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Recognising and managing dying patients in the acute hospital setting: can we do better?

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Brief Communications

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Abstract

Healthcare professionals have limited formal end-of-life care training despite the large proportion of hospital deaths. A retrospective review of 201 acute hospital deaths revealed 166 (82.6%) had documentation to suggest the patient was dying but this was performed late with a median time between documentation and death of 0.84 days. Furthermore, 132 (66%) patients received an intervention in the final 48 hours of life. This highlights the need to improve the recognition and management of dying patients in acute hospitals.

Key words

End-of-life care; recognising dying; death; communication; education

Table 1 Characteristics of patients

Characteristic	N (%)
Gender	
Male	118 (58.7)
Female	83 (41.3)
Age (years)	
Less than 60	44 (21.9)
Over 60	157 (78.1)
Major specialty of patients cared for	
Medical	138 (68.7)
Surgical	22 (10.9)
Intensive Care	40 (19.9)
Other	2 (1)
Location prior to admission	
Home	142 (70.6)
Residential care facility	18 (9)
Supported accommodation	5 (2.5)
Others	37 (18.4)
Number of acute hospital admissions in the last 12 months prior to this hospital admission	
1-2 times	64 (31.8)
3-5 times	28 (13.9)
More than 5 times	29 (14.4)
None	61 (30.3)
Not known	20 (10)

Table 2 Selected survey items

Variables	Healthcare professional			
	Specialists (N, %)	Junior doctor (N, %)	Nurse (N, %)	Allied health (N, %)
Confidence in my ability to recognise a dying patient (Strongly agree/agree)	70 (97.2)	35 (85.4)	237 (90.1)	24 (63.2)
Junior doctors on my ward are skilled at recognising a dying patient (Strongly agree/agree)	32 (44.4)	N/A	96 (36.5)	22 (57.9)
Senior nurses on my ward are skilled at recognising a dying patient (Strongly agree/agree)	N/A	35 (85.4)	243 (92.4)	37 (97.4)
Confidence in my ability to talk to patients and their families about death and dying (Strongly agree/agree)	71 (98.6)	33 (80.5)	175 (66.5)	22 (57.9)
Junior doctors on my ward are skilled at talking about death and dying with patients and their families	N/A	N/A	92 (35.0)	13 (34.2)

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Recognising and managing dying patients in the acute hospital setting – can we do better?

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Introduction

Advances in medical interventions and improvements in public health have significantly increased the life expectancy for Australians. These advances have also impacted on the dying experience. A large proportion of end-of-life care has shifted into institutions such as hospitals and residential aged care facilities, with the dying process becoming increasingly more complex and medicalised.[1] In Australia, approximately 50% of deaths occur in hospitals although most Australians report that they would prefer to die at home.[2-3] However, concerns have been raised regarding the quality of end-of-life care provided to patients in hospitals, including how and where patients die.[4]

Risk factors associated with mortality include advanced age, history of severe organ failure, immunosuppression, abnormal vital signs and severe electrolyte derangement. The timely recognition of dying is important when caring for deteriorating patients but is often complex and inherently uncertain.[5-6] Characteristics of dying include loss of appetite and weight, impaired conscious state, increased frailty and dependency, behavioural changes with personality and mood changes, as well as increased restlessness and agitation.[5]

In acute hospitals, care is usually focused on prolongation of life and is associated with continuation of invasive investigations and treatments that may extend or increase suffering,[6] particularly if there is an uncertainty about a patient's prognosis or expectations for treatment by patients and family members. Consequently, many patients at the end of their life receive inappropriate or non-beneficial interventions.[6-9]

Communication about end-of-life care is an essential element of high-quality care, allowing patients to make informed decisions and to express their values and how these relate to their healthcare choices.[10] Barriers to end-of-life communication include the uncertainty about a patient's prognosis and doctors' perception that it may jeopardise their relationship with patients or increase patient distress.[10-11] Hence, it is important that clinicians are equipped with adequate knowledge, skills and attitudes to communicate effectively with patients who are dying.[11]

Despite the importance of high quality end-of-life care, current data on Australian practice of end-of-life care in hospitals is lacking. The aim of this study was to explore the recognition and communication of a diagnosis of dying in an acute

hospital setting. Here, we present data from a major tertiary Melbourne metropolitan hospital.

Methods

Patients were identified by retrospectively reviewing medical records of patients who died between the 1st of July 2015 and 30th of June 2016. These inpatient deaths were then categorized into four groups and records were selected for auditing by a biostatistician to ensure feasibility and adequacy of sampling. The four groups were: 1. death as an inpatient with a hospital admission between 4 and 48 hours (n=58), 2. death as an inpatient with a hospital admission over 48 hours (n=55), 3. death in ICU with a hospital admission between 4 and 48 hours (n=29), and 4. death in ICU with a hospital admission over 48 hours (n=59). Patients were eligible for inclusion in the study if they were an inpatient and had died at least 4 hours after their hospital admission. Patients were excluded if they were under 18 years old, classified as an inpatient but residing at home (e.g. receiving care through a hospital in the home service), or if they died in the emergency department, operating theatre or adult mental health unit.

This study was part of a multi-centre study undertaken to describe current end-of-life care practices in a range of acute Australian hospital settings, based on a pilot audit from Canberra Hospital.[12] Ethics approval was obtained from the institutional ethics committee.

This study involved two phases of data collection. Quantitative data was collected via an online audit tool based on the national consensus statement of essential elements

for safe and high quality end-of-life care.[13] Key domains included patient demographics, resuscitation plans, rapid response team reviews, recognition and documentation of dying, and interventions in the last hours of life. An online questionnaire was also distributed to all clinical staff and was used to collect data on the perceptions and experiences of healthcare professionals involved in delivering end-of-life care in acute hospitals.

