



Remifentanil patient-controlled analgesia (PCA)

This leaflet explains what Remifentanil PCA is and why it may be recommended to you as an alternative method of pain management. If you have any questions or concerns, please speak to your midwife or doctor.

Introduction

There are several ways of managing pain during your labour and birth which include:

- Relaxation techniques and breathing exercises.
- Hypnobirthing, reflexology and staying active.
- The use of water, in a pool or a bath.
- TENS machine – small electrical impulses sent through pads on your back.
- Water injections – four small injections of sterile water into your skin in four areas of your lower back.
- Entonox – a mixture of nitrous oxide and oxygen (gas and air) which you can breathe.
- Diamorphine injection into your bottom or leg.
- Epidurals – injecting a medication, either an anaesthetic or a steroid, into the space around your spinal nerves.

This leaflet aims to explain an alternative treatment that we are able to offer you at the Royal Berkshire Hospital, which can give you more effective pain relief than the other ways listed below.

Remifentanil is a strong pain-relieving medicine that works in a similar way to Diamorphine. However, unlike these, it is very quickly broken down into something that has no effects on the body. Babies' bodies are also able to get rid of it. Remifentanil also works very quickly. It is always given directly into the blood, and so quickly travels to the brain to give pain relief. The advantage of this over Diamorphine is that it should work more quickly but not build up in your body.

Although remifentanil can cause the same unwanted effects as Diamorphine – sleepiness, sickness, itching and reduced breathing – they do not last very long, as your body will get rid of this medicine very quickly.

We use a special pump to give remifentanil during labour. This is called a PCA pump (or Patient-Controlled Analgesia pump). This is connected to a cannula (a drip) in your arm. You will be given a button to press, which tells the machine to give you a dose of the medicine. The machine will not give you another dose for two minutes, no matter how many times you press the button. It can take some time to learn how to time pressing the button with your contractions. We recommend pressing the button just before or at the start of your contraction. Because it is possible that your breathing might slow down, we will keep a very close eye on

you. We will measure your pulse, blood pressure, oxygen levels and will monitor your baby's heart rate with the CTG machine. You may need to be given a little oxygen to breathe.

Not everyone who has used remifentanil PCA has found it effective. For some, the side effects of nausea and sleepiness are worse than the advantages to managing the pain. The advantage of this technique over Diamorphine is that if you do not like it you can stop it and within 10 to 20 minutes you will not have any of the side effects. Diamorphine, however, lasts for several hours. The anaesthetist on duty will come and talk to you when you are admitted. Please ask if you have any questions or worries. Whether you have the remifentanil PCA is your decision but we will give you as much information as we can to help you to make it.

As with many drugs, remifentanil is not licenced for use in pregnancy but is widely used internationally and is a well-recognised method of providing pain management in labour.

Pain management is a personal choice and not all methods are suitable for everyone, either through choice or because of pre-existing conditions.

You can discuss your options with your anaesthetist who can help make recommendations as part of your personalised care and support plan.

References

1. Remifentanil for labor analgesia: an evidence-based narrative review. M. Van de Velde, B. Carvalho. International Journal of Obstetric Anaesthesia (2016) 25, 66–74
2. Jones L, Othman M, Dowswell T, Alfrevic Z, Gates S, Newburn M, Jordan S, Lavender T, Neilson J. Pain management for women in labour: an overview of systematic reviews. Cochrane Database of Systematic Reviews 2012, Issue 3. Art. No.: CD009234. DOI: 10.1002/14651858.CD009234.pub2

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

Dr R Jones, Consultant Anaesthetist, March 2004

Reviewed: July 2024

Next review due: July 2026

Our Maternity Strategy and Vision

'Working together with women, birthing people and families to offer compassionate, supportive care and informed choice; striving for equity and excellence in our maternity service.'

You can read
our maternity
strategy here

