DECREASING IN- HOSPITAL MORTALITY AFTER HIP FRACTURE: INVEST ON EXPERTISE OR PRIMARY ATTENTION?

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Apresentação/Introdução

The number of frailty hip fractures is increasing leading to necessary adjustments of healthcare systems. The majority of these fractures require specialized care (surgery), recovery is usually long and some patients die during hospitalization or a short period after. It is important to understand whether outcomes are related to provider profile´s in order to plan future health investments.

Objetivos

The aim was to assess determinants of death during hospitalization due to hip fracture in order to understand which characteristics: individual, provider or geographical area, should be targeted by future health investments.

Metodologia

National secondary data from Portugal 2000- 2008 was used. All patients over 49 years diagnosed with hip fracture (coded ICD9-CM 820.x) caused by low/moderate trauma were evaluated. Patients´variables (National Hospital Discharge Register) portrayed individual characteristics (age, sex and comorbidities inputted in the Charlson Comorbidity Index). Hospital variables (National Hospital Inquiry) were associated with structure/expertise (volume, ratio of resources to total). Area variables (Statistics Portugal) portrayed differences in health equipment and/or performance. A multi-level Bayesian modelling framework (patient/hospital/area) was adopted with in-hospital fatality as the outcome.

Resultados

A total of 53,684 hospitalizations due to hip fractures were included. There were initial differences between providers regarding in hospital fatality. However, after the model adjustment all providers had the same effect. Variables that were significantly associated with the probability of death, during an hospitalization to treat a hip fracture, were manly individual variables: age [log-odds scale with 95% credible intervals (CrI), 0.07 per year (0.06, 0.07)], sex [smaller effect for females -0.72 (-0.80, -0.63)], length of stay [-0.01 per day (-0.02, -0.01)], and severity (Charlson's Index) [highest versus lowest category, 2.50 (2.30, 2.71)]. Providers had different time-effects.

Conclusões/Considerações

Results indicate that if hospitals were treating equal patients they would have equal performance. Therefore, given the current expertise, by improving the population's health the in-hospital probability of death related to the treatment of hip fracture, can be reduced. Health attention/ investments should concentrate on maintaining the population's health rather than invest on more sophisticated methods/equipment for this particular situation.

Tipo de Apresentação

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