Effective Clinical Decision Support Team & Nursing Informatics
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Clinical Decision Support (CDS)
“A key functionality of health IT and certified EHRs that provides health care providers and patients with general and person-specific information, intelligently filtered and organized at appropriate times, to enhance health and care” —www.cms.gov

Why do we do CDS?
• Clinical decision support provides timely information, usually at the point of care, to help inform decisions about a patient’s care.
• Clinical decision support can effectively improve patient outcomes and lead to higher-quality health care.
Reference: Agency for Healthcare Research and Quality: Advancing Excellence in Health Care

Benefits of CDS
• Patient Safety
• Lower costs
• Reduce patient inconvenience
• Promote Use of Evidence Based Practice
• Improve efficiency

Ten Commandments of CDS
• Speed is Everything
• Anticipate Needs and Deliver in Real Time
• Fit in the Users Workflow
• Little Things Can Make a Big Difference
• Recognize the Physicians will Strongly resist Stopping
• Changing Direction is Easier than Stopping
• Simple Intervention Works Best
• Ask for Additional Information Only When you Really Need It
• Monitor Impact, Get Feedback and Respond
• Manage and Maintain Your Knowledge-based Systems

5 Rights of CDS
• Deliver the Right information
• In the Right CDS intervention format
• To the Right Person
• Through the Right channel
Reference: J Health Inform Manag. 2009; 23(4): 34-45

Beware of CDS
• Poorly designed interventions can be:
  • Disturbing and disruptive.
  • Lead to frustrated providers.
  • Unintended consequences
  • Overuse of CDS causes user dissatisfaction & ignoring the CDS tools
  • Inadequate planning, resources, and communication about CDS interventions being planned leads to failure
  • Requires continuous quality improvement.
Reference: http://www.himss.org/library/clinical-decision-support/what-is

CDS Tool Kit
• Order Sets
• Health Maintenance
• Changes to Patient Header
• Navigators
• Scoring Systems
• Recommended Alternatives
  • Alerts
  • Banners
  • Medication Warnings and Alerts
  • Preference Lists
  • Required Documentation

Roles of Informatics Team
• Subject Matter Experts (SME)
  • Submit Request
  • Provide Evidence Based Practice
  • Cheerleader
• Physician Informaticist (PI)
  • Liaison between SME and Build Team
  • Create/On-Going Support CDS Standardization Naming, Format
  • Basic knowledge of EHR functionality
• Application Build Analyst
  • Review CDS tool request with PI
  • Understand functionality within the EHR to build the correct tool to meet the “ask”
  • Build out the request
  • Test and Validate build, first with team and then with PI
  • Utilize standard format & naming conventions
• Report Writers/ Analytical Analyst
  • Work with PI & Build team related to metrics
    • Baseline
    • Ongoing maintenance
    • Identify discrete data for reporting
• Clinical Informatics Role
  • Understand the “ask”
    • What is the requestor attempting to achieve?
    • Translate “ask” into the best tool within the EHR
  • Order set, banner, alert, etc.
  • Where in end users workflow and EHR most appropriate for the tool to exist
    • Opening chart, writing orders, admission/discharge, etc.
  • Appropriate testing – positive & negative
  • Collaboration with analytic analysts around metrics/data gathering
  • Evaluation if meeting intended goal
• CMIO

Skills Utilized
• Analysis
• Knowledge of Data and Data structures
• Evaluation
• Human Computer Interaction
• Design & Development
• Change Management
• Validation
• Collaboration

BPA Style Guide
Make it clear what the provider should do.
• Add data to help make decisions (lab, hyperlink, etc.)
• The display text should permit “glance triage”
  • Limit to 2-4 bold CAPITAL words.
  • “Caution”, “Warning”, etc. may be added
• Determine background color based off key informational text should be solid black bullets.
  • Each sentence should be on a different line.
  • Avoid referring to “this patient”, “the patient”.
  • Italics are generally to be avoided.
  • Hyperlinks should be in blue and at the end

Banner Style Guide
• Naming:
  • IP, AMB
  • ACH global
  • Placement:
    • Master print group
    • Navigator section
  • Display:
    • See key

Grouper Criteria
• Include in Prefix type
• Diagnosis, Medication, Department, Procedure
• Include source of data – example SNOMED, ICD-10, etc
• Name include basic information for purpose
• Description to include for meddata
• Name of the person who developed the grouper (Content Owner)
• Name of the person who validated
• Date it was validated
• Date it was approved by the Physician Informaticist committee
• Purpose of Grouper
• Determine if included in Slicer Dicer
• Revision Date/History if applicable

Build Checklist
• Meet with Analytics (Michelle) —__________
• Present to Clinical Informatics —__________
• Turn on as ghost —__________
• Review data 48-72 hrs later —__________
• Ongoing meeting with analytics —__________