Epidural

Information for parents and carers

Introduction

To make sure your child is comfortable, they will be given pain-relieving medicines during and after their surgery. An epidural is one way of providing pain-relief and this leaflet explains what is involved, the benefits, the risks and the alternatives.

What is an epidural and how is it performed?

An epidural is an effective method of pain relief used in children for many years.

Once your child is asleep, they will be turned on their side and the skin of their back cleaned with antiseptic solution. An epidural catheter (thin plastic tube) is then carefully placed into the epidural space. This is an area surrounding the spinal cord through which pain nerves pass.

Once in place, dressings will cover the epidural catheter to stop it falling out. It will usually remain in place for 48-72 hours.

When is an epidural recommended?

For certain types of major surgery (to chest, tummy or legs), it is difficult to achieve good levels of comfort using intravenous medicines or medicines by mouth alone. For these cases the addition of an epidural can work well. Your anaesthetist will discuss this with you and your child before their operation. By using different pain medicines by different routes, we aim to maximise pain relief and minimise side-effects.

Who will do the epidural?

A consultant paediatric anaesthetist will normally do the epidural. This is a doctor who has undergone specialist training in providing anaesthesia and pain relief for children having surgery. Alternatively, a doctor training in paediatric anaesthesia may perform the epidural under close supervision of a consultant.

What pain-relieving medicines are used?

Local anaesthetic, similar to the 'freezing injection' at the dentist, is used, with or without the addition of other pain medicines. These are either given at regular intervals by an anaesthetist, or infused continuously through a programmed epidural pump.

Once delivered into the epidural space, these medicines numb the nerves carrying pain signals to the spinal cord. This blocks pain signals travelling from the site of surgery via the spinal cord to the brain, therefore reducing your child's pain.

Who looks after the epidural?

While your child's epidural is in place, ward nurses will closely observe and monitor your child and Specialist Pain Management Nurses will visit your child regularly.

Before the epidural is stopped, the pain team will ensure alternative pain relief (usually by mouth) is prescribed. If your child remains comfortable after the epidural is stopped, the dressings and catheter will be removed (this procedure is not painful).

What if my child is still in pain despite their epidural?

The pain team will try adjusting the medications given though the epidural. If required, they may also adjust the position of the epidural catheter. This will involve removing and replacing the dressings over the epidural catheter. Although these are sticky, changing them isn't painful.

Can everyone have an epidural?

No. In some children it may not be possible to offer an epidural as they have a condition known to be associated with increased risk of complications, such as:

- Abnormal blood clotting, or on medications that thin the blood
- Allergy to local anaesthetics
- Infection at the site of insertion
- Abnormal spine or previous spinal surgery
- Immunocompromised.

Benefits

By numbing the nerves that make your child feel pain from their operation site, we hope to avoid giving high doses of strong pain-relieving medicines, which can make your child feel sleepy or itchy, or suffer nausea and vomiting.

Your child won't be allowed to get up and walk with their epidural, but they will be able to move around and sit up in bed.

An epidural achieves comfort on movement in the early hours after surgery more often than alternative methods of pain relief.

Side-effects

Common: Between 1 in 10 and 1 in 100 children experience:

- Heavy legs
- Pins and needles or tingling legs
- Difficulty passing urine (may need a thin catheter placed in the bladder to allow urine to drain; for some types of surgery this is essential anyway)
- Nausea, vomiting, itch if strong pain medicines are also used
- Damp dressings, due to leakage of local anaesthetic at insertion site; not a problem if your child is still comfortable.

Uncommon:

- Skin infection at the site of insertion. Unlikely to spread or cause problems but the epidural will be removed and antibiotics given if this happens
- Drowsy or slow breathing rate. This will be identified very quickly because your child is closely monitored while their epidural is in place. This is usually resolved by reducing the rate of infusion.

Rare:

- Local anaesthetic toxicity. Symptoms include confusion, ringing ears, tingly lips, drowsiness and rarely seizures. This is avoided by carefully calculating your child's dose dependant on their weight, however, if you notice any of these signs, please tell a member of staff immediately
- Nerve damage, either at the time of insertion (this is avoided by only experienced anaesthetists inserting epidurals) or by formation of a blood clot near the insertion site pressing on nerves or spinal cord. A recent national study estimates that these complications happen to approximately 1 in 10,000 people, compared with a 1 in 200 chance of being involved in a road traffic accident
- Infection in the epidural space. This happens in around 1 in 100,000 people. To avoid this, epidurals are inserted under sterile conditions and kept clean with dressings that are inspected regularly and changed if necessary to ensure the site is kept clean.

The complications listed above are very rare and must be balanced against the good pain relief an epidural can provide.

If you have specific concerns, please discuss these with the anaesthetist before your child's surgery. They will be happy to weigh up the risks versus the benefits and discuss alternative methods of pain relief with you.

What if I don't want my child to have an epidural?

It is your and your child's choice. They do not have to have an epidural. The alternative, usually intravenous morphine, is effective but is more likely to cause sleepiness, itch, nausea and vomiting.

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