CONFERENCE ABSTRACT

Development of a New Integrated Care Organizational Model for Patients with Complex Needs in The Basque Country

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An introduction: (comprising context and problem statement) The high prevalence of patients with complex needs is an increasingly worrying reality in health systems. The most characteristic features of the current healthcare model are the fragmentation of care levels, the lack of coordination, integration and continuity in patient care, leading to problems of inappropriate use of human and economic resources and health services. The problem requires a coordinated response comprising all stakeholders involved.

Short description of practice change implemented: The European Carewell project http://www.carewell-project.eu/home.html aims the design and implementation of new organizational models of integrated cost-effective care, addressing multimorbid patients, in order to improve care and healthcare through: 1) the coordination and communication among health professionals, and 2) the patient-centered care based on empowerment of the patient (and their caregiver) and the monitoring of their health status. The project uses ICTs as enablers for the implementation of such interventions.

Aim and theory of change: The main objective of Carewell is the design, implementation and evaluation of the impact of an integrated healthcare model for multimorbid patients, in terms of quality of care, efficiency and satisfaction of professionals and patients.

Targeted population and stakeholders: The target population was elderly (≥ 65) patients having at least two of the chronic diseases included in the Charlson comorbidity index and being one of them CHF, EPOC or diabetes mellitus. In the Basque Country a population of around 6200 patients have benefited from the new integrated care pathway whereas only 200
patients (104 intervention and 100 controls) have been included in the evaluation. These patients have been followed up for a minimum of 9 months.

There are 13 integrated care organizations (ICOs, primary and secondary care) in the Basque Country. 6 out of the existing 13 have been involved in the project. A multi-disciplinary, collaborative and inter-organizational team, which consisted in 130 health professionals and 58 social workers from distinct ICOs, was created to define and deploy the new care pathway.

**Timeline:** The project started in February 2014 and phases completed are:
- Definition of the new integrated care pathway: February-December 2014
- Preparation of the piloting (professional engagement and training): January-April 2015
- Piloting: May 2015-September 2016
- Evaluation: October-December 2016

**Highlights:** (innovation, Impact and outcomes)

Innovation: A new organization model for the care of multimorbid patients has been defined, developed and deployed. Several elements have been identified as key factors: integrated care pathways agreed by all stakeholders, decision support tools, ICT services, training of professionals, development of an structured empowerment program for patients and caregivers (Kronik-ON) and a new mathematical model to predici s of resources in mid-long term ("Predictive Modeling").

Impact: In the Basque Country the new organizational model has had an impact on the provision of services to multimorbid patients. Through the prevention and promotion of health, as well as the empowerment of patients, it has promoted a transition from specialized and hospital care to primary care.

Outcomes: Clinical effectiveness, economic analysis and the patient's and professionals' perspectives have been assessed by quantitative and qualitative approaches. Satisfaction of both professionals and patients/caregivers has been demonstrated, whereas the profile of the use of services has moved from secondary care to primary. In fact, the number of hospitalizations and ED visits has decreased and the GP contacts have augmented.

**Comments on sustainability:** The intervention in the Basque Country has used the human and technological resources currently available in Osakidetza (Basque Health Public System), which favors and facilitates any subsequent deployment. Predictive analysis has confirmed that intervention is cost effective.

**Comments on transferability:** The results of the evaluation of the new organizational model have been positive, which has led to its imminent extension to other ICOs of Osakidetza.

**Conclusions (comprising key findings) and lessons learned:**
- A detailed methodology for the design of the intervention is crucial
- Multidisciplinary teams should represent all stakeholders in order to consider their perspective in the definition of new care pathways.
New pathways must be integrated into the daily practice.
The service must be flexible to be adopted in new contexts.
New roles are necessary which requires reorganization of tasks.
Training of professionals is crucial to promote the development of new skills.
Technology is essential for facilitating coordination among health professionals.
Involvement of top managers of the organizations enhances the engagement of healthcare professionals, favoring the implementation of new procedures.
Primary Care is responsible for proactive control of the patients.
Nursing role is essential in the empowerment of the patient/caregiver.

Discussions: It is fundamental to align the project objectives with the strategic plan of the central organization to ensure that the deployment of the intervention is a priority. However, top-down support is not enough, meso-level managers and front-line professionals have to believe in the project, so both interests converge. Continuous improvement methodologies are of great relevance identify weaknesses in a regular basis and apply new solutions. To do so, it is mandatory to establish a consolidate monitoring and assessment procedures.

Keywords: integrated care; complex patients; deployment; assessment