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## **Full Length Research Article**

### **VOICE OF THE EMPLOYEE TO CREATE ELECTRONIC RECORDS: NURSING INFORMATICS COMMITTEE**

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#### **ABSTRACT**

The most important problem of 21 century medicine is that reliable, proven and valid information is kept where the service is provided. Health services can be provided at various points of the health institution also at various institutions of the health system, and services can be received simultaneously from many various disciplines. Therefore, it is extremely important for that compiled and recorded data are clinically and financially assessable. Nurses are required to play a role in all planning, developing, adaptation, selection, application and evaluation processes of Health Information Systems. The aim of this study is to create user-friendly system for Acibadem Healthcare Group (AHG).

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#### **INTRODUCTION**

'Health Informatics' mean that information and communication technologies are used together with information management concepts and methods to include both hardware and software, in order to support the provision of health services. Nevertheless, unlike other sectors, adaptation of health system to information technologies was relatively slower (Nurses, 2007 and Alberta Association of Registered Nurses, 200). The most important problem of 21 century medicine is that reliable, proven and valid information is kept where the service is provided. Important information in the provision of health services can be grouped under three main titles; literature information, data and information on the patient receiving the service, and management and decision support functions (Ball, 2000). However, there are great problems nationwide and worldwide about the integrated infrastructures that would allow access to all these information. US National Advisory Board expressed the importance of encouraging and extending the usage of information technologies in nursing practices, for problem-solving and providing high-quality care services (Canadian Nurses Association, 2001). One of the most basic faults of health businesses on this issue is to focus on the technological part and ignore the information aspect.

Information system technical infrastructures are created for entering, storing and reusing data and information in electronic media for the provision of health services. The greatest setbacks for using these systems effectively and efficiently are the problems in defining the entered and accessed information. Classification of operating room and intensive care services is the top problematic area, and even this is just a small part of the issue. Also, the main requirement of the traceability of quality and accreditation are these definitions. For this purpose, there is a series of classification systems. It is not just enough to select one of these systems; the important thing is to determine how to use these systems for documenting health service provisions. This is directly the most important evidence that intense and coordinated studies are necessary for preparing and applying care maps, clinical pathways and diagnosis/treatment/care guides in this respect (Canadian Nurses Association, 2003).

Health services can be provided at various points of the health institution also at various institutions of the health system, and services can be received simultaneously from many various disciplines. Therefore, it is extremely important for that compiled and recorded data are clinically and financially assessable. Information recorded at various times and various points by people and professionals from various disciplines must be available for later consolidation to be assessed from various points of view (Hannah *et al.*, 1999). The basic

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function of a health institution is to provide services to patients who visit the institution and to individuals who wish to protect their health. Loyalty of a patient to an institution is one of the main, maybe the top requirements of competition, in addition to technical and medical infrastructure (Hebert, 1999 and International Council of Nurses, 1999). The most important element for the manageability and traceability of preventive healthcare, diagnosis, treatment and care services is the control of data and information related to these processes (Lalonde, 1974 and Mandil, 1989). The essential factor for ensuring the control in short, middle and long term is ensuring that standard terminologies are used in every stage of healthcare and being competent in this area.

On the other hand, the importance of health record systems in Turkey is determined by the following factors:

- Health services are provided to eligible people with just reason
- Health problems and given services are correctly recorded
- Transfer information and reasons are systematically recorded
- Patient safety is ensured at every point
- Application of effective treatments and inspection of expenses
- Service quality and result traceability (Monitoring and evaluating accreditation works and teamwork)
- Parties sharing information and sources in accordance with defined policies and rules

A study published in International Journal of Nursing Studies points that the roles of nurses in care services are increasingly becoming more versatile and coming forward. In this study, it is emphasized that the most basic and valuable source of an institution is to have not only nurses but all other health professionals be literate in terms of using information and computers. The basic expectations of nurses and doctors from information systems are that they facilitate their works, allow planning and monitoring, and also provide information that would support making decisions related to services (Nagle, 2003). In the context of certain diseases, the share of nursing in care processes exceeds 60%. There are studies in literature on the significant effects of the investment on nursing education over mortality. In the same manner, it should be noted that being competent in inter-professional working styles, which aim process excellence, is an important subject, supported by management (Staggers and Bagley Thompson, 2002; Royal Commission on Health Services, 1964). The aim of this project is to create a common language and to establish user-friendly systems during the creation of nursing information systems for providing healthcare services based on information and knowledge. With Acibadem Health Group Nursing Informatics Committee, it is aimed to improve the patient and management processes of nursing practices, and at the same time, help the collection of clinical indicators.

