Ariadne - Understanding the complexities of older peoples’ admissions to A&E

BACKGROUND TO AHSN AND SOUTH WEST REGION

It is now widely acknowledged that an aging population is placing increasing demand on hospital and care services. By 2030 one in five people in England will be over the age of 65 (Oliver, 2014). Due to Devon and Cornwall being among the most popular places to retire in England, the South West has a population age profile 10-15 years ahead of the rest of the UK. In response to this pressure, healthcare providers in the South West are attempting to reconfigure services to address many of the issues that are faced with an elderly population living with more long term conditions and requiring different healthcare needs.

BACKGROUND TO STUDY

Understanding the needs of an aging population is challenging. If services are to truly understand the needs of these individuals and the complex factors that impact their health, they need to engage patients in the process. As a first step in this process, the South West Academic Health Science Network (SWAHSN) co-ordinated the structured interview of 204 patients over the age of 75 years who have one or more medical condition, and were admitted to Emergency Departments add which geographical area between December 2013 and January 2014.

Research nurses conducted face-to-face questionnaire interviews with the patients. If the patient was confused but had a willing carer accompanying them, the carer was asked to participate. Sampling was opportunistic by admission, but balanced for time of day (AM/PM) and day of week. The study was conducted over 7 acute trusts (30 patients in each trust) with an aim to understand the pathways that these individuals take before, during and following arrival at A&E services. The data was reviewed independently by a clinician who determined whether the admission was due to a critical medical event or through a more gradual deterioration. Deterioration was defined when a condition had been worsening for 24 hours or more, otherwise the admission was defined a critical medical event. Admissions were then defined as ‘Necessary’ or ‘Different Care’. Admissions were considered ‘Necessary’ if the care required could only be delivered in an Acute Hospital setting and they were considered ‘Different Care’ when the care could have been delivered in other care settings.

ARRIVALS FROM OWN HOME

The first step in the study was to understand where individuals were coming from. It could be conceived that, due to the age profile of the sample, a high proportion would arrive at the Emergency Department from a care home, however this was not the case. Eighty Six per cent of patients over the age of 75 years and they were admitted to Emergency Departments had made the journey from their own home, where they had lived on average for 20+ years. This finding was in line with the preferences found in a Saga poll of 11,279 over 50’s. Ninety-three per cent of respondents said they would prefer to live in their own home compared to a care home, or moving in with family (Saga, 2011). Nationally, 82.5% of care home residents are over the age of 75 years (CPA, 2012). Although previous studies have demonstrated risk of admissions from care homes is higher compared to the community (26.4 per 100 compared to 18.9 – Godden & Pollock, 2001) there is still a relatively small national population of over 75’s living in care homes (7% nationally and only 6% in the South West – ONS, 2011).

SOCIAL ISOLATION

Two thirds of the sample socialise with friends or family on a daily, weekly or monthly basis which leaves one third of the sample who socialise only occasionally or never. With social isolation strongly correlated with poor health outcomes (Perissinotto, Cenzer, Covinsky (2012); Andrew (2012); Burholt & Scharf, (2014); Steptoe et al. (2013)), there is clearly work that could be done to improve the social interaction for people in this study. Further work to understand perceived loneliness, its effects on health and which current services help prevent isolation would be useful in order to understand how best to improve services in this area. As a first step, the South West AHSN is currently evaluating a
growing ‘Neighbourhood Health Watch’ programme which aims to facilitate the creation of community
groups and provide greater support to those who are at risk of social isolation.

ARRIVAL AND WAITING TIMES

The majority of the total sample (85%) arrived by ambulance. Data from 143 individuals showed a
median length waiting time of 3.8 hours with over a quarter of individuals not admitted within the 4
hour target, a figure which is some way below the government's target of 95%. It must be
remembered that these are particularly complex individuals and all of the individuals in this sample
were admitted. If we are to shift some of the less complex cases into other services such as minor
injuries there may actually be less numbers of 4 hour breaches but also fewer Emergency
Departments meeting the 95% target. The interaction between simple and complex cases and their
effect on waiting time is not clearly understood.

