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An evaluation of palliative care in the acute geriatric setting

SIR—Improved medical practice and therapeutics, combined with public health measures, have contributed to significant demographic change. Increases in the proportion of elderly individuals are already apparent, a trend predicted to continue over the next 20 years [1]. These factors have prompted changes in patterns of disease, with increasing numbers of people dying of ‘end-stage’ chronic diseases such as heart failure, cerebrovascular and respiratory diseases, as well as cancer [2]. Dementia prevalence is also increasing, with estimates suggesting that ∼1.8 million people in the United States alone have advanced disease and may ultimately require palliative care [3].

Despite these statistics, evidence suggests that hospice care remains predominantly focussed towards malignant diseases [4, 5], and that older people tend to have reduced access to high-quality palliative care [6].

One approach to improving palliative care was development of the Liverpool Care Pathway (LCP). This document, well established for malignant disease, outlines goals for
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comprehensive palliative care, and has more recently been shown to be useful in improving care in patients with terminal, non-malignant disease such as stroke [7]. The LCP and other policy documents [8, 9] should improve palliative care in the elderly.

This work utilises goals and standards outlined in the LCP to evaluate the standard of palliative care in an in-patient cohort of elderly patients with ‘end-stage’ diseases. In doing so, areas of good and sub-standard practice are identified, with subsequent discussion evaluating some of these areas more thoroughly.

Methods

The wards studied have a population of frail older patients, identified as requiring multidisciplinary management of multiple co-morbid pathologies. The department has an electronic patient register containing information on demographics, diagnosis, ‘performance scores’ and outcome. From the register, patient deaths over a 3-month period were identified, and a retrospective case-note analysis was undertaken to determine circumstances of death.

A judgement was made by the author as to whether death resulted from end-stage chronic disease or an acute medical problem (e.g. acute infective illness, MI, etc.). Those felt to have died as a result of acute illness were excluded from the sample, with remaining clinical notes (medical and nursing) analysed against goals outlined in the LCP.

Results

A total of 55 deaths were identified with review of clinical notes identifying 36 patients felt to have died ‘predictably’ from end-stage diseases. Of these, 25 (79%) were females and all were aged over 70 with 7 patients (19%) aged 70–79, 17 (47%) aged 80–89 and 12 (33%) aged 90 or over. Five patients (16%) had established malignant disease.

A judgement was made on the ‘system’ affected by end-stage disease (and thus related to death), with 17 (47%) dying from neurological disease, 6 (17%) respiratory disease, 2 (6%) cardiovascular disease, 4 (11%) gastrointestinal disease and the remaining 7 (19%) diseases of other or multiple systems. Medical notes were reviewed to determine symptoms present at the time of admission to our ward (Figure 1).

A total of 22 patients (61%) had medications reviewed, with 7 (19%) having appropriate medications converted to subcutaneous preparations where necessary. As required (PRN) medications were prescribed as follows: analgesia 11 (31%), sedation 8 (22%), anti-cholinergic 6 (17%) and anti-emetic 4 (11%). Plans were made to discontinue blood tests in 22 (61%) patients, antibiotics in 24 (67%) and intravenous fluids in 27 (75%). There was clear documentation of do not attempt resuscitation status in 34 (94%) medical and 32 (89%) nursing notes, and discussion with patient or next of kin in 27 (75%). There was evidence of symptom identification with a clear management plan as shown in Figure 2.

Other relevant data collected included:

- routine observations stopped in 10 (28%) patients;
- regular mouth care prescribed in 10 (28%) patients;
- syringe drivers used in four (11%) patients;
- a total of five (14%) patients reviewed by hospital palliative care team;
- formal assessment of skin integrity made in 36 (100%) patients, with a clearly documented management plan made in 30 (83%);
- notes that did not contain documentation regarding spiritual care.

Discussion

This work supports evidence (both anecdotal and published) suggesting that palliative care in elderly patients is often sub-standard. There are methodological problems with this study. Retrospective data collection is notoriously unreliable, with sub-standard note-keeping often precluding collection of accurate, representative data. An attempt to limit inaccuracy was made by reviewing nursing documentation, drug charts and laboratory records. Despite this, it is not necessarily true that documentation establishes that a plan was followed. Risk of variability was limited by data being collected and processed by one investigator, although this does raise issues regarding potential bias. Were this work to be repeated, it would be improved by data collection being undertaken and reviewed by multiple investigators.

Despite these limitations, some interesting points are identified. Specialist palliative care input (and subsequent use of syringe drivers) occurred only in patients with established malignancy. What can be concluded from this? Potentially, patients may not have required specialist input, and care may not have been compromised. Anecdotal experience suggests that under-utilisation of specialist palliative care is multifactorial, including failure to recognise the terminal nature of many non-malignant diseases (e.g. dementia), a belief that palliative care is only appropriate for cancer, and a reluctance to discuss end-of-life issues with patients in the earlier stages of progressive diseases. Increasing education may positively impact on all of these aspects.

A high proportion of patients died from end-stage neurological diseases including dementia, cerebrovascular disease and neurodegenerative disorders (e.g. Parkinson’s disease). Such patients pose specific challenges, with communication difficulties making symptom assessment challenging. Understanding the aetiology of symptoms such as agitation is essential to allow appropriate intervention, and a holistic approach and high index of suspicion are crucial.

