

Osteoporos Int. 2014 Nov; 25(11): 2591-7Epub 2014 Jul 11.

Impact of multidisciplinary hip fracture program on timing of surgery in elderly patients

Ventura C, Trombetti S, Pioli G, Belotti LM, De Palma R.

Author information

Regional Agency for Health and Social Care of Emilia-Romagna , Viale A. Moro, 21, Bologna, 40127, Italy.

The effect of patient characteristics and organizational and system factors on time to surgery were studied using Emilia Romagna Region database and hospital survey. The results showed that the implementation of a Hip Fracture Program significantly increased the probability of early surgery while single intervention had only slight effect

INTRODUCTION

The purpose of this study is to evaluate the effect of formal Hip Fracture Program (HFP) on timing of surgery in hip fracture older patients.

METHODS

This is a retrospective cohort study based on Emilia Romagna administrative databases. Data on organizational and system factor were also obtained through a hospital survey. A multilevel logistic regression analysis was carried out to assess the effect of covariates on early surgery, taking into account patient level, hospital level, and trust level variability.

RESULTS

From 1 January to 31 December 2011, 5,520 subjects over 65 years old underwent surgical repair for hip fracture in Emilia Romagna. The mean waiting time to surgery was 3.4 ± 12.3 days, and the overall percentage of patients operated within 2 days was 52.2 %. In the adjusted multilevel logistic model, significant risk factors affecting the timing of surgical intervention at patient level were age, comorbidity, day of admission, and antiplatelet or warfarin therapy while no significant single variables were found at hospital level including dedicated operation theater, hospital volume, dedicated orthogeriatric beds, and geriatrician involvement. The most significant variable was the implementation of HFP at trust level that increased three times the probability of early surgery after adjusting for confounding variables (OR 3.216, 95 % CI 0.582-6.539).

CONCLUSIONS

Several modifiable organizational factors may affect the proportion of patients with hip fracture undergoing early surgery. This study suggests that the development and the implementation of an evidence-based HFP at trust level are a key point of the strategy of quality of care.