FROM HERE, HEALTH



Clinical Standards Committee

THE ADMINSTRATION OF AN INHALED PRESCRIPTION ONLY MEDICATION [METHOXYFLURANE (PENTHROX)] BY NON-HEALTHCARE PROFESSIONALS.

DATE: 28 September 2018

SITUATION: A founding principle in prehospital emergency care is the relief of suffering. Towards this aim, all our patients deserve quality analyses if they are in pain. Inadequately managed acute pain can have consequences that can worsen patient suffering and clinical outcome.

Healthcare professionals have a wide a range of analgesic options available to deal with pain. Currently, this is not the case for non-healthcare professionals as they rely upon a small group of drugs to manage pain. These are focussed towards the lower end of the pain management spectrum [mild pain] e.g. Paracetamol

Of particular interest to this group of prehospital care providers is the availability of the strong analgesic, METHOXYFLURANE (PENTHROX) that is used to manage moderate to severe pain. There are operational and clinical advantages in using the inhaled route and as such METHOXYFLURANE (PENTHROX) is being utilised more and more by non-healthcare professionals to provide quality analgesia to patients in severe pain.

Inhaled analgesia is simple, fast acting, can be self-administered by the patient. It is well recognised as an effective treatment option for conscious patients who require the emergency relief of moderate to severe acute pain. METHOXYFLURANE (PENTHROX) is used of the management of pain following trauma e.g. burns, fractures, dislocations.

BACKGROUND: non-healthcare professionals have requested guidance in the administration of inhaled analgesia in the prehospital setting, specifically METHOXYFLURANE (PENTHROX). In response to these requests, the FPHC have produced the following guidance.

ASSESSMENT: Human Medicines Regulations 2012, Schedule 17, Part 3 restrictions around administration of prescription only medication in UK medicines legislation only relates to products for parenteral use. Ref: http://www.legislation.gov.uk/uksi/2012/1916/schedule/17/made
These restrictions do not apply to non-parenteral use medications e.g. inhaled drugs.

RECOMMENDATIONS: The Medicines and Healthcare products Regulatory Agency [MRHA] have agreed that providing the non-healthcare professionals maps to the following governance framework they can administer METHOXYFLURANE (PENTHROX).

Agreed clinical governance framework.

- 1. The drug has to be legally supplied
- 2. There exists a Standard Operating Procedure for its use that includes assessment and recording of a pain score.
- 3. The non-healthcare professional has been appropriately trained by a qualified instructor with an approved training package.
- 4. The individual will be working under a robust clinical governance framework which is led by a medical/clinical director
 - a. Independent Prescriber
 - b. Registered with GMC/NMC/HCPC
- 5. Each patient administration is recorded on the appropriate documentation
- 6. Each administration is reviewed by the medical/clinical director
- 7. There is an audit process for its use within the organisation
- 8. The FPHC guide that the non-healthcare professional skill set is mapped against C or above of the FPHC PHEM Skills Framework to administer METHOXYFLURANE (PENTHROX).
 - a. https://fphc.rcsed.ac.uk/my-fphc/resources/academic-and-professional-resources/fphc-phem-skills-framework

Protocol

An example of a protocol for an organisation to enable non-healthcare professional to administer a patient administered inhaled analgesic [METHOXYFLURANE (PENTHROX)] is attached.

Professor Sir Keith Porter Dr John Hall Mr Andy Thurgood Professor David Lockey PROTOCOL FOR THE ADMINISTRATION OF METHOXYFLURANE (PENTHROX) VAPOUR LIQUID USING A PENTHROX INHALER FOR THE EMERGENCY RELIEF OF MODERATE TO SEVERE PAIN IN CONSCIOUS ADULT PATIENTS WITH TRAUMA AND ASSOCIATED PAIN.

Introduction

Acute pain is commonly associated with trauma, some surgical and non-surgical interventions and some medical conditions, for example heart attack. Inadequately managed acute pain can have consequences that can worsen patient suffering and clinical outcome.

METHOXYFLURANE (PENTHROX) is inhaled (breathed in) by the patient using a special inhaler and offers a fast-acting and self-administered treatment option for the emergency relief of moderate to severe acute pain in conscious patients who have sustained trauma.

