The 4th Annual Healthcare Simulation Conference

Regions Hospital Cancer Care Center
and
HealthPartners Clinical Simulation & Learning Center

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Simulation 2018: Collaborate, Create, Elevate

Simulation Based Learning and High Stakes Assessment to Improve Oncology Nursing Competency

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Disclosure

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  – This speaker has nothing to disclose
  – No financial interests

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Objectives

- Outline the resources needed for development and implementation of a simulation-based learning and high-stakes summative assessment program.
- Share two techniques to implement high-stakes summative assessment with the use of simulation for management of chemo administration, extravasation, hypersensitivity reactions and spills of chemotherapy.
- Analyze two post program assessment strategies to evaluate the success of the implementation of a new process for high-stakes chemotherapy administration.

Regions Hospital
St. Paul, MN

- 454 Bed Hospital
  - Plans to add 55 more
- 12 IP Oncology Beds
- Cancer Care Center
  - Located in the hospital
  - 10 open infusion bays
  - 13 private rooms
  - 1 fast track area
- As of end of August 2018
  - 195 inpatient chemotherapy admissions
  - 18,558 clinic visits
  - 14,868 infusion visits

HealthPartners Clinical Simulation

- Facility
  - Dedicated Center
  - In-situ
  - Mobile
- Multidisciplinary
  - Professionals
  - Students
- Staff
  - Simulation staff
  - Per Diem staff
  - Adjunct faculty
- Equipment
Chemotherapy Administration

- Chemotherapy administration process
  - Very specific
  - Many steps
  - Risks:
    - Toxic
    - Cost

- Complication management
  - Hypersensitivity Reaction (HSR)
  - Extravasation


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- Failure Mode Evaluation & Analysis (FMEA) program
  - Investigation of:
    - Near-miss events
  - Process & policies
    - Review
    - Revise
  - Conclusion:
    - Pharmacy practices needed to change for safe constitution of chemo
    - Oncology nurses play a critical role in chemotherapy administration
Developmental Process

• Purpose:
  – Improve nursing competence and skills in the administration of chemotherapy
• Development and Implementation:
  – Collaborative effort
• Goal:
  – All nurses who administer chemotherapy complete the same education and competency evaluation
• Evaluate utility of the program

Simulation

Why?

Challenges

• Cultural change
  – Facilitation of competencies
  – High-stakes new concept
• Leadership support
  – Concerns
    • Poor passing rate
    • Challenges with staffing
    • Rater reliability
  – Expectations for competency
    • Key critical actions to pass
    • Minimize these critical actions
    • Education
    • Opportunity to repeat
Solution: Education

- Considerations
  - Education
    - Pre-requisite education
      - E-learning
    - Competencies
  - Four Simulations
    - Chemo Spill
    - Chemo administration
    - Hypersensitivity Reaction
    - Extravasation

Solution: Consent

- Consent
  - Confidentiality
  - Purpose Statement
    - Example:
      - "You are participating in this simulation to assess your knowledge, skill, and/or performance in a clinical situation. This simulation is not intended for education and/or practice."

- Example:
  - "The simulation (live or recording) may be observed by your departmental educators/leaders, Human Resources, Clinical Simulation staff or others identified by your supervisor. Your performance during this simulation will be evaluated and may result in coaching, development of a performance improvement plan..."

High-Stakes Competency

- Valid
  - Scenario
  - Criteria
- Reliable
  - Single rater
  - Inter-rater reliability
    - Training
High-Stakes Competency

- Pass specific criteria
  - Chemo administration
  - Hypersensitivity Reaction
  - Extravasation
- Rater Reliability
  - Consistency
  - Same rater for each sim

Results

Overall, how confident are you with your skills as an oncology nurse?

Results

The oncology SIM sessions contributed value to my learning?
Results

- **Data**
  - Pharmaceutical tracking
    - HSR Medications
      - 2014: 106 medications
      - 2015: 203 medications
      - 47% increase
    - 2018 so far
      - 261 HSR
      - approx. 522-1385 medications
      - 79-92% increase

- **Rapid Response Team (RRT)**
  - 2014–5 RRTs
  - 2015–15 RRTs
  - 2018–we haven’t called RRT due to improved management

- **Documentation**
  - Creation of EMR dot phrase
    - Hypersensitivity
    - Extravasation

- **Inpatient Oncology RN reported:**
  - “Simulation has been impactful in inpatient oncology practice, and helped establish clear expectations for competency in clinical practice. Dosing calculation done separately and then compared side by side is now the common practice, and rescue medications are pulled consistently for any drug with a risk of hypersensitivity. Having an annual refresher of chemotherapy protocols creates higher clinical competency by examining and contributing to our knowledge of protocols and expectations regarding chemotherapy administration.”
References