### Applied methods and standards

In 2007, there were 9 hospitals under Acibadem Healthcare Group. With the growth of the system and due to relevant targets, the need for a common language became inevitable. Thus, the Nursing Informatics Committee was established by

the participation of the informatics nurse, Information Systems Director and Project Manager, and the Nursing Services Director of each hospital. It was aimed to create a formation that performed systematic studies on process management and clinic performance evaluation throughout ASG institutions.

The basic duty of this group has been determining the processes to be monitored and evaluated in line with the priorities of the institution, deciding on the type of the information system for monitoring and in time, focusing on relevant issues according to the results. The Group has studies on the analysis and modeling of health institution processes. It cooperates with relevant groups and IT unit for researching and learning about necessary instruments and methodologies.

Determining the necessary information requirements for providing high-quality, safe and cost-effective services is among the core duties of the group. To organize the system to meet these requirements, there is cooperation with the IT Unit. Finalization and approval of software and system requirements, determining the information required at Points of Care is among the duties of the group (clinical process models, diagnosis/treatment and care guides, clinical road maps, work flows, scientific literature etc...).

Performing studies for determining the performance indicators under clinic performance management and for establishing a result management system is also another main tasks of the group. The Group has been engaged in corporate processes to adapt clinic common language standards (LOINC, ICPC, NANDA, OBOF, ICNP, SNOMED CT, ICF, ICD-O etc.). Cost monitoring and management system, in accordance with the clinical guide and evidence-based type, is among the main tasks of the group. Team training and workforce planning requirements were determined as a result of the studies. The studies on reporting requirements and corporate sharing were also planned and evaluated by this group. Importing nursing records to electronic media, reducing repetitions of forms and stationery load and increasing time for patient care, archiving nursing data, creating databases, increasing the number of observation by directing nurses through reminder systems, keeping records regularly, being multidisciplinary, reducing personal errors through automatic calculations, ensuring that records are filled-in regularly, as much as necessary and completely, managing care quality and costs are among the purposes of the committee.

Taken resolutions have been materialized by the approval of the Chairman of the Board. It was decided to perform a study for determining the tools to be used for electronic patient records, employee monitoring and management decision-making. A literature scanning was performed to meet our current and future requirements under these three topics. In line with these topics, subgroups were created with mid-level managers selected from each hospital. Forms which should be used to monitor patient data (fever, pulse, blood pressure, respiration, etc.) and how the information should be used (evaluation of the risk of falling, indicators of the rate of the risk of falling, quality indicators, etc.) were decided. Employee data (employee performance, corporate trainings, annual leave, etc.) were used to monitor the employees. Relevant standards were created in line with corporate procedures (Figure 1).

In nursing information systems, all record identification and monitoring must be performed and completed over the automation system. The study on this issue is carried out in coordination with ASG IT department. Mutual access has been established for Medical Services and doctor-nurse forms, personnel authorization were determined, patient and information confidentiality issues were jointly studied.

#### **Nursing informatics committee operation procedure**

**Objective:** To determine the rules for selecting the ways for arranging the nursing web page, writing information in electronic media and making them reachable for all nurses.

**Scope:** It covers all departments of ASG Nursing Services.

#### **Application:**

- The Committee consists of 1 chairman, 1 secretary and members.
- Committee meeting frequency, number of members and new memberships are decided by the committee chairman.
- Memberships of members not attending to committee meetings without presenting an excuse shall be cancelled.
- Meeting reports are sent by committee secretary within 2 days after meetings to committee members in computer media.
- All documents and announcements to be published are sent to the committee in computer media upon the approval of Nursing Services Director.
- Documents will be assessed according to rules previously defined by the Committee.
- Announcements and documents are published on website with the cooperation of the Committee and Information Systems.
- Expired publications are followed by the committee.
- The committee creates an archive of all documents published in website to access them whenever necessary.
- The Chairman and members of these committee are also members of the Medical Internet Board.
- Committee practices are monitored according to annual plans.

#### **Conclusion**

The most important element for the manageability and traceability of preventive healthcare, diagnosis, treatment and care services is the control of data and information related to these processes. The essential factor for ensuring this control in short, middle and long term is ensuring that standard terminologies are used in every stage of healthcare and thus, creating a common language for providing high-quality care. Nurses are required to play a role in all planning, developing, adaptation, selection, application and evaluation processes of Health Information Systems, which would contribute to providing high-quality patient care services. Thus, it will be ensured that nurses at every role (patient care, management, training, research) will actively join data and information management on corporate and country basis.

Today, nurses use their time effectively by using the electronic record system. With this system, information which is included in a patient's file will be permanent. Employee information such as employee performance, training, career planning and annual leave are also monitored electronically. All data that can be gathered from the electronic system, care plans which assigned to patients, verbal order processes and the prevention of intervention to data are some of the contributions of the system for management. Working actively for six years, this group convenes for creating work lists twice in a year and whenever necessary.

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