A Framework
for
Linking the Care Process
to
Automation

14th Annual Summer Institute in Nursing Informatics
University of Maryland School of Nursing
Baltimore, Maryland

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Ann Farrell – Career Highlights

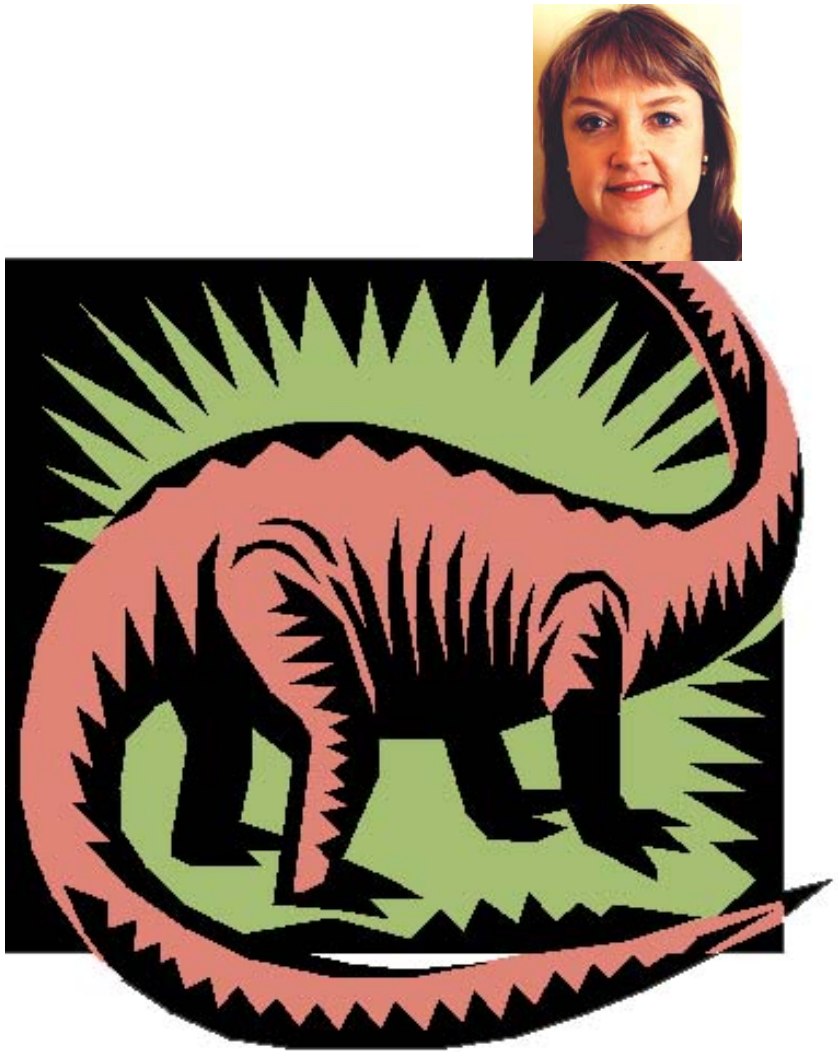
- BSN / RN – 10+yr Clinical Practice (ED & Critical Care)
  "the El Camino Hospital factor"
  CIS Pioneer / 100% CPOE in early 1970s

- Vendor Exec – 10+ yr. Product Management / R & D
  "the TDS factor" (integrated, fast , easy to use)
  World Class IT – industry "benchmark"

- 8 years Independent Consulting
  "deja vu all over again & reinventing the wheel factors"

Are we still talking about these things???
(…CPOE, MARs, complex Rx orders, etc.)

Ann Farrell – Career Snapshot



Objectives

By the end of the session, the participants will be able to:

- Identify key issues in evolution of Nursing Informatics
- Identify the key components of a patient-centric, inpatient oriented, clinical information system
- Define nursing (and allied health) components of a clinical information system including the relationship of these components to the nursing / clinical process process
- Define how nursing (and allied health) components of a clinical information system relate to physician components within clinical information systems
- Describe how nursing (and allied health) and physician components of a clinical information system fit within an electronic health record (EHR)

Topics

- Key issues for nurses in clinical information systems evolution
- Introduction to the Careflow Diagram – a conceptual framework for a Clinical Information System (CIS)
- Relationship of components of CIS to nursing process
- Practical applications of the Careflow Diagram

