
CONFERENCE ABSTRACT

Meaningful clinical communication and Integrated Care in Barcelona. Eight years of experience.

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Context: Public healthcare system in Catalonia is based on yearly contracts established among the Public Healthcare Administration (Catsalut) and the different Healthcare Organizations (HCO). Each one has its own Electronic Patient Record (EPR) system.

In 2006 a task force group was committed for a radical redesign of the healthcare in an area of Barcelona with a population of 600.000 inhabitants with a focus on the improvement in the relationship between Primary care (PC) and Specialized Care (SC) for a better integrated care for the population. Once the new model was accepted by all the HCO, a specific workgroup was created to develop a ICT-supported system to interchange meaningful clinical information and enable the continuity of care. Twenty-three centers were involved. They belong to nine different HCO: three hospitals, one SC outpatient clinic and six PC organizations. Initial analysis of the departure situation resulted in a high heterogeneity in relation to the degree of technological investment, development and maturity in the use of EPRs by the professionals. Several ICT options were considered. The decision was to implement an interchange platform using structured xml files with clinical content based on standard HL7 v2.5 messages.

Results: The solution got the integrated connection of all the EPRs of the different HCOs in spite of their big differences. Also the project has speed-up the process of investment and maturity in the use of EPR in those HCOs with a worse departure situation. The overall system supports the full information cycle of several clinical processes like the patient referral from PC to SC with all the possible circumstances at each step in the workflow and the return of clinical documentation, the request for specific procedures from PC to SC with the return of

the report and the related images if it's the case, the communication to PC of the admission of a patient at the Emergency ward and the return of the discharge reports, as well as new collaboration processes like the teleconsultation in Dermatology. All the messages are completely generated and fully integrated in all the different EPRs of the nine HCOs.

Since January 2010 until December 2015 statistics showed a total of 323360 requests from PC to the SC centers, 577.575 professional integrated care activities done over the patients, 839.779 relevant clinical documents and 91374 images done at the hospitals delivered on time at the point of care accessible by the PC centers. All of these transactions are the result of standardize and improve existing workflows using ICTs. Outstanding results have been the start up of Teledermatology, a new service made possible through ICTs. Quality of the images provided by the PC physicians were good enough in 94,3% of the cases. Delay in the SC answer has been reduced to 1,84 days and avoiding more than a half of the SC visits at the hospital (58,2%).

Conclusions: Several management and clinical scores demonstrates the benefits of such implementation in the quality of care of the population covered by the HCOs. The other big achievement has been the standardization of the clinical processes in this area of the Barcelona city.

A good Governance model of the different IT departments involved as well as the ICT providers, based upon professionalism, leadership and transparency, is a key point for the success

At this moment we are in the process to evolve to a bigger platform with the capability to connect all the HCO and centers in Catalonia.

Keywords: integrated care; interoperability; communication standards; change management