These difficulties are illustrated by considering those patients with constipation. In general, in elderly populations, prevalence of constipation is estimated at up to 30% [10], but in those with terminal diseases (especially cancer) it is much higher [11]. Does the low incidence in this study accurately reflect numbers of constipated patients, or does it represent failure to identify the symptom? If so, can we be content with our evaluation of other ‘invisible’ symptoms (e.g. nausea, pain, etc.)?
In the terminal stages, it is appropriate to modify medications, withdrawing those without symptomatic benefit, and offering PRN (usually subcutaneous) medications for rapid relief of symptoms. Our data shows that this was sub-optimally done with 14 (39%) patients having non-essential medications (e.g. statins) withdrawn and fewer than one-third being prescribed PRN subcutaneous analgesia (even fewer were prescribed sedatives, anti-cholinergics and anti-emetics). This is not ideal, but why does it happen? Data obtained does not provide answers to this, but it is likely to be multi-factorial. In the current evidence-based climate, juniors may lack confidence to stop medications with ‘prognostic benefit’, and may be concerned about ‘writing off’ patients when death is often perceived as ‘a failure’. Commencement of ‘emergency’ medications such as opiates may be omitted or delayed for fear of dependency, complications, or accusations of hastening death. Senior clinicians should lead the way in discontinuing unnecessary medications and encourage sensible prescription of PRN medications. Juniors should be involved in decision making, and should be educated in the ‘doctrine of double effect’. Decisions related to treatment withdrawal should be transparent and discussed with patients and next of kin. These ‘simple’ measures may reduce patient distress, nursing time and drug costs.

Nursing time may also be saved by stopping routine observations. Limited observations (e.g. temperature, oxygen saturations) can be valuable in patients with agitation, as pyrexia or hypoxia can be managed non-invasively with improvements in patient comfort. A minority of our cohort had routine observations withdrawn, a situation likely to result from similar motivations to the failure to discontinue medications. Adoption of such policies should allow more time for useful interventions such as ‘mouth care’ (sub-optimal in our data) and communication. Palliation can also be enhanced by withdrawing other distressing interventions (e.g. blood tests, discontinuation of IV fluids). Concordance with these standards in our data is better, possibly because staff recognise the invasive nature of these interventions.

There are other positive results. There was a good correlation between identified symptoms and a subsequent management plan (Figure 2), suggesting that the healthcare team was keen to intervene when symptoms were apparent. This should be interpreted cautiously as one cannot be certain that recognition of symptoms and documentation of a management plan automatically result in improved care. That said, it is reasonable to suggest that without these initial steps treatment is highly unlikely to have occurred. Although no patient received attempted cardiopulmonary resuscitation, improvements in documentation and communication of ‘do not resuscitate’ decisions are required. This is once again likely to be improved by education of staff.

One major aspect of palliation is spiritual care. This can be difficult to define, varying with individual interpretation and beliefs. Within our cohort there was no documentation of spiritual care (e.g. visit by faith leader), but does this infer spiritual neglect of the dying patient? Spiritual care
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is provided by many sources (e.g. staff, relatives, religious or community leaders). Such contributions are common on hospital wards, but their informal nature may not prompt entries in clinical notes. When discussing our data with staff, it was highly disputed, with nursing staff feeling that they often made provision for spiritual support, although agreeing that it was often ad hoc and inconsistent due, in part, to time constraints.

Conclusion

This study supports suggestions (both anecdotal and evidence-based) that palliative care offered to elderly patients dying from non-malignant conditions requires improvement. One factor limiting effective management may be lack of awareness of the relevance of palliative care in non-malignant diseases. This is being addressed by greater education of medical and nursing staff, by the utilisation of documents such as the LCP, and by a more comprehensive approach to counselling patients and relatives throughout the course of a disease from the time of initial diagnosis.

Senior clinicians have a role in supporting junior members of their team in making decisions regarding resuscitation, symptom management and withdrawal of interventions. Data obtained from this study has been fed back to relevant stakeholders with several positive outcomes. As a result of this work, the LCP has been adopted within our department. A 4-day course aimed at improving knowledge and standards in elderly care practice has been developed, including a session specifically addressing some of the practical issues surrounding palliative care in the elderly.

By increasing awareness of issues relevant to care of dying patients and introducing the LCP, many of the problems associated with communication, prescribing and ‘missing data’ are being addressed, thus improving care. With its careful monitoring of variance from pre-defined standards, clear entry criteria, and accompanying guidance, the LCP provides a valuable resource for improving and measuring patient care allowing us to ‘work smarter’.

Key points

• Only a minority of terminally ill patients receive formal palliative care input.
• Provision of palliative care support for the elderly with non-malignant diseases is often poor.
• Careful attention to symptom management is essential for non-malignant conditions (e.g. dementia).
• Further research is required into palliation of non-malignant diseases in the elderly.

Conflicts of interest

None.

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Insulin sensitivity and beta-cell function in older Japanese adults without diabetes

SIR—Currently, Japan is facing the threat of a rapidly ageing society. With advancing age, glucose tolerance declines and the prevalence of type 2 diabetes increases [1, 2]. It is generally recognised that both insulin resistance and decreased insulin secretion are major factors associated with glucose intolerance [3]. Many [4–6] but not all [7, 8]