



Improving end-of-life care in the emergency department: Development of a standardized approach to an imminently dying patient

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CASE STUDY

An 87-year-old man from a long-term care facility arrives to the emergency department (ED) after experiencing two episodes of syncope. His vital signs are heart rate, 20; blood pressure, 90/48; oxygen saturation, 92% (room air); respiratory rate, 28; temperature, 36.5°C; and glucose, 7.2 mmol/L. He appears dyspneic, uncomfortable, and is vomiting. His past medical history includes advanced dementia and a known intermittent third-degree heart block for which his family had declined pacemaker insertion in the past. Further conversations with his daughter, the substitute decision-maker (SDM), reveal that given the severity of her father's dementia and frailty, he would not want any life-sustaining measures such as cardiac pacing or vasoactive medications. The emergency physician (EP) thus establishes a care plan to focus on symptom management. Blood work demonstrates that he is in multi-organ failure and he is growing more somnolent.

How do you approach end-of-life symptom management for this imminently dying patient in your ED?

EDs often care for patients who have a high risk of mortality.¹ The first hours in the ED, when decisions are made and treatments are initiated, often establish a trajectory that is pivotal in a patient's disease process, and it can be very hard to reverse this later on. Caring for an imminently dying patient involves, firstly, the recognition of a potentially life-limiting event by the emergency medicine team. Secondly, EPs must be able to initiate conversations around goals of care in the ED.²

This provides an opportunity to practise patient-centred care and, in cases like the one illustrated above, adopt a palliative approach to care if patients and/or their SDMs are in agreement.

Although providing quality end-of-life care is increasingly recognized as a priority in the ED, there are several barriers to the EP's comfort and skill with the management of an acutely dying patient.^{3,4} Firstly, there is a lack of structured training in these skills, as fewer than half of emergency medicine residents receive formal training in palliative care.^{5–8} Another barrier described is that EPs may feel unable to dedicate the required time and emotional energy to care for these vulnerable patients in the ED.^{9,10} Provider attitudes and local culture also play a role; indeed, some ED providers still feel that end-of-life care is contrary to the ethos of the ED.^{11–13}

Our institution identified a need for an improved approach to enhance care of the imminently dying patient in the ED. To our knowledge, this type of guide has yet to be published in the emergency medicine literature. After conducting a review of the current literature and consulting with an interdisciplinary team of experts in palliative care, emergency medicine, and intensive care (including nurses, pharmacists, physicians, and social workers), we developed a guide for *Symptom Management Care of the Imminently Dying Patient in the ED*. This document, in part, was built on existing guidelines for the withdrawal of life-sustaining therapy from the Critical Care and Palliative Care literature.¹⁴ Given the novelty of this project, there is little evidence-based literature from emergency medicine; thus, where the

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evidence was less clear, the recommendations in the guide were reached by consensus from the experts described above. The document was then reviewed for feasibility and usability by a separate group of stakeholders, including nurse educators, EPs and nurses, and palliative care physicians.

The intent of the guide is to enable an imminently dying patient in the ED (as defined by last hours to days) to achieve a comfortable death and to provide support to the patient and his or her family. Modifications to this guide will be made in years to come based on suggestions from our care providers, on knowledge gaps identified in nursing education sessions on this tool and on feedback solicited from families. Moreover, it is our hope that this framework will serve as a stepping stone for future research to develop national evidence-based recommendations.

We will highlight the elements of the guide that we believe will enhance the delivery of end-of-life care in the ED. The institutional pathway we have developed is found in Appendix 1.

SYMPTOM ASSESSMENT, NONPHARMACOLOGIC MANAGEMENT, AND RESOURCES

Our patient likely has a high symptom burden and requires frequent assessments and aggressive symptom management.^{15,16} When possible, the patient should be kept in a quiet, private area where the nurse-to-patient ratio is low. To aid in symptom assessment, there exist validated symptom assessment tools for pain, dyspnea, agitation, and delirium to provide a starting point for pharmacologic and nonpharmacologic management.^{14,17–19} Attention should also be given to the nonphysical elements of comfort (liberalizing visitation) and to involve other healthcare professionals, such as those individuals in social work and spiritual care, when possible.

The pathway discusses the controversial question of whether to feed a patient at end of life. Oral or even continuation of enteral nutrition may be appropriate if requested by the patient or family.^{20,21} However, there is no evidence that artificial nutrition or hydration provide comfort to patients. Intravenous fluids may lead to volume overload and pulmonary edema, while enteral nutrition may be poorly absorbed and result in aspiration. Vigilance is therefore required to ensure that nutritional therapy, if continued, does not worsen symptoms.²²

Frequent repositioning of the patient, ideally in the semi recumbent position, is best for comfort and to prevent respiratory distress. Additionally, a mechanical fan can be positioned in front of the patient to alleviate the sensation of dyspnea.^{23,24}

For patients who do have implantable cardioverter-defibrillator devices, the physician and patient's family may choose to deactivate the device at end of life by placing a magnet over it. This will not hasten a patient's death, but it will prevent the device from defibrillating the patient.²⁵

PHARMACOLOGIC MANAGEMENT

The pathway contains suggestions for medical management of the most common symptoms encountered at end of life. We recommend that the EP review all medications the patient is taking and discontinue those not contributing to patient comfort. For example, it might be appropriate to continue current antipsychotics in the case illustrated previously.

Oral and pharyngeal secretions that lead to gurgling sounds are common near the end of life; although they are often distressing to family, they are unlikely to cause distress to the patient. Despite a lack of conclusive evidence, antimuscarinic agents are used to reduce the volume of these secretions. We have recommended glycopyrrolate because it does not cross the blood-brain barrier, thus preserving the ability for some patients to have more meaningful interactions.²⁶

Delirium and agitation are also common at end of life. In patients who are agitated, haloperidol is the preferred agent given its availability in the ED, predictable pharmacokinetics, and its ability to be given subcutaneously. Benzodiazepines can be added if more sedation is required.^{21,26}

Pain and dyspnea can both be well managed with sufficient doses of opioids. The doses suggested in Appendix 1 are for opioid-naïve patients. In patients who are already receiving opioid therapy, doses should be converted to subcutaneous dose equivalents based on the total 24-hour opioid dose. The guide contains an opioid conversion and equi-analgesia table.²⁷

EXPECTATION SETTING AND DISPOSITION

Clinicians are often inaccurate at estimating life expectancy even nearing end of life. Because the ED is not the ideal setting to provide ongoing end-of-life care,

disposition planning is necessary and appropriate. Our pathway also reminds practitioners of the requirement to inform the provincial organ and tissue donation agency of an impending death.

CONCLUSION

It is our hope that dissemination of this locally developed, peer-reviewed, and pilot-tested tool will provide a framework for EPs seeking to provide high-quality symptom management to patients nearing end of life. However, as with any other patient, each imminently dying patient requires a detailed assessment and unique treatment plan. End-of-life care is increasingly becoming the responsibility of the EP, and, as such, we should seek to increase our comfort and knowledge in treating these patients and their families. Future studies on this topic could aim to incorporate symptom assessment tools in the ED and to develop national consensus guideline statements on providing high-quality, end-of-life care in the ED.

CASE OUTCOME

You transfer the patient to a quiet room in the ED. You initiate low-dose intravenous (IV) morphine for dyspnea and haloperidol for agitation. The ED nurse positions the patient comfortably on one side and returns frequently to perform oral care and medication adjustments. The patient is too unwell to be transferred back to his long-term care facility and dies peacefully 3 hours after arrival in the ED.

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