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Re-looking Nursing Informatics

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The importance of leveraging on information technology to increase productivity, reducing cost and potential human errors is fast gaining recognition in the healthcare and life-sciences industries.

The hype however, seems to be focusing on biomedical informatics and bioinformatics. There is another segment of healthcare informatics that is just as, if not more important than biomedical informatics - nursing informatics.

Importance of Nursing Informatics

The sheer fact that nurses are the main supporting staff in the healthcare environment makes their opinions influential and nurses are the main user group for the various clinical information systems deployed since they are involved in most aspects of the medical discipline, but what exactly does nursing informatics comprises of? Would a curriculum aimed at educating nurses on the effective usage of Microsoft Office or the Internet constitute as nursing informatics?

Defining Nursing Informatics

Nursing informatics is best defined as *"A specialty of Health Informatics and deals with the support of nursing by information systems in delivery, documentation, administration and evaluation of patient care and prevention of diseases."*

Modern day nurses work in an information-intensive environment, from assessing patients' needs to analyzing staffing and budget reports, information is the key to effective decision-making and information systems like the Electronic Medical Records (EMR).

Electronic Medical Records (EMR)

EMR processes great potential in enhancing nurses' decision-making process - from the delivery of care by supplying access to health information about clients to allowing data-entry, and offering electronic access to scientific knowledge.

EMR also provides the functionality for nurses to record their observation and treatment to patients as well as retrieving medical results / reports from other clinical information systems like

1. Pathology reports from Laboratory Information Systems (LIS)
2. Radiology reports from Radiology Information Systems (RIS)
3. Medical images from Picture Archival and Communication System (PACS)

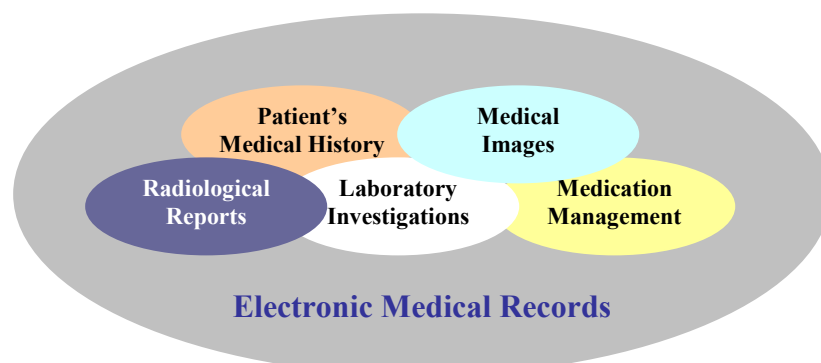


Fig. 1- Abstract of the Electronic Medical Records

Other Applications of Nursing Informatics

The coverage of nursing informatics does not end here; nursing informatics plays a vital role in advancing patient's safety and quality care. The scope of nursing informatics also includes information managing activities related with

1. Clinical Practice (care delivery)
2. Nursing Education
3. Nursing administration
4. Nursing research

Clinical Practice

- Telemedicine (remote monitoring)
- Electronic health record
- Intelligent clinical decision support (AI)

Nursing Education

- Online education / distance learning
- Virtual reality information systems

Nursing Administration

- Analysis of MIS reports
 - Review of outcome indicators
 - Outcome indicators
- Budgetary systems
Staff and client management

Nursing Research

- Data analysis tools
 - Qualitative/Quantitative research
 - Knowledge databases
- Evaluation of nurse-sensitive outcome measures using a standard minimum data set
- Use of knowledge bases via the internet

Nursing Informatics

A specialty of Health Informatics and deals with the support of nursing by information systems in delivery, documentation, administration and evaluation of patient care and prevention of diseases

Fig. 2- Other applications of Nursing Informatics

Conclusion

With such an important coverage of great magnitude, the arena of nursing informatics is definitely exciting with lots of opportunities for development and this segment of health informatics definitely deserves more attention than it is currently getting.

It might be about time that we take another look at nursing informatics, our lives might depend on it.

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