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Abstract

Background: The majority of deaths in the UK occur in acute hospitals, and older people have the highest hospital death rates. Improved palliative care for older people has been identified as an international priority, yet little is known about the profile of older patients with palliative care needs in hospitals.

Objective: To describe the profile of older hospital inpatients (≥85 years), and to explore the prevalence and nature of palliative care needs amongst this group.

Methods: A cross-sectional survey of palliative care need in older people was undertaken in two UK acute hospitals. Hospital case notes were examined for evidence of palliative care need according to Gold Standards Framework (GSF) prognostic indicator criteria. Patients (or consultees) completed assessments of palliative care need.

Subjects: Data were collected for 654 consenting patients/consultees. This paper describes data from 110 patients aged ≥85 years.

Results: 40% of the older patients were identified as having palliative care needs according to GSF criteria. Frailty was the most common indicator of palliative care need (16.7%). The most common reason for admission to hospital was general frailty (25.5%).

Conclusions: The results suggest that older people with frailty conditions constitute a substantial proportion of hospital inpatients with palliative care needs. However, it is unclear whether a specialist palliative care framework is the most appropriate model for this group. The care provided to older people at the end of life may best be provided by generalists such as geriatricians, as part of a comprehensive generalist led palliative care framework.
Main Text

Background

In common with most countries in the developed world, the majority of deaths in the UK occur in acute hospitals [1]. Adults aged over 75 years have the highest hospital death rates [2], and those aged 85 and over have seen the biggest increase in hospital deaths over recent years [3]. In the UK, increases in unplanned hospital admissions have been described as unsustainable for the National Health Service (NHS) [4]. The recent Dilnott Report on care funding in England highlights the challenges this presents for the way in which services, including those provided in acute hospitals, are organised and delivered for older people[5].

One area of care provision that has been particularly criticised for failing to deliver appropriate care for older people is palliative care. Improved palliative care for older people has been identified as an international public health priority[6], and specific calls have been made to improve palliative care for older people within the hospital setting [7-9]. Despite this, evidence suggests that older people continue to be disadvantaged in terms of access to specialist palliative care[10]. In addition many older people do not receive care in line with a generalist palliative approach from their usual care providers[1].

1 Specialist palliative care is defined as care delivered by professionals with specialist training in palliative care whose remit is to care for patients who require continuous or high levels of support [15]. Generalist palliative care is defined as care provided by professionals who have not have undertaken specialist training in palliative care, but who routinely provide health care to patients at the end of their lives [16,11].
Older patients are under-represented as users of specialist palliative care services[10]. Reasons for this may include attitudinal differences to the care of older people, a focus on curative treatments within hospitals, a lack of consensus regarding whose responsibility it is to provide palliative care for older people, and perceived associations between specialist palliative care and cancer[11]. Whilst a recent study reported that access to specialist palliative care for people with lung cancer was not affected by age [12], there has been a lack of research outside of the cancer setting [12]. Studies have also been criticised for failing to consider variations in need for specialist palliative care which may result from the differing profile of disease and impairment associated with an older population [7,10].

Outside of cancer care, very little is known about the profile of older patients with palliative care needs in the acute hospital setting. This is despite their high use of hospitals at the end of life, including higher numbers of emergency admissions and readmissions than people at younger ages [13,6,14]. Recent evidence from the UK suggests that health services may not be structured in such a way as to support delivery of optimum care for older people, resulting in deficiencies in basic care, needs assessment and communication [17].

There is little consensus as to how palliative care services should be organised and delivered for older people. This issue is compounded by a lack of understanding amongst health professionals regarding what constitutes palliative care, and difficulties with defining palliative care need amongst older patients [16,11]. The aim of this study was to describe the profile of older hospital inpatients (≥85 years), and to explore the prevalence and nature of palliative care needs amongst this group.

Methods:
A comprehensive cross-sectional survey of hospital in-patients was undertaken at two UK hospitals selected for socio-demographic diversity - Sheffield’s Northern General Hospital (SNGH) and the Royal Lancaster Infirmary (RLI). The surveys were undertaken in May (SNGH) and November (RLI) 2010. All in-patient wards with the exception of children’s wards and mother and baby units were included in the survey, which intended to capture a cross-sectional snapshot of the hospital in-patient population. Each ward was visited by two members of the data collection team at some point during the survey period. Inclusion criteria were patients aged 18 years and over resident on the ward at 9am on the day the ward was surveyed. Non-English speaking patients, and deaf patients were excluded due to a lack of translation facilities. The approach to the inclusion of patients lacking capacity to consent for themselves was developed in line with Mental Capacity Act (2005) guidance[18]. For patients who lacked capacity, a family member or friend was asked to act as a consultee and participate on the patients behalf. Detailed methods for the survey have been reported elsewhere [19].

