Understanding the Characteristics of the Oldest, Old (≥ 85) Patients in the Emergency Department and Factors Associated with a Prolonged Length of Stay

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Introduction

Emergency departments (EDs) are increasingly challenged by the growing number of older patients seeking care, especially those with complex needs. The objective of this study is to examine characteristics of the oldest, old ED population and differences between patients with and without a prolonged ED stay.

Methods

This retrospective cross-sectional study used data from EDIS supplemented by a structured health record review. The first 50 consecutive records each month for eligible patients (≥ 85 years) presenting to the Charles V. Keating Emergency and Trauma Centre in 2016 were included.

Descriptive statistics were generated to characterize the study population and their utilization data. Based on a previous study in the same ED, a prolonged ED stay was defined as 24 hours or longer. Differences between the groups were compared using the x^2 test for categorical data, an unpaired t-test for normally distributed continuous data and the Mann-Whitney U test for data that were not normally distributed.

Results

There were 600 patients included in the study. The mean age was 89.3 years and 64.8% were female. The majority presented with a CTAS score of I-III (92.1%), reported having a family physician (96.3%) and were discharged to their place of usual residence (67.2%). There were 57 (9.5%) with a prolonged ED stay.

Patients with a prolonged stay had a higher number of comorbid conditions (5.6 *vs*. 3.6, $P<0.00001$), medications on presentation (8.8 *vs*. 6.7, $P=0.003$), mobility (84.2% *vs*. 62.8%, $P<0.001$) and/or cognitive (54.4% *vs.* 30.4%, $P<0.0001$*)* impairments. While in the ED, they had more medical or surgical consults (1.6 *vs*. 1.1, $P<0.00001$) and lab tests (26.7 *vs*. 11.7, $P<0.00001$). Age and acuity were not significantly different.

Conclusion

Strategies to reduce ED boarding for older patients need to consider contributions of patient and diagnostic/treatment complexity and focus on those that are potentially modifiable.