

## CONFERENCE ABSTRACT

### Evaluation of the effectiveness of complex health care interventions: the example of case management

17<sup>th</sup> International Conference on Integrated Care, Dublin, 08-10 May 2017

Anne-Sophie Lambert, Sophie Cès, Jean Macq

UCL, Belgium

---

**Introduction:** The aim is to present the evaluation of effectiveness of case management interventions, designed from the bottom-up, which have been implemented in Belgium since 2010 to support dependent elderly people at home. This type of intervention is an integrated care process which combines prevention, evaluation, custom designed multidisciplinary care plan, coordination of services and follow-up. Mixed methods are necessary for covering the indispensable steps of the analysis of effectiveness which includes the specific description of the interventions, the identification of the target populations, the building of a control group, the tracking of pertinent indicators, and the choice of a quantitative approach bearing in mind the implementation process of the interventions.

**Methods:** The quantitative analysis of effectiveness has been guided by the results of the implementation analysis, a qualitative approach which provides the description of essential components of the interventions. Two quantitative databases are available for the beneficiaries and the control group (not benefiting from interventions and recruited by home care organisations, thus reflecting "usual care"): (1) a prospective data collection through a validated comprehensive geriatric instrument (the interRAI Home Care instrument) including clinical variables and data related to the informal caregivers, and (2) the administrative database of the reimbursed health care consumption (routinely recorded by the health care insurance). The different types of dependency are defined through a clustering analysis grouping beneficiaries according to functional and cognitive limitations. Thereafter, each P3 beneficiary is matched by using a propensity score method with one individual of the control group having similar health characteristics and similar levels of presence of informal caregiver (without, non-cohabitant, cohabitant). Finally, the different variables for assessing effectiveness are tested between beneficiaries and the control group.

**Results:** Case management interventions are grouped according to three criteria: (1) the feedback to a general practitioner, (2) the psychological support, and (3) the intensity of the intervention. Beneficiaries are divided into five dependency types (low limitations; important IADL limitations; important ADL and IADL limitations; significant cognitive and functional deficiencies; and people cumulating significant cognitive, functional and behavioural problems). The results are presented for each of the above subgroups in the form of a

“dashboard” including the different essential indicators for the evaluation of the impact of the intervention: indicators of health care consumption (i.e. nursing care at home, visits to a medical specialist), indicators identifying the stress on the health system (i.e. unexpected hospitalisation, visits to emergency service) and clinical outcomes (i.e. functional, cognitive, and depressive status, quality of life, informal caregiver’s perceived burden).

**Discussion:** The analysis of the data collected through the questionnaires filled out by both the care recipients and their main informal caregivers linked to the administrative database of health care consumption provides a comprehensive evaluation of the effectiveness of a complex intervention. Both clinical and use of resources outcomes are analyzed for the dyads of care recipients/informal caregivers and allow for comprehensively and accurately describing the consequences of case management interventions according to various types of situations at home.

---

**Keywords:** evaluation; effectiveness; case management; dependent elderly

---