Electronic Medical Records

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Objectives

- Describe Electronic Medical Records
- Discuss current software utilized with Electronic Medical Records
- Assess the role of the nurse when working with this Electronic Medical Records
  - Advantages/Disadvantages
- Examine related legal/ethical issues
Electronic Medical Records

- Electronic compilation of care provided in in- and out-patient settings
- Computerized program that streamlines patient care
- Instantaneous retrieval of information
  - Patient information and diagnosis
  - Test results
  - Doctor’s orders
- Allows for data entry at the time of care
Statistics

- In 2006, 29.2% of physicians reported using full or partial EMR systems in their office-based practices
  - 22% increase since 2005
  - 60% increase since 2001
  - (Hing, Burt, & Woolard, 2007)

- As of 2009, only 2% of US hospitals utilized fully functional Electronic Medical Records
  - (Steenhuysen, 2009)
Hardware

- Server
  - Provides interface between all computers in the network
- Workstations
  - Allow for individual users to access and input information
    - Computers, computers on wheels, laptops, PDA’s
- External memory/storage
  - Depending on size of the facility
Servers

- **Defined**
  - (ser´ver) (n.) A computer or device on a network that manages network resources. (Webopedia, 2010)

- Extremely important for reliability and performance

- Need varies with type and size of institution

- Existing servers can be adapted to accommodate new software
Examples of Currently Used Software

- Cerner - *PowerWorks Electronic Medical Records*
  - Supports 30 different specialities
  - Provides patient education within the same program

- 3M - *Chartview*
  - Rated in the top 100 programs by Healthcare Informatics
  - Easy-to-use features compatible with Windows XP

- GE Healthcare - *Centricity Advance*
  - Designed for doctor’s offices
  - Completely web-based - allows for ease of updates
Cerner PowerWorks

- Currently serving 6,000 clients
- Serves health organizations ranging from single-doctor practices to entire countries..” (Cerner, 2010).
- Allows for remote access
- Easily generates Physician Quality Reporting Initiative reports
- Claims financial savings compared to paper charting
  - $30,000/physician/year
  - $1/record/year
PowerWorks Usability

- Early, central focus on users
  - Cerner works with facilities to implement specific programs
- Iterative designs
  - Provides data sharing and connectivity to each facility
- Empirical usability measures
  - 58% quality improvement in 2007
  - Quality plan initiated in 2008
  - 34% reduction in defects
Nursing and Electronic Medical Records

- Role of the Nurse
  - Data entry
  - Data retrieval
  - Doctor’s orders
Nursing and Electronic Medical Records

- Advantages
  - Time saver
  - All information in one place
  - Real-time charting

- Disadvantages
  - New skill/program to learn
  - Time consuming
  - Downtime
Competency and Informatics Nurses

- Competency
  - Initial trainings offered prior to program launch
  - Often, little time is devoted to proper training
  - No global requirement for EMR training
  - No global measurement of employees’ competence
Competency and Informatics Nurses

- Informatics Nurses
  - Work with software company
  - Individualize program for each facility
  - Provide initial training sessions
- Super users
- Continuous adaptations
- Support
Ethical/Legal Implications

- Confidentiality
- Licensing
- Inappropriate Access
- User ID/Password
Information System Review

- Electronic medical records
  - Clinical documentation system
- Used by
  - Nurses and physicians
  - Ancillary staff
  - Radiology, secretaries, lab personnel
Information System Review

Utilization

Individuals utilize EMR’s for:

- Documentation
- Medical records
- Order entry

Configuration

- Mainframe
- Local Area Network
- Workstations
Information System Review

- Data Standards
  - American National Standards Institute
  - Health Level 7
  - International Standards Organization
  - Workgroup for Electronic Data Exchange
Recommendation

- Highly recommended
- Cost Efficient
- One program, vast information
- Time Efficient
Summary

- Electronic compilation of care provided in in- and out-patient settings
- Computerized program that streamlines patient care
- Instantaneous retrieval of information

Used by
- Nurses and physicians
- Ancillary staff
- Time and money saver
References


