



An Interprofessional Web-Based Approach to Critical Care Education: Development and Financial Impact

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Medicine to the Highest Power

Disclosure Statement

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Learning Objectives

- The learner will be able to identify the interprofessional process of creating a website for online education for clinical orientation and continuing education
- The learner will be able to recognize the importance of online access for evidence-based education in promoting quality and safety for critically ill patients.



Purpose

To create a web page to be used for the online clinical orientation and continuing education of nurses in three specialized critical care units in a non-profit community hospital.



Rationale for Web Page

- Identified need for evidence-based educational content for orientation of newly hired critical care nurses
- Identified need for a method of continuing education for critical care staff nurses
- Identified that the current face-to-face orientation, and purchased on-line critical care courses, were time consuming and expensive.



Rationale for Web Page

- Identified need to address the various levels of experience of critical care nurses
 - >Experienced critical care nurses
 - >Experienced non-critical care nurses
 - >Graduate nurses
- Identified need to provide an opportunity for periodic remediation of educational content for nurses currently working in Critical Care.



Process

- Formed an interdisciplinary team
- Surveyed the management team and Critical Care staff
- Constructed a prototype of proposed website
- Obtained administrative approval for purchase of a unit-specific portal:
 - > Security
 - > Off-site access



Process

Examined current hospital learning management system for:

- Compatibility with web page
- Off-site access
- Testing capabilities
- Creation of reports for Critical Care Educator and employee files



Pre-Hire Online Assessment

- Clinical Competence
- Personality and Attitude
- Interpersonal Skills
- Critical Thinking

* *Management team reviews all assessments, prior to orientation, to determine content areas that may require remediation.*



Content Modules

Interdisciplinary team members created modules that reflected their area of expertise

Module format included:

- PowerPoint, Word documents & Video narration

Module content included:

- Evidence-based policies and procedures
- Evidence-based references
- Resource links
- Photographs, illustrations, video clips



Testing Program

- On-line quiz at completion of each educational module
- Obtained Administrative Approval to purchase additional testing program to supplement current learning management system:

Rationale:

- Immediate scoring
- Generation of online report for each exam:
 - >date exam was taken
 - >length of time for quiz for completion of each module
 - >generation of record of performance for each employee



Financial Impact

- Previous online orientation educational model
 - >\$2,000 year licensing fee
 - >\$2,140.00--\$3,400.00
(60-100 hrs. per orientee)



Financial Impact

- Average number of clinical hours spent with preceptor:
 - >320-640 hours
 - >Average cost= \$16,254.00/person



Financial Impact

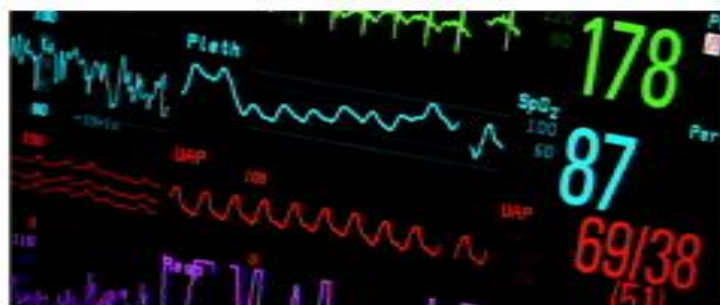
- In 2011, 15 people completed orientation:
\$32,000.00
- Orientation of only 3 graduate nurses
resulted in a cost of:
\$48,762.00



Quality and Safety

- Interprofessional collaboration
- Evidence-based content
- Orientation management
- Continuing education for staff nurses in units
- Remediation for staff nurses in units
- Monitoring of clinical competencies
- Monitoring of professional certifications
- Consistent standard of nursing education for critical care nurses





Continuing Education

- Foundations of ICU
- Neuro
- Respiratory
 - Oxygen Delivery (1), Artificial Airways (2), Respiratory Bundle: Chest Tubes, Sedation, Oral Care & Ventilator Associated Events (3), Mechanical Ventilation (4), Noninvasive Positive Pressure Ventilation (5), Arterial Blood Gases (6)
- Hemodynamics/Drugs & Drips
- Cardiovascular Surgery
- Intra-Aortic Balloon Pump
- Datascope

Intra-aortic Balloon Pump (IABP)
 Left Ventricular Assist Device (LVAD)
 Hypothermia Device
 Evidence-Based Practice(EBP)



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ABOUT US

Management
Staff

CERTIFICATIONS

External
 -CCRN
 National
 -ACLS
 -BLS
 Preceptor/Nurse Testing

SCALES & TOOLS

National Institute of Health Stroke Scale (NIHSS)

DEPT. COMPETENCIES

CICU Checklist
 MICU Checklist
 SICU Checklist

STUDENT NURSES

PRECEPTORS

Link

WEBLINKS

- American Association of Critical Care Nursing (AACN)
- American Heart Association
- American Cancer Association
- Center for Disease Control (CDC)
- Clinical Practice Guidelines
- Quality and Safety in Nursing (QSEN)
- Mid-America Transplant Services (MTS)
- Society of Critical Care Medicine (SCCM)
- Vanderbilt ICU Delirium & Cognitive Impairment Group

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