Linking Patient Data to Care Outcomes Through Electronic Health Records

Saturday, May 19 • 2:45–4 pm

Note one action you'll take after attending this session: _____
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Cori Kopecky, MSN, RN, OCN
Periop Clinical Development Specialist
UT MD Anderson Cancer Center
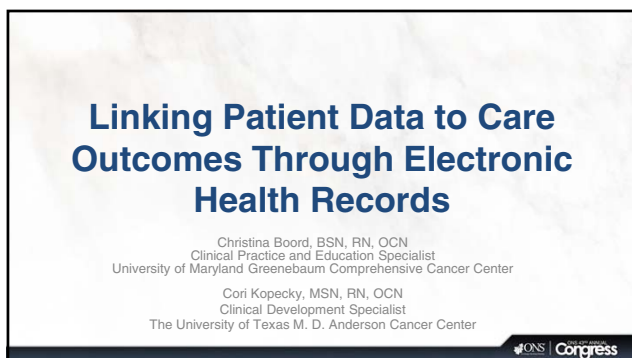casiska@mdanderson.org

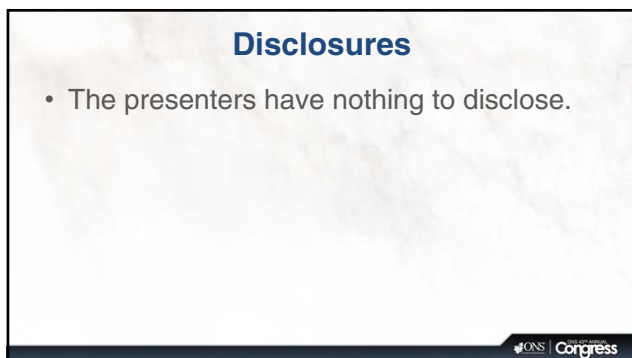**Christina Boord, BSN, RN, OCN**
Clinical Practice and Education Specialist
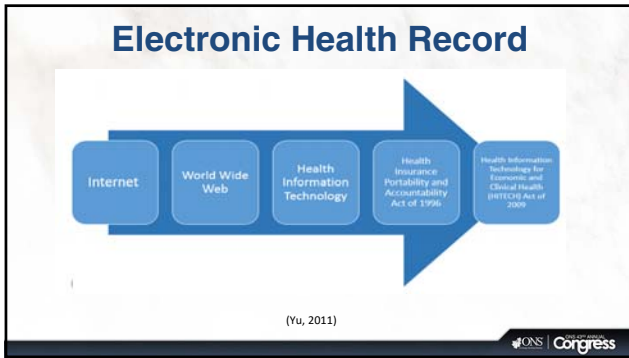University of Maryland Medical Center
cboord@umm.edu

Key Session Takeaways

1. Thorough documentation regarding patient care is needed in oncology nursing practice.
2. Appropriate documentation in the electronic health record should be assessed in regard to oncological nursing principles.
3. Assessing oncology nursing practice is multifaceted and combines a myriad of clinical tools.

ONS 43RD ANNUAL
Congress
Oncology Nursing Society

WASHINGTON
DC | MAY 17–20 2018

ONE NURSE. ONE MOMENT.
ONE ACTION.

Linking Patient Data to Care Outcomes Through Electronic Health Records

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Disclosures

- The presenters have nothing to disclose.

Electronic Health Record

Internet → World Wide Web → Health Information Technology → Health Insurance Portability and Accountability Act of 1996 → Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009

(Yu, 2011)

American Recovery & Reinvestment Act of 2009

Improve quality

Reduce Waste

(Yu, 2011)

Electronic Health Record

- Patient health records
- Pharmacy systems
- Research & registry databases
- Billing & scheduling
- Medical devices

(Yu, 2011)

Purpose of EHR

- Increases visibility of care across the continuum of patient care
- More than a digital version of a patient's paper chart
- Links providers, patients, research, and health databases

Purpose of EHR

- Allows for patients to be informed of their own healthcare
- Measures outcomes
- Evaluates the health care process
- Evaluates structure of providers, organizations, and facilities

(Friedberg & Landon, 2017)

Main Components of EHR

- **Results Reporting Information System** (RRIS)
  - Ex: Laboratory
- **Computerized Physician Order Entry System** (CPOE)
- **Clinical Decision Support System** (CDSS)
  - Best practice advisories
  - Alerts

Nursing Perspective on EHR

The Good…The Bad… & The Ugly
- Greater access to information
- Timeliness of data availability – real-time documentation
- Logistical & design issues