Purpose of this Protocol

To enable a XXXX, who has been assessed as competent, to safely administer METHOXYFLURANE (PENTHROX) inhalation. This will be for emergency relief of moderate to severe acute pain in conscious patients with moderate to severe acute pain following trauma when there is no immediate access to medical care. The Protocol will be subject to regular review to ensure that it is in line with current clinical and professional practice. This Protocol does not override the individual responsibility of an XXXX to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and /or carer.

XXXX must be prepared to justify any deviation from this Protocol.

The aim of this Protocol is to

- 1. To ensure appropriate use of METHOXYFLURANE (PENTHROX) after assessment of the patient and their requirements;
- 2. To ensure safe and appropriate administration of METHOXYFLURANE (PENTHROX) using an inhaler;
- To ensure all patients receive information and explanation on the use of METHOXYFLURANE (PENTHROX);
- To provide a framework for assessing competence in the administration of METHOXYFLURANE (PENTHROX);
- 5. To provide a framework for gaining competence to use this Protocol;
- 6. To define record keeping and audit requirements to demonstrate effectiveness of this Protocol and safe use of METHOXYFLURANE (PENTHROX) inhalation according to the Protocol.

| 1. Staff characteristics | |
|-------------------------------------|--|
| Qualifications Required | XXXX must have received training in the use of METHOXYFLURANE (PENTHROX) using an inhaler and be competent in administration including indication, method of use, contraindications and side effects (refer to Annex A); |
| | Competence in the use of a METHOXYFLURANE (PENTHROX) inhaler device; |
| | Basic life support |
| Additional Requirements | METHOXYFLURANE (PENTHROX) is included in the British National Formulary which is also available online - https://bnf.nice.org.uk/drug/METHOXYFLURANE (PENTHROX).html |
| Continuing Training Requirements | It is the responsibility of the XXXX to ensure they keep themselves updated and competent in the use of this medication (refer to Annex A) |
| 2. Clinical Condition | |
| Patients included or | This protocol has a limited application and applies only to XXXX |
| covered by this Protocol | Conscious adult patients who require emergency relief of moderate to severe acute pain following accidents, burns or other trauma when there is no easy access to medical care; |
| | Those included XXXX and members of the public as required |
| Patients excluded from | Children aged under 18 years; |
| this Protocol | Females during pregnancy, in child birth or breastfeeding; |
| | Patients with Contraindications (see next section); |
| Action if patient excluded | Make contact with emergency medical care as soon as possible; |
| or treatment declined | Refer to supervising doctor/receiving facility as appropriate; |
| | Document refusal or action taken in patient's record. |
| Details of the Medicine | |
| Name of Medicine | METHOXYFLURANE (PENTHROX) inhalation vapour, liquid; |
| | Each 3mL vial contains METHOXYFLURANE (PENTHROX) 99.9% in a bottle with a tear off tamper-evident seal; |
| | The combination pack has one 3 mL bottle, one inhaler and one Activated Carbon (AC) chamber. |
| | Brand name: PENTHROX 3ML INHALATION VAPOUR, PL 42467/0001 |
| | Marketing Authorisation Holder: Medical Developments UK Limited c/o Price Bailey LLP; Causeway House: 1 Dane Street, Bishop's Stortford, Herts. CM23 3BT, United Kingdom. |
| Legal Classification | POM (Prescription Only Medicine) |

