



# THE JOINT STUDIO

RIAZ KHAN & DANIEL FICK

## ANAESTHESIA & PAIN MANAGEMENT FOR KNEE REPLACEMENT

### BEFORE SURGERY

#### FASTING INSTRUCTIONS

No food for 6 hours before your operation.

It is okay to drink clear fluids up to 2 hours before surgery (water, clear fruit juice, black tea/coffee) until arrival at the hospital.

#### MEDICATIONS

Take all your usual medications. If diabetic and taking insulin, take half your usual dose the night before and no insulin or diabetic tablets on the morning of your operation. Discuss use of blood thinners with your surgeon or anaesthetist especially if you have cardiac stents. Aspirin can be continued. Lyrica will usually be offered to all patients as a 'pre-med' (unless you have had prior problems with this medication).

### ANAESTHETIC PLAN

The typical anaesthetic sequence is listed below. This may be altered to suit your requirements. Firstly, all patients will be asleep for the operation with a full general anaesthetic, unless otherwise requested. In addition to this we will use three types of local anaesthetic, the first two will be done before you go to sleep.

1. *A spinal injection*
2. *A local anaesthetic catheter in your leg*
3. *Local anaesthetic in your knee joint, placed by the surgeon*

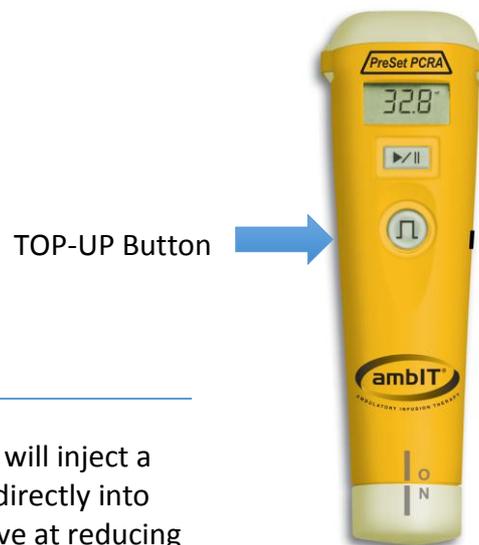
### Spinal injection

This is a simple single injection in the lower back designed to keep your legs numb for several hours after your operation. It is not an "epidural". It is done in the sitting position or lying on your side. The main benefits of a spinal injection is total pain relief for several hours after the operation and a marked reduction in the amount of morphine based pain medications used during this period. This often means less side effects relating to morphine medications such as nausea, drowsiness and itch. The effect of the injection is to put both legs to sleep so that you will not be able to feel or move them at all for a few hours. This is a very safe technique and complications are uncommon. Serious complications are rare. ***The spinal injection is recommended but optional.*** It does not contribute to low back pain and is considered quite safe however if you do not wish to have this injection please discuss this with your anaesthetist. If you have had spinal fusion surgery it may be more technically difficult and may not be offered.

## Local Anaesthetic Catheter

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This is a small catheter, which will be placed into your thigh muscle using ultrasound guidance. It may be done before you go to sleep with sedation. The catheter will be connected to a portable pump, which will trickle local anaesthetic into your leg for 3-5 days after your surgery. The effect is to reduce pain from your knee. Muscle strength may be affected by this infusion but should be sufficient to allow you to walk. You may feel a numb sensation around the knee and down the inside of your leg as far as the ankle while the infusion is running. The catheter will provide continuous pain relief in the background but you will need additional pain relief tablets. Simply speak to your nurse if your pain relief is not adequate. The pain catheter may also be 'topped up' by pressing the button attached to it when you feel like you need extra pain relief such as when you are going to walk or do physiotherapy however it may or may not be effective. **Please note that the pain catheter will not block pain from the back of the knee or the thigh muscles which can be sore in the first 24 hours due to the application of a tourniquet during surgery.** The top up button is available every 4 hours. If pressing the button does not assist with pain relief ask for a pain tablet from the nurses.



## Direct Local Anaesthetic Injection

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When you are asleep, the surgeon will inject a large amount of local anaesthetic directly into your knee joint. This is very effective at reducing pain after surgery and will last 12-24 hours after your operation.

## AFTER YOUR OPERATION

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If you have had a spinal injection, you will wake up with numb legs and be unable to move them for at least 2-3 hours. As the spinal wears off you may notice some pain in your knee. For most people it wears off gradually and they will be comfortable at rest. Occasionally the pain may come on quickly and can be severe. To help prevent this the surgeon will have injected a large amount of local anaesthetic directly into your knee joint while you were asleep. We will also give you a slow release pain tablet (**PALEXIA SR**) before the spinal injection wears off.

If you do start to feel pain call the nurse for a pain tablet, usually a quick release strong pain reliever such as **PALEXIA IR**. You may also try pressing the button attached to your local

anaesthetic catheter. This gives you a 'top-up' of local anaesthetic. It may help but does not affect pain at the back of the knee. It is available to press once every 4 hours. It is unlikely to be needed on the day of surgery but it may be useful the following day before or after physiotherapy. Even if you don't get relief the first time you press the button you may get relief on subsequent attempts so you can try to press it again.

There are a range of medications used to help with pain management. It is important that you get to understand what these are and how they make you feel as all of these can have side effects. You will also need to know about these tablets as you will be taking some home following discharge.

Most patients are relatively comfortable at rest but will experience moderate or occasionally more severe pain when bending the knee or walking. The most common pain score while walking is 4 out of 10 but the range is wide with some patients almost completely pain free and others with moderate to severe pain. Approximately 1 in 20 will experience a lot more pain and consume more pain tablets than other patients. We have ward rounds daily by a pain team supervised by a pain specialist who can help by putting stronger local anaesthetic into your leg catheters, performing additional nerve blocks or changing your medications to help make you comfortable.