MEDICINES

The complexity of the current sample of over 75’s is apparent from the number of conditions this
population has prior to attending the Emergency Department. In the sample population, 74% of
individuals were living with 3 or more long term conditions and 71% were taking 5 medications or
more. 1 in 5 of the sample were on more than 10 medications which is slightly more than the over 65
years sample that was conducted by Guthrie and Makubate (2012) who found 1 in 6 patients were
receiving 10 or more drugs. The issues associated with Polypharmacy were elucidated in the Kings
Fund report (Duerden, Avery, Payne 2013).

FALLS

Being on more than 4 prescribed medications is an independent risk factor of falls (Tinetti, 2003). In
the current sample, a quarter of admissions were caused by falls, a figure that is also reflected in
admissions from care homes (Amador et al., 2014). The majority of people who had a fall usually
have a frame or stick rather than move independently with no aids. Of the 25% of admissions caused
by falls, 1 in 3 attended Emergency Departments for treatment of the injury caused by the fall, whilst
two-thirds attended Emergency Departments for treatment of a condition which led to the fall. This led
the AHSN to explore each patient pathway in order to understand how many of the admissions were
due to a critical medical event and how many were due to deterioration.

DETERIORATION/Critical, NECESSARY/UNNECESSARY

Seventy-seven per cent of admissions were classed as being due to deterioration of the person's
medical condition. Whilst the admission may have been a critical medical event factors were identified
which had caused a decline lasting more than 2 days. It was estimated that a third of these
admissions could have been avoided with more comprehensive support services being in place
outside of hospital. This reinforces a recent audit that was undertaken at the Royal Devon and Exeter
(RD&E) Foundation Trust who surveyed 14 patients (73-94 yrs.) from November 2013 looking back
over 12 months which provided information on 41 admissions. Thirty-seven per cent of these were
deemed avoidable. A further audit on all patients ≥ 80 years admitted on 1st May 2014 via A&E and
who had been admitted more than once in the past 12 months demonstrated a similar figure (37%) of
avoidable admissions.

A separate study was undertaken by GPs in Exeter which reviewed 177 patient notes from Mid-Devon
and Exeter of medical inpatients 75 years and older. This found an identical number of potentially
avoidable admissions (36%) as the current study. Importantly, this figure is based upon community
services being enhanced and does provide evidence to suggest that hospital admissions could be
dramatically reduced but not until these support services are reliably in place.

CONCLUSIONS AND RECOMMENDATIONS
By reviewing the care pathways of elderly people admitted to hospital, this work has helped to identify the need for further work in better understanding the services required outside hospital in order to reduce avoidable admission. The subjective approach of making informed clinical decisions retrospectively from patient notes to decide whether the admission could have been avoided can be criticised. However, the combination of sources adds support to the assertion that approximately one third of admissions of over 75’s could be avoided. Many of the findings in this study are representative of the issues affecting older populations across the UK. People are living with multiple long-term conditions and relying on multiple medications to manage their conditions. Combined with social isolation, there is a high risk of deterioration which can lead to an emergency admission, often caused by a fall. The suggestion that many of these admissions are avoidable is not new, but reducing these admissions relies on finding a new way of providing services that are preventive, rather than reactive. This is likely to need social services support and integrated out-of-hospital care such as the Multispecialty Community Provider models proposed by Simon Stevens in the 5 year forward plan. Different care models may require further investment in technology and redesign of care pathways, but these should be built upon a local understanding of the costs and savings involved in providing this enhanced set-up. Using research processes such as the questionnaire employed in the current study allows a better understanding of the pathway issues involved in admission. Designing services will need input from frontline staff and patients if it is to truly understand the benefits and barriers to alternative models of care.
REFERENCES


