

Peer Review File

Article information: <https://dx.doi.org/10.21037/joma-23-13>

Reviewer A

Thank you for your submission. This is not a new topic/new addition to the literature. The manuscript is not organized appropriately.

Reply: Thank you for peer review. This literature review is a narrative review of the current status and latest research trends in Japanese dentistry. To my knowledge, there has been no similar review to date. As mentioned in the text, the need for sedation in dentistry is increasing, but methods vary from country to country. I believe that this narrative review could provide momentum for sharing better sedation methods across countries.

Reviewer B

I would like to know why the research was narrowed up to 5 years?

Reply: Thank you for the comment. The two guidelines referred to in this review were developed in 2017 and 2021. The guidelines have been developed based on a thorough literature review. The aim2 literature review was restricted to the last five years to address the most recent trends not yet included in the guidelines.

Reviewer C

Very well written manuscript. It clearly defines the methods used to review the existing literature, an overview of the IV sedation medications used along with its pros and cons in providing sedative/analgesic effects, indications for IVS, and highlights the limitations to the review. This manuscript is clear, concise, and informative for the reader.

Reply: Thank you for your positive comments!

The only comment I have is related to page 9 where you reported the most commonly used monitors in IVS. What about capnography? I'm surprised that using drugs that decrease respiratory drive, the use of capnography (ETCO₂) is not a mandatory minimal requirement among EKG, Pulse Ox, and noninvasive blood pressure monitoring for IVS procedures. Very interesting finding.

Reply: Thank you for raising this important point. The two guidelines referred to in this report strongly recommend the use of capnography. However, its use is currently low in Japan and improving its use is a future goal. The above information has been added as follows. “**Measurement of Et CO₂ has been shown to facilitate detection of**

respiratory depression and airway obstruction and prevent hypoxia during sedation. However, a preliminary survey conducted by the committee showed that only 36.5% of patients used the system (9). Sedation does not monitor ETCO₂ in the closed breathing circuit, so exhalations may not be reliably detected. Therefore, visual observations such as thoracic movements may be used instead of the use of capnography. Monitoring of EtCo₂ should be promoted to establish safe deep sedation.” (Page 8, line 12) “The most used monitors in IVS are pulse oximeters, blood pressure monitors, and electrocardiographs and the use of EtCO₂ monitoring and BIS monitoring is recommended (8, 9).” (Page10, line 6)