For patients/consultees who consented to participate, the following data were collected:

1. Collection of data from patients’ hospital case notes comprising: evidence of palliative care need according to Gold Standards Framework (GSF) prognostic indicator criteria (the GSF aims to help health professionals in earlier identification of adult patients nearing the end of their life, it provides 11 diagnostic criteria which give an indication of patients likely to be in the last year of life and who might benefit from palliative care input) [20]; reason for admission; evidence of adoption of a palliative care approach using a list of predefined indicators (see table 3 for indicators); number of previous hospital admissions in last 12 months.
2. Patient/consultee completed questionnaires comprising a range of demographic and health measures, including preferences for place of care. In cases where a consultee participated on a patients behalf, they were asked to answer questions as they believed the person they were acting as consultee for would have done.

Raw data were entered into the computer package SPSS and descriptive statistics were used to describe the data. Ethical approval for the study was granted by Nottingham 1 Research Ethics Committee. Research Governance approval was granted by the relevant NHS Trusts. This work was supported by the National Institute for Health Research, the views and opinions described herein are those of the authors and do not necessarily reflect those of the Department of Health.

Results

A total of 1359 in-patients were eligible for inclusion in the survey (1009 patients in Sheffield and 350 patients in Lancaster). Of the total eligible patient population, 654 (48.1%) patients agreed to participate. Reasons for non-participation included: patients not approached on advice of staff (9.1%); patients declined (29.9%); Non-English speaking patients (0.7%); deaf patients (0.5%); patient lacked capacity but no consultee available (8.0%); no reasons documented (3.6%). Patient response rates were similar for the two hospitals (SNGH = 46.9%, RLI =52.9%). The age profile of the participating patient sample indicates the majority were aged 60 years or older (n=448, 68.5%). Around one fifth of the participating patients were aged 85 years or older(n=127, 19.4%).After data cleaning, complete datasets were
available for 110 patients aged 85 years or older, all subsequent analyses in this paper relate
to the sample of 110 patients aged ≥ 85 years.

Table one shows demographic and admission data for the 110 patients aged ≥ 85 years. The
majority of these patients were female, and the median age was 89 years. Most of the
sample lived alone and all were of white ethnic origin. Reasons for admission to hospital
were obtained from hospital case notes. The most common reason for admission (25.5%)
was general frailty (including falls, confusion or general deterioration).

<table>
<thead>
<tr>
<th>Age</th>
<th>Median</th>
<th>89 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td></td>
<td>85-103 years</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>39 (35.5%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>71 (64.5%)</td>
</tr>
<tr>
<td>Living Arrangements</td>
<td>Co-habits</td>
<td>28 (25.5%)</td>
</tr>
<tr>
<td></td>
<td>Lives alone</td>
<td>69 (62.7%)</td>
</tr>
<tr>
<td></td>
<td>Nursing home or residential care</td>
<td>12 (10.9%)</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>Reason for admission</td>
<td>Frailty/fall/confusion or deterioration</td>
<td>28 (25.5%)</td>
</tr>
<tr>
<td>to hospital as</td>
<td>Heart disease</td>
<td>15 (13.6%)</td>
</tr>
<tr>
<td>documented in</td>
<td>Infection</td>
<td>13 (11.8%)</td>
</tr>
<tr>
<td>hospital case notes</td>
<td>Accidental injury</td>
<td>10 (9.1%)</td>
</tr>
<tr>
<td></td>
<td>Stroke/Transient Ischaemic Attack</td>
<td>8 (7.3%)</td>
</tr>
<tr>
<td></td>
<td>Dementia</td>
<td>6 (5.5%)</td>
</tr>
<tr>
<td></td>
<td>Cancer or cancer related problems</td>
<td>6 (5.5%)</td>
</tr>
<tr>
<td></td>
<td>COPD, other chronic lung disease</td>
<td>4 (3.6%)</td>
</tr>
</tbody>
</table>
Hospital case notes were examined for evidence of palliative care need according to Gold Standards Framework (GSF) prognostic indicator criteria. Forty-four (40%) patients met one or more criteria for palliative care need. Frailty (16.4%) and dementia (13.6%) were the most common criteria met. The majority of patients met just one GSF criteria (n=30, 68.2%), with smaller numbers meeting two (n=11, 25%) or three (n=3, 6.8%) criteria. A breakdown of GSF indicators is given in figure 1.

