The Use of Business Intelligence for the Economic and Healthcare Information in Juan Canalejo University Hospital

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The natural evolution of public management towards more professional management models inevitably derives in a need of better and more flexible information. Business Intelligence (BI) new technologies represent an innovative opportunity to give major operability to the information stored in the transactional databases. Nowadays many BI implementations exist in different areas of the industry but its application in the sanitary area is still insufficient.

In the Juan Canalejo University Hospital a Dashboard for the management is being developed focused fundamentally on the economic and healthcare information. The system tries to facilitate the management and the decisions by grouping the different information sources in one so that all the actors handle it uniformly and share the same concepts. Starting from the information stored in the hospital databases and using BI technologies, the system would provide a tool for monitoring the organization, based on a series of indicators and perspectives.

Inside this Dashboard it has been included the information generated in the Nursing Units because they are possibly the principal engine of the healthcare activity of a hospital, taking responsibility not only of care plans, but also of all the activities derived from the healthcare management. Inside the concrete field of nursing information analysis, the objective is to explore the possibilities of the information generated by the healthcare module of the program “Gestión Asistencial de Cuidados de Enfermería Línea Abierta (GACELA)” (Healthcare Management of Nursing Care) and to realize a pilot study to evaluate the workload of the interventions that the nursing realizes in the care of the patients with Cerebrovascular Accident.

The development of the system has been realized in an incremental way, including in every new stage the analysis of the information of an area of the CHUJC. In the current state of the project the services included are: Income and Invoicing, Accounting (including information of Budget, Budgetary Execution, Periods of Payment and Expenses), Supplies, Personnel, Pharmacy, Costs and Investments.

This dashboard makes the analysis of the nursing activity possible. Some examples of the kind of information that can be analyzed are: care plans by types, protocols, diagnoses, special records (sores, intravenous catheter, …). It also shows management information like shifts, cost of personnel, supplies of every unit or the cost by activity.

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