

PENTHROX use in Outpatient Gynaecology

What is Pentrox?

Pentrox (methoxyflurane) is an inhalation vapour used for the relief of moderate to severe pain in conscious adult patients with trauma and associated pain. It is a fluorinated anaesthetic however used in significantly lower doses than that required to provide a general anaesthetic.

Off license it can be used in the outpatient gynaecology setting for procedures where moderate to severe pain would be expected.

Indications:

Pentrox is licenced for use in adults with traumatic pain, of moderate to severe severity. It is widely used by ambulance crews and in ED and has been used in Australia and New Zealand for over 30 years.

Off license it can be used in the outpatient gynaecology setting for planned procedures where moderate to severe pain would be expected. It should be used instead of Entonox for women who find gynaecological procedures uncomfortable, and specifically for all women who would otherwise not tolerate the procedure in their GOPD appointment and require a further appointment in MOPS or in theatre under a spinal / general anaesthetic.

Example Outpatient Procedures

- Diagnostic hysteroscopy
- Operative hysteroscopy (Novasure / polypectomy / curettage / myosure)
- Pipelle biospsies
- Difficult coil insertion / removal
- MVA

Pentrox is to be used in favour of Entonox.

- Pentrox is more environmentally friendly

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- Pentrox is likely to provide the same if not better pain relief.
 - Entonox is likely to be phased out of the NHS in the coming years.

Contraindications:

There are some contraindications to the use of Pentrox; some of which are unique to methoxyflurane as a fluorinated anaesthetic, whilst others are more generic but must be considered before a patient is provided with a Pentrox inhaler.

- History or family history of malignant hyperthermia
- Allergy to any fluorinated anaesthetic
- Significant Kidney or liver impairment
- Reduced consciousness
- Drug or alcohol use
- Cardiovascular instability
- Ongoing pregnancy

Note: Do not exceed 6ml or 2 vials of Pentrox within 24 hours.

Common side effects – cough, dry mouth, dizziness, drowsiness, amnesia, headache, skin tingling, double vision, skin flushing, sickness.

Please note that staff can commonly detect Pentrox during its use even with a filter – this is normal and does not cause any side effects.

Please review the **checklist** before giving to a patient and write 'checklist completed' when prescribing.

Women using Pentrox must be given a **green Pentrox paper wrist band**. This should stay on for 48 hours. If a woman who has used Pentrox requires an anaesthetic in the next 48 hours, previous Pentrox use would alter what anaesthetic is given.

Prescribing

We are keeping track of all patients having Pentrox via prescription on PowerChart. Please write in the other comments box 'checklist completed' or sign a written copy of the checklist which will remain in the patients notes.

- Inpatient : type in 'Methoxyflurane 3ml INH, once only' in PowerChart
- Outpatient : type in 'Methoxyflurane 3ml INH, once only' in PowerChart and when generating an outpatient prescription please write 'dispensed by GOPD'

Driving

All women who are driving home should stay in the department for at 30 minutes. Pentrox can make women dizzy or sleepy, although in most women this is quick to wear off.

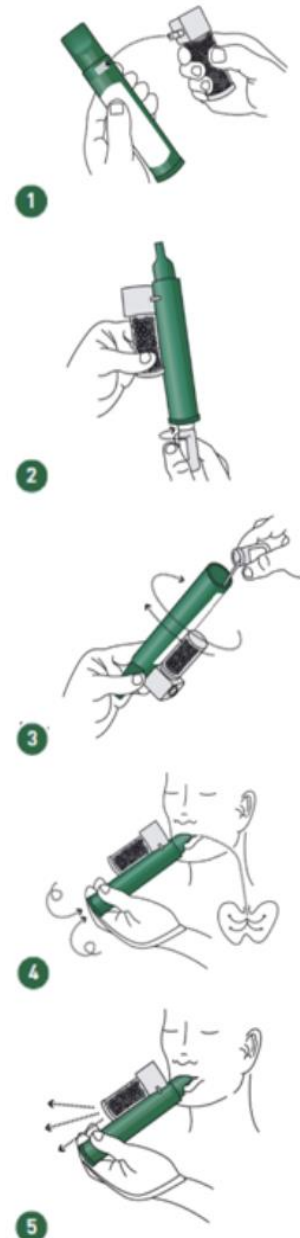
**** All women who use Pentrox should be asked to complete the hysteroscopy patient satisfaction survey on the blue iPad****

Royal United Hospitals Bath
NHS Foundation Trust



Appendix 2 - Pentrox device set up and use

- 1 Ensure the Activated Carbon (AC) Chamber is inserted into the dilutor hole on the top of the PENTHROX Inhaler.
- 2 Remove the cap of the bottle by hand. Alternatively, use the base of the PENTHROX Inhaler to loosen the cap with a ½ turn. Separate the Inhaler from the bottle and remove the cap by hand.
- 3 Tilt the PENTHROX Inhaler to a 45° angle and pour the total contents of one PENTHROX bottle into the base of the Inhaler whilst rotating.
- 4 Place wrist loop over patient's wrist. Patient inhales through the mouthpiece of the PENTHROX Inhaler to obtain analgesia. First few breaths should be gentle and then breathe normally through Inhaler.
- 5 Patient exhales into the PENTHROX Inhaler. The exhaled vapour passes through the AC Chamber to adsorb any exhaled methoxyflurane.



6 If stronger analgesia is required, patient can cover dilutor hole on the AC chamber with finger during use.



7 Patient should be instructed to inhale intermittently to achieve adequate analgesia. Continuous inhalation will reduce duration of use. Minimum dose to achieve analgesia should be administered.



8 Replace cap onto PENTHROX bottle. Place used PENTHROX Inhaler and used bottle in sealed plastic bag and dispose of into a large sharps bin

