



¹ Primary Care Unit, Department of Public Health and Primary Care, University of Cambridge, UK

² Nottingham Centre for the Advancement of Research into Supportive, Palliative, and End of Life Care, School of Health Sciences, University of Nottingham, UK

³ Mountbatten Hospice and St Mary's Hospice, Isle of Wight, UK

bb527@cam.ac.uk

Cite this as: *BMJ* 2023;381:p1106

<http://dx.doi.org/10.1136/bmj.p1106>

Published: 16 May 2023

Is end-of-life anticipatory prescribing always enough?

End-of-life anticipatory prescribing can give patients timely access to symptom relieving drugs in their last days and hours, but improved review, provision, and personalisation of medication is needed, write **Ben Bowers and colleagues**

Ben Bowers,^{1,2} Paul Howard,³ Bella Madden,¹ Kristian Pollock,² Stephen Barclay¹

Dying in pain or distress is a cause of considerable concern for patients, their loved ones, and clinicians.¹⁻⁴ Helping patients to die in comfort is an essential goal of end-of-life care. During out-of-hours periods, which make up the majority of time, sourcing medical assessments, prescriptions, and drugs from pharmacies can be challenging and at times is not possible.^{3,4} Consequently, anticipatory prescribing of injectable drugs ahead of possible need is recommended good practice internationally to optimise timely symptom control in the community and prevent crisis hospital admissions.^{5,6} Anticipatory prescribing is a well established, clinician-led solution to overcome difficulties in rapidly accessing drugs in the community. But this solution is not always put in place and additional options are required.

Injectable anticipatory drugs are typically prescribed as needed for five common and distressing symptoms: pain, breathlessness, nausea and vomiting, agitation, and noisy respiratory tract secretions.⁷ The drugs, including opioids and sedatives; equipment; and signed administration authorisation charts are kept in the patient's home or care home where they are available for visiting nurses, doctors, paramedics, or trained family carers. Not all dying patients need these drugs: between 40% and 54% of anticipatory prescriptions go unused.^{8,9} After the patient's death, families are expected to return unused drugs to a pharmacy for secure disposal.

The widespread practice of anticipatory prescribing and its underpinning policy is based on clinicians' perceptions that the intervention offers reassurance to all involved and provides effective, timely symptom relief.^{2,3,10} There is still inadequate evidence to draw conclusions about the appropriate use, clinical effectiveness, and safety of anticipatory prescriptions.^{4,6,10-12}

Injectable anticipatory drugs are commonly prescribed weeks or even months before death, including on discharge from hospital, often with limited review of their continued appropriateness.^{7,9} The timing of such prescriptions is challenging given the prognostic uncertainty for patients with non-cancer conditions such as dementia, ischaemic heart disease, and multimorbidity in old age,⁹ where illness trajectories may be unpredictable and the dying phase is protracted.^{13,14}

Anticipatory drugs can be helpful when the patient, family, and clinicians agree on when to use them and their clinical appropriateness is regularly reviewed.^{2,8,9,12} Their storage in the home or care

home for lengthy periods may, however, have unintended consequences. Their presence can simultaneously be comforting and an unwelcome "momento mori," reminding patients and their families of impending death.^{4,7,9,12,15} Patients and their families may worry that the drugs could cause over-sedation and even hasten death.^{4,12} Their presence may be interpreted by visiting clinicians who are unfamiliar with the patient as a signal that care should focus on last-days-of-life care, even when this may not yet be the case.^{8,15} Putting in place injectable anticipatory medications is not always acceptable for patients and their families, or appropriate where there are concerns about possible drug misuse or diversion.^{3,6}

There are always going to be patients whose death is not anticipated or whose goals remain recovery focused until the last hours of life. It is important to ensure rapid and tailored access to last-days-of-life symptom control drugs in the community in these situations, when anticipatory prescribing is not possible or may have been overlooked.

We propose four parallel context and resource-dependent options to be considered by clinical teams, service commissioners, and policymakers.

Firstly, that some community pharmacies are adequately resourced to supply end-of-life drugs out of hours, ideally at all hours. Secondly, that emergency paramedics carry end-of-life drug stocks that they can administer to dying patients, ideally following remote senior clinician consultation and authorisation. Thirdly, that community healthcare services and nursing homes hold a stock of end-of-life drugs that can be dispensed and delivered rapidly following a prescription. Fourthly, that changes are made to pharmaceutical regulations to permit end-of-life drugs prescribed for one care home resident to be repurposed for another resident, following a medical assessment and individualised prescription, as was permitted temporarily during the initial phase of the covid-19 pandemic in England and widely welcomed.¹⁶ These last two approaches would require changes in legislation and appropriate safeguards in many countries.

