A National Core Community Palliative Care Medicines List for managing end-of-life symptoms

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Background
Australians with life-limiting conditions can, with appropriate support, have a home death, if that is their choice. General practitioners (GPs) are essential for coordinating care and managing symptoms. Necessary medicines must be quickly available to provide responsive symptom management in the terminal phase. GPs can facilitate prompt availability of medicines by working collaboratively with pharmacists who have a shared understanding of the required medicines.

Objective
This article explains the development of, and provides information about, the National Core Community Palliative Care Medicines List.

Discussion
A group of healthcare professionals with community palliative care expertise (Expert Group) compared the medicines to manage terminal phase symptoms against a set of criteria, choosing four core medicines based on their ability to manage symptoms, cost and ease of use. Creating a standardised National Core Community Palliative Care Medicines List supports clinical communication by providing an accepted baseline for symptom management; however, it should not replace communication between prescribers and pharmacists; rather, it should support collaborative practices.

THE MAJORITY OF AUSTRALIANS REPORT that they would prefer to die at home.[1] Numerous factors contribute to this being achievable, including the availability of appropriate symptom management as well as effective partnerships between healthcare providers.[2,3]

General practitioners (GPs) are well placed to deliver end-of-life care, either with or without specialist palliative care support.[4] Community-based prescribers can enhance their skills and confidence with consistent practice and appropriate resources.[5]

People in the terminal phase or last days of life are physiologically unstable and can experience unpredictable escalation of symptoms. Severe symptoms can emerge at any time and, if not managed, can result in unnecessary suffering and unwanted transfers to in-patient settings.[6] Although the terminal phase is unpredictable, some common symptoms can be anticipated (refer to Box 1).[7] Community healthcare providers, notably prescribers and pharmacists, can collaborate to provide rapid access to medicines that relieve common terminal phase symptoms.

People frequently cannot swallow in the terminal phase, making it critical to use non-oral formulations, such as buccal or subcutaneous. Although access from the person's regular pharmacy seems logical, evidence suggests that some pharmacies might need to order in appropriate formulations upon receipt of a legal prescription, which can delay access.[8]

Research has concluded that introducing a standardised list improves communication and collaboration between prescribers and pharmacists.[8] As such, many Australian jurisdictions have independently established standardised lists;[9–12] however, national consensus does not exist to guide prescribers on which medicines to prescribe and guide pharmacists on which formulations to stock. Although national dosing resources recommend a planned approach to care – known as anticipatory prescribing – in the terminal phase, a national list would support those circumstances when the person deteriorates without medicines already in the home.[7]

Within the Federal government's latest palliative care funding agreement, the *caring@home* project was engaged to develop a National Core Community Palliative Care Medicines List (the List). This article explains the development of, and provides information about, the National Core Community Palliative Care Medicines List.

Development of the List

The *caring@home* project team assembled a group of experts from all Australian states and territories with experience providing community-based palliative care. It comprised two palliative medicine specialists, a rural generalist, three GPs, a nurse practitioner, a palliative care nurse, two palliative care specialist pharmacists, a peak body senior pharmacist and a project manager. Box 2 provides a list of key national professional organisations represented within the Expert Group.

Initially, the Expert Group created a comprehensive list of formulations based on the Palliative Care Therapeutic Guidelines and palliative care jurisdictional standardised medicine lists.[7,9,10–12] To develop the List, the Expert Group evaluated this broad selection using published criteria provided in Box 3.[13]

Table 1 contains the final List.