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| Route | Administration by inhalation; |
| | METHOXYFLURANE (PENTHROX) should be self-administered under supervision of a person trained in its administration, using the hand held inhaler. |
| Indications | Emergency relief of moderate to severe pain in conscious adult patients with trauma and associated pain; |
| | METHOXYFLURANE (PENTHROX) is intended to reduce the severity of pain, rather than stop it completely. |
| Contraindications | Do not use on patients who are known to: |
| | Be allergic to METHOXYFLURANE (PENTHROX) any other anaesthetic given by inhalation or any of the ingredients in the product; |
| | Have a history or family history of severe side effects to METHOXYFLURANE (PENTHROX): |
| | Have a history or family history of malignant hyperthermia (a condition where symptoms such as a very high fever, fast, irregular heartbeat, muscle spasms and breathing problems have occurred after being given an anaesthetic); |
| | Have previously had liver damage after using METHOXYFLURANE (PENTHROX) or any inhalation anaesthetics; [SEP] |
| | Have significant kidney impairment. Sep |
| | NEVER use on a patient if: |
| | • SEE They have no radial pulse palpable; or a Respiratory Rate > 30 and/or a radial pulse rate > 120 |
| | METHOXYFLURANE (PENTHROX) (or other inhalation anaesthetic) has knowingly been used within the previous 3 months; |
| | There is a change in the level of consciousness due to any cause including head injury, drugs, or alcohol; [52] |
| | They have shallow breathing or difficulty in breathing. [] |
| Special warnings and | Use with caution if the patient: |
| precautions for use | Has heart and/or circulation problems, high blood pressure, irregular heartbeat and/or is taking drugs which affect the heart; |
| | Appears to be sleepy, euphoric or has difficulties in concentrating; |
| | Has amnesia; |
| | Is known to have abused anaesthetics; |
| | Is suffering from diseases of the kidney or liver; |
| | Is aged over 65 years. |
| | To reduce occupational exposure to METHOXYFLURANE (PENTHROX), XXXX should always use the inhaler with the Activated Carbon (AC) Chamber, which absorbs exhaled METHOXYFLURANE (PENTHROX). |
| | Multiple use of the METHOXYFLURANE (PENTHROX) inhaler without the |

| | AC Chamber creates additional risk. Although the risk is very small when METHOXYFLURANE (PENTHROX) is used as stated in this protocol, if XXXX have been exposed to any METHOXYFLURANE (PENTHROX) vapour used without the AC Chamber, they should seek medical advice as soon as possible. | |
|-----------------------------------|--|--|
| Interactions with other medicines | Do not drink alcohol whilst using METHOXYFLURANE (PENTHROX) as it may increase its effect; | |
| | There are no other reported drug interactions when METHOXYFLURANE (PENTHROX) is used for pain relief at the dose set out in this protocol. | |
| | METHOXYFLURANE (PENTHROX) may interact with the following when a higher dose of METHOXYFLURANE (PENTHROX) (outside the scope of this protocol) is used: | |
| | Medicines having a depressant effect such as sleeping pills, tranquillisers, opiate pain killers, sedating antihistamines, alcohol; | |
| | Isoniazid to treat tuberculosis; | |
| | Phenobarbital to treat epilepsy; | |
| | Rifampicin or other antibiotics that may harm the kidney such as tetracycline, gentamicin, colistin, polymyxin B and sepamphotericin B. | |
| Dose | One bottle of 3 mL METHOXYFLURANE (PENTHROX) to be vaporised in an inhaler. | |
| | On finishing the 3 mL dose, another 3 mL may be used; | |
| | Dose of METHOXYFLURANE (PENTHROX) should not exceed 6 mL in a single administration; | |
| | METHOXYFLURANE (PENTHROX) may cause renal failure if the recommended dose is exceeded; | |
| | The lowest effective dosage of METHOXYFLURANE (PENTHROX) to provide analgesia (pain relief) should be used; | |
| | METHOXYFLURANE (PENTHROX) can be administered by continuous or intermittent inhalation. | |
| Duration of treatment | METHOXYFLURANE (PENTHROX) enters the lungs in the form of a vapour and is rapidly transported into the blood, therefore there is a rapid onset of analgesic (pain relief) action which may start after 6-10 inhalations; | |
| | A single dose of METHOXYFLURANE (PENTHROX) may take between 5-10 minutes to provide effective pain relief, with a maximum effect after about 15 minutes. The effect will last about 25 minutes if administration (inhalation) is continuous, but up to an hour if intermittent inhalation is used; | |
| | METHOXYFLURANE (PENTHROX) will stop acting about 3-5 minutes after inhalation ceases, and effective pain relief will reduce. A second dose may be used when the first dose has been exhausted if the patient still requires pain relief. This second dose may be continuous with the first dose, or used at some time within the following 24 hours. | |
| | The protocol permits administration of METHOXYFLURANE (PENTHROX) up to a maximum of 6ml (two 3mL bottles) for emergency use in a hostile environment where access to a doctor and/or emergency medical care is | |