<table>
<thead>
<tr>
<th></th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>3 (2.7%)</td>
</tr>
<tr>
<td>Renal failure</td>
<td>3 (2.7%)</td>
</tr>
<tr>
<td>Other</td>
<td>14 (12.7%)</td>
</tr>
</tbody>
</table>

Table 1: Demographic and admission information for patients ≥ 85 years (n=110)

Figure 1: GSF indicators met by patients aged ≥85 years (n=44).
Patients who had palliative care needs according to GSF criteria were asked about their preferences for place of care. In 28 cases patients responded for themselves, in 11 cases a response was recorded by a consultee, and 5 patients declined to complete a questionnaire. The majority stated they would have preferred to have been cared for in their own home (54.5%), rather than in hospital (20.5%). The majority of patients (84.1%) had been admitted to hospital at least once in the 12 months prior to the survey, and over one fifth (20.5%) had been admitted more than 3 times in the previous year (table 2).

<table>
<thead>
<tr>
<th>Patient preference for place of care (for current admission)</th>
<th>Own home</th>
<th>Hospital</th>
<th>Not sure</th>
<th>Declined questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>24 (54.5%)</td>
<td>9 (20.5%)</td>
<td>6 (13.6%)</td>
<td>5 (11.4%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of hospital admissions in previous 12 months (as documented in case notes)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>≥3</th>
<th>Not documented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>7 (15.9%)</td>
<td>11 (25.0%)</td>
<td>8 (18.2%)</td>
<td>9 (20.5%)</td>
<td>9 (20.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of days spent in hospital in previous 12 months (as documented in case notes)</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>30 days</td>
<td>0 – 165 days</td>
</tr>
</tbody>
</table>

Table 2: Admission and patient preference data for patients aged ≥ 85 years with palliative care needs according to GSF criteria (n=44)
Hospital case notes were examined for indicators of transition to a palliative care approach (table 3). Indicators were identified by health professionals during a previous qualitative phase [11,21]. Half of the patients (50%) who met GSF criteria for palliative care need met one or more indicator of transition to palliative care. Half the patients had a Do Not Attempt Resuscitation (DNAR) order in place, however there was documentation of discussion with the patient and/or family regarding the DNAR order in only 6 cases (13.6%). Even amongst patients who did not meet GSF criteria, a reasonable number (16.7%) had a DNAR order in place. Only 2 patients of the 44 who met GSF criteria had been referred to specialist palliative care services, however one patient was referred to specialist palliative care despite not meeting any GSF criteria. The only patients for whom advanced care plans (1.5%) or use of syringe drivers (3.0%) had been documented, did not meet GSF criteria for palliative care need (table 3).

<table>
<thead>
<tr>
<th>Indicators of palliative care approach</th>
<th>Patients meeting GSF criteria (n=44)</th>
<th>Patients not meeting GSF criteria (n=66)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Not Attempt Resuscitation (DNAR) order in place</td>
<td>22 (50%)</td>
<td>11 (16.7%)</td>
</tr>
<tr>
<td>Documentation of discussion with patient and/or family regarding DNAR</td>
<td>6 (13.6%)</td>
<td>9 (8.2%)</td>
</tr>
<tr>
<td>Referral to Specialist Palliative Care</td>
<td>2 (4.3%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>Placed on Liverpool Care Pathway</td>
<td>1 (2.3%)</td>
<td>2 (3.0%)</td>
</tr>
<tr>
<td>Documented Advanced Care Plan</td>
<td>0</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>Syringe driver or long term opiates</td>
<td>0</td>
<td>2 (3.0%)</td>
</tr>
</tbody>
</table>
No evidence of transition to palliative care | 22 (50%)

Table 3: Indicators of transition to a palliative care approach, grouped by GSF.

Discussion

Improving palliative care for older people has been identified as a priority in the UK and internationally [2,6]. However, evidence suggests that significant barriers exist to older people accessing specialist palliative care services [10,11], and there is a lack of clear guidance regarding the most effective models of palliative care for older people [11,22].

