Alerts & Dashboards

How can the EHR help, while not driving you crazy?

Agenda

- Introduction: Data & Analytics
- Basic Data Elements Overview
- CDS Overview
- Categories of Data/Analytics Output in the EHR
- Review of Data in Action (data at every level)
- Touch-base on the super cool stuff…
  - …predictive analytics…

Introduction

- Data and Analytics
  - What do I mean?
- Uses of Data and Analytics in Healthcare
- Comparable, Sharable Data – *interoperability*
- The Value of Nursing
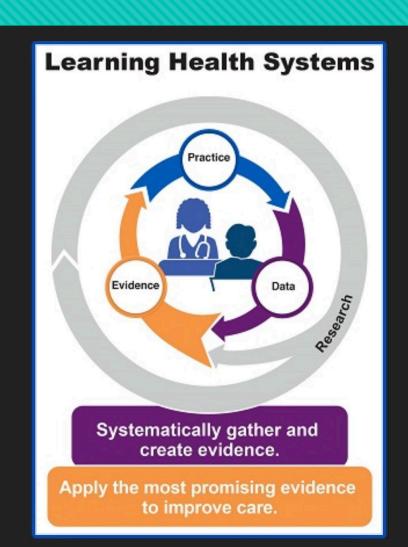
Basic (really, really, basic) Data Elements Overview

- A single point of data is the building block.
- Has a structure such as a description, a length, a certain unit, or a format for entry (e.g., numbers vs. words).
  - Easy example: systolic blood pressure (SBP).
  - Systolic blood pressure will often allow a maximum of 3 digits…if you try to enter an SBP of 1000?
  - Entry for SBP is numeric. Words wouldn't make sense!
  - Context?
    - Monitoring device (e.g., cuff, arterial line)
    - Patient position
    - Location of the cuff/monitoring line, etc.
- Data vs. Knowledge vs. Wisdom

Types of Data

- Structured
- Unstructured
- Internal
- External
- Primary Use
- Secondary Use
- ** TERMINOLOGIES....*because I just can't help myself…*

Quick Overview of CDS

- Clinical Decision Support (CDS)

- Do you have a CDS Committee? Do you participate on the CDS Committee?

- How does technology support the learning health system?

Learning Health Systems

Practice

Evidence

Data

Research

Systematically gather and create evidence.

Apply the most promising evidence to improve care.

Visualization Options

- IN YOUR FACE
  - AKA, *What everyone wants and almost no one should get.*
  - Alerts (pop-up)
  - Alerts (color changes, bold, italics, etc.)
  - Alerts (placement on the screen)
  - Mandatory hard-stop.

Visualization Options

- LESS IN-YOUR-FACE *(require accountability)*
  - Real-Time Reports (nursing overview screen, handoff)
  - Historical Reports
  - Aggregated Reports
  - Super-Pretty Dashboards
  - Summaries (overviews, handoff)

Visualization Options

- DRIVERS
  - Safety reports.
  - Regulatory requirements.
  - Research
  - Someone's grad school project.

Having Said All That…

O Questions?

How does this look in the field?

Dashboards and Reports:
An Example

Review of Stakeholders

- Bedside Staff

- Charge Nurses

- Managers

- Directors

- Executives – CNO/CNIO/Quality VP

Review of Stakeholders – Bedside Staff

- How and when do you document pain scores? Flowsheet rows on your MAR? Reminders when reassessment is due?

- CDS components.

- Patient-specific and only for your patients.

- Education & Use (who does the education?)
  - WHY? (x100)
  - Documentation burden/design/usability
  - Informatics engagement
  - Involve bedside staff in validation

Review of Stakeholders – Charge Nurses

- How is the unit doing right now?
  - Is one nurse significantly behind on assessment/reassessment of pain?
  - Are pain meds overdue?
  - Are there patients with uncontrolled pain? Trending?
  - Suggestions? [Are we utilizing alternative therapies for those patients?]
- Education & Use (who does the education?)
  - WHY? (x100)
  - Documentation burden/design/usability
  - Informatics engagement
  - Involve bedside staff in validation

Review of Stakeholders – Managers/Directors

- How is my unit doing on a daily/weekly/monthly basis for documentation and control of pain?

- Are we utilizing alternative therapies? *Are they successful?*

- Any quality or other regulatory measures we should be tracking?

- Education & Use (who does the education?)

  - WHY? (x100)

  - Documentation burden/design/usability

  - Informatics engagement

  - Involve bedside staff in validation

Review of Stakeholders – Executives

- At-A-Glance and Make It Pretty
  - Drill-down is a must.
- Education & Use (who does the education?)
  - Documentation burden/design/usability
    - A key driver for those initiatives? Better data!
  - Informatics funding
  - Tie staff engagement to organizational excellence

A Cool Set of Resources

- Health IT Playbook
  - https://www.healthit.gov/playbook/
- ONC Workforce Training
  - https://www.healthit.gov/topic/health-it-resources/health-it-curriculum-resources-educators

Questions?

References

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