| | not possible. |
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| Advice to patient and any | Provide information about side effects; |
| accompanying person | Advise patient that METHOXYFLURANE (PENTHROX) contains a stabiliser ingredient called butylated hydroxytoluene (E321), which may cause local skin reactions (eg. contact dermatitis), or irritation to the eyes and mucous membranes. |
| Advice about driving and using machinery | METHOXYFLURANE (PENTHROX) may have a minor influence on the ability to drive and use machines. Dizziness, sleepiness and drowsiness may occur following the administration of METHOXYFLURANE (PENTHROX). |
| | Patients should be advised not to drive or operate machinery if they are feeling drowsy or dizzy. |
| Follow up | The patient must be referred to a doctor or for emergency medical care as soon as possible. |
| Side effects | METHOXYFLURANE (PENTHROX) is a 'Black Triangle' product. This means that it is a newly licenced product in the UK and is subject to additional monitoring to allow quick identification of any new safety concerns. |
| | Ref: https://bnf.nice.org.uk/guidance/adverse-reactions-to-drugs.html |
| | XXXX who note any side effects when patients are using METHOXYFLURANE (PENTHROX) must report these to a clinical lead as soon as possible (in addition to recording them as usual – see Record Keeping and Documentation section). |
| | It is the clinical lead's responsibility to ensure these side effects are reported if necessary via the Yellow Card Scheme at: http://www.mhra.gov.uk/yellowcard |
| | Serious side effects |
| | Although highly unlikely at the dose permitted in this protocol, if there are any of the following serious side effects which can be life threatening, emergency medical help should be contacted as soon as possible: |
| | Serious allergic reaction, symptoms include difficulty breathing and/or swelling of the face; |
| | • Liver problems, such as loss of appetite, nausea, vomiting, jaundice (yellowing of the skin and/or eyes), dark coloured urine, pale coloured stools, pain/ache or sensitivity to touch in your right stomach area below your ribs); |
| | Kidney problems such as reduced or excessive urination or swelling of feet or lower legs; [] |
| | Definition of side effects as defined by the MHRA: |
| | Very common (affecting one or more people in every 10) |
| | Common (affecting between 1 and 10 people in every 100) |
| | Uncommon (affecting between 1 and 10 people in 1000) |
| | Rare (affecting between 1 and 10 people in 10,000) |
| | Very rare (affecting fewer than 1 person in 10,000) |

| | Not known (cannot be estimated from the available data) | |
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| Nervous system side effects | • Common - Loss of memory, Anxiety and depression, Dizziness, Difficulty in speaking, Euphoria (a feeling or state of intense excitement and happiness), Headache, Numbness, Sleepiness or drowsiness; | |
| | Uncommon – 'Pins and Needles' in hands and feet; | |
| | Not known - Restlessness or agitation, Feeling of being disconnected from reality, Feeling Disorientation, Feeling of consciousness, Altered mood. | |
| Heart and circulation side | Common – low blood pressure; | |
| effects | Not known – blood pressure fluctuation. | |
| Gastrointestinal and | Common - Dry mouth, Nausea, Taste disturbance, Loss of taste; | |
| mouth problems) | Uncommon: Mouth discomfort; | |
| | Not known: Vomiting, Choking. | |
| Other side effects | Common – Coughing, Sweating, Feeling drunk; | |
| | Uncommon – Double vision, Tiredness, Feeling abnormal, Increased appetite, Shivering; | |
| | Rare - Liver failure or liver disease; | |
| | Unknown - Shortness of breath. [SEP] | |
| Action to be taken in case of an overdose | If there are signs of drowsiness, pallor and muscle relaxation following METHOXYFLURANE (PENTHROX) use, emergency medical help should be contacted as soon as possible. | |
| | Very high doses of METHOXYFLURANE (PENTHROX) cause dose related kidney failure, which may occur several hours or days after the administration of repeated high doses of METHOXYFLURANE (PENTHROX). | |
| How to use PENTHROX (ME | THOXYFLURANE (PENTHROX)) | |
| Choice of pain killer | METHOXYFLURANE (PENTHROX) inhalation has strong relieving properties normally seen with opiates. | |
| | It is a non-opioid product and is not governed by controlled drug legal requirements | |
| | • It has a very similar profile for speed of onset and relief of pain to opiates. | |
| Assessment | Assess the patient and ensure they are fully conscious; | |
| | Assess the degree of acute pain; | |
| | Assess if use of METHOXYFLURANE (PENTHROX) | |
| | Assess level of patient's understanding of the treatment to be carried out (if they are not able to understand the treatment, they are likely to be semi-conscious and therefore not able to have METHOXYFLURANE (PENTHROX) administered); | |
| | Ensure the area is well ventilated. | |
| Plan for treatment | • Explain the procedure and use of analgesia (pain relief) to patient and any other relevant people (family, friends, professional colleagues, carers, etc.) | |