Box 1. Common symptoms of people in the terminal phase of life[7]

- Anxiety
- Dyspnoea
- Nausea
- Noisy breathing
- Pain
- Terminal restlessness

Box 2. National professional organisations represented within the Expert Group

- ACT Health
- Agency of Clinical Innovation (ACI) – End of Life and Palliative Care Network, New South Wales
- Australia New Zealand Society of Palliative Medicine (ANZSPM)
- Australian College of Nurse Practitioners (ACNP)
- Australian College of Rural and Remote Medicine (ACRRM)
- Australian Commission on Safety and Quality in Health Care (ACSQHC)
- Department of Health, Tasmania
- Metro South Palliative Care Service (MSPCS), Metro South Health, Queensland
- Northern Territory Primary Health Network (NT PHN)
- Palliative Care Australia (PCA)
- Pharmaceutical Society of Australia (PSA)
- The Royal Australian College of General Practitioners (RACGP)
- Safer Care Victoria (SCV)
- SA Health
- Western Australian Country Health Service (WACHS)
- Western New South Wales Local Health District (WNSWLHD)

Discussion

The Expert Group extensively debated before selecting the final formulations. A summary of the rationale for including each formulation is included below.

Clonazepam 2.5 mg/mL drops

Benzodiazepines have a significant role in managing anxiety and restlessness in the terminal phase of a life-limiting illness. Anxiety might also contribute to exacerbations of dyspnoea, pain and other symptoms.

The Expert Group recommended clonazepam oral drops because of their clinical usefulness, ease of administration and the availability on the Pharmaceutical Benefits Scheme (PBS). Clonazepam has a rapid onset of action when administered sublingually or subcutaneously. Its extended half-life allows for once or twice daily dosing. Its sustained effect makes it suitable for limiting agitation associated with medicine or substance withdrawal, as well as managing seizures.

The Expert Group preferred the oral drops over the injection. Although the two formulations have similar onsets of action, the drops were superior because of their ease of administration and availability in the General, Palliative Care, and Prescriber Bag sections of the PBS. However, it was acknowledged that sublingual clonazepam requires a moist mouth for optimal absorption.

The other benzodiazepine frequently prescribed in the clinical setting is midazolam. Its short half-life necessitates frequent regular subcutaneous administrations or a continuous subcutaneous infusion to maintain its effect. Although midazolam is listed in the PBS Prescriber Bag, it is not yet included in the General or Palliative Care sections, making it an expensive option.

Box 3. Practical criteria used to evaluate the medicines for the List[13]

- Evaluate the evidence for pharmacological management of six symptoms commonly reported at the end-of-life (Box 1)
- Consider the cost of medicines, including the availability of PBS subsidies[A]
- Where there is equivalent efficacy between two medicines consider the:
  - medicine that can address more than one frequently encountered symptom
  - most community-friendly form of administration/transport/storage of medicines available.

[A]Pharmaceutical Benefits Scheme (PBS) subsidies might include the medicines listed on the General PBS, Palliative Care PBS and the PBS Prescriber Bag.

Haloperidol 5 mg/mL injection

With or without vomiting, nausea can continue to be a problem in the terminal phase. The Expert Group considered a range of broad-action antiemetics such as metoclopramide, haloperidol, dexamethasone and ondansetron. Dexamethasone injection is unavailable through the PBS, and the PBS criteria for ondansetron is restrictive, resulting in significant out-of-pocket expenses. Although metoclopramide and haloperidol are both PBS listed, the Expert Group selected haloperidol because of its additional usefulness in managing delirium and terminal restlessness.

Hyoscine butylbromide 20 mg/mL injection

The Expert Group discussed the anticholinergic medicines hyoscine butylbromide, atropine, glycopyrrolate and hyoscine hydrobromide, which are used to manage noisy 'rattly' breathing. They acknowledged the controversy within research findings suggesting that anticholinergic agents are no more effective than placebo, whereas guidelines still recommend their use proactively.[18] The Expert Group recommended hyoscine butylbromide because of its limited ability to cross the blood–brain barrier (decreasing adverse effects) and its inclusion in the PBS.

Table 1. National Core Community Palliative Care Medicines List

Medicine	Formulation	PBS criteria[14-17]			Clinical uses for the terminal phase[7]
		G	PC	PB	
Clonazepam	2.5 mg/mL drops	Yes	Yes	Yes	Anxiety, dyspnoea and terminal restlessness
Haloperidol	5 mg/mL injection	Yes	Yes	Yes	Nausea and terminal restlessness
Hyoscine butylbromide	20 mg/mL injection	Yes	Yes	Yes	Noisy breathing
Morphine	10 mg/mL injection	Yes	Yes	Yes	Dyspnoea and pain

G, general; PB, Prescriber Bag; PBS, Pharmaceutical Benefits Scheme; PC, palliative care.

