

## pall-OLU.de: a database on off-label drug use in palliative medicine

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### Background

Off-label drug use (OLU) is standard practice in palliative care. However, these uses are only supported by official recommendations, such as guidelines, to a limited extent. Finding evidence-based information to inform treatment decisions can be challenging for healthcare professionals in their daily practice due to time and resource constraints. This project aims to provide healthcare professionals with evidence- and consensus-based recommendations for OLU in palliative care via a freely accessible website.

### Methods

Frequently used drugs and their OLU in palliative care are selected using a systematic approach<sup>1</sup>. Recommendations are subsequently developed based on the best available evidence and rated by an international expert panel in a two-round online Delphi study<sup>2</sup>. The agreed recommendations, along with further information on topics such as treatment monitoring and alternative medical and non-medical treatment options, are disseminated on the pall-OLU.de website (Fig.1).

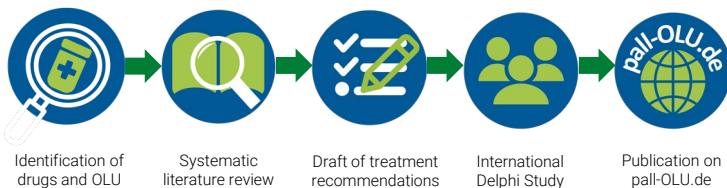


Fig. 1 Process flow development of treatment recommendation for the database pall-OLU.de

**Search options**

- 1 search term (drug, administration route, indication)
- 2 lists of already included drugs, administration routes, indications

**Drug Monography ILU**

- 3 structured information on ILU based on German summary of product characteristics; further information on compounding, Direct Healthcare Professional Communications, references

**Drug Monography OLU**

- 4 OLU administration routes and indications that reached consensus in Delphi studies
- 5 treatment recommendations with background information
- 6 instructions for use
- 7 therapy monitoring parameters
- 8 non-medical, ILU-, OLU- treatment alternatives

Fig. 2 Drug monograph example in pall-OLU database

### References

1. Rémi, C., Weingärtner, K., Hagemann, V., et al., Off-label drugs in palliative care: a Group Delphi treatment recommendation process. *BMJ Support Palliat Care*, 2021. 11(2): p. 180-187.
2. Pügge, S., Dukic-Ott, A., Baumgärtel, J., et al., Off-label drug use in palliative medicine: Delphi study for the consensus of evidence-based treatment recommendations. *Palliat Med*, 2025. 39(5): p. 530-542.

### Results

Until 2025/08 five Delphi studies were conducted, each with 60–83 participants (response rate: 42.0–67.3%). A total of 145/149 recommendations on 57 drugs were agreed upon. Topics included different routes of administration and indications such as ascites, bronchorrhoea, constipation, diarrhea, fistula, pruritus, sialorrhoea, singultus, and xerostomia (Tab.1). Results are published on pall-OLU.de (Fig.2).

OLU route of administration	Drugs
Rectal	Amitriptyline, baclofen, clonazepam, doxepin, furosemide, gabapentin, levetiracetam, levothyroxine, omeprazole, pregabalin, sertraline, trazodone, valproic acid
Subcutaneous	Baclofen, clonazepam, clonidine, dexamethasone, diazepam, dimenhydrinate, esomeprazole, flumazenil, furosemide, glycopyrronium bromide, granisetron, haloperidol, lacosamide, levetiracetam, levomepromazine, levothyroxine, metamazole, metoclopramide, octreotide, ondansetron, pantoprazole, tranexamic acid, valproic acid
Intranasal	Clonidine, haloperidol, lorazepam, midazolam
Inhalative	Tranexamic acid

Tab. 1 examples for OLU treatment recommendations (positive and negative) published on pall-OLU.de

### Conclusion

pall-OLU.de provides evidence-based information on OLU of drugs to facilitate treatment planning. The database fills an information gap and makes an important contribution to safe and effective pharmacotherapy for palliative care patients. By the end of 2028, approximately 400 recommendations for around 80 drugs will have been published.

