Collegian xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Collegian

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

Older persons who re-present to the Emergency Department: An observational study

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ARTICLE INFO

Article history:
Received 11 August 2016
Received in revised form 9 December 2016
Accepted 1 January 2017
Available online xxx

Keywords:
Chronic disease
Older adult
Emergency department
Re-presentation
Medical assessment unit

ABSTRACT

Background: Models of emergent care evolve in response to an ageing population. The Medical Assessment Unit (MAU) receives patients from the Emergency Department (ED) for up to 48 h to facilitate assessment, care and treatment before discharge home or to another inpatient unit.
Aim: To describe the clinical and social characteristics of older people who had a stay in the MAU and then re-present to the ED within 28 days of discharge from hospital.
Methods: A retrospective observational study design was used. Data were extracted from electronic medical records of older people who re-presented to two public teaching hospital EDs in Queensland, Australia, over a two-week period in 2014.
Findings: There were 78 older people who made 84 re-presentations. The average age was 79 years; average number of co-morbidities was seven (range 1–18); almost one-quarter (23%) lived alone; more (63%) were female; half (58%) were married; and one-fifth (20%) had some form of cognitive impairment. Of those who re-presented with the same diagnosis, 46% had cardio-respiratory conditions. One-quarter (28%) of the re-presenters had a discharge summary from the last admission.
Discussion: Most of the re-presenters in this study had cardio-respiratory conditions. While a discharge summary was available, it was not consistently completed, raising the importance of discharge summaries as part of continuity across services for older people.
Conclusion: How the ED, MAU and primary health services are coordinated bears further investigation. Research into the value of coordination roles, such as nurse navigators, for older people re-presenting to ED is recommended.

Summary of relevance

Problem or Issue
Health service planning for older people is increasingly recognised as an important area of development internationally.
What is Already Known
Initiatives in emergency departments such as out-reach services to aged care facilities and creation of medical assessment units have gone some way to improve care delivery for older people.
What this Paper Adds
This retrospective snapshot of older people admitted to a Medical Assessment Unit (MAU) who then re-present to the ED within 28 days of discharge identified that older people re-presenting are medically complex, tend to be much older than 65 years and tend to be living with others. Findings can be used to inform new strategies, such as reviewing discharge processes and implementing roles such as nurse navigators to improve the continuity of care for older people.

1. Introduction

The world population of older people, aged 65 years and over, is projected to grow from almost 1 in 10 (9.2%) in 1990 to more than 1 in 5 (21.1%) by 2050 (United Nations, 2013). As the population ages, the demand for health services is expected to grow and health service planning for older people is increasingly recognised as an important area for strategic development.

The average age of hospitalised people is increasing (De Brauwer et al., 2014), particularly in the oldest age group of 85 years and older (AIHW, 2015). Older people (aged 65 years and older) consti-

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http://dx.doi.org/10.1016/j.colegn.2017.01.001
1322-7696/

tute 40% of hospital separations (AIHW, 2015) and re-presentation to the Emergency Department (ED) for this group is an international concern. There is emerging evidence that older people are re-presenting with acute exacerbations of chronic illness rather than injuries (McMillan, Stokes-Lampard, & Large, 2011).

Rising ED presentation has been attributed to older people with multiple co-morbidities (Mudge et al., 2011), and ED re-presentations directly have been related to the number of co-morbidities (McMillan et al., 2011). In Australia, it is estimated that up to 5% of avoidable ED presentations are related to conditions that can be managed in primary care (Page, Ambrose, Glover, & Hetzel, 2007) and older people living in residential aged care facilities are reported to have higher levels of re-presentation (Gabayan, Sarkisian, Liang, & Sun, 2015;Crilly, Chaboyer, Wallis, Thalib, & Green, 2008).

The acute health care system has evolved to include the Medical Assessment Unit (MAU) as one strategy to accommodate the lengthy assessment requirements for emergent presentations (Elder et al., 2016), including older people. The MAU is a service design model that provides comprehensive, multidisciplinary patient-centred care (NSW Agency for Clinical Innovation, 2014) that aims to expedite access to inpatient specialists and other members of the multidisciplinary team to patients with acute exacerbations of complex medical conditions (Elder et al., 2016). The MAU has been shown to facilitate discharge (McNeill et al., 2011), decrease length of stay (Brand et al., 2010), and reduce waiting in ED (Elder et al., 2016).