(Preparation) as appropriate; Ensure that there are no known contraindications for use of METHOXYFLURANE (PENTHROX); Explain the potential for side effects; Advise the patient that METHOXYFLURANE (PENTHROX) will have a fruity smell and they will need to inhale slowly for the first few breaths; Answer any questions and provide reassurance; Gain consent (verbal or implied); Collect one combination pack containing a 3ml bottle of METHOXYFLURANE (PENTHROX) plus an inhaler and activated carbon (AC) chamber, and a second pack containing a single 3mL bottle of METHOXYFLURANE (PENTHROX) Check both are sealed; Do not open the pack until it is time to administer PENTHROX. Ensure patient comfort and safety; Administration Check the patient is still fully conscious and is aware of what is happening; Check they know what to expect before procedure commences; Pour METHOXYFLURANE (PENTHROX) liquid into the base of the METHOXYFLURANE (PENTHROX) inhaler and allow it to be absorbed into the wick; Place the wrist loop of the METHOXYFLURANE (PENTHROX) inhaler over the patient's wrist; Tell the patient to breathe in through the mouthpiece of the inhaler and inhale gently for the first few breaths to become accustomed to the fruity smell of the medicine. Tell the patient to breathe out through the Inhaler; After the first few breaths tell the patient to breathe normally through the inhaler and remind the patient that they may use the inhaler continuously or intermittently as required; see If the patient needs stronger pain relief, they may cover the dilutor hole on the transparent AC chamber with their finger during use; [SEP] Encourage breaks from inhaler use (intermittent use) as this will make the pain relief last longer; step Tell the patient to continue using the inhaler until the first 3mL dose has been used or until pain has been relieved. If the patient still has severe pain, a second 3mL dose of METHOXYFLURANE (PENTHROX) liquid can be added into the base of the inhaler; This second dose may be used immediately after the first dose or at some time within the next 24 hours; Monitor the patient carefully and observe for signs of drowsiness, pallor and muscle relaxation. If seen, emergency medical help should be contacted as soon as possible. Evaluate effectiveness of METHOXYFLURANE (PENTHROX); **Evaluation of treatment**

| | Evaluate effectiveness after each 3mL dose given. |
|---------------------------|---|
| Using PENTHROX safely | |
| Storage | No special temperature storage conditions required; |
| • | The METHOXYFLURANE (PENTHROX) combination pack should be kept in a locked cabinet or XXXX, and not be left on an open shelf; |
| | Do not use after the expiry date shown on the package label and the carton. |
| Disposal after use | After loading the METHOXYFLURANE (PENTHROX) Inhaler, replace cap onto METHOXYFLURANE (PENTHROX) bottle. |
| | After use, place the used METHOXYFLURANE (PENTHROX) Inhaler and used bottle in the plastic bag provided, seal and dispose of as clinical waste; |
| | Any METHOXYFLURANE (PENTHROX) packs (combination pack or single bottles) opened but not used should be destroyed. |
| Record keeping and docum | nentation |
| Drug register or log book | Two stock log books should be kept: |
| | For all stock held by XXXX |
| | For stock issued to XXXX. |
| | Both log books should record the date the log book was started and the initial stock of METHOXYFLURANE (PENTHROX) packs (both combination and single packs); |
| | Base Log Book |
| | This should be updated with the date and quantity of all METHOXYFLURANE (PENTHROX) packs received as new stock; |
| | Stock issued to XXXX should be recorded by date, time, quantity and name of XXXX; |
| | Stock returned should be recorded in a similar way; |
| | A running balance should be kept which is checked each time packs are removed and at periodic intervals which should be at least once a month. |
| | Operational Log Book |
| | This should record the date, time and quantity of packs taken from the base stock and the name of the XXXX responsible; |
| | A record should be made of all doses administered as soon as possible after administration which includes the name of the patient, date of administration, reason for administration and the name of person administering the drug; |
| | Any packs destroyed without being administered should be recorded with the reason for destruction. |
| Records/audit trail | A Patient Report Form must be completed as soon as reasonably practicable after administration, to include: |
| | |