Results

A total of 201 patient files were reviewed. The results presented show weighted data to account for the different proportions of patient deaths across categories. The characteristics of patients are described in Table 1.

Table 1 Characteristics of patients

Characteristic	N (%)
Gender	
Male	118 (58.7)
Female	83 (41.3)
Age (years)	
Less than 60	44 (21.9)
Over 60	157 (78.1)
Major specialty of patients cared for	
Medical	138 (68.7)
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Number of acute hospital admissions in the last 12 months prior to this hospital admission	
1-2 times	64 (31.8)
3-5 times	28 (13.9)
More than 5 times	29 (14.4)
None	61 (30.3)
Not known	20 (10)

Overall, 184 patients (92%) had a resuscitation plan documented during their admission with 77 (41.8%) of these patients having their resuscitation plan revised to a less aggressive approach at any time during their admission. The first resuscitation plan was documented by the home team junior doctor and the admitting registrar in 55 (30%) and 52 (28.3%) patients, respectively. The time between the documentation of the first resuscitation plan and death was a median of 1.06 (0.59-2.91) days.

Forty-three (21.3%) patients had a rapid response review during their admission and of these, ten patients (23.3%) died during this review. Revised resuscitation plans were documented during or immediately after a rapid response review in thirteen (30%) patients.

There was documentation to suggest that the patient was dying in 166 (82.6%) records and documentation that this was communicated with the patient and/or family in 143 (86.1%) records. The median difference between the documentation of the patient dying and time of death was 0.84 (0.31-2.1) days. Overall, 132 (66%) patients received an intervention in the final 48 hours of life. These interventions included blood tests in 113 (56%) patients, intravenous fluids in 83 (41.3%) patients, intravenous antibiotics in 63 (31.3%) patients, transfusion of blood products in 27 (13.4%) patients, artificial nutrition in 27 (13.4%) patients, dialysis in 10 (5%) patients and non-invasive ventilation in 8 (4%) patients.

A palliative or comfort care only plan was documented in 140 (70%) patients at any time during the admission. In total, 97 (48.2%) patients were referred to specialist palliative care during their admission.

The survey for health professionals was completed by 263 nurses, 72 specialists, 41 junior doctors and 38 allied health staff. Details of selected items are presented in Table 2.

Table 2 Selected survey items

Variables	Healthcare professional			
	Specialists (N, %)	Junior doctor (N, %)	Nurse (N, %)	Allied health (N, %)
Confidence in my ability to recognise a dying patient	70 (97.2)	35 (85.4)	237 (90.1)	24 (63.2)

(Strongly agree/agree)				
Junior doctors on my ward are skilled at recognising a dying patient (Strongly agree/agree)	32 (44.4)	N/A	96 (36.5)	22 (57.9)
Senior nurses on my ward are skilled at recognising a dying patient (Strongly agree/agree)	N/A	35 (85.4)	243 (92.4)	37 (97.4)
Confidence in my ability to talk to patients and their families about death and dying (Strongly agree/agree)	71 (98.6)	33 (80.5)	175 (66.5)	22 (57.9)
Junior doctors on my ward are skilled at talking about death and dying with patients and their families	N/A	N/A	92 (35.0)	13 (34.2)

Discussion

The findings of this audit are consistent with existing research showing that clinicians do recognise dying, but this often occurs very close to the patient's death.[14] Although a significant proportion of patients die in hospitals, most healthcare professionals have limited formal training about end-of-life care.[14] Consequently, as shown in this

study, there is a tendency towards continued interventions and treatment in the last days of life.

This study also showed that amongst patients who had a rapid response review, almost one third had a revised resuscitation plan. Recent studies show that it is common for end-of-life care decisions to be deferred to the rapid response team.[7] However, it is unclear why this is occurring. It may be related to the experience or authority of the rapid response team relative to the treating team, the clinical standards of documentation from rapid response reviews compared with ward-based care, or the ability of the rapid response team to take a different perspective of the overall clinical scenario. Nonetheless, rapid response reviews may not be the optimal time to discuss goals of care and resuscitation status as the team may have limited knowledge of the patient's circumstances[7,15] and limited rapport with patients and their caregivers.

Another major finding is that junior doctors are completing a significant proportion of resuscitation plans. Junior doctors may have limited experience in recognising and managing end-of-life care needs, may perceive that they lack authority to make decisions about limiting medical treatments, and may not always contact senior clinicians for assistance with patients who are deteriorating.[7] Senior nurses can be skilled in recognising when patients are dying. Indeed, this study showed that the majority of junior doctors and nurses believed that the senior nurses on their ward were skilled at recognising a dying patient. Hence, senior nurses could assist junior doctors to escalate the management of patients to more senior clinicians if they

believed that the patient was deteriorating and was receiving inappropriate treatment on the ward.

Strengths of this study were that it provided baseline data for our end-of-life care working group and would allow for comparison across sites. Potential limitations of this study include the retrospective auditing of medical records that may not accurately reflect the actual provision of care. It is possible that the recognition of dying and discussions with patients and caregivers occurred earlier or more frequently than it was actually documented. With regards to the health professionals' questionnaire, a response bias is possible as participation was voluntary.

In conclusion, it is a federal government imperative to improve safety and quality of end-of-life care for all Australians. This is of critical importance as the Australian population is ageing with more people dying in acute hospitals due to complex and chronic progressive diseases.[7] This study provides useful information about the current state of end-of-life care delivered in a tertiary referral hospital in Australia and demonstrates the need for educational initiatives to focus on recognising and managing patients at the end of their life, as well as on communication skills that are necessary to effectively assist patients with making informed decisions about end-of-life care.

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