesia for LSCS

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ANAESTHETIC DEPARTMENT

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When a mother has an epidural in place and a decision is made that she needs delivery by LSCS it may well be possible to use the epidural to provide anaesthesia for the procedure. This policy aims to give some advice on how this should be managed. Before deciding if it is appropriate to use epidural anaesthesia for the LSCS it will be necessary to consider the following:-

Urgency of LSCS

When the decision for LSCS is made, the obstetrician must give the anaesthetist an indication of the urgency of the procedure. If required delivery is immediate i.e. Category 1 (e.g. cord prolapse, severe foetal bradycardia, etc.) then there is insufficient time to top-up the epidural. In this case general anaesthesia, and in some *exceptional* circumstances spinal anaesthesia, should be given. If general or spinal anaesthesia is chosen and the epidural has been working well, leave the epidural catheter in place. This allows the administration of epidural opioids / local anaesthetic after delivery instead of parenteral opiates in a GA case, and enables extension of block height in a spinal that is slow to reach adequacy. If time allows, an urgent or scheduled CS, then it should be possible to top-up the epidural to provide adequate anaesthesia for LSCS. This will normally take 15-20 minutes but it is important to note how well the epidural has been working in labour. (See below)

Adequacy of epidural analgesia during labour

If the epidural has been providing good analgesia during labour then it is usually possible to obtain good quality anaesthesia within 20 minutes. If analgesia during labour has been unsatisfactory, despite adequate top-ups, it is unlikely that it will provide a good enough block for surgery. In this situation it is advisable to consider spinal anaesthesia for LSCS at the outset.

Procedure

Once a decision is made to use epidural anaesthesia for the LSCS the epidural should be topped-up **as soon as possible**. This should usually be initiated in the delivery room before the patient has been moved to theatre. At this time the epidural infusion **should** be stopped. **A test dose of 1mg/kg Lignocaine 2% should be given followed by 15 to 20 mls 0.5% L-Bupivacaine.** Check the block level after 10 minutes. (The patient will normally have reached the theatre by this time.) There should be a demonstrable block to at least T10 by this time and it may have reached T5 in some circumstances. It is acceptable to wait a further 10 minutes before considering further action.

If after 20 minutes the block is inadequate but rising, a further 5 to 10mls of L- Bupivacaine can be given. **It is not essential to have a motor block of the legs at this time.** If the block fails to reach T5 after a further 10 minutes, it is unlikely to reach this level and an alternative anaesthetic should be given. The options are to consider spinal anaesthesia, possibly with a reduced dose of bupivacaine, or to progress to general anaesthesia. It is also important to confirm that an adequate perineal block has developed. If the patient has a significant motor block in the legs it is likely that perineal anaesthesia will be satisfactory, but it should be formally tested if there is any doubt. **Take senior advice if necessary.**

Administer epidural diamorphine 3mg at your earliest convenience; there is no need to wait until the baby is delivered.

Problems

1. Poor block

If the block is assessed as adequate pre-incision but during surgery the patient feels pain or discomfort the following may help:-

- IV opioids. Alfentanil in 250 µg increments acts in 30-60 seconds and lasts 5-10 minutes. If more than 1mg Alfentanil required, consider GA or seek advice. Alfentanil should not be given before delivery of infant; if anaesthesia is inadequate at this time, convert to GA.
- In the meantime it is worthwhile administering a further bolus of 0.5% L- Bupivacaine 5 to 10mls.
- Nitrous oxide 50% in oxygen may be helpful.
- If the above fail to improve the situation to the **patient's satisfaction** consideration should be given to progressing to a GA. You should discuss this with the operating surgeon as they will have to discontinue operating whilst this is carried out. **Take senior advice if necessary.**
If the patient is unhappy with the adequacy of analgesia, respect her wishes and offer a GA.

2. Fluid therapy and hypotension

Hypotension is more likely following the doses of bupivacaine used for LSCS than following analgesia in labour. Fluid preloading **is not required as the woman** already vasodilated with a functioning epidural in labour. It is not usually necessary to commence an IV Phenylephrine infusion for epidural top-up alone; treat hypotension with intermittent boluses if necessary.

Post Delivery

1. Remove the epidural catheter at the earliest convenience, usually in theatre once transferred to the bed. This enables the administration of low molecular weight heparin at the earliest opportunity.
2. **Never** send a woman to a postnatal ward with the epidural catheter in situ.