Oncology Standards of EHR

- Clinical Oncology Requirements (CORE) project (NCI 2009)
- Collaboration with a team
  - Oncologists, academia, informatics, government
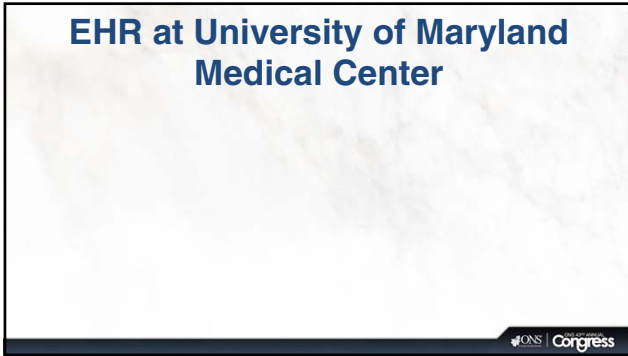 - Examined functionality and barriers to EHR

Downtime

- Planned vs Unplanned
  - Length of downtime
  - Staff preparedness
    - Providers
    - Nursing
    - Ancillary services
  - Support computers
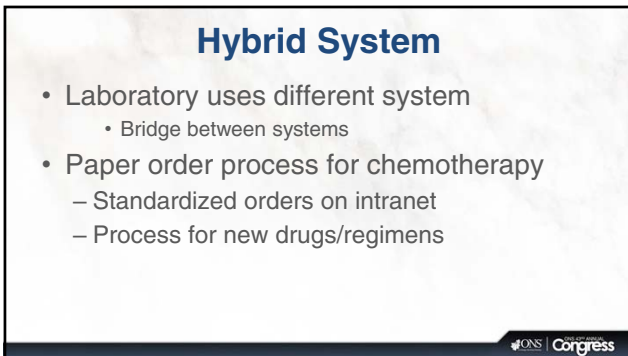
EHR at University of Maryland Medical Center

Hybrid System
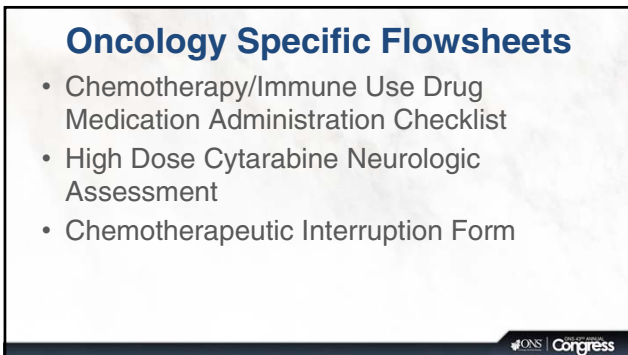
- Laboratory uses different system
  - Bridge between systems
- Paper order process for chemotherapy
  - Standardized orders on intranet
  - Process for new drugs/regimens

Oncology Specific Flowsheets

- Chemotherapy/Immune Use Drug Medication Administration Checklist
- High Dose Cytarabine Neurologic Assessment
- Chemotherapeutic Interruption Form

Chemotherapy Checklist

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HIDAC Neuro Assessment

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Chemotherapy Interruption Form

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Chemotherapy Checklist

- Gap in practice identified
  - Failure to use checklist as a checklist
- Education focus during annual simulation

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Head to Toe Assessments

- New: documentation by exception
- Large turnover of staff
- Variation in preceptors

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Documentation Standard Guide

- Quick reference guide
  - Carry-over lines, drains, incisions, and airway
  - Admission/Shift Assessments
  - Timeouts
  - Blood
  - Bedside handoff elements and documentation

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MD Anderson Cancer Center

MD Anderson Cancer Center

- Transition process to fully integrated EHR began in 2012
- Go-live March 2016
- Diverse group of stakeholders involved in planning and implementation process

MD Anderson Cancer Center

- Collaboration between providers and interdisciplinary team members
- Nursing informatics and EHR analysts
- Direct patient care representatives
- Partnership with patients/caregivers

Sustainability

- New Hires
- Graduate Nurses
- Rotating medical staff (i.e. Residents)
- Current employees

New Hires at UMMC

- Centralized Clinical Informatics Group
  – Learn functionality of system
- Unit Preceptors
- Follow Orientation Checklist

Chart Audits

- 1 chart/month
- First-hand view of unit compliance
- Encourages self-evaluation
- Supports TJC readiness

Reports

- Real time reporting
- Provide formative feedback
- Redefine and reinforce teaching methods

Reports and Compliance

- Chlorhexidine gluconate (CHG) compliance (Daily)
- Pressure Injury Surveillance (Daily)
- Pain Assessment/Reassessment (Weekly)
- Blood Administration Documentation (Weekly)

CHG Bathing: Daily Report

- Hospital wide CLABSI reduction effort
- Education with nurses and support staff
- Daily verification of compliance
- Documentation of CHG/alcohol swab use around central line

