

CADTH Reference List

# Propofol for Patients in Palliative Care

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## Key Messages

- We did not find any studies on the clinical effectiveness of propofol for sedation compared to no treatment for adult patients receiving palliative care.
- We did not find any studies on clinical effectiveness of propofol compared to an alternative treatment for adult patients receiving palliative sedation.
- We did not find any evidence-based guidelines regarding the use of propofol for adult patients receiving palliative sedation.
- We identified other references on this topic that may be of interest which are listed in the report.

## Research Questions

1. What is the clinical effectiveness of propofol for sedation compared to no treatment for adult patients receiving palliative care?
2. What is the clinical effectiveness of propofol compared to an alternative treatment for adult patients receiving palliative sedation?
3. What are the evidence-based guidelines regarding the use of propofol for adult patients receiving palliative sedation?

## Methods

### Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, Embase, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were propofol and palliative care. CADTH-developed search filters were applied to limit retrieval to guidelines for a secondary search of the concepts propofol or palliative sedation. Conference abstracts were omitted from the search results. The search was completed on November 30, 2022 and limited to English-language documents published since January 1, 2017. Internet links were provided, where available.

### Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed. Open access full-text versions of evidence-based guidelines were reviewed when available.

**Table 1: Selection Criteria**

Criteria	Description
Population	Adult patients receiving palliative or end-of-life care
Intervention	Propofol (any dose)
Comparator	Q1: No treatment Q2: Alternative treatment (e.g., standard of care sedation, opiate analgesia, benzodiazepine, midazolam, phenobarbital, dexmedetomidine) for sedation Q3: Not applicable
Outcomes	Q1 and Q2: Clinical effectiveness (e.g., pain management, symptom relief [e.g., pain relief], patient satisfaction, quality of life, safety [e.g., adverse events]) Q3: Recommendations regarding the administration and best practices for the use of propofol (e.g., appropriate dose, delivery, physician and nursing provider care, patient monitoring)
Study designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

## Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness of propofol for sedation compared to no or alternative treatment for adults receiving palliative care. No relevant evidence-based guidelines were identified about the use of propofol for adult patients receiving palliative sedation.

References of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

## References

### Health Technology Assessments

No literature identified.

### Systematic Reviews

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Guidelines and Recommendations

No literature identified.

## Appendix 1: References of Potential Interest

### Systematic Reviews

#### *Alternative Outcome – Clinical Aspects of Palliative Sedation in Prospective Studies*

Arantzamendi M, Belar A, Payne S, et al. Clinical aspects of palliative sedation in prospective studies. A systematic review. *J Pain Symptom Manage.* 2021;61(4):831-844.e10. [PubMed](#)

### Non-Randomized Studies

#### *Case Series and Case Reports*

Vilalta-Lacarra A, Palacios-Berraquero ML, Cortés CC. When midazolam fails and the professional twitches: propofol for palliative sedation. *J Cancer Sci Clin Ther.* (2022):383-387. <https://www.fortunejournals.com/articles/when-midazolam-fails-and-the-professional-twitches-propofol-for-palliative-sedation.html>. Accessed 2022 Dec 1.

Jacquin PH, Ciais JF, Marrec A, Hebert P. Propofol for painful procedures in palliative care. *BMJ Support Palliat Care.* 2021;11(2):124-125. [PubMed](#)

Sulistio M, Wojnar R, Michael NG. Propofol for palliative sedation. *BMJ Support Palliat Care.* 2020;10(1):4-6. [PubMed](#)

Covarrubias-Gomez A, Lopez Collada-Estrada M. Propofol-based palliative sedation to treat antipsychotic-resistant agitated delirium. *J Pain Palliative Care Pharmacother.* 2017;31(3-4):190-194. [PubMed](#)

#### *Population Age Not Specified*

Fredheim OM, Skulberg IM, Magelssen M, Steine S. Clinical and ethical aspects of palliative sedation with propofol: a retrospective quantitative and qualitative study. *Acta Anaesthesiol Scand.* 2020;64(9):1319-1326. [PubMed](#)

Ciais JF, Tremellat F, Castelli-Prieto M, Jestin C. Sedation by propofol for painful care procedures at the end of life: a pilot study. PROPOPAL 1. *J Palliat Med.* 2017;20(3):282-284. [PubMed](#)

#### *Not Specific to Propofol*

Won YW, Chun HS, Seo M, Kim RB, Kim JH, Kang JH. Clinical patterns of continuous and intermittent palliative sedation in patients with terminal cancer: a descriptive, observational study. *J Pain Symptom Manage.* 2019;58(1):65-71. [PubMed](#)

### Guidelines and Recommendations

#### *Unclear Methodology*

Integraal Kankercentrum Nederland [Integral Cancer Center, Netherlands]. [Palliative sedation guideline]. *Palliatieve.* 2022; <https://palliaweb.nl/richtlijnen-palliatieve-zorg/richtlijn/palliatieve-sedatie>. Accessed 2022 Dec 1.

