

Patient Information Service

Theatres, critical care and anaesthetics business unit

Pain relief after surgery

You and your pain

At Southend University Hospital we continually work towards the improvement of pain relief after surgery. Clinical research suggests that good pain control not only provides comfort following surgery but helps aid a faster recovery.

During your operation the anaesthetist ensures that you feel no pain. They will also decide upon the most appropriate method of pain relief to prescribe following the operation. This is discussed between you and the anaesthetist prior to your surgery.

Following your operation it is important to inform nursing staff should you experience pain and follow advice given regarding the painkillers prescribed to you. The nurse will regularly ask you to give a 'pain score' (see page nine) between zero (no pain) to three (severe pain) in order that the most appropriate pain relief be given to you for the pain you may experience following surgery.

How pain relief works

- Sensation of pain starts at the site of the operation. It is detected by the nerve tips – called nerve endings
- Nerves carry messages from the site of injury to the spine. This is like a motorway leading to the brain with nerves acting as major and minor roads that join at different levels. For example, nerves from the legs join low down; those from the arms join much higher.

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- The pain message travels rapidly up nerve 'roads' from the site of injury the foot. It then continues to travel up the leg, along the spine before reaching the brain. When it arrives at the brain one becomes aware of pain
 - Because of the way pain travels to the brain, an important and effective way to give pain relief is to interrupt the passage of pain messages somewhere along the route between the site of injury and the brain – similar to building a roadblock. Epidural and spinal pain relief act in this way as does a peripheral nerve block

What are the options?

Surgical pain can in most cases be effectively treated. A number of techniques are available at Southend University Hospital and the anaesthetist will decide the method of pain control appropriate for you and the surgery proposed.

Types of painkiller

- tablets, capsules and syrups
- intramuscular injections/subcutaneous injections
- peripheral nerve blocks
- Spinal analgesia
- Patient Controlled Analgesia (PCA)
- Epidural Analgesia (EDA).

Tablets, capsules, syrups and suppositories

Medications taken by mouth or by suppository can take a little while to work, however, this is the preferred route of administering pain relief so it is important not to wait until your pain is severe before asking the nurse for analgesia.

A variety of different painkillers are available for prescription and come in a range of different strengths and types such as liquids and tablets ensuring that individual medication needs can be met using one or a combination of painkillers following surgery.

Injections

Strong painkillers may be given by injection into a muscle in your bottom or leg or a subcutaneous injection which can be given in your arm or abdomen. Injections are usually administered if pain is moderate to severe but is likely to last less than 48 hours. They may take some time for the nurse to prepare and take up to half an hour to work, as above it is important to inform the nurse when pain increases rather than waiting until experiencing severe pain.

However, for people who may require strong painkillers for a longer period of time the anaesthetist may decide to prescribe one of the following:

- PCA (Patient Controlled Analgesia)
- EDA (Epidural Analgesia)
- peripheral nerve block.




PCA (Patient Controlled Analgesia)

PCA is a method of pain control used following major operations. It can be used to self administer a small dose of painkiller every five to six minutes straight into your bloodstream via a cannula.


Why is PCA used?

PCA avoids the need for frequent injections and is available at the push of a button. It works quickly, within three or four minutes, although this can vary between people, and can be used as much or as little as is needed to provide good pain relief.

Is PCA safe?



Provided that you alone operate the handset it is very difficult to overdose using PCA. Short term use of the strong painkillers used in PCA does not cause addiction or dependency.



Setting up a PCA pump

If prescribed by the anaesthetist, the pump is set up in post-op, recovery following your surgery. The post-op recovery nurses will inform you how to use it although the ward nurses can reiterate this information if required.

Operating the pump

The PCA device is activated by pressing a connected button. The device should then be used to provide pain relief as required while at rest and/or prior to movement. As previously stated, post-op nurses and ward nurses can provide education how to use the pump effectively for pain relief.

Duration of treatment

Many patients find that pain killing tablets are sufficient for pain control at about 48 hours after surgery. However, if you are having problems with your pain control please tell your nurse or doctor, they may then refer you to the acute pain nurse.

Peripheral nerve block

Depending on which part of the body has been operated upon, it may be possible to use a procedure called a peripheral nerve block.