Continuity of care across health and social service sectors for older people living with chronic illness is ideal but often not delivered (Crilly, Chaboyer, & Wallis, 2006). For older patients discharged from hospital, there can be a wait of two to three weeks before follow up services including allied health, home-based care, and general practitioner are available (Dilworth, Higgins, & Parker, 2012). The difficulty in establishing community-based services following hospitalisation is noted by others (Jamieson et al., 2016). In Australia, there is significant mismatch between hospital (state provided) and community (federal provided) services by region (Giles, Halbert, Gray, Cameron, & Crotty, 2009). When community-based or primary care services are not accessible, chronic conditions may exacerbate, leading to an ED re-presentation. Understanding more about the social and clinical characteristics of older people re-presenting to ED, following discharge from a hospital stay that included an MAU admission, can inform continuous service development for older people.

1.1. Literature review

For many older people, the increasing number of presentations to the ED is related to the advancing chronic disease trajectory (Mudge et al., 2011;Whyatt et al., 2014), with the time between presentations decreasing as the chronic disease progresses (Whyatt et al., 2014). And for those people with multiple co-morbidities, there is a correlation between the number of comorbidities and the number of re-presentations (McMillan et al., 2011). In one Australian study, re-presentations for medical patients were associated with chronic disease, depressive symptoms and underweight (Mudge et al., 2011).

Presentations to ED appear to relate to social, as well as medical, reasons. In a systematic review of ED use, outpatient and primary care services were found to be the most significant in reducing ED use (McCusker & Verdon, 2006). In a systematic review of older persons' presentations to ED, older age and living alone were identified as risk factors associated with increased presentations (Aminzadeh & Dalziel, 2002). One qualitative study found that older people and their families were reluctant to access ED but believed it was important to the older person's wellbeing (Considine et al., 2010). Furthermore, in a review of the literature, Langer et al. (2013) found that socially and economically marginal older people logically viewed unscheduled care, such as ED presentations, as providing access to health services that are not otherwise available. One Australian retrospective cohort study of ED re-presentations over a two-year period, found that a high risk for re-presentation was attributed to patients receiving a government pension, compared with those who did not (Moore, Gerdtz, Manias, Hepworth, & Dent, 2007).

Anderson (1995) has identified the primary determinants of health as a multi-part system of (1) the health care system (external environment), (2) the need produced by the difference between predisposing characteristics and available resources, (3) personal health practices (use of health services), and (4) perceived health status. In a study of almost 268,000 Australians over 45 years, sociodemographic composition, health and population behaviours were found to explain almost one-third of variation of hospitalisation rates (Falster et al., 2015). While the MAU appears to support the care of older people presenting to the ED (Elder et al., 2016), the influence of the MAU model of care on re-presentation to ED is not established. The aim of this study was to describe the clinical and social characteristics of older people who re-present to the ED within 28 days of discharge from a hospital stay that included an MAU admission.

2. Methods

A descriptive, retrospective observational study design was used to guide this study. Descriptive statistics provide information about a study sample as a baseline (Polit & Beck, 2012) to identify areas for improvement in care delivery.

The study setting was two Queensland public teaching hospitals located within the same health service. One is a regional facility, the other a tertiary facility. Both hospitals have an MAU. In 2013-14, there were 143,000 presentations to the two EDs, 83,000 and 60,000 respectively. Both EDs treat adults and children. Both hospitals have criteria and pathways to inform ED to MAU admission decisions.

A retrospective review of the electronic medical records, of the patients who met the following inclusion criteria was undertaken:

- All patients 65 years or older and 55 years or older for Aboriginal and Torres Strait Islander people; and
- Re-present to the ED within 28 days of discharge; and
- Were admitted to the MAU on previous admission.

The data was collected from all re-presentations recorded during a two-week period between 18–31 August 2014. The two-week period was selected as a snapshot of service use; it was a relatively quick method to explore some of the elements that may be worthy of further study. The Hospital Informatics Directorate provided a list of identification numbers for patients who met the inclusion criteria so that a member of the research team with clinical experience in the MAU setting could review and extract data from the electronic medical records and enter these into an excel spreadsheet. The reviewer (AA) met regularly with another research team member (LG) to discuss progress and coding decisions.

A data extraction spreadsheet was developed by the research team based on Anderson's Health Belief Model (Anderson, 1995). The type of data extracted from the electronic medical records can be seen in Table 1. Age, time in ED and time in MAU were entered in numerical form and data for discharge summary, general practitioner, sex, Aboriginal and Torres Strait Islander, and driving were entered as dichotomous responses (i.e. Yes/No, Male/Female). Data was recorded descriptively for other items.

Please cite this article in press as: Grealish, L. A., et al. Older persons who re-present to the Emergency Department: An observational study. *Collegian* (2017), http://dx.doi.org/10.1016/j.colegn.2017.01.001