

## CONFERENCE ABSTRACT

### Multipronged management strategy for patients with complex needs using an integrated organizational model

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**Introduction:** The Basque healthcare system is facing an overwhelming problem due to chronicity and an aging population. In our setting (San Sebastian, Gipuzkoa province, Basque Country) more than 25% of the population (400,000) will be over 65 years old in the next decade out of which 10,000 people will be multi-pathological. Traditionally, these patients have been managed without a coordinated strategy, leading to multiple hospital admissions, patient discomfort and a large economic impact.

**Description of practice change implemented:** A multipronged management strategy for patients with complex needs using an integrated organizational model that included liaison nurse, call center and new technologies (web/ app-based monitoring).

**Aim:** Improving quality of life and perceived quality of health assistance

Training patients and healthcare providers

Reducing length of stay and Emergency Department (ED) visits

Respecting patients' will on intensity of treatment and place of care provision

**Target population:**

- Multi-pathological patients with high readmission rates
- Home-dependent patients
- Nursing home residents
- End of life patients

**Timeline:**

2003: New Evidence-based practice unit started within Internal Medicine Dpt.

2005: Prediction rule development and validation for readmission risk

2006: Before and after study with a multipronged strategy (PAMI) targeting patients with high readmission rates.

2009: Creation of a management unit for chronic patients.

2010: Comparative study of telemedicine vs PAMI

2010: Cluster randomized clinical trial of PAMI in nursing homes

2012: Creation of a diabetes pathway

2012: Creation of an integrated health organization (OSI)

### **Highlights:**

- Development of a single electronic medical record
- Stratification of the population and tagging of chronic patients.
- Conciliation of treatment with an e-prescription tool.
- Conciliation of information (hospital/primary care meetings, communication tools)
- Case management of complex patients (PAMI programme) with process-specific questionnaires, liaison nurse, call center and web/app monitoring activating changes in prescription, GP appointments or direct hospital admission. With 4,200 patients followed within this programme, we have achieved 30-50% of direct admissions (avoiding ED visit). Days spent at the hospital were reduced by 25% for nursing home residents, 55% for home-dependents, 58% for heart failure patients, and 25% for patients with COPD. The number of ED visits made by each group was also reduced by 58%, 70%, 70% and 45% respectively. 80-100% found the level of training satisfactory, 90-100% rated the hospital accessibility "excellent" and 90-100% perceived significant improvements in the global management of the process.
- Integration of the primary care-internal medicine and nursing home-internal medicine pathway
- Improvement on the social care with a calculator of social support needs.

**Sustainability:** Cost-effectiveness of the management of these patients improved

**Transferability:** The technology and protocols are available to all in the Basque Country. Geographical differences exist in hospital accessibility.

**Conclusions:** This strategy improved perceived quality of life and length of stay while avoiding many ED visits. Integration of levels and IT tools are essential to make it possible.

**Discussion:** Integration specially benefits multi-pathological and complex patients, offering opportunities for case management strategies.

**Lessons learned:** The anticipation of problems, new technologies and integrated assistance focused on the user will be the keys of the future care.

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**Keywords:** case management; integration; chronicity; multi-pathological

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