Our findings suggest that frailty is the most prevalent indicator of palliative care need amongst older hospital in-patients, in addition to being one of the most common reasons for admission to hospital. However, there is a lack of research around appropriate models of palliative care for the frail elderly [23]. Some authors have gone as far as to suggest the underlying conceptual framework for palliative care as currently applied to the elderly is fundamentally flawed [22]. In our study, inconsistencies were identified in the way in which older people made a transition to palliative care. The findings suggest that there is little correlation between palliative care need (as defined by the GSF criteria), and transitions to a palliative care approach. Whilst the positive impact of specialist palliative care for patients with cancer is now well established, there is less evidence exploring whether the care required by frail older patients at the end of life is most effectively delivered within the framework of specialist palliative care [24]. Whilst the Gold Standards Framework suggests that patients with frailty conditions should be considered for palliative care input, there is little guidance as to who should provide this care, and what level of specialist input is
appropriate for this group [20]. A care approach provided by an interdisciplinary care team, which seeks to relieve suffering and improve quality of life, has been internationally advocated for frail patients at the end of life[24]. In the UK, guidelines from the British Geriatrics Society (BGS) have acknowledged the importance of comprehensive geriatric assessment for the frail elderly, and have placed increased emphasis on the crucial role of the geriatrician in the provision of palliative and end of life care for older people[25]. Guidance such as this suggests a need to consider the role of the geriatrician as the health professional best placed to co-ordinate a comprehensive ‘generalist’ led palliative care approach.

‘Generalist’ palliative care provision is receiving increased attention as a means of addressing the needs of increasing numbers of patients with palliative care needs[16], in an economic climate of restricted specialist resources[26]. The profile of palliative care need in older patients, which appears dominated by frailty conditions and repeated hospitalisations, suggests that significant work needs to be undertaken to assess if, and how, generalists can best support frail older people. Palliative care guidance should be developed which is targeted to the specific needs of frail older people, and which is based on sound evidence regarding the most appropriate input for this population. Until such evidence exists we are unable to accurately assess adequacy of care provision for frail older people, to ensure equitable care for this group.

Multiple hospital admissions were common amongst the patients with palliative care needs, with 84% admitted to hospital on at least one other occasion in the 12 months prior to the survey. Repeat hospital admissions are common amongst older patients[14,4], and multiple admissions have been identified as a risk factor for subsequent admission[14]. Whilst
admission avoidance interventions such as community case management for high risk older patients have been suggested as a means of reducing admissions, they have had limited success [4]. The majority of patients in our study (54%) also cited a preference for care in their own homes rather than in hospital. This finding is in line with other research evidence which indicates that across Europe, home is the preferred place of care for the majority at the end of life [27]. Recent research has also identified issues with transitions between care settings for older people at the end of life including inadequate hospital discharge procedures, and poor community support after a hospital admission[17]. These findings have significant implications in light of a recent report from the UK Parliamentary Health Select Committee highlighting an urgent need to re-configure services to enable more older people to be cared for in their own homes [28]. Economic pressures provide further incentives for reducing inpatient hospital stays (one of the most expensive elements of healthcare) and preventing avoidable hospital admissions [29,30].

**Conclusion**

Data from this study suggest that older people with frailty conditions constitute a substantial proportion of hospital inpatients with palliative care needs. Whilst specialist palliative care uptake is low amongst the frail elderly, it is unclear whether a specialist palliative care framework is the most appropriate model for this group. The care and services provided to older people at the end of life may best be provided by generalists such as geriatricians, as part of a comprehensive generalist led palliative care framework. Given recent concerns about the level of care provided to older people within the acute hospital setting [31,28], priority should be given to considering ways in which to improve the care older people receive at the end of life. Improving generalist palliative care to support older patients in the
community, improving recognition of palliative care needs amongst older frail patients, and implementing models of palliative care that are appropriate for older patients at the end of life are key priorities which need to be addressed.

Limitations

The GSF was developed as a tool for use in primary care, and awaits formal validation in the hospital setting. Therefore its use as a tool for identifying patients with palliative care needs in hospital has yet to be determined. A probable response bias is acknowledged as a result of the self-selected nature of the patient sample, therefore our findings may not accurately reflect the whole of the hospital inpatient population. In addition non-English speaking and deaf patients were excluded and this may further limit generalisability. In 11 cases consultees completed questionnaires on behalf of patients who lacked capacity to consent, and responses given via consultee may not be accurate. Further research should seek to compare self-assessment and consultee-assessment measures to explore consensus.

Ethical approval

Ethical approval was provided by the Nottingham 1 Research Ethics Committee

Funding

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Contributions
CG analysed the data, wrote the first draft and revised further drafts. MG, CI and NR revised drafts and consulted on data analysis.

Conflict of interest

None declared

References


23. Boockvar KS, Meier DE. Palliative care for frail older adults: "there are things I can’t do anymore that I wish I could . . . ". *JAMA*;2006 ;296(18):2245-53.