These proposed options will need careful piloting and robust evaluation of their clinical effectiveness, safety, and unintended consequences, and consideration of patients' and families' views and experiences of care. They may considerably reduce drug wastage. There is a pressing need to facilitate ready access to end-of-life care drugs in the

community. These and other innovative and complementary options have real potential to avoid preventable suffering in the final days and hours of life.

BB, PH, BM, KP, and SB all contributed to the conceptualisation, writing, and editing of this piece.

We have read and understood BMJ policy on declaration of interests and have no competing interests. BB, PH, BM, KP, and SB are researching end of life injectable medication practice. BB is supported by the Wellcome Trust [225577/Z/22/Z]. SB is supported by the National Institute for Health and Care Research Applied Research Collaboration East of England at Cambridgeshire and Peterborough NHS Foundation Trust.

The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

- 1 All-Party Parliamentary Group Hospice and End of Life Care. The lasting impact of covid-19 on death, dying and bereavement. 1 March 2023. <https://hukstage-new-bucket.s3.eu-west-2.amazonaws.com/s3fs-public/2023-02/Final%20APPG%20report.pdf>
- 2 Wilson E, Morbey H, Brown J, Payne S, Seale C, Seymour J. Administering anticipatory medications in end-of-life care: a qualitative study of nursing practice in the community and in nursing homes. *Palliat Med* 2015;29:70. doi: 10.1177/0269216314543042 pmid: 25070861
- 3 Bowers B, Redsell SA. A qualitative study of community nurses' decision-making around the anticipatory prescribing of end-of-life medications. *J Adv Nurs* 2017;73:94. doi: 10.1111/jan.13319 pmid: 28423478
- 4 Poolman M, Roberts J, Wright S, et al. Carer administration of as-needed subcutaneous medication for breakthrough symptoms in people dying at home: the CARIAD feasibility RCT. *Health Technol Assess* 2020;24:150. doi: 10.3310/hta24250 pmid: 32484432
- 5 Lindqvist O, Lundquist G, Dickman A, et al. Four essential drugs needed for quality care of the dying: a Delphi-study based international expert consensus opinion. *J Palliat Med* 2013;16:43. doi: 10.1089/jpm.2012.0205 pmid: 23234300
- 6 National Institute for Health and Care Excellence. Care of dying adults in the last days of life. 2015. www.nice.org.uk/guidance/ng31/resources/care-of-dying-adults-in-the-last-days-of-life-pdf-1837387324357
- 7 Bowers B, Pollock K, Barclay S. Unwelcome memento mori or best clinical practice? Community end of life anticipatory medication prescribing practice: a mixed methods observational study. *Palliat Med* 2022;36:104. doi: 10.1177/02692163211043382 pmid: 34493122
- 8 Bowers B. Understanding community end-of-life anticipatory medication care. Doctoral thesis. University of Cambridge. 2021. doi: 10.17863/CAM.83530
- 9 Pollock K, Wilson E, Caswell G, et al. Family and health-care professionals managing medicines for patients with serious and terminal illness at home: a qualitative study. *Health Services and Delivery Research* 2021;9:. doi: 10.3310/hsdr09140 pmid: 34410684
- 10 Bowers B, Ryan R, Kuhn I, Barclay S. Anticipatory prescribing of injectable medications for adults at the end of life in the community: a systematic literature review and narrative synthesis. *Palliat Med* 2019;33:77. doi: 10.1177/0269216318815796 pmid: 30513254
- 11 Webber C, Viola R, Knott C, Peng Y, Groome PA. Community palliative care initiatives to reduce end-of-life hospital utilization and in-hospital deaths: a population-based observational study evaluating two home care interventions. *J Pain Symptom Manage* 2019;58:189.e1. doi: 10.1016/j.jpainsymman.2019.04.021 pmid: 31022443
- 12 Bowers B, Pollock K, Barclay S. Simultaneously reassuring and unsettling: a longitudinal qualitative study of community anticipatory medication prescribing for older patients. *Age Ageing* 2022;51(12):afac293.
- 13 Murray SA, Kendall M, Boyd K, Sheikh A. Illness trajectories and palliative care. *BMJ* 2005;330:11. doi: 10.1136/bmj.330.7498.1007 pmid: 15860828
- 14 Pollock K, Seymour J. Reappraising 'the good death' for populations in the age of ageing. *Age Ageing* 2018;47:30. doi: 10.1093/ageing/afy008 pmid: 29518180
- 15 Bowers B, Barclay SS, Pollock K, Barclay S. GPs' decisions about prescribing end-of-life anticipatory medications: a qualitative study. *Br J Gen Pract* 2020;70:9. doi: 10.3399/bjgp20X712625 pmid: 32895243
- 16 Antunes B, Bowers B, Winterburn I, et al. Anticipatory prescribing in community end-of-life care in the UK and Ireland during the COVID-19 pandemic: online survey. *BMJ Support Palliat Care* 2020;10:9. doi: 10.1136/bmjspcare-2020-002394 pmid: 32546559