Nursing Informatics Evolution

- With notable exception, nursing has been largely underserved by the HC industry and HCIT vendors
  - Applications often designed by non-nurses / engineers
  - Poor understanding of requirements, workflow & ergonomics
  - Replication of the paper chart (forms)
- Nurse execs historically have not widely embraced IT as strategic business tool
- Nursing undervalued by many HCOs & EHR vendors

  Triple biases
  - RNs in a MD-centric medical world
  - (Primarily) females in male-dominated executive suites
  - Expenses in revenue-oriented & cost conscious fiscal environment

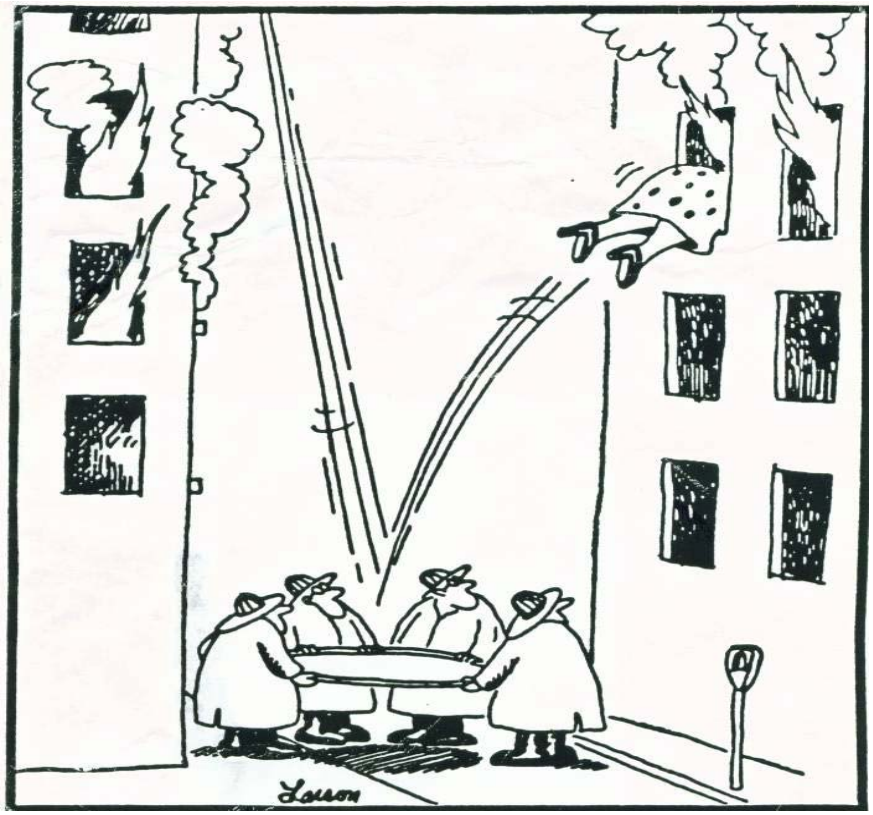
  Note: fees for services bundled with room (like housekeeping)
  Only Health Care Provider that doesn't charge for services

Nursing Informatics Evolution

- RNs in alarming numbers report that nursing systems*:
  - Are not a high priority for their organization
  - By and large, are poorly designed, disjointed & user-unfriendly
    - Nursing is an untapped & underserved resource in HCOs
    - Workflow inefficiencies not well addressed by existing solutions
    - Automation not high priority for nursing in their organizations
    - Vendors out of sync with nursing needs
    - Some new technologies complicate rather than simplify nursing practice, at times decreasing productivity and introducing an element of increased risk to patients

* Malkary, Gregg (June 2004) Healthcare without Bounds: Mobile Computing in Nursing, Spyglass Consulting Group

