

# Subcutaneous patient controlled pain relief (analgesia) to manage a sickle cell crisis

Sickle Cell and Thalassaemia Service

Information for Patients

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## Introduction

A patient-controlled analgesia (PCA) pump is a machine that gives you medicine for pain. You control it with a button. It is used in hospital when you are having a sickle cell crisis.

Each person's level of pain is different. Everyone needs a different amount of pain relief. It lets you control your own pain relief without having to ask the nurses.

Your nurse sets the dosage so you cannot give yourself too much.

Subcutaneous means under the skin.

Analgesia means pain relief medicines.

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This machine can be set up by the nurses during your hospital stay to help with pain control when you have a sickle cell crisis. How long they will be used varies from patient to patient depending on how quickly your sickle cell crisis gets better.

## What is a PCA pump?

- The PCA pump is a machine that gives you medicine for pain when you press a button.
- The PCA pump gives strong pain killers (opioids) such as morphine and oxycodone.
- The pump is attached to a thin, flexible tube (butterfly needle). The tube goes underneath the skin via a needle.
- This medicine is usually given only when you press the button (bolus).
- Your doctor may also add a continuous rate if needed (background).

## How does the PCA work?

The PCA pump will give you a fixed amount of pain relief when you press the button.

We normally use morphine with the PCA device. Morphine has been shown to work well during acute sickle cell crises. Tell the doctor if you know you are allergic or sensitive to morphine. We can use another strong pain killer with the PCA device instead of morphine. These painkillers are called oxycodone.

- Each PCA pump comes with its own handset. You hold this in your hand. Press the button when you need pain relief. When you press the button, the pump gives you the pain relief medication.
- Only you are allowed to press the button, not the nurses or your relatives and visitors.

The pump does not give any more medicine for a set time (5 minutes) after the earlier dose of medicine. This is called a “lock-out” period. Once this period is over, the pump will only give you another dose of medicine if you press the button again. The lock-out period means that you cannot give yourself too much medicine.

Your doctor or nurse sets controls on the pump. This is set for the pain medicine that the doctor decides based on your weight.

The PCA pump is safe to use. You get medication when you push the button when you feel pain. The pump only gives you the drug if it is time to get another dose. When the pump is empty, an alarm lets the nurse know.

## Who can use a subcutaneous PCA pump?

Your doctor might give you a PCA pump to use in the hospital when you are having an acute sickle cell crisis. If your pain is severe even though you are using the pump, tell a member of your healthcare team.

## **How often should I use the PCA pump?**

You can use the pump whenever you feel pain. Do not push the button if you are feeling sleepy. The goal of the pump is to keep your pain at a level you can tolerate.

## **What are the benefits of a PCA pump?**

People who use the pumps often have better pain control and satisfaction compared to the nurse giving injections of medicine. People who have good pain control move around more.

You will benefit from early recovery/discharge.

You have less anxiety.

You can relax as you feel more in control of your pain and pain medication.

You do not have to wait for the nurse to give you medicine for pain.

## **What are the side effects of opioid drugs?**

Some common side effects of strong painkillers (opioid) drugs for pain include:

- Upset stomach
- Being sick (vomiting)
- Feeling sick (nausea)
- Drowsiness
- Itching
- Dry mouth
- Being unable to poo (constipation).
- Slowed breathing

Less common side effects may include

- having stiff muscles
- being more sensitive to pain.

Ask your nurse or doctor about any side effects that you are worried about. They may need to change your medicine or dosage to help stop the symptoms.

## Contact details

If you have any questions or would like to know more about PCA, please contact your Haemoglobinopathy team below.

### Haemoglobinopathy Clinical Nurse Specialist:

Phone (office): **0116 258 6081**

Mobile: **07950 891 490**

### Leicester's Hospitals switchboard:

Phone: 0300 303 1573

Leicester Royal Infirmary

Infirmary Square,

Leicester

LE1 5WW

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