## Tablets

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### **PANADOL (Paracetamol, Panadol Osteo)**

This is a simple pain reliever, which should be taken on a regular basis to reduce your need for stronger medications. Take two tablets 3-4 times per day for at least two weeks. Panadeine Forte has codeine added for extra pain relief but may cause drowsiness or nausea or constipation. Do not take more than eight tablets of either medication in 24 hours.

### **ANTI-INFLAMMATORIES**

These include **Mobic, Celebrex, Nurofen** and **Naprosyn**. Take with a glass of milk or after a meal. If you have kidney disease, stomach ulcers, heart failure or previous allergic reactions you may need to avoid these tablets. Otherwise continue to take these every daily for two weeks after surgery then stop. Some patients may continue to take anti-inflammatories longer term after discussion with your doctor.

### **LYRICA**

This is an important pain reliever which can reduce pain during your hospital stay and also reduce the risk of longer term pain after your surgery. It may cause dizziness and drowsiness or occasionally hallucinations in some individuals. At higher doses it may also cause blurred vision which is relieved by reducing the dose. Initial dose is typically 75 mg twice daily or simply once daily at night. If tolerated please continue to take Lyrica for two weeks after your surgery or at least until your pain is well controlled.

### **STRONG PAIN KILLERS**

#### **PALEXIA (Tapentadol)**

*This is a newer painkiller for moderate to strong pain which can be very effective for pain. It comes as 50 mg slow release (SR) available twice per day or 50 mg immediate release (IR), which can be taken every 2-4 hours as needed. Initially you will receive regular PALEXIA SR and*

*if you need additional pain relief then you will be offered the PALEXIA IR in addition. As you progress you may stop taking the PALEXIA SR if you no longer need it.*

*PALEXIA may have some side effects similar to morphine such as nausea, sedation & itch. Most patients will be prescribed PALEXIA but if required there are some alternatives listed below.*

## ALTERNATIVE PAIN MEDICATIONS

**Targin** – This is an alternative to Palexia. It is also available twice daily as needed. It may cause more nausea than Palexia.

**Endone (Oxycodone)** – Comes as 5 or 10 mg available every 2 hours in hospital then 4-6 hourly when at home. It is a strong painkiller with a quick onset but only lasts ~2hours. This is good to take before physiotherapy or when pain is not well controlled.

**Temgesic** – This tablet goes under the tongue and is similar to Endone but slightly slower in onset and longer acting.

**Norspan skin patch** – This contains the same medication as Temgesic. Some patients will be offered a Norspan patch, which is applied to the skin and lasts one week. The patch comes in 5 or 10 microgram strengths. This may also cause the same side effects as above.

### **Tramadol**

*Available as slow release (twice daily) or immediate release (x4 per day) this is for moderately strong pain and may suit some patients. However it is not well tolerated by all and sedation and nausea are not uncommon. Avoid if any history of seizures.*

### **Side effects**

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All strong pain medications have the potential for side effects which include nausea, vomiting, dizziness, confusion, constipation and possibly hallucinations. If you are on strong pain relievers avoid alcohol, driving and operating machinery. Sedation may be improved by reducing the dose or taking the medication less often. If you feel excessively light-headed, spaced out or nauseated, try reducing your dose. If your symptoms persist try an alternative pain reliever or contact your doctor (see below). To prevent constipation, ensure you have adequate fluid intake and dietary fibre. You may also need to take regular laxative until you no longer need strong pain relievers. If you have a Norspan skin patch on and you have experienced persisting nausea or sedation the patch may have to be removed to alleviate the side effects and an alternative pain reliever used.

## FOLLOWING DISCHARGE

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It is important that you understand what medications to use when you leave the hospital:

### **The first two weeks**

- 1 PARACETAMOL** (Panadol, Panadol Osteo) for up to four weeks.

- 2 **ANTI-INFLAMMATORIES** (Mobic, Celebrex, Nurofen etc.) for two weeks then stop. If you wish to continue these medications please discuss with your GP as longer-term use should be in consultation with your doctor.
- 3 **LYRICA** should ideally be continued for up to two weeks after your surgery as it can be an effective pain reliever and may reduce the risk of persistent pain in the longer term. Should you experience unpleasant side effects you can reduce your dose or take only at night or stop altogether
- 4 **PALEXIA SR** twice daily until your mobility is not significantly affected by pain. The duration of this medication is variable. Aim to reduce and stop this medication soon after discharge if you can mobilise. If you still require this medication beyond two weeks post-discharge please consult your doctor. PALEXIA IR may also be available post-discharge but usually only provides temporary relief and the SR tablet may be more useful.

### After two weeks

- 1 Stop taking regular **ANTI-INFLAMMATORIES**. If you feel that you need to continue taking these please discuss with your doctor.
- 2 Reduce or stop using the **PALEXIA** once your pain is under control.
- 3 Stop taking **LYRICA** if your pain control is adequate and you no longer need PALEXIA. If pain at night is an issue it may be useful to continue taking Lyrica at night until this improves.
- 4 Continue **PARACETAMOL** (Panadol or Panadol Osteo) on a regular basis until you no longer need any other pain medication

***If you are still having difficulties with pain management after two weeks please consult your surgeon or GP for further advice and assessment.***

### Contact numbers

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*If you are having problems you can contact:*

1. Hollywood hospital: 9346 6000 (ask to be put through to the ward)
2. The Acute Pain Service: 0408 734105
3. The Joint Studio: 9386 3933 (Office hours)
4. Your local GP
5. Your anaesthetist: Dr. Mark Lennon

Mob: 0408230564, [mjlenon3@bigpond.com](mailto:mjlennon3@bigpond.com)