

# FACTSHEET

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## Patient or nurse controlled analgesia

### What is it?

**Patient Controlled Analgesia (PCA)** allows your child to safely self-deliver strong pain relieving medicine, such as morphine (an opioid), via a special machine attached to an intravenous line (IV). This means your child will be able to safely get a pain-relieving drug when it is needed without the pain of a needle.

**Nurse Controlled Analgesia (NCA)** allows the nurse to give the pain relieving medication to infants, children, or young people who are unable to manage this safely by themselves.

Children who have their pain controlled well, tend to make a faster recovery.

### How does it work?

The PCA/NCA machine allows strong pain medicine to be given safely and accurately through the IV.

- A Doctor/Anaesthetist and/or a member of the Acute Pain Service will discuss pain and PCA/NCA use with you and your child. The doctor will then write an order that is specific to your child's weight and pain management needs.
- The machine will then be set up for your child following the doctor's order.
- The machine has a special button on it. When this button is pressed a dose of the pain relieving medicine will be given through the IV. This is called a 'bolus' dose.
- The machine may also be set so that a small amount of the pain relieving medicine is given all the time as well

as the extra doses given when the button is pressed. This is called the 'background' dose or infusion.

- If it is set up as a PCA, your child can press the button when in pain. It should also be pressed just before expected painful procedures, such as a change of dressing or physiotherapy, as the pain relieving medicine takes 5-15 minutes to have its best effect.
- If it is a NCA, only the nurse can press the button after assessment of your child. The nurse will do this when your child is assessed as having pain or just before a painful procedure

### How safe is it?

There are many safety features in the PCA/NCA machine and in the way the medicine is ordered.

- When the button is pressed and a dose of pain relieving medicine is given, the machine will not be able to give another dose for a set amount of time (usually 5-15 minutes). This is called the 'lock-out period' and is set as per the doctor's order.
- If it is a PCA only the child is allowed to press the button. You must not press it for your child.
- The machine is very accurate and has safety alarms to make sure it works properly and to be sure that your child gets the right amount of medicine.
- Your child will be checked every hour. The nurse will check your child's level of pain, breathing, heart rate, how sleepy they are, and sometimes their blood pressure.
- You play an important part in caring for your child, as you know your child best and can help measure your child's pain at and in between these checks. If you think

that your child's pain is not being well managed, please tell your nurse.

- Each day a member of the Acute Pain Service will review your child and make any necessary changes.

If your child is asleep, it usually means that their pain is well controlled. However, your child should be able to be easily woken.

Other pain relievers such as panadol (paracetamol) or nurofen (ibuprofen) may be used along with the PCA/NCA.

### Why can only a child or nurse press the button?

#### This is a key safety measure to the PCA/NCA

When a PCA is being used, your child is the only person who can press the button to receive a dose of the pain relieving medicine. The machine's 'lock-out period' allows the medicine to work before your child can receive another dose. If your child keeps pressing the button when they do not have pain, your child will become sleepy and stop pressing the button. This allows the medicine to wear off before your child gets too much. If your child presses the button within the lockout period, the medicine will not be delivered – this is a safety feature to keep your child from having too much.

If the machine is set up as Nurse Controlled Analgesia only the nurse can press the button to deliver the pain relieving medicine because the nurse must first make an assessment of your child's levels of consciousness and pain to be sure it is safe and effective.

### Are there any side effects?

The most common side effect of opioids (the common type of medication used in a PCA or NCA) is nausea and/or vomiting. The doctors and nurses are able to give other medicines to help with this and still give important pain relief.

Constipation (difficulty and/or pain passing a bowel motion) can also occur due to the opioid. Please let the acute pain service know if your child is prone to constipation. Other medicine may help to prevent this.

Sometimes opioids can cause itching that can be managed by other medicine or by changing the type of pain medicine in the PCA/NCA.

Opioids can make your child feel a little drowsy, but if your child is able to sleep, it usually means your child's pain is well controlled. Sleep also helps recovery from operations but if your child is too drowsy please let the nurse know.

Opioids can slow down breathing, but the effect depends on the amount of the opioids given. Some children with severe snoring or sleep apnoea (pauses in breathing) will be closely monitored and may need extra oxygen while on a PCA/NCA.

A few children may have some mild behaviour changes or muddled thinking. These will disappear when the PCA is stopped but if you are worried, please tell a doctor or nurse.

### Will my child get addicted to an opioid?

Children do not become addicted to pain relieving medicine as it is being given to relieve pain from an operation or sickness. If the PCA/NCA is used for more than a week your child's body may become used to the pain relieving medication. In this case, the PCA needs to be reduced slowly.

Following surgery, PCA/NCA is usually used until your child is able to be managed on oral pain medicine. Remember that every child is different, and some types of surgery or illness can result in more pain than others.

Your child may need ongoing pain-relieving medicines that can be given by mouth after the PCA/NCA is stopped, but your doctor will explain these to you before you go home.

#### Remember:

- You know your child best. If at any time you are concerned about your child or have any questions, please talk to a nurse or doctor.
- Pain relieving medicine given in using a PCA/NCA is a safe way of offering pain management.
- Your child will be checked regularly by the nurse and/or doctor.