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Meeting abstract

Construction of functional related groups for an ambulatory rehabilitation system

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Introduction

Demographic changes and financial limitations are spreading great concern among health sectors. Levels of future demand for support on rehabilitation services will be affected by population ageing, disability prevalence and life expectancy. In Portugal in 2007, 617 outpatient rehabilitation providers divided between the public (15%) and the private sector (75%) were identified. Due to financial limitations, and to establish more equity in the distribution of resources, the Portuguese NHS is implementing new models of drawing up contracts for healthcare provision. Researchers were gathered to design a classification system for ambulatory rehabilitation care that addresses changes facing the public and private sectors.

Methods

The use of the ICD diagnosis in rehabilitation as a factor for predicting costs, and as a predictor of therapy utilization, is troublesome. Researchers suggest an impairment classification based on ICD 10 diagnosis which gives an etiological framework, and on the International Classification of Functioning (ICF), which classifies functioning and disability. Preliminary studies included a Delphi exercise and an empirical data collection. Several categories were identified, in a consensus, generated by a group of healthcare providers. A first classification was prepared and then applied to a sample for a pre-test. The final classification includes ICD10 codes and a qualifier checklist from the ICF. The checklist completion was based on score instruments included in patient assessment.

Results

A patient's diagnosis and functioning were defined as independent variables. The dependent variable considered was the number of procedures between admission and discharge, translated into an average cost. For statistical tests, a statistical significance of sig ≤ 0.05 was taken. About 184 cases were collected. 62% were women and 38% were men, with a mean age of 59.92 years. For the ICD 10 code, a distribution of 51.9% was found for patients classified with diseases of the "musculoskeletal system and "injury due to external causes". The remaining 48.1% were spread among other diagnoses. For the variables "body function" and "activity and participation", the mean was 5.8 and 7.85, respectively. No relationship was found between those variables and sex (T Test). For the dependent variable (mean = 41.79€), a relationship (sig = 0.001) between males (mean = 26.8€) and females (mean = 56.4€) was found. A multiple linear regression was applied to fit the predictive power on ICF variables over costs. No predictive power of the first was found (ANOVA Sig 0.65). The value of R^2 is 0.009 which suggest that only 0.9% of the variations in costs are explained by patient impairment.

Conclusion

The classification by ICD 10 diagnosis and by impairment categories (ICF) ranks a high percentage of patients and

appears to be stable enough over time to form the basis of a payment system. In the future, it may also be considered for regulating performance measures. However, the results pointed out some issues that need to be considered on this study.

In rehabilitation, there are two dimensions that can be taken into account when creating a classification: the patient characteristics and the treatment characteristics. Although the main goal of rehabilitation is to minimize the consequence of disability, the present study shows no relationship between impairment level and costs. Resources must be allocated assertively, considering that this allocation must be proportional to the level of impairment.

Fundamental to the design of any system for ambulatory care is the selection of a basic unit per payment. The basic unit for ambulatory rehabilitation care should be attendance, which represents a contact between the patient and the healthcare professional. The type and number of attendances should depend on the complexity of the diagnosis. In our opinion, this diagnosis complexity should be the cost driver in rehabilitation.

The authors believe that the payment by etiology and impairment level does not create any perverse incentives, encourages the providers' efficiency, and ensures access to high quality when delivering care. It is worth mentioning that the study is still in progress and its main objective is to reach a final rehab outpatient classification.