FOR DEBATE…

Is it ever enough to die of old age?

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Abstract

Objective: to determine how often ‘old age’ was given as a cause of death in patients presenting for cremation, with particular reference to their characteristics and the medical conditions known to the certifying doctor at the time of death.

Design: prospective review of all cremation papers presented to one crematorium over a two-year period.

Setting: an English crematorium serving a population of about 250,000.

Main outcome measures: deaths certified as being associated with ‘old age’ and those solely registered as due to this cause. Demographics of the patients and whether further enquiries by the medical referee revealed un-notified co-morbid conditions.

Results: of 4300 cremation papers studied, 300 (7%) deaths were said to be associated with old age, of which 98 were to old age alone. Simple further enquiry discovered between one and six unrecorded co-morbid conditions in at least two-thirds of those certified as dying solely from old age.

Implications: if this experience were reflected throughout the country, it would suggest significant underestimation of the incidence of medical conditions, with resultant effects on national and international health policy and investment.

Keywords: old age, death certification, cremation certificate

Introduction

‘Old age’ is given as the only cause of death in an increasing number of elderly patients who die each year [1], yet many have known pathologies and co-morbidities that go unrecorded [2]. There can be little doubt that advanced age is a significant contributory factor in the deaths of the elderly but who and what is old? The World Health Organisation defines those aged 60–74 years as ‘elderly’, and those older as ‘aged’. An Oxfordshire study found the average age of patients certified as having died of ‘old age’ was 89 years (range 69–106 years) [3]. As mortality statistics are used to determine public health policy and allocate NHS resources, the term ‘old age’ requires some definition and guidance in its use. The diagnosis ‘senility without mention of psychosis’ (which includes the terms ‘old age’, ‘senility’, ‘senescence’, ‘senile debility’ and ‘frailty of old age’) was recorded in 2.3% of deaths in England and Wales in 2000, a figure that has more than doubled in the last 5 years [1].

There is debate as to the acceptability of ‘old age’ when given as the only cause of death. It may be appropriate when a very elderly patient ‘declines over time’ in the absence of any firm clinical diagnosis or has refused – or been too frail to undergo – investigation or interven-

tion. Others may have had multiple medical problems making it impossible to say with any certainty which one was immediately responsible for their death [4]. In such cases, a diagnosis of ‘old age’ is used and covers a multitude of conditions. Others suggest that the term ‘old age’ is meaningless and most elderly people have definable pathology causing their death [2].

In January 2000, Manchester general practitioner (GP) Harold Shipman was convicted of the murder of 15 of his patients. An audit of his clinical practice found that he was three times more likely to use the term ‘old age’ as a single cause of death than his local colleagues [5]. In the aftermath of the Shipman trial, it has been proposed that the time had come to restrict or even abolish the use of this term on death certificates [6].

The life expectancy from birth for adults in the UK is 75 years for men and 80 years for women [7]. Doctors are advised to avoid giving old age or senility as a cause of death and to do so only if a more specific cause of death cannot be given and the deceased was aged 70 or over [8].

Chesterfield and District Crematorium receives an increasing number of cremation forms each year in which ‘old age’ is given as the immediate cause of death. As little is known of the use of ‘old age’ and the characteristics
and co-morbid conditions in those who die from it, this group of patients was studied more closely.

**Methods**

From May 1999 to April 2001, consecutive cremation papers were studied. Where ‘old age’ appeared as a cause of death, demographic information was collected. Where ‘old age’ was given as the only cause of death, further enquiries were made. This involved discussing the death with the certifying doctor to determine more about the deceased’s medical history, co-morbidities and events leading to death.

**Results**

We studied 4300 cremation papers. ‘Old age’ appeared as a cause of death in 300 cases (7%). The mean and median age (range) of these patients was 89 years (67–105 years). ‘Old age’ was the immediate and only cause of death in 98 (33%). In 103 cases, ‘old age’ was given as the immediate cause of death with other significant pathologies recorded; and in the remaining 99 papers, ‘old age’ was recorded as a contributory factor.

Of the 98 cases giving ‘old age’ as the immediate and only cause of death, 72 (73%) were investigated further. There were 54 (75%) women and 18 men with a mean age (range) of 89 years (76–105). Nineteen (26%) lived in their own home prior to death, 49 (68%) in nursing or residential care and 4 lived elsewhere. Seven died at home, 43 in a nursing home, 20 in hospital and 2 elsewhere. The GP had issued 56 death certificates (78%) and a hospital doctor the others. The Coroner’s Office had been informed of 48 deaths (67%). None of the deceased had been subject to autopsy or coroner’s inquest.

Further enquiries revealed that only 7 (8%) of these patients had no known significant medical history or working diagnosis at the time of their death. The certifying doctor knew of co-existing medical conditions in 66 (92%) cases. Nineteen patients had one co-morbid condition, 32 patients had two, 10 patients had three, and 4 had four or more co-morbid conditions. Cardiovascular disease (45% of patients) was the most frequent co-morbid condition, followed by gastrointestinal disease (27%); respiratory disease (23%); dementia (23%); orthopaedic disease (22%); and neurology (21%). Also unrecorded were 1 patient with a malignancy, 4 with endocrine conditions including diabetes, 5 with haematological disorders and 7 with renal or genitourinary disease. Seven patients had undergone recent surgery and 4 had refused investigations or were considered too frail for tests.

**Discussion**

Seventy per cent of deaths in Great Britain result in cremation [9]. In Chesterfield, 2% of those presenting for cremation were certified as having died of ‘old age’ alone, and this is in line with national trends [1]. These patients were generally of a great age. However chronological age is not necessarily representative of biological age. For example, a 70-year-old patient with dementia, chair bound in a nursing home cannot be considered in the same way as an active 90-year old living independently at home. Unsurprisingly, most of the patients had unrecorded pathologies and co-morbidities, discovered quite easily by simple enquiry. It is impossible to determine how much these conditions contributed to the death, but this information is important for other reasons. Information from death certificates is used to determine the allocation of health investments and resources playing an important part in public health policy and for the development of priorities in the National Service Frameworks. Data derived is used for monitoring the health of the population, performing health needs assessments and making international comparisons of health and health care services. It is used to monitor the quality of health service interventions and clinical care in clinical governance programmes [10]. If diseases are under-reported, it will not be possible for government offices to draw accurate conclusions upon which to direct national policies. Whereas the term ‘old age’ may be appropriate in a very small number of cases when other significant pathologies are known, these should be recorded. Good history taking and clinical examination should lead to a reasonable working diagnosis, without the need for inappropriate, unwanted or expensive investigations or autopsy.

**Summary**

Of 4,300 cremation papers presented to one crematorium during a two-year period, ‘old age’ appeared as a registered cause of death in about one in every 14 patients. In the one third of those where this was the only certified cause of death further simple enquiries revealed co-morbid yet unrecorded conditions in at least two thirds of cases. If this reflects practice throughout England and Wales, it suggests there may be significant underestimation of medical conditions, which might consequently affect national and international health policies, investment and statistics. In light of these findings, doctors should be encouraged to record these conditions and so provide better quality death certification.

**Key points**

- Old age is recorded as the only cause of death in up to 3% of cases in England and Wales.
- In most cases, simple enquiry revealed co-morbid conditions known at the time of death.
- Failure to record these conditions may affect national and international health policies, investment and statistics.
References

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