CHG Bath

Unit/Bed	CHG Bath Status
N9W / 44-A	●
N9W / 46-A	●
N9W / 47-A	●
N9W / 48-A	●
N9W / 49-A	●
N9W / 50-A	●
N9W / 53-A	●
N9W / 68-A	●
N9W / 69-A	●
N9W / 70-A	●
N9W / 71-A	●
N9W / 72-A	●

● Refused
● CHG bath/shower
● No documentation
● Bath/shower

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Pressure Injury: Daily Report

- Review daily report of patients with low score (i.e. Braden)
- Collaboration with W.O.C.N. and nurse to provide prophylactic or treatment regimen
- Provide a well-rounded approach for patient's plan of care

Pain Assessment: Weekly Report

PRN Pain reassessment:
- Compliance decreased after conversion to new EHR
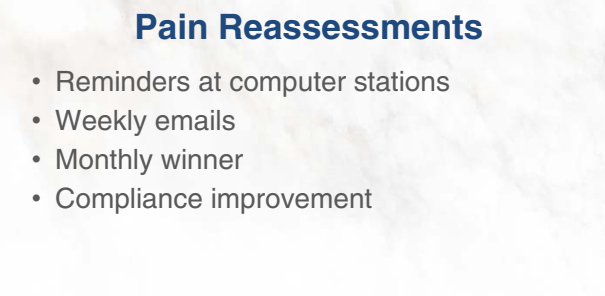- Education to mimic old system
- Development of RN Dashboard

PRN Reassessment Report

Pain Reassessments
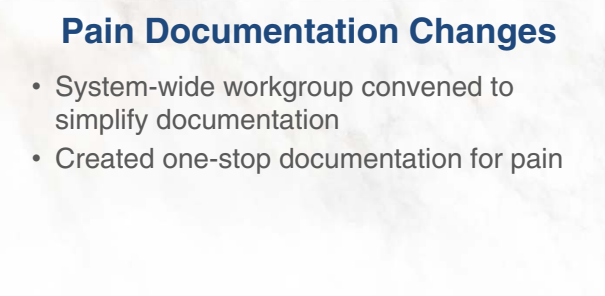
- Reminders at computer stations
- Weekly emails
- Monthly winner
- Compliance improvement

Pain Documentation Changes

- System-wide workgroup convened to simplify documentation
- Created one-stop documentation for pain

Blood Admin: **Weekly** Report

- Education regarding documentation needed for blood bank accreditation
- Review of proper workflow
- Changes to flowsheet rows for better support of workflow
- Targeted re-education for noncompliance

Blood Documentation Report

Care Plans

- Patient/Family – daily goal
- Nurse – priority goals based on admission diagnosis and assessment

Patient Education

- Modeled after Ask Me 3
- 4Q format
- Provides consistent message
- Pre-population of titles based on orders
- Over 300 education titles

Patient Education

Oncology Specific Education

- 4Q Chemotherapy/Cancer Related Anemia/Fatigue
- 4Q Chemotherapy/Cancer Related Bleeding Risks
- 4Q Chemotherapy Body Fluids
- 4Q Chemotherapy Dietary Considerations
- 4Q Chemotherapy Falls Safety
- 4Q Chemotherapy Hypersensitivity Reactions
- 4Q Chemotherapy Infection Risks
- 4Q Chemotherapy Patient Education (Medication teaching)
- 4Q Chemotherapy Process (Treatment Plan/Schedule)
- 4Q Chemotherapy Related Alopecia
- 4Q Chemotherapy Related Constipation
- 4Q Chemotherapy Related Diarrhea
- 4Q Chemotherapy Related Mucositis
- 4Q Chemotherapy Related Nausea/Vomiting
- 4Q Chemotherapy Related Neuropathy

Clinical Information Council/ Informatics Resource Nurses

- Discuss concerns
- Ask for feedback
- Preview upcoming changes, reminders, or upgrade
- Subgroup: SuperUsers

User Design Centers

- Clinical Informatics
- Representation from each hospital within the system
- Stakeholders/end users

Driving Change and Outcomes

Driving Change and Outcomes

- Improves cancer screening tools for primary prevention
- Motivates hospitals to improve their performance
- Allows access to patient data over time
  - Clinical
  - Lab
  - Imaging

Barriers to EHR

- Cost
- Reliability and accessibility
- Lack of commitment
- Unwillingness to change clinical and business processess
- Logistics

(Kulkarni, 2016)

Key Takeaways

- Thorough documentation regarding patient care is needed in oncology nursing practice.
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- Assessing oncology nursing practice is multifaceted and combines a myriad of clinical tools.

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