



# Electronic Nursing Documentation: Implementation and Compliance with Accreditation Standards

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# Outline

- What is medical record?
- Evolution of Patient Charting
- Problems of Paper Record
- Why Choose IT system for documentation?
- Nursing Documentation: Reflection of Nurses' role
- Nursing Information System Benefits
- Nursing Information System Deficits
- Pre- Requisites of Implementation of Electronic Nursing documentation
- Implementation of Electronic Nursing documentation
- Key Attributes to Compliance with Accreditation
- Standards Electronic System: The CMC experience

# What is a medical record?

- Confidential health data for each patient
- Contains patient's demographic data
- Contains summary of patient's medical/ surgical history
- Documentation of each event, treatment and outcome
- Management of patient admission to discharge process
- Evidence of Nurse's management in a health care environment



# Evolution of Patient Charting



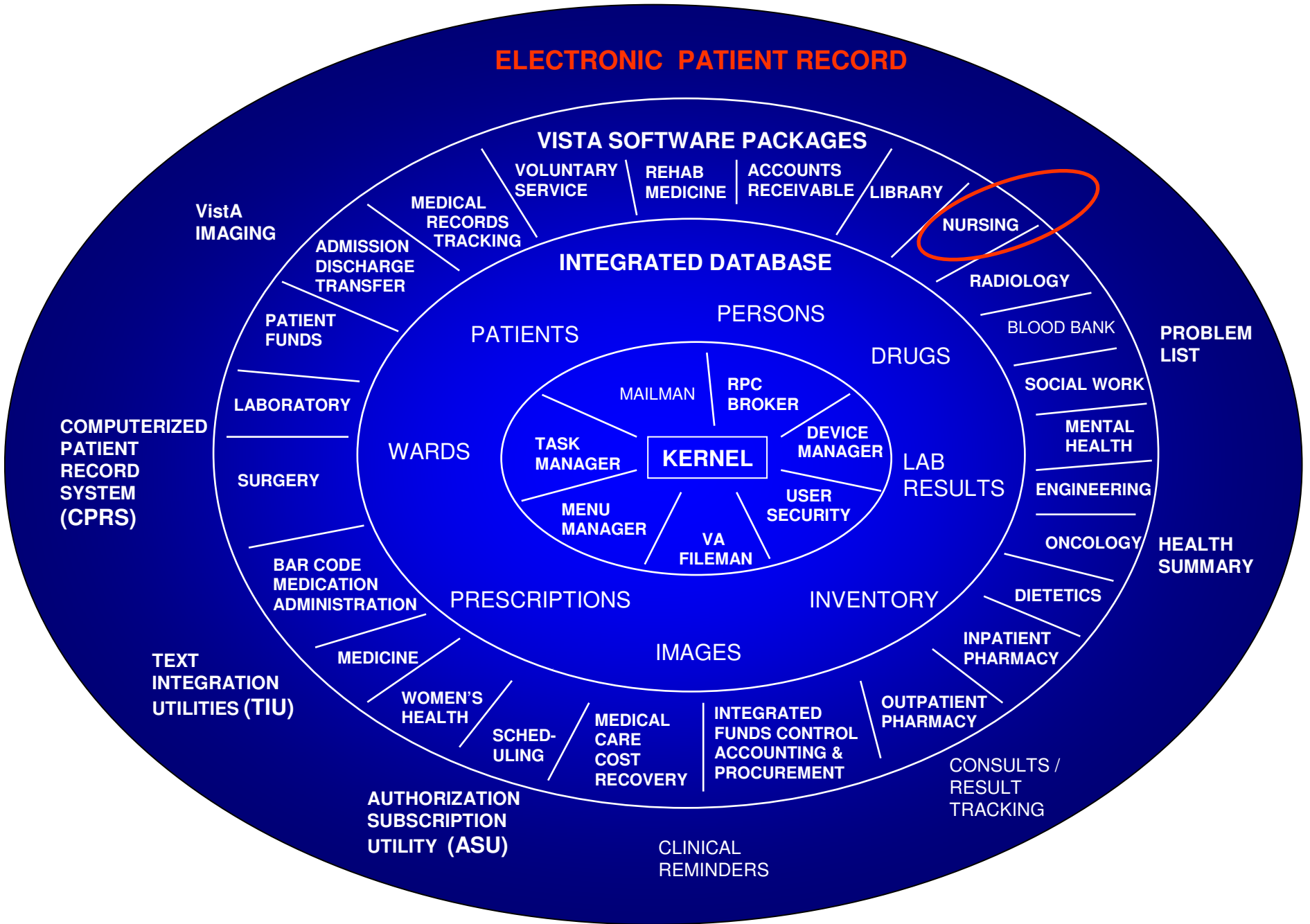
# Problems of Paper Record

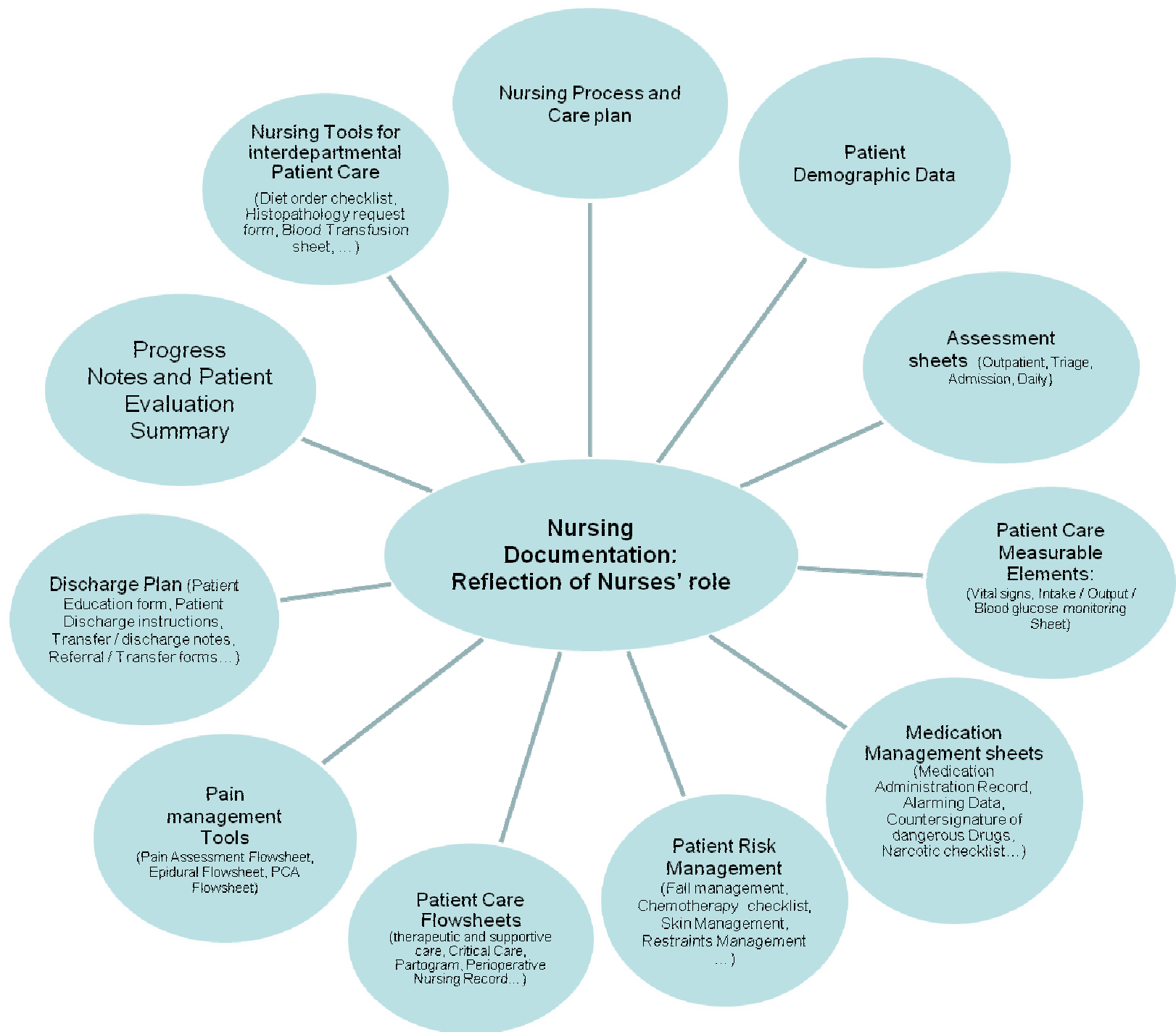
- Chart is thick
- Disorganized and illegible
- Problems in finding data
- Record fragmentation
- Archiving issues (space, environmental control)
- Handling files issues (occupational hazards)