This is an injection of local anaesthetic, to numb potentially painful areas, at the time of your operation and is commonly used following an operation on arms or legs. It usually reduces the need for other painkillers, although these can be given as well if required.

Nerve blocks can make the affected area feel heavy and numb. Over a period of time this sensation wears off. It is important to inform staff of any returning feeling so painkillers can be given to help reduce discomfort.

Nerve blocks are generally effective and rarely cause complications. The anaesthetist will inform you if it is appropriate to give a nerve block for the surgery required and also discuss the risks and benefits involved.

Epidural Pain Relief (EDA)

Epidural analgesia is a technique of pain control used after major operations. The anaesthetist will discuss this type of pain control if felt necessary for the proposed surgery.

It involves placing a fine plastic tube (epidural catheter) into the back through which a painkiller (local anaesthetic) is delivered directly to nerves that relay pain.

Why is EDA used?

Epidural analgesia is probably the most effective form of pain treatment currently available and is beneficial to patients undergoing major surgery.

Painkillers are delivered directly to pain nerves, hence, smaller amounts of medication are required. This reduces side-effects such as drowsiness and nausea.

Is EDA safe?

Regular checks and a stringent treatment protocol ensure that complications are rare. However, all pain treatments, even tablets, have some risks and side-effects.

The anaesthetist will inform you of these before surgery.

Setting up EDA

The epidural is inserted by the anaesthetist in the operating theatre before surgery. Upon waking in the post-operative, recovery ward, the epidural will be attached to a machine which slowly delivers a continuous flow of painkiller. This bathes the nerves which carry pain messages to your brain. The amount of painkiller that the pump delivers can be adjusted by nurses, according to your needs.

The acute pain nurses will see you daily while you are receiving epidural analgesia.

Operation of EDA

Nursing staff will regularly monitor blood pressure, pulse and temperature.

You will be sprayed on occasion with a cold spray. It is important to inform nurses when the spray is felt at its most freezing point as this can indicate effectiveness of the epidural. Nursing staff will explain how this is performed after the operation.

Duration of EDA

Epidural analgesia is usually discontinued when drinking fluids are tolerated and painkillers can be given by mouth instead. Medical and nursing staff will assess your individual needs on a daily basis, but an epidural can continue for up to approximately four days.

Side effects of EDA (Adapted from Royal College of Anaesthetists)

Inability to pass urine – The epidural affects nerves that supply the bladder, so a catheter (“tube”) will usually have to be inserted to drain it. This is often necessary anyway after major surgery to check kidney function. With an epidural it is a painless procedure.

Bladder function returns to normal when the epidural wears off.

Low blood pressure – The local anaesthetic affects the nerves going to your blood vessels, so your blood pressure may drop a little. Fluids and/ or drugs can be put into your drip to treat this. Low blood pressure is common after surgery, even without an epidural.

Itching – This can occur as a side-effect of Morphine-like drugs used in combination with local anaesthetics. It is easily treated with anti-allergy drugs.

Feeling sick and vomiting – These can be treated with anti-sickness medication. These problems are less common with an epidural than with most other methods of pain relief.

Backache – This is common after surgery, with or without an epidural and is often caused by lying on a firm flat operating table.

Inadequate pain relief – It may be impossible to place the epidural catheter, the local anaesthetic may not spread adequately to cover the whole surgical area, or the catheter can fall out. If the epidural should fall out then you will be given painkillers by one of the other methods already discussed.

For further information about epidurals please visit www.rcoa.uk

References

Pain relief after your operation. Smiths Portex Pain Management
Royal College of Anaesthetists (May 2008 3rd Edition)
Epidurals for Pain Relief After Surgery.

Further information

www.southend.nhs.uk/your-services/theatres,-critical-care-anaesthetics/acute-pain/

www.rcoa.ac.uk/document-store/epidurals-pain-relief-after-surgery

PAIN SCALE

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- 0** No pain
 - 1** Mild pain
 - 2** Moderate pain
 - 3** Severe pain

Patient Information Service

If this leaflet does not answer all of your questions, or if you have any other concerns please contact the acute pain service on: **01702 43555 ext 6651**.

www.southend.nhs.uk

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