

NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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Title

Saving money by integrating physiotherapists in the emergency department: Mission possible?

Priority 1 (Research Category)

Economic or policy analysis

Presenters

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Abstract

Context. Emergency department (ED) overcrowding is a complex phenomenon. One solution proposed to improve patient flow in the ED is the addition of physiotherapists to manage musculoskeletal disorders (MSKD). To our knowledge, no North American study has looked at the costs of this new care model compared to usual care provided by emergency physicians (EP). Objective. Compare the average cost of an ED visit between three ED care models. Study Design and Analysis. Cost study based on randomized clinical trial data (NCT04009369). Costs incurred for the management of participants through the three care models were calculated using Time-Driven Activity-Based Costing, in which the time invested with a patient determines care costs. Setting. ED of the CHU de Québec – Université Laval (Quebec, Canada). Population Studied. Persons aged 18 to 80 presenting to the ED with a minor MSKD (n=78). Intervention. Three ED care models were compared: 1) management by a PT and an EP; 2) management by an EP according to usual care; and 3) management by a PT. Outcome Measures. Mean cost of an ED visit for a MSKD. Generalized linear models with Gamma distributions and log links were used to assess whether there was a significant difference in mean ED visit costs between the three care models. A probabilistic budget impact sub analysis comparing the costs of implementing the two new care models for 10,000 patients was also carried out (reference cost: usual care by an EP, Canadian payer system perspective, 10,000 random samples of 10,000 patients). Results. Mean ED visit cost for PT and EP management was \$278.55 (2018 \$CAD, Min-Max: 97.64-1,389.94), compared with \$267.86 for EP management (62.46-1,490.85), resulting in a non-significant absolute difference of \$11.67/patient between models (p=.78). The average cost of management by a PT was \$193.87 (62.46-678.47), representing an average saving of \$70.96/patient compared to EP management. Implementing management by a PT and an EP would cost the healthcare system an average of \$107,335.31 more per 10,000 patients (95% CI: 48,416.05-165,953.41), whereas management by a PT would save the health

system an average of \$739,467.20 (689,476.88-789,717.02). Conclusions. This study is a first step towards a better understanding of the costs associated with care models integrating physiotherapists in the ED for patients presenting with a MSKD. These innovative care models may have the potential to help reduce healthcare costs in the ED.

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