Maturitas 90 (2016) 9–16

Contents lists available at ScienceDirect

Maturitas

journal homepage: www.elsevier.com/locate/maturitas

Review article

What doctors need to know: Prescribing or not for the oldest old

Angela Kydd*, Anne Fleming

School of Nursing Midwifery and Social Care, Edinburgh Napier University, Edinburgh EH11 4BN, United Kingdom

ARTICLE INFO

Article history:
Received 17 April 2016
Received in revised form 2 May 2016
Accepted 3 May 2016

Keywords:
Oldest old
Iactrogenesis
Polypharmacy
Primary care
Prescribing

ABSTRACT

Given the global increase in the number of people over the age of 85, there is a growing body of work concerning this group, termed the oldest old. Much of this work is confined to the literature specialising in geriatrics and the more generic health care papers refer to 'older people' with little definition of what is meant by 'older'. Iatrogenesis (ill health caused by doctors) is a major issue and general practitioners (GPs) need practical help in prescribing for the oldest old. This paper presents a narrative review of the literature on prescribing and the oldest old. The results showed that all papers sourced referred to prescribing for the 'old' as those aged over 65, with only scant mention of oldest old. Yet prescribing for the oldest old involves clinical judgement and knowledge of the patient. It includes weighing up what will do good, cause no harm and is acceptable to the individual. GPs have to make treatment choices mostly in isolation from colleagues, during time-limited consultations and with few relevant guidelines on managing multi-morbidities in the oldest old. A major issue in prescribing for people over the age of 85 is that guidelines for diseases are based on trials with younger adults, outline the best practice for one disease in isolation (i.e. not in the presence of other diseases) and take little account of the interactions between the drugs used in managing several diseases in frail older people. There is a growing body of work, however, calling for specialist services for the oldest old.

Contents

* Corresponding author.
E-mail addresses: a.kydd@napier.ac.uk, a.kydd528@btinternet.com (A. Kydd).

http://dx.doi.org/10.1016/j.maturitas.2016.05.003
0378-5122/

1. Introduction

The argument that age is a number and not a diagnosis is uncontested, but what appears to be missing from such arguments is that humans have a finite lifespan and as they age they become increasingly more susceptible to disease and have a decreasing amount of functional reserve to counteract physiological threats. An example of such differences can be seen in Scottish statistics, that show of the over 65s, 65% of the population will have more than one chronic disease—but over the age of 85, 82% of the population will have more than one chronic disease [1]. In looking at functional ability, people between 65 and 75 report limitations in activities of daily living similar to the 45–64 year olds, but 25% of people over 85 reported moderate to severe functional limitations [2]. Getting the balance of when to prescribe, de-prescribe and not prescribe takes expertise, knowledge of the patient, compassion and courage.

In treating any patient, doctors abide by the Hippocratic Oath. The most widely used version today appears to be that of Lasagna [3] which includes the following affirmations, which seem especially applicable to the care of the oldest-old:

> 'I will apply, for the benefit of the sick, all measures [that] are required, avoiding those twin traps of overtreatment and therapeutic nihilism· · ·I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug. . .I will remember that I do not treat a fever. . .but a sick human being,whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.'

It is clear from current literature, that doctors all take these affirmations seriously and question the 'twin traps' with regard to the prescribing treatment of the oldest-old and those with multiple comorbidities [4–6]. Guidelines on prescribing cannot replace clinical judgement, which involve improving quality of life for the individual and with the involvement of family/carers [6]. This involves patient-centred care, where shared decision-making, informed consent and continued monitoring are key. In ethical practice this means working in the patients' best interests and doing least harm.

The original aim of the paper was to explore issues concerning iatrogenesis in the oldest old, however it became apparent that issues concerning prescribing were central to this topic and thus the revised aim of the paper was to explore the positive and negative influences on prescribing practices. The findings of the narrative literature review are presented below.

2. Methods for reviewing the literature

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement and flowchart was used to assist the authors in reporting on the existing literature regarding the topic area.

2.1. Data sources

The following electronic databases were searched for full text, English language and peer-reviewed articles from January 2006 to January 2016: Medline, Pubmed CINAHL, Cochrane Library, ASSIA, Psychinfo, Google Scholar, Google. The keywords used were Frail elderly; iatrogenic disease; GP assessment; primary care.

2.2. Criteria for inclusion/exclusion in the search strategy

Articles were excluded where they referred solely to inpatients/hospitalised patients, were foreign language materials or no full text article was available. Both authors agreed to retain the remaining articles where there were clear implications for prescribing practices.

2.3. Risk of bias assessment

No disagreements required to be resolved regarding the inclusion/exclusion of the reviewed articles by the two authors.

2.4. Findings

The search strategy sourced 94 records. Following screening of all abstracts the decision was taken to retain only those from 2010 onwards (n = 72) to address relevance and currency. The 72 articles were reviewed, with a further 23 rejected. Following this screening, it was agreed to retain 49 articles (see Fig. 1).

2.5. Abbreviations

To avoid confusion the frequent terminologies used concerning prescribing (and mostly written as acronyms) are summarised in Table 1.

3. Results

The 49 papers selected for review from the search strategy were sorted into four themes (see Table 2). These were Potentially Inappropriate Medications (12), Geriatric Assessment (9), Clinical Decision Making (13), General Practitioner (GP) Training (15). The papers had overlap, but the main issues discussed determined the theme and they have been presented below.

3.1. Polypharmacy

With advancing age comes not only an increasing incidence of disease, but an increasing use of medications which in turn leads to the risk of adverse drug events (ADEs) [7–11]. Polypharmacy is a major clinical issue and is rarely addressed by clinical guidelines which focus on single disease management [12,13]. However best practice guidelines usually refer to the management of one disease, when older people have more than one presenting disease [13,14]. For example, cardiovascular conditions account for the highest level of prescribing, which is consistent with good practice advocating the treatment with multiple medicines [12]. The majority of studies found that all drug related hospital admissions are caused by a small number of frequently used drugs. These are anticoagulants, Non-Steroidal Anti Inflammatory Drugs (NSAIDs), opioids and blood glucose lowering drugs [15,16].Yet, multiple medications may improve quality of life and polypharmacy should not be synonymous with poor care [12,17].

Prescribing for older people is complex due to comorbidities, physical deterioration and age related changes in pharmacokinetics and pharmacodynamics and genetic conditions [18,19,20]. In