

Title

Risk factors for hospital readmission in older persons: Findings from a Danish nationwide register-based cohort study.

Type of presentation

Oral

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Abstract

Background: Hospital readmission is common and considered an adverse health outcome in older persons and puts additional pressure on clinical resources within healthcare services and support. Despite the frequency of readmissions, affecting health and wellbeing of older persons, there is still a relatively incomplete understanding of the broader array of factors pertaining to hospital readmission.

Aims: To describe the construct of a multicomponent and interdisciplinary database based on nationwide population-based registers, designed for analyses of risk factors for readmission. To identify risk factors and predictors of all-cause readmission within 30 days of discharge in a general population of hospitalised persons aged 65+ years.

Methods: The sample included all persons aged 65+ years, discharged from Danish public hospitals in the period from 1 January 2007 to 30 September 2010. Data comprised demographic and social determinants linked with information on health and health care use.

The analysis consisted of two steps; quantification of i) strength of association between risk factors and outcome and ii) predictive performance.

Results: The database included 1,267,752 admissions for 479,854 unique persons. Persons at increased risk of future readmissions suffered from comorbid illnesses consumed more drugs and were frequent users of in- and out-patient healthcare services in the year prior to the index admission. The area under the receiver-operating curve was 0.71 for acute readmission within 30 days.

Conclusion and perspectives for practice and research: Readmission reflects comorbidities and the complex nature of pre-index conditions and is only weakly associated with clinical and organisational conditions related to the index admission. Information readily obtainable at the time of the index admission provides a useful indication of persons at increased risk of future readmission.

The underlying causal relationships for readmission are multifaceted and simple explanatory and general predictive models do not suffice. To improve the predictive performance of models to identify persons at risk of readmission, targeted subgroup analyses and validation studies in specific clinical settings and populations are needed.

Reference

Pedersen, MK. Older persons at risk of hospital readmission: A Mixed methods Study. Faculty of Medicine, Aalborg University 2016. ISSN (Online): 2246-1302. ISBN (online): 978-87-7112-704-1 (Dissertation).

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