Abstract

Background: The elderly and frail citizens with chronic diseases are raising in all countries. Health care systems are struggling to deal with increasing demands of an elderly population, while small hospitals are closing and ward beds are being reduced.

There is a need to re-design health and social care systems and this will involve the development of integrated care models that are more closely oriented to the needs of patients/users, multidisciplinary, coordinated and accessible, as well as anchored in community and home care settings.

We have introduced in our country the new healthcare models which provide specialized continuity of care at home with innovative healthcare services supported by information and communication technologies (ICT).

Research question: to evaluate feasibility, effectiveness of new healthcare model which moves health care services from acute hospitals to community health centers or to home, reinforcing the gatekeeping role of GPs in primary contact network co-working with a hospital and out-patients multidisciplinary skilled team.

The outcomes to measure: 1) overall reduction of acute hospitals resources; 2) innovative modernization of health care infrastructures; 3) the impact of our integrated care model on the health status and quality of life for elderly patients with multi-morbidity and their caregivers.

Methods: We conducted a case-control 12-months study (between October, 2013 and September 2014). Seventy elderly patients were assigned to either standard of care group treatment alone (Standard: nurses + GPs) and seventy elderly patients were cared with our Standard + e-Health and multidisciplinary mobile chronic care team (m- Health team: 2 nurses, 1 geriatrician, and 2 specialists for 1 hour/week).

The new integrated care service is provided to Hospital Physicians and Nurses through a Service Center during daily in-office or home visits in collaboration with GPs through the use of new ICT tools (transferring in real time the recorded data back to the receiving Hospital Station). The clinical tool is the Multidimensional Assessment which will consist of computerized medical records, be networked and read by specialists in hospital/outpatient and family physicians involved in the
project. The Hospital Service Center helpline with medical, nursing, technical and socio-medical, operating daily from 8 AM to 8 PM (5 days a week, actually).

**Indicators to measure:**
- reduced access to specialist visits
- improvement of GPs visits during treatment
- economic evaluation
- reduction improper Emergency Room admissions
- reduction of hospital admissions and inpatient days (in Hospital or other residential care facilities)
- reduction of transfer in Nursing Homes (elderly or disable patients, Alzheimer patients)
- optimizing consumption of drugs
- improving the patients quality of life
- reducing stress of caregivers.

The indicators are measured at baseline, 3, 6, 9, and 12 months follow-up.

**Results:**
We haven’t found significantly differences on demographic conditions, socio-economical state, pre-treatment living setting, pre-treatment living arrangement, accessibility to Health Services, attitude to the ICT use and knowledge, clinical and functional characteristics between the two groups (p=0.03).

The patients treated with our Integrated m-Health team showed significant reduction of their access to specialist visits, improper Emergency Room admissions and inpatient days, improvement in adherence to drugs treatment and significantly less drugs effects (falls, malnutrition, depression; P<0.001); also the patients and informal cares empowerment show significant improvement than those receiving standard cares, also at follow-up controls (P<0.001).

**Discussions:** This study provide evidence that the healthcare change management is feasibility and effective if concrete multidisciplinary working team ensure continuative cares, with integrated ICT systems.

Our new integrated care service is characterized by coherent and coordinated service delivery to individual service users across a broad range of health and social care organizations, various professionals and informal caregivers.

This study is meant to increase access to high quality care for patients and their caregivers and to assist clinicians in improving quality of care for chronic diseases.

Health information technology (HIT) can play an important role in addressing these potentially modifiable factors in the context of delivery models such as collaborative care.

This work represent a pragmatic approach to re-designing community-based services following community hospital closure.

**Keywords**

change management; home care service; chronic diseases; elderly; integrated care; ict; hospital closure

**PowerPoint presentation**

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