

CONFERENCE ABSTRACT

OUTPATIENT FLOW OPTIMIZATION - The redesign and implementation of non face-to-face flow systems

16th International Conference on Integrated Care, Barcelona 23-25 May 2016

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Introduction: In a global context of increasing demand for health care and the greater demand on the quality of care, our health systems are being challenged to maintain high quality standards. In order to meet these expectations, it is necessary to apply increasingly efficient management models that safeguard and improve the user's perception of the attention received.

Limited public or private resources in health institutions urge us to seek their optimization by implementing more effective alternative modus operandi. By incorporating technological advances in the sector, particularly through new communication systems, we are given an opportunity to substantially alter doctor-patient or administration-patient relations whilst promoting co responsibility in the health process.

With these premises, and a clear commitment to the patient, a project is born focused on the outpatient area of the Hospital Sant Joan de Deu de Martorell in Barcelona. The aim is to simplify the highly complex flow of patients, which increases the cost of the care process due to its numerous associated administrative procedures. This gives rise to a negative impact on the end user's satisfaction. Using the basic principles of 'LEAN' methodology and process reengineering in the areas of surgical scheduling, outpatient visits, admissions and certain outpatient procedures, waiting time targets have been reduced and improved levels of accessibility to specialist consultants were established.

Methods: The project is defined initially by focusing on the outpatient area, however with a view to expanding it into other hospital areas. The project has been undertaken in close collaboration with primary care teams resulting in the setting of the main following lines of action:

1. Review and redesign of patient care systems, from hospital admission to scheduling consultations and diagnostic tests by applying reduced flow time and optimization of resources.
2. Incorporation of non-face-to-face service processes by implementing mobile-phone technology as a way of bi-directional communication with the patient.

3. Creation of a preoperative care unit, with a single preoperative interaction as a specific approach in the pre-surgical procedure.
4. Application of biometric signatures, with informed consent, and the elimination of paper medical records.

Results: In less than a year, after the implementation of the actions described, the results exceeded the expectations created and effected directly and indirectly all influential areas of the organization. There were substantial quantitative and qualitative improvements in the main assessment indicators.

A notable 95% reduction of face events (250.000 per year) in the areas of scheduling outpatient visits, diagnostic tests and surgical procedures, through computerization of the requests generated in consultancies, along with the extension and acceptance of the non-contact care program, has been the biggest factor in allowing the users to spend only the minimum time necessary in those activities that add value to the process of health.

The bi-directional communication with the patient through mobile messaging for appointments, modification and/or cancellation, has allowed a reduction in the rate of user's presence. This has produced an 11% increase in accessibility to the agendas and has facilitated meeting current commitments to 'Maximum Delay' objectives for first visits in all specialties.

The new preoperative care unit, which provides a single time for the patient to take all necessary surgical diagnostic tests has resulted in improvements in the level of patient risk and in the application of complementary diagnostic tests. The prior review of the need to test, avoiding duplication and unnecessary patient radiation, has meant an 8% reduction in electrocardiograms and 56% in chest x-rays.

Document scanning, the implementation of the biometric signature and the incorporation of advances in communication, replacing letters and phone calls has reduced by up to 70% of office supplies costs (paper, printer toner, labels, ...) and gave over 60% savings in telephone costs.

Discussion: Results to date show that the implementation of mobile-phone technology is an essential tool in order to obtain a more effective and higher quality health care.

Having noted the acceptance and profitability of the project in the hospital environment, we consider the feasibility of it is exportable to all primary care services, as it has been proven in our area of influence.

Conclusion: From the patient's perspective, and the considerable organizational benefits, simplifying the flow of patients, reducing queues and waiting times as well as the reduction of face-to face services has facilitated the meeting of objectives giving rise to an improvement in overall user satisfaction and the perception of health care.

Keywords: non face-to-face attendance; outpatient flow optimization; healthcare mobile-phone technology; preoperative care unit