| | Date of record; |
|-------------------------|---|
| | Date and reason for administration; |
| | Patient's name, address, date of birth; |
| | Details of consent given; |
| | Dose administered including date, times, batch number and expiry date (every dose administered to be documented); |
| | Advice given to patient (including side effects); |
| | Observations of patient with details of any side effects or adverse drug reactions experienced including time and date; |
| | Confirmation that details of any side effects have been reported to a doctor with name of doctor and date reported recorded; |
| | Signature/name of staff who administered or supplied the medication, and also, if relevant, signature/name of staff who removed/discontinued the treatment; |
| | Referral arrangements (including self-care); |
| | Name of staff receiving the patient if handed over to a doctor or emergency medical care. |
| Monitoring | Log books and Patient Report Forms must be kept in a secure place for audit purposes |
| | Monitoring will be carried out using clinical audit and evaluation of Patient Report Forms; |
| | This will be undertaken by the Clinical Governance Lead. |
| Audit standard expected | Compliance to Correct Assessment, Preparation, Administration and Evaluation – 100% |
| | Clinical exceptions - none |

References

- METHOXYFLURANE (PENTHROX) (PENTHROX) for emergency relief of moderate to severe pain. Horizon Scanning Research & Intelligence Centre. University of Birmingham
- NIHR HSRIC ID: 11830 NHS National Institute for Health Research February 2016.
- STOP!: a randomised, double-blind, placebo-controlled study of the efficacy and safety of METHOXYFLURANE (PENTHROX) for the treatment of acute pain. Coffet et al, Emerg Med J 2014;31:613-618 doi:10.1136/emermed-2013-202909
- Pain Management Learning Support Package. Quality and Education Services Continuing Professional Education. QES/Pain Management/2010/002. Version 3.
- Victoria Ambulance (Australia), September 2010
- PENTHROX 3mL inhalation vapour liquid. Summary of Product Characteristics (date of last revision January 12, 2016)
- PENTHROX 3mL inhalation vapour liquid Patient Information Leaflet (last update April 20, 2015)

Clinical Authorisation

| Clinical Governance Lead | Name: XXXX |
|------------------------------|------------------|
| | Signature: Date: |
| Organisational Authorisation | |
| Officer Training Manager | Name: XXXX |
| | Position: |
| | Signature: Date: |
| | Name: |
| | Position: |
| | Signature: Date: |

Individual Authorisation

PROTOCOLS DO NOT REMOVE INHERENT PROFESSIONAL OBLIGATIONS OR ACCOUNTABILITY.

It is the responsibility of each professional to practice only within the bounds of their own competence and in accordance with their own Code of Professional Conduct.

Note to Authorising Managers: authorised staff should be provided with an individual copy of the clinical content of the Protocol and a photocopy of the document showing their authorisation.

I have read and understood the Protocol and agree to supply / administer this medicine only in accordance with this Protocol.

| Name of XXXX | Signature | Authorising Manager | Date |
|--------------|-----------|---------------------|------|
| | | | |

DECLARATION by XXXX

| Protocols | Tick |
|--|------|
| Protocol for the administration of METHOXYFLURANE (PENTHROX) for | |
| the emergency treatment of acute pain | |

I have been appropriately trained to understand the criteria listed and the administration required to administer METHOXYFLURANE (PENTHROX) in accordance with this Protocol.

I confirm that I am competent to undertake administration of these medications.

| Name XXXX | |
|-----------|--|
| Signature | |
| Date | |

DECLARATION by XXXX

| I confirm that the above nan | ned XXXX is authorised to administer METHOXYFLURANE (PENTHROX) |
|-------------------------------|--|
| to patients in accordance wit | h this Protocol. |
| XXXX Name | |
| GMC/NMC/HCPC number | |
| Signature | |
| Date | |
| | |
| DECLARATION | |
| This METHOXYFLURANE (PEN | ITHROX) Protocol has been authorised by: |
| | |
| XXXX | |
| | |
| XXXX | |

