Multi-method Critical Care Orientation Improves Critical Thinking, Skills and Confidence

Corinne Lee, DNP, RN, ACNS-BC
Marie Wolfer, RN, BSN, CCRN
Sharon Smith, PhD, RN
Jole’ Mowry, MS, RN
Susan Maycock, DNP, RN, CNS-BC
Sharron Disbro, MSN, RN
Disclosure

• None of the authors have a financial relationship to disclose that may cause a conflict of interest.

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Objectives

The learner will be able to

• Connect the key elements of the evidence-and competency-based Critical Care Orientation (CCO) to its impact on nurses’ knowledge, skills, and confidence

• Describe best practices for implementation based on lessons learned.
CCO prior to the Change

Issues needed addressing:

• Curriculum needed updating with new standards/evidence

• Methods of teaching limited to mostly didactic lectures

• Core content taught by multiple instructors with variation in content and delivery

• Difficulty finding instructors for classes each month

• No post-testing for core content

• Variability in competency evaluation at the point of care
Background

2008 Wholesale Change for CCO

• Critical Care Orientation Program goals, objectives and guiding principles
• Comprehensive content outline with learning objectives
• Adoption of the synergy model as the framework for the redesign
• Desire for an interactive learning model with more opportunities for hands on practice.
Fall 2010

- Most recommendations from whole scale change event were implemented
- Still difficulties existed, especially in maintenance of evidence–based curriculum & instructors
Program Participants

• Combined Adult and Pediatric Critical Care orientation

• Participants include New Graduate Nurses as well as experienced RNs
  – Critical care unit nurses
  – Intermediate/Moderate care unit nurses
  – Telemetry care unit nurses
  – Adult and Children’s Emergency Department nurses
    (almost 50% of participants due to the new ED ICU)
Multi-Methods for CCO 2012 July

- AACN Online modules – Adults & Peds
- Facilitated Discussions, Reviews, Case Studies
- Supplement Lecture on ECG
- C-Tools: Online resources and references
- Application
  - Skills Lab
  - Simulation
  - Coaching
## Schedule for CCO

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<td><strong>Cardiovascular</strong></td>
<td><strong>Neuro/Stroke</strong></td>
<td><strong>Multi-System</strong></td>
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<td>OM – Classroom Skills Lab/Simulation</td>
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OM: Online Module by AACN
Evaluation

• Critical care basic knowledge test:
  – Pre- and Post-CCO

• Completion of Online Module

• Competency evaluated through performance in skills lab and simulation

• Weekly participant evaluation of sessions

• Six-month Post Survey
  – Learner Confidence at the point of care

• Completion of orientation on time
Results (July, 2012 – Sept, 2015)

• Total N of RNs who attended CCO: N=\sim 500

• Knowledge test: Pre- and Post-CCO
  - Pre-test score avg 73.52 (41-99; n=256)
  - Post-test score avg 83.74 (52-100; n=201)
  - Paired t-test: 72.82 to 83.84 (p < .001; n=196)

• Completion of the Online Module (n=457)
  - Almost 80%, completed ≥90%
  - Approx. 70%, completed 100%
Results

• Weekly Evaluation of Sessions
  – AACN Online Module Beneficial
    
    |         | Week 1 |         | Week 2 |         | Week 3 |
    |---------|--------|---------|--------|---------|--------|
    |         | Adult  | Peds    | Adult  | Peds    | Adult  | Peds  |
    | Yes (%) | 92.9   | 96.6    | 97.0   | 98.7    | 98.8   | 94.4  |
    | No (%)  | 7.1    | 3.4     | 3.0    | 1.3     | 1.2    | 5.6   |
    | Total (n)| 225   | 119     | 168    | 75      | 167    | 72    |

  – Skills Lab and Simulation Beneficial
    
    |         | Week 1 |         | Week 2 |         | Week 3 |
    |---------|--------|---------|--------|---------|--------|
    |         | Adult  | Peds    | Adult  | Peds    | Adult  | Peds  |
    | Yes (%) | 95.4   | 94.7    | 96.8   | 95.7    | 100.0  | 94.9  |
    | No (%)  | 4.6    | 5.3     | 3.2    | 4.3     | 0.0    | 5.1   |
    | Total (n)| 194   | 95      | 158    | 46      | 114    | 39    |
Results

• Weekly Evaluation of Sessions: 4th week
  – Helpful in preparing for the Point of care
    • Mock Arrest Simulation:
      Adult 85.7% (n=140) Peds 83.9% (n=56)
    • Online Module: 94.6% (n=167)
  – Online Module easy navigation 95.6% (n=274)

  – References
    • Likeliness to return to the Online module in the future 86.4% (n=272)
    • Using C-Tools resource 45.2% (n=221)
Results

• 6 months Post Survey (n=47)
  - Learner Confidence in
    ▪ Developing the knowledge and skills required to provide care for moderately complex patients in the clinical setting (92%)
    ▪ Assessing the needs of their patients, interpret the findings, develop a care plan, and have the skills to deliver the planned care (100%)
    ▪ Communicating and collaborating with the team (98%)
• 97.7% completed orientation on time (n=481)
Conclusion

• The redesigned CCO is efficient and effective in preparing nurses to provide excellent care to moderately complex patients

• The multi-method, flexible approach to learning accommodates individual learning style and needs

• Nurses were given the opportunity to assess their learning needs and to evaluate competency in a simulated and clinical setting

• Nurses increased their knowledge, skills, critical thinking, and confidence through the evidence-based, multi-method orientation
Thank You!