

Issue: **Inhalational Analgesia**

Raised by: Various sources

Background: Over some time there has been intermittent interest expressed in expanding the RHB standard lists to include various inhalational analgesics.

Discussion: There has been protracted discussion about the various inhalational analgesics, and their use in the remote health setting.

Discussion has covered issues including suitability for use in a variety of circumstances, analgesic properties (potency / effectiveness), precautions / adverse effects, cost of equipment, supply and storage requirements, legal and protocol requirements regarding administration, and the need for ongoing maintenance of equipment. The main options considered were Nitrous Oxide/Oxygen mix (Entonox) and Methoxyflurane (Penthrane).

Entonox is predominantly used in labour suites, and various other hospital departments. St John ambulance service (NT) no longer uses Entonox, in favour of Penthrane, following an international trend among other ambulance and paramedic services. Some emergency departments are also considering introducing Penthrane to their protocols.

Use of Penthrane requires some stringent clinical parameters for use; in particular it has safety considerations in renal impairment. Penthrane is therefore not considered an appropriate product for common use due to the high incidence of renal disease in Remote Health's predominant client group.

Particular issues with Entonox include clinical constraints, though to a lesser extent than Penthrane. However, there are particular concerns with the initial equipment cost, ongoing cylinder rental costs and maintenance of equipment, compared to the amount of use such equipment receives (three RHB sites have held Entonox equipment in the past and usage is reported as very minimal). Entonox is also considered to be yet another awkward piece of equipment to be managed when used to complement trauma response equipment.

Consensus has been reached that there are currently no forms of inhalational analgesia that can be confidently recommended for standardised implementation in RHB health centres. This in no way minimises appreciation for the legitimacy of inhalational analgesia in certain circumstances, but it is apparent that the negatives outweigh the positive indicators with each option considered for use in the Remote Health context.

Alternate forms of analgesia are available, in particular opiates, which provide suitable and optimal pain management options that our staff are able to administer.

Consultation: St John Ambulance service, Michael Thumm (Anaesthetist ASH), Angela Young (ASH Pharmacist), numerous other professionals in earlier discussions.

References: Various Entonox protocols (RDH/ASH); [Entonox MSDS](#); Cylinder Safety; [BOC Medical](#); [Methoxyflurane](#)

Outcome: **No form of inhalational analgesia is proposed for standardised use in Remote Health Branch.**