# Why Choose IT system for documentation?

- Archival records
- Essential for medical/nursing audits
- Documentation Quality Improvement
- Cost control/ control of operating expenses
- Facilitates Research Implementation
- Integrated care delivery (multidisciplinary documentation system)
- Reduce timely transfer of test results
- Reduction in telephone inquiries
- Reduce errors in management by 86% (Leapfrog group 2002)
- Decision support
  - The computer gives you advice regarding health issues

# ELECTRONIC PATIENT RECORD





# Nursing Information System Benefits

- More time spent with patient and less time at nurse station
- Reduce paperwork / paper loss
- Automated tools of nursing documentation
- Accurate logging of nurses activities
- Uniform standards of nursing care are programmed (nursing process)
- Cost reduction (Fewer loss of charges)
- Decide if it is a local or a global system: may be used for benchmarking

# Nursing Information System Deficits

- Reliability
  - Power outages
  - Electrical storms
  - Air conditioning failures
- Resistance of change from user
- Needs 24/7 IT maintenance

# Pre- Requisites of Implementation of E\_

## Nursing documentation (according to MOH)

- A management committee would review the collection of data.
- Each department clinical/ non-clinical should decide type of data it requires
- The committee review then advise the IT of hospital's overall requirements
- The IT department will manage the software and hardware necessary to fulfill the requirements
- Develop a strategic plan of the hospital to implement the system
- Develop Policies and procedures

# Implementation of E\_ Nursing documentation

(according to MOH)

- Organize education and training for users
- Offer day to day assistance for hardware and software troubleshooting
- Grant right of access for staff to specific data bases
- Use password system to safeguard confidentiality
- Develop a maintenance system for equipment failure, contingency plans and back up of vital data
- Regular software/hardware audits should be conducted to develop corrective action.

# Key Attributes to Compliance with Accreditation Standards

- Information confidentiality and security
- Available and reliable 24/7
- Making information available to an inspector – simple
- Provides tools, including access audit trails, to guarantee patient health
- Responsive enough to integrate with the clinician workflow
- Clinicians can access system at any time/place for patient care.

# Key Attributes to Compliance with Accreditation Standards

- Accepts information from external systems and data capture devices (e.g., patient monitors, laboratory analysis equipment, and barcode scanners).
- Provides tools for unique patient identification and information integration across systems and settings.
- Permits efficient data entry of all orders and documentation by authorized clinicians. This includes prescription writing and refill management.
- Supports various means of documentation (e.g., keyboard, voice, or handwriting recognition).

# Key Attributes to Compliance with Accreditation Standards

- Facilitates access to the patient information needed, specialty specific forms, and flagging of information outside of normal limits.
- Provides access tools and displays that can be tailored to role or specialty and customized to end user preferences.
- For subsequent episodes or encounters, provides access to relevant information from the prior care.

# Key Attributes to Compliance with Accreditation Standards

- Paper medical records are no longer routinely pulled for every patient interaction.
- Supports electronic signature where permitted by law.
- Supports copying data forward as appropriate to support continuity of care, accuracy of ordering, and efficiency of clinical documentation.