ASSESSMENT OF COMPETENCY FOR THE ADMINISTRATON OF METHOXYFLURANE (PENTHROX)

ASSESSMENT SPECIFICATION:

| The candidate should be able to demonstrate competence in the administration of METHOXYFLURANE (PENTHROX) using the following knowledge |
|---|
| evidence and performance criteria. Formative and Summative assessment will be undertaken in classroom and out door facilities appropriate to an |
| operational environment. |

| KN | IOI | ۸/I | FD | GE | F۱ | /ID | ΕN | CF. |
|----|-----|-----|----|----|----|-----|----|-----|
| | | | | | | | | |

The candidate should be able to:

- a) Demonstrate knowledge of local protocol for administration of METHOXYFLURANE (PENTHROX)
- b) Demonstrate a factual knowledge of indication/contraindications and adverse effects of **METHOXYFLURANE** (**PENTHROX**).
- c) Discuss pharmacokinetics and dynamics of METHOXYFLURANE (PENTHROX)
- d) Discuss potential problems/contra indications that may be encountered and how to prevent/resolve them
- e) Demonstrate skill in the correct administration of METHOXYFLURANE (PENTHROX)
- f) Demonstrate knowledge and skills of basic patient management
- g) Discuss responsibility and accountability with reference to use of METHOXYFLURANE (PENTHROX)
- h) Discuss safety aspects of the procedure and disposal of equipment

You need a supervisor who is professionally accountable and competent to administer METHOXYFLURANE (PENTHROX)

Competencies may be assessed by individuals who have attended a training programme and are deemed competent by your supervisor

| Clinical Supervisor (please print) | Signature | Date: |
|------------------------------------|-----------|-------|
| Candidate (please print) | Signature | Date: |
| Department: Location: | | |

| Comments by Supervisor | Comments by Candidate: | |
|------------------------|------------------------|--|
| | | |
| | | |
| | | |
| | | |

Performance Criteria for Assessment of Competency for Administration of METHOXYFLURANE (PENTHROX)

| | | Observation of practice | Supervised practice 1 | Supervised practice 2 | Supervisor initials |
|--|--|-------------------------|-----------------------|-----------------------|---------------------|
| 1 | Patient identified correctly | | | | |
| 2 | Preparation | | | | |
| 3 | Procedure | | | | |
| Assess Assess the need for use of METHOXYFLURANE (PENTHROX) Assess the patient and ensure there are no known contraindications for use of METHOXYFLURANE (PENTHROX); If possible, assess patient's level of understanding of the treatment to be carried out (this will not be possible if they are not conscious or semi-conscious) | | | | | |
| Plan - | Explain what to do to prepare to administer METHOXYFLURANE (PENTHROX) | | | | |
| Ensure Demoi Demoi Ensure comm Demoi | distration e patient comfort and safety enstrate understanding of the consent procedure enstrate use of administration by inhalation e patient understands what to do and what to expect before procedure ences enstrates understanding of dose administration and next steps we patient during and after the procedure to monitor effects | | | | |

| Provide additional information as needed | | | | |
|---|--------------------------|--|-------|--|
| Demonstrate a knowledge of potential side effects of METHOXYFLURANE | | | | |
| (PENTHROX) | | | | |
| Disposal - Demonstrate correct disposal | | | | |
| Demonstrate an awareness of safety of METHOXYFLURANE (PENTHROX) | | | | |
| Evaluation - Evaluate effectiveness | | | | |
| 4 Patient reassured and comfortable | | | | |
| 5 Correct Documentation of all relevant information | | | | |
| Main Clinical Mentor (please print) | Candidate (please print) | | | |
| Signature Date: | Signature | | Date: | |

Definitions:

PARENTRAL: administered or occurring elsewhere in the body than the mouth and alimentary canal e.g. intravenous, intramuscular, subcutaneously.

NON-PARENTRAL: administration other than parenteral.

These are drugs are

- Given by mouth = Oral administration (PO)
- Applied to the surface of the skin = Topical administration (TOP)
- Administered as a mist or gas via the respiratory tract = Inhalation or aerosol administration (NEB or INH)

Non-healthcare professional - Pre-hospital care provider who do not sit on a professional healthcare regulatory register. Examples are Police Officers in Specialist Role, Firefighters, UKSAR trained personnel, Enhanced Community First Responder.