

Inhaled sedation with halogenated agents in the Intensive Care Unit: A literature mini-review

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4CPS-086

BACKGROUND AND IMPORTANCE

Sedatives are administered to reduce anxiety and stress in mechanically ventilated critically ill patients. **Midazolam** and **propofol** are the sedatives of choice, but their behavior is difficult to predict.

- **INHALED SEDATION WITH HALOGENATED AGENTS** → increased speed of action and elimination → **better sedation control** → Bronchodilator, cardioprotective and neuroprotective effects → **ALTERNATIVE TO CONVENCIONAL SEDATION WITH INTRAVENOUS DRUGS**



OBJECTIVE

To review the available evidence on the use of sedative **inhaled gases** in the Intensive Care Unit (ICU).

METHODS

➤ A literature research was conducted → **Pubmed** and **Google Academics** → The terms '**Inhaled sedation**' and '**Critical care**' were used

➤ **ARTICLE SELECTION:**

Articles comparing inhaled sedation directly with **conventional sedation**

Articles describing pioneering uses of **inhalation sedation**

➤ **Another research** with the same keywords was performed using **TripDataBase** and **UpToDate** to locate meta-analyses and clinical practice guidelines

RESULTS



236 articles were located and 25 were selected. No randomised clinical trials were found. Four meta-analyses were located.



- **EFFECTIVENESS:** **Inhaled sedation** is described to be effective to achieve deep sedation and to reduce sedation and extubation time.
- **POSSIBLE CARDIOPROTECTIVE ROLE:** It favors a decrease in **troponin levels**.
- **DIFFICULT SEDATION:** Its use is relevant in patients who **do not achieve** adequate sedation with conventional sedation.
- **GASSES USAGE:** Gasses used were isoflurane and sevoflurane.



Consideration of inhaled sedation according to clinical practice guidelines developed by different societies



NICE National Institute for Health and Care Excellence



Society of Critical Care Medicine
The Intensive Care Professionals

They consider **inhaled sedation** as an alternative in patients with bronchospasm and in patients who are **difficult to sedate**.



CONCLUSIONS

- It can be concluded that the **use of inhaled gases** reduces the extubation and awakening time in critically ill patients. A reduction in **troponin concentration** is observed. However, these are not 'hard' variables that demonstrate an important clinical impact.
- **Their use may be of interest** in patients with bronchospasm or in those who do not achieve an adequate sedation with conventional high-dose sedatives.