Executive summary of completed research

Determinants of emergency department utilization and return visits among seniors in Quebec

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DETERMINANTS OF EMERGENCY DEPARTMENT UTILIZATION AND RETURN VISITS AMONG SENIORS IN QUEBEC

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INTRODUCTION

As the Quebec population ages, increased utilization rates of the emergency department by seniors result in a greater use of resources. However, deficiencies in the quality of geriatric care in the emergency department have been documented in the literature, including poor recognition of geriatric syndromes and poor communication with primary medical care and community services. These problems may result in return visits to the emergency department. Lack of accessibility and continuity of primary medical care may also contribute to emergency department visits.

OBJECTIVES

The primary objective of the study was to explore hospital characteristics and indicators of emergency department care of older patients associated with return visits to the emergency department in Quebec.

The secondary objective was to investigate the associations between emergency department visits among seniors and characteristics of the primary care they receive - accessibility and relational continuity.

METHODS

Primary objective: Provincial databases in the province of Quebec, Canada and a survey of emergency department geriatric services were linked at the individual and hospital level, respectively. All general acute care adult hospitals with at least 100 eligible patients who visited an emergency department during 2001 were included (n=80). The study population (n = 140,379) comprised community-dwelling individuals aged 65 and over who made an initial emergency department visit in 2001 and were discharged home. Characteristics of the hospitals included location, number of emergency department beds, emergency department resources, geriatric services in the hospital and the emergency department. Indicators of emergency department care at the initial visit included day of the visit, availability of hospital beds, and relative crowding. The main outcome was time to first return emergency department visit; we also analyzed type of return visit (with or without hospital admission at return visit, and return visits within 7 days).

Secondary objective: A cross-sectional study was conducted using a random sample of persons aged 65 and over from Québec administrative databases for years 2000 and 2001 (n=95,173). Measures included emergency department utilization rates (number of days in the emergency department per total days alive and not hospitalized during the 2-year study period), age, sex, comorbidity, utilization of hospital and ambulatory physician services, urban vs rural residence, socioeconomic status, access (physician/population ratio, type of primary physician) and continuity of primary care. The relationships between each independent variable and emergency department utilization were assessed by Poisson regression.

RESULTS

Primary objective: In multilevel multivariate analyses adjusting for patient characteristics (sociodemographic, emergency department diagnosis, co-morbidity, prior health services utilization)
the following variables were independently associated with a shorter time to first return emergency department visit: more limited emergency department resources, less than 12 emergency department beds, no geriatric unit, no social worker in the emergency department, fewer available hospital beds at the time of the emergency department visit, and emergency department visit on a week-end.

Secondary objective: After adjustment for age, sex, and comorbidity, we found that lack of a primary physician and medium or low (versus high) continuity of care were associated with higher rates of emergency department visits. Other significant predictors of higher emergency visits were: residence in a rural area, low socio-economic status, and residence in a region with a higher physician to population ratio. Among seniors with a primary physician, continuity of care had a stronger protective effect on emergency visits in urban than rural areas.

DISCUSSION

Limitations of the study include well-known limitations of administrative databases. In particular, because the measure of visits was derived from claims data, we could not distinguish planned from unplanned return visits. These two main conclusions from this study are:

1. In general, more limited emergency department resources and indicators of poor emergency department care (e.g., weekend visits, fewer available hospital beds) are associated with a higher rate of return emergency department visits in seniors, although the magnitude of the effects is generally small.
2. Having a primary physician and greater continuity of care with this physician are associated with lower emergency department utilization by seniors, particularly in urban areas.

REFERENCE LIST
