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Defining clinical conditions in long-term healthcare as a first step to implement Time-Driven Activity Based Costing (TDABC)

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Background

Increasing healthcare costs is a concern of all developed countries. In Long-Term Healthcare (LTH) this is reinforced by population ageing and corresponding prevalence of chronic diseases. Thus, it is fundamental to accurately measure costs and outcomes in healthcare, improving value created for patients, *i.e.*, patient-centred health outcomes per monetary unit of cost [1, 2]. TDABC methodology applied to healthcare allows identifying the cost for each clinical condition in the full cycle of care, mapping processes, activities, resources and allocated time [3–5]. It has been mostly applied in acute-care settings, partly due to complexity of defining chronic condition [6].

Objective

This paper focuses on the cost component of a larger on-going research project (CARE4VALUE), aiming to enhance value creation in LTH providers and applied to a partner LTH unit. Specifically, the main objective is to define clinical conditions in the context of LTH, as a first step in the implementation of TDBAC.

Methods

Mixed qualitative and quantitative methods were applied, including: 1) three focus groups conducted with the health team of the LTH unit (physician, nurses, physiotherapist, psychologist, social assistant) to select, discuss and validate the criteria to define clinical conditions; 2) construction of a composite indicator and testing it over a sample of anonymized clinical data from 21 patients; 3) structured observation of processes taken throughout the full cycle of care of patients in different conditions. Qualitative data was submitted to content analysis and validated among participants. Quantitative data used in the composite indicator, based on validated scales, was subject to normalization, aggregation and sensitivity analysis.

Results

One consensual outcome of the focus groups was that, in LTH, the disease or cause of entrance is less relevant to costs than the overall complexity of the patient, entailing psychical, social, spiritual and psychic-mental dimensions. Accordingly, a multidimensional classification model of patients in four complexity levels was delivered, after being validated and receiving consensus from the LTH team. Additionally, it will include a logging tool and dashboard to integrate separate patient-centred information and aid patient classification in complexity conditions.

Conclusions

The completion of this step allowed progressing in the design and implementation of the cost model, which, in turn, will support value measurement, and enhancing of the focus LTH unit. Besides, all involved professionals stated that their engagement in this phase of the project generated exceptional opportunities for interdisciplinary meetings and debate, contributing to closer ties between different areas of LTH.

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Keywords

Long-term healthcare, Time-Driven Activity Based Costing (TDABC), Clinical conditions, Patient-centered data, patient complexity.