# Pre-Assessment of electronic system: The CMC experience

- Introduce system to clinical management before purchasing product
- Set up priorities that are needed in the system in order to ask the right question at the company presentation
- Establish an evaluation tool of systems presented
- Compare different systems before attempting to purchase software so that it can guide and facilitate the process
- Ask system users in other hospitals. It is helpful in determining effective use of system

# Assessment of electronic system: The CMC experience

Assess system by determining :

- The comprehensive ability and flexibility of system
- Feasibility of securing patient's file to maximum  
(from department to department and from unit to unit) → staff can only see their patients in the area they work in.
- Capability to determine intrusion detection
- A clear and accurate audit trail permitting monitoring of all data transactions
- Interfaceability with most other systems
- How many steps are there to get to a document on patient's file including sign in process (the less the steps the better: improving efficiency and compliance of the health care system).

# Assessment of electronic system:

## The CMC experience

- Determine how file is archived in case a documentation page was replaced by another one, determine on how to access file again and not loose the data
- Determine how the scheduling system can be efficient to include manipulation in schedule, and how can it be tailored to staff arrangement in different areas...

# Implementation of electronic system: at the administration level

- Orientation of IT staff on features of system, and how to manipulate it
- Initiation of back up system to manage viruses: maintenance of system
- Initiation of passwords on system
- Initiation of security measures/ authority profiles
- Maintain contact with Data System Company on regular basis in the initiation phase (to guide and assist in launching process)
- Establish a clinical data and documentation committee to evaluate:
  - All documentation needed to be placed on system
  - The hard copy documentation
- Establish an inventory of how many potential computers are needed in each clinical area based on census, and determine how many computers are needed as standby to cover all maintenance processes.

# Implementation of electronic system: at the administration level

- Initiation of an integrated Nursing / Medical file
- Initiation of easy medication management module:
  - order prescription
  - transcription
  - dispensing
  - documentation
- Initiation of Alarming data (Establish a process of inserting and deleting alarming data).
- Initiation of Nursing Care plan process: drop down lists and free text as appropriate. Care plan managed from admission to discharge.
- Initiation of admission, billing, material management, and Nutrition process
- Initiation of testing \*(Lab and Radiology) ordering and management and test result posting on system
- Establish archiving system for the documentation
- Establish the time factor for accessing discharged patients file, and closure of visit (to be identified interdepartmentally)

# Implementation of electronic system: at the clinical level

- **Initiation of education plan for all staff.** Educate all staff to log off when not using system for patient confidentiality and safeguarding own password
- **Initiation of orientation plan to all new employees and establish system test page so that new employees can orientate and determine steps of using system.** System may contain tool for determining if all steps of the process is correct and that the orientee has passed the test
- **Initiation of support system on floors** (proactive maintenance and retraining: in order to see flaws in system and to familiarize staff with specific details and shortcuts)
- **Initiation of a hotline phone system to answer queries:** post hotline number on system

# Implementation of electronic system: at the clinical level

- Initiation of support e-mail Issue Tracker to manage requests such as change of cartridge, and any related computer problem. Initiate e-mail password specific to each floor so that issues are presented in sequence
- Develop contingency plan: by Initiating a down time documentation for all system related documentation including ordering and charging (project is done interdepartmentally)
- Train staff on all units on how to use down time system, perform mock down time in all units to detect flaws and to orientate all staff on process
- Establish a way to reenter data filled during downtime on system (decision shall be made of who will enter the data: usually direct care providers)

# Evaluation of electronic system:

- Identify improvement plans for enhancing system efficiency through staff evaluation and comments
- Establish a system and IT specialized staffing to add new documentation that may need to be reflected in the patient's file
- Establish a system to initiate audit requests and to tailor audits for easier manipulation and withdrawing of data. Monitor if all audits can be usable, enhance documents to include drop down lists or tick boxes so that statistics is rendered easier.

Are your medical records safe?