See Section: Medication Schedule – Continuous Palliative Sedation

ACT [Australian Capital Territory] Palliative Care Governance Committee. Consensus statement on the use of palliative sedation in the ACT. Canberra (AU): ACT Government, Canberra Health Services, Calvary, ACT Health; 2021: <https://www.health.act.gov.au/sites/default/files/2021-11/Consensus%20Statement%20on%20the%20Use%20of%20Palliative%20Sedation%20in%20the%20ACT%20revised%20070921%20FINAL.pdf>. Accessed 2022 Dec 1.

See Section: Sedative Medication (page 9)

Continuous Palliative Sedation Therapy (CPST) guidelines (a protocol is attached as appendix for providing CPST in the COVID-19 pandemic). Hamilton (ON): Division of Palliative Care, Department of Medicine, McMaster University; 2020: <https://hfam.ca/wp-content/uploads/2020/04/McMaster-Palliative-Sedation-Guidelines-2020-31March2020.pdf>. Accessed 2022 Dec 1.

See Section: Third Line (page 10)

Queen's palliative medicine: COVID-19 continuous palliative sedation therapy guideline. Kingston (ON): Queen's University; 2020: <http://serpcn.ca/Uploads/ContentDocuments/Queens%20Palliative%20Medicine%20CPST%20COVID-19%20Guidelines%20April%202020.pdf>. Accessed 2022 Dec 1.

See Section: Third Line Medications for CPST – Propofol continuous infusion (page 5)

Intravenous propofol for management of terminal agitation at end of life inpatient unit guideline. Huddersfield (UK): Kirkwood, the Hospice for Kirklees; 2019: [https://www.thekirkwood.org.uk/uploads/files/MD140\\_Intravenous\\_Propofol\\_for\\_Terminal\\_Agitation.pdf](https://www.thekirkwood.org.uk/uploads/files/MD140_Intravenous_Propofol_for_Terminal_Agitation.pdf). Accessed 2022 Dec 1.

Provincial clinical knowledge topic: palliative sedation, adult: all locations, v1.0. Edmonton (AB): Alberta Health Services; 2018: <https://extranet.ahsnet.ca/teams/policydocuments/1/klink/et-klink-ckv-palliative-sedation-adult-all-locations.pdf>. Accessed 2022 Dec 1.

See Appendix E – Medication Table-Third Line (page 28)

The Champlain region palliative sedation therapy clinical practice and medication guidelines. Ottawa (ON): Champlain Hospice Palliative Care Program; 2018: [https://champlainpalliative.ca/wp-content/uploads/2018/10/PST-Guidelines-Regional-2018\\_ENG-final.pdf](https://champlainpalliative.ca/wp-content/uploads/2018/10/PST-Guidelines-Regional-2018_ENG-final.pdf). Accessed 2022 Dec 1.

See Section: Medication Guidelines for Palliative Sedation Therapy – Option 5 (page 10)

Sedation for palliative purposes guideline: evidence informed practice tools. Winnipeg (MB): Winnipeg Regional Health Authority; 2017: <https://professionals.wrha.mb.ca/old/extranet/eipt/files/EIPT-045.pdf>. Accessed 2022 Dec 1.

See Section: Medications used in Sedation for Palliative Purposes Recommendations – Specific Medications # 3 (page 9)

## Review Articles

Surges S SM, Garralda E, Jaspers B, et al. Review of European guidelines on palliative sedation: a foundation for the updating of the European Association for Palliative Care framework. *J Palliat Med.* 2022;25(11):1721-1731. [PubMed](#)  
See: Dose Titration (page 1727-1728)

Bodnar J. The use of propofol for continuous deep sedation at the end of life: a definitive guide. *J Pain Palliative Care Pharmacother.* 2019;33(3-4):63-81. [PubMed](#)