



Pain Management Team

Pain Management Options after Surgery

Information for parents and carers

This leaflet summarises some options for pain relief that your child's anaesthetist may discuss with you if simple pain relief medicines will not be enough.

Patient or Nurse Controlled Analgesia (PCA or NCA)

A PCA or NCA allows us to give strong pain medicines (e.g. morphine) into the vein safely according to your child's age and size. A small amount of medicine is given via a pump all the time (a background amount), extra small doses to be given on demand (called a bolus).

Depending on the age of your child, the button to control the extra doses will be pressed by either the nurses (usually for children under eight years old or those who cannot press the button) or by your child.

The pump only allows the medicine to be given after a set period of time (the lockout time). It will not allow extra doses until this time has passed. This is an inbuilt safety feature to avoid excessive use and overdose. The exact programme for your child will be explained to you by the anaesthetist or ward nurses.

What are the risks and side effects?

This technique is very safe and we have extensive experience with it. However there can be some side effects. The common but not serious side effects include:

- Nausea, vomiting and itching

We can give medicines to try and reduce these symptoms whilst maintaining good pain relief.

More rare but serious side effects are:

- Sedation – very sleepy and not responding to commands.
- Breathing problems – breathing can slow down and become less effective.

These serious problems are rare, but are easily observed and treated.

Important information

When on a patient controlled setting or on a nurse controlled setting it is important only your child, or a nurse, presses the button otherwise an overdose can occur more easily.

Epidural

An epidural gives strong pain medicine by a special pump through a small plastic tube in the back, placed near the spinal cord. The tube is placed whilst your child is asleep in theatre for their operation by the anaesthetist. The medicine given through the epidural is a local anaesthetic, which blocks messages from pain nerves getting to the brain. The pump works for 24 hours a day and so is also effective when your child is sleeping.

We do many epidurals every year (approximately 300) and in over 95% of patients¹, they work very well. If the epidural is working well we usually keep it for up to three days, in certain special circumstances we may keep it for up to five days. If the epidural is not fully effective we can

References

1. Patel D. Epidural Analgesia for children. *Contin Educ Anaesth Crit Care Pain* (2006) 6(2):p63-66.

change the medicine in the epidural and/or add in other medicines to improve it. For more information see our factsheet 'Epidurals for Pain Relief After Surgery'.

Safety Considerations

Although we have a very good record with epidurals, side effects can occur. Your anaesthetist will talk to you about these when your child comes for surgery.

The nurse will come every hour, check for side effects and ask if your child has any pain.

Common but not serious side effects include: Epidural not working – either completely fails or only partly works, nausea, vomiting, itching, difficulty passing urine (whilst the epidural is running), heavy legs

Rare but more serious side effects include: Sedation; Headaches; Breathing problems; Infection - at the skin surface or in epidural space; damage to nerves; fits (seizures).

Local Anaesthetic Blocks

A small tube (like an epidural tube) is placed next to the nerves near the area of surgery. The medicine blocks the nerve messages from the area that send pain messages to the brain. The tube is placed whilst your child is asleep in theatre for their operation by the anaesthetist. The medicine given through the pump is a local anaesthetic medicine. The pump works for 24 hours a day and is effective when your child is sleeping. If the block is working well we usually keep it up for three days, in special circumstances we may keep it for longer.

Safety Considerations

The nurse will come every hour, check for side effects and ask if your child has any pain.

Your anaesthetist will talk to you about possible side effects when your child comes for surgery.

Common side effects include heavy arm/leg, tingling/numbness.

Rare problems include damage to nerves/other structures depending on the location of the block.

Where to find more information

All our factsheets can be found on Alder Hey website under Anaesthesia or Pain Team within the 'Anaesthesia, Pain Relief and Sedation' section under Departments. The **Painbusters booklet** contains further information regarding the above techniques, the pain medicines we use, how we assess pain in different ages and going to theatre. The Painbusters booklet is available in all the wards at your child's bedside whilst in hospital. You can access booklet this via the Alder Hey website, view the animated version on YouTube:

<https://www.youtube.com/watch?v=jV3G7voqOho>

This leaflet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this leaflet alone for information about your child's treatment.

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References

Royal College of Anaesthetists. Epidural Pain Relief After Surgery. Fourth Edition 2014. www.rcoa.ac.uk/patientinfo

