The epidural rate at AMH is around 25%. All patients should be warned about the risks of epidural analgesia and verbal consent recorded on the anaesthetic record. For non-English speakers use the translation service and/or foreign language versions of epidural information sheets, which are available on the Labour Pains website www.labourpains.com

- Do a full anaesthetic assessment, including the airway, as the patient may end up coming to theatre later.
- There is some evidence that an early epidural shortens the first stage of labour, compared with a late epidural.
- Fetal heart monitoring must be in place during the epidural insertion.
- Obese patients should be encouraged to have early epidural – see Obesity in Pregnancy.
- Our local dural tap rate is 1 – 2%. Only half present with CSF flowing out of the Touhy needle. Others present with CSF in catheter, by response to test dose or by onset of PDPH.
- The locally agreed test dose is 10 ml 0.1% L-Bupivacaine with 2 mcg/ml Fentanyl, delivered from the epidural pump.
- The standard regime is a PCEA pump set using the “Speed protocol” which delivers an 8 ml bolus of 0.1% Levobupivacaine with 2mcg/ml Fentanyl, locked out for 15 minutes.
- If a woman is requesting an epidural for analgesia when the AMH anaesthetist will not be available in the near future and the 2nd on-call registrar is not available, then Remifentanil PCA analgesia should be utilised. If there is an Obstetric indication for the epidural, e.g. pre-eclampsia, or there is likely to be a significant delay, then the consultant anaesthetist should be called.
- Remifentanil PCA should also be used when an epidural is contraindicated or labour is too advanced for there to be time to establish an epidural.

**Contraindications to Epidural Analgesia**

- Maternal refusal.
- Lack of appropriately trained midwives to care for patient.
- Mother in Midwives’ Unit.
- Platelets < 100 unless sanctioned by consultant on-call (check clotting).
- Full anticoagulation or coagulopathy.
- Local infection or severe systemic infection.
- Hypovolaemia.
- Fixed cardiac output.
- Raised intracranial pressure.
- Absence of epidural space, e.g. congenital malformation or previous lumbar surgery.
- Demyelination / MS - Not known if epidurals are neurotoxic in this condition. Only proceed if patient accepts this unquantified risk.
Fine Tuning Epidurals in Labour

Fine tuning is important, not just because of the quality of pain relief but because you may have to use the epidural for a Caesarean section at short notice.

Unblocked segments or unilateral blocks are about distribution of the local anaesthetic within the epidural space. Pain which breaks through as labour progresses is about the potency or opiate content of the local anaesthetic agent.

Severe breakthrough pain which is constant and not going away between contractions may be the first sign of a ruptured uterus (especially if there is a uterine scar), abruption or hyperstimulation of the uterus with oxytocin, all of which will lead to severe maternal and fetal distress and require intervention.

**Unblocked Segments**

- Bolus 0.1% Levobupivicaine, 5 – 10 ml
- Move the patient to an alternative position. Probably the moving around rather than the position is the critical thing.
- Pull the catheter out a bit.
- Resite the catheter.

**Breakthrough Pain**

- Increase the strength of the top-up bolus with 0.25% Levobupivicaine.
- Fentanyl 50 mcg for the low back pain of occipito-posterior position of the head.

**Unilateral Block – Prevention**

- Less likely if only 3 – 4 cm of catheter is left in epidural space.
- Possibly less likely with paramedian approach.
- Feel the feet 5 minutes after the test dose. If one is cold and sweaty and the other warm and dry, give the next dose(s) lying on the side of the cold foot until they even up.

**Unilateral Block – Management**

- Pull the catheter out a little and give a bolus of low concentration, high volume Levobupivacaine lying on the unblocked side.
- Markedly unilateral blocks will usually need resiting if pulling back the catheter doesn’t work, so get on with this sooner rather than later.

**Fast pain relief for late first stage or second stage delivery in the labour room**

- 5 ml 2% Lidocaine with 1:200,000 Adrenaline, with patient sitting up.