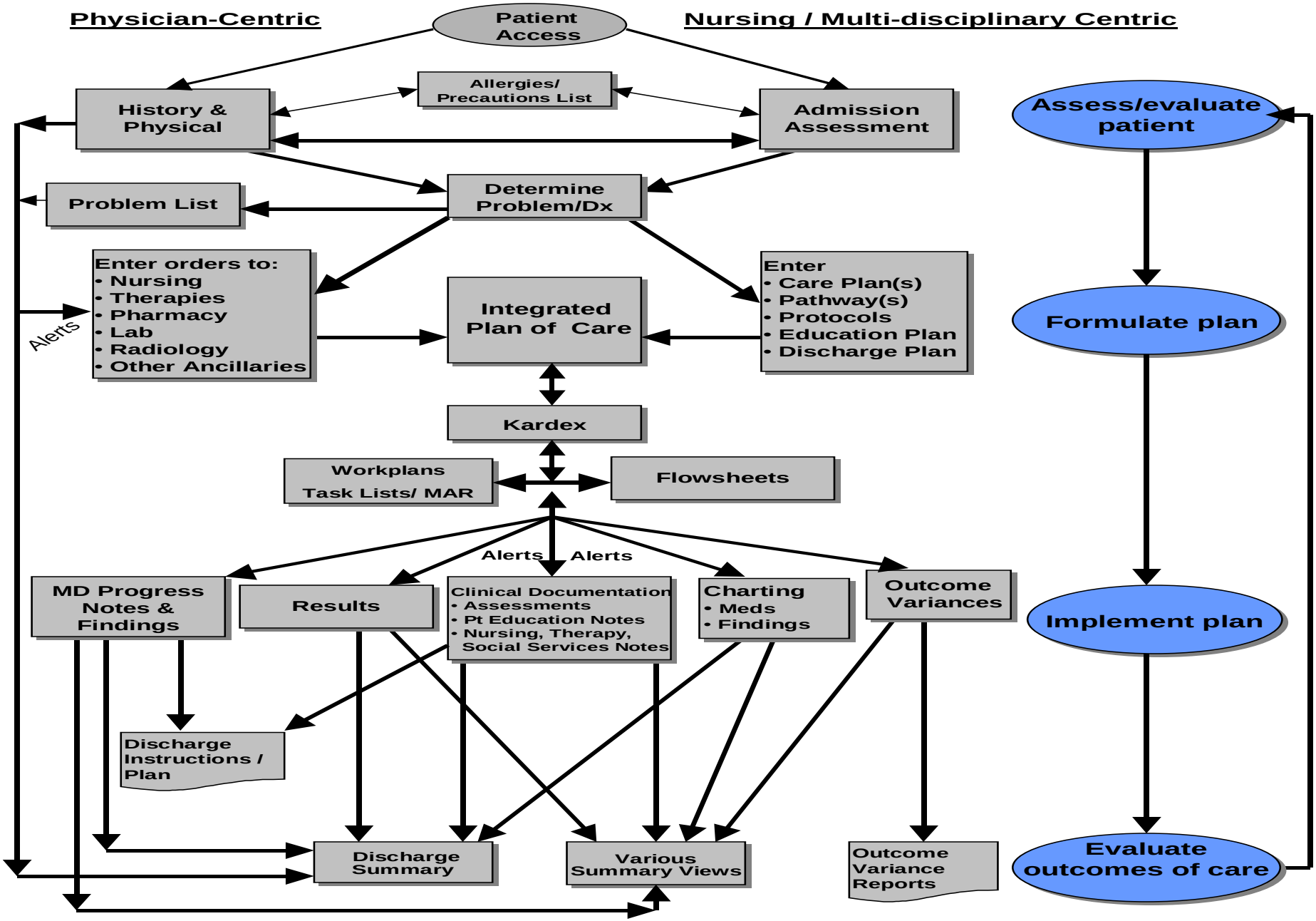
Replacement System Syndrome



What's Changing for Nursing?

- Status - nursing at "cross roads"
- Leadership - provider & vendor (baby steps)
- Care models – more collaborative, multi-disciplinary, standardized yet personalized, evidence-based
- Re-examination of professional goals, roles, processes & standards of care *in context of "reality"*
- "Next generation" systems – huge unmet opportunity
- Emerging IT framework that optimizes clinical processes & patient outcomes

Patient Care Flow - Acute Care / Team-Oriented



Uses for the Careflow Diagram

- **Education / communication tool**
  - Executives (Vendor & HCO)
  - Clinicians
  - Developers
  - Students
  - Other (financial community, investors, etc.)
- **Design model – EHR & CIS niche products**
- **Systems selection (vendor comparison tool)**
- **Competitive analysis**
- **Due diligence**
- **Implementation planning**
- **Other?**

A Framework
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THANKS

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