IDA-TALLINNA KESKHAIGLA

AS Ida-Tallinna Keskhaigla
Ravi 18, 10138 Tallinn
Rg-kood 10822068
Tel 666 1900
E-post info@itk.ee
www.itk.ee

# Patient-controlled pain relief in obstetrics with remifentanil

The purpose of this leaflet is to introduce the intravenous administration of remifentanil to the patient (the parturient) as a method of pain relief during labour. People have different pain thresholds and there is no shame in wanting to relieve pain. Labour pain can be relieved by various methods. Epidural analgesia is used for particularly severe pain and is widely used today as the most effective method of labour pain relief. In cases where the placement of an epidural catheter is not permitted or technically possible (for example, blood clotting disorders or extensive spinal surgery), the administration of the short-acting systemic opioid remifentanil is an alternative option for controlled pain relief during labour.

**What is remifentanil?**

Remifentanil is a strong painkiller that belongs to the same group of opioids as morphine and oxycodone. Its effects are rapid in onset and short-lived, allowing maximum pain relief to be timed with contractions. Like other opioids, it can cause nausea, dizziness, itching and slow breathing. As the effects of the medicine wear off quickly, side effects also subside and disappear within a few minutes after stopping the medication. The medication also leaves the baby's system quickly, so serious side effects are unlikely. To ensure safety, the midwife will monitor the newborn immediately after birth. Should potentially harmful side effects occur, the effects of remifentanil can be reversed with the antidote naloxone.

**How is the medication administered?**

The medication is administered intravenously using a specially programmed automatic syringe. To prevent errors (such as accidental overdose), a separate intravenous line (cannula) is established for the medication. You control the medication administration yourself – the automatic syringe delivers a fixed dose every time you press the button. As the effect occurs after about half a minute, the button should be pressed immediately at the beginning of a contraction.

Since this is a potent medication with the rare side effect of slowed breathing, you will require close monitoring. To ensure your safety, you will be given a small amount of supplemental oxygen through a nasal cannula. Your blood oxygen level will be monitored with a fingertip sensor and your baby’s condition will be monitored with cardiotocography. The medication should only be administered (the button pressed) when the midwife is present and can monitor you. If the maternity ward is very busy and the midwife cannot stay with you, remifentanil pain relief cannot be used.

As drowsiness and dizziness may occur, you are not allowed to move around while using remifentanil to avoid the risk of falling.

**What are the benefits of remifentanil?**

- Remifentanil is the most effective method of pain relief in obstetrics when epidural analgesia is contraindicated.
- You can control the amount and timing of the medication administration yourself.

**What are the disadvantages of remifentanil?**

- Side effects may include drowsiness, nausea, itching and slowed breathing.
- Around 1 in 100 patients have to discontinue the medication due to severe side effects. Very rarely, the patient may need assisted breathing.
- A separate intravenous cannula must be used to administer the medication and you are not allowed to move around while using it.
- For your safety, constant monitoring by a midwife is necessary, which requires the presence of a midwife in the delivery room.

**Remifentanil and breastfeeding**

There are no studies on the excretion of remifentanil in breast milk. Remifentanil breaks down quickly in the body and it is unlikely that any amount of the medication that would affect the baby would be excreted in breast milk.

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