Morphine 10 mg/mL injection

Although not everyone experiences pain in the terminal phase, it is substantial in many life-limiting conditions. In Australia, there are four opioids suitable for subcutaneous administration: morphine, fentanyl, hydromorphone and oxycodone.[19]

Given that all opioids are equally effective in managing moderate–severe pain, the Expert Group selected morphine based on its availability and prescribers' relatively higher confidence in using it. They selected the 10 mg/mL morphine ampoule because of its safety and ease of dose calculation despite the availability of alternative strengths available on the PBS. Additionally, of the four opioids listed above, only morphine injections are listed in the PBS Prescriber Bag.

Subcutaneous oxycodone and fentanyl were excluded because they are not subsidised under the PBS. The hydromorphone discussion was more complex. Hydromorphone is generally considered safer than morphine in individuals with significant renal failure;[20] however, there are safety concerns related to its potency, and some jurisdictions restrict its availability.

Limitations

Although the List provides a common national list to guide prescribers on which medicines to prescribe and guide pharmacists on which formations to stock, some prescribers might have good reasons to consider alternative medicines. This might include specific clinical circumstances and the management of symptoms not regularly seen in the terminal phase. When prescribing outside this List, prescribers should liaise with the local community pharmacy to ensure they stock these alternatives to ensure timely access to those medicines as required. Furthermore, when supporting some populations, including the frail elderly and those with Parkinson's disease or renal failure, prescribers are advised to consider specialist palliative care support.

Next steps

The *caring@home* project team will update associated pharmacological resources, including the PalliMEDS smartphone application, to provide relevant information about using the four formulations in the List. *caring@home* will also collaborate with local jurisdictions to integrate the List into local guidelines.

Recommendations

The Expert Group provides the following recommendations for using the List:

- GPs are urged to pre-emptively prescribe subcutaneous and buccal formulations using evidence-based resources and to collaborate with their patient's usual pharmacy to expedite timely access to medicines for symptom management.
- Residential care providers are encouraged to set expectations for, and consider establishment of processes, including Imprest systems to facilitate pre-emptive prescribing and timely access to the medicines on the List.
- Primary Health Networks are encouraged to host the List on their palliative care Health Pathway. Their engagement might extend to developing an online interactive map to help prescribers locate pharmacies that stock the List.
- Policymakers could consider initiatives that fund all community pharmacies to stock the medicines on the List.

Conclusion

The Expert Group developed the National Core Community Palliative Care Medicines List (the List) to provide a tool to assist in providing symptom management with timely access to medicines for community-based patients in the terminal phase. The List was developed considering Australian guidelines, evidence-based research and pragmatic considerations such as cost and PBS availability. The List can create a common perspective to care provision and a shared understanding of which medicines are required to provide symptom management in the last days of a person's life.

Key points

- GPs play a crucial role in end-of-life care for patients.
- Timely access to symptom management facilitates people with life-limiting diseases dying at home.
- Severe symptoms in the terminal phase require prompt access to effective medicines.
- A National Core Community Palliative Care Medicines List aims to facilitate access to such medicines.
- Collaboration between GPs and pharmacists is critical to ensuring timely availability of necessary medicines.

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Competing interests: ER and KC were granted funding from the Australian Government Department of Health and Aged Care for the caring@home project.

Funding: The Australian Government Department of Health and Aged Care funded the *caring@home* project. It is a National Palliative Care project and part of its contract was developing a National Palliative Care Core Medicines List.

Provenance and peer review: Not commissioned, externally peer reviewed.

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Acknowledgements

The authors wish to acknowledge Jaimee Stimson's support in coordinating the Expert Group meetings and documenting outcomes.

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