Establishing and Maintaining Core Competencies for Nurses for CRRT

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Objectives

• Define competency based orientation
• Identify assumptions with the adult learner.
• Identify learning modules for basic CRRT
  Didactic education
• Identify required skills to establish technical competency for CRRT.
• List evaluation methods.
• Discuss continuing competency assessments.
**Definition**

**Competent** is person oriented, referring to the person’s underlying characteristics and qualities that lead to an effective performance in a job.

Adequacy; possession of required skill, knowledge, qualification, or capacity: Adequate but not exceptional
• **Competence** is job related-being a description of an action, behavior or outcome that a person should demonstrate in their performance.
What is competency based orientation?

• It is an approach to teaching and learning more often used in learning concrete skills than abstract learning.

• The unit of learning is extremely fine grained.

• Rather than a course or a module every individual skill/learning outcome, known as a competency, is one single unit.
Introduction

• Competence can be determined by
  – Standards established by professional practice organizations. (ANNA, AACN)
  – Best evidence
  – Job descriptions
  – Standards of Care
  – Graduation from an accredited program
  – Licensing exams for practice entry
  – Continuing Education courses for license renewal
  – Work based programs
CRRT certification

• There is no national certification for CRRT
• All competencies are institutional based
• Common base of knowledge and skills for all programs
• Specific skills and knowledge to each institution and machine.
• NNCC Nursing Skills Competency Program- “demonstrates competency”
Continuous Renal Replacement Therapy
Nephrology Nursing Guidelines for Care
Endorsed by the American Association of Critical-Care Nurses

ANNA
American Nephrology Nurses’ Association
Acute Care Hemodialysis Orientation Manual & Assessment Tools

Editor
Helen F. Williams, MSN, RN, CNN

Produced by the ANNA Acute Care Special Interest Group
Knowles’ 5 Assumptions Of Adult Learners

Self-Concept
- As a person matures, his/her self-concept moves from one of being a dependent personality toward one of being a self-directed human being.

Adult Learner Experience
- As a person matures, he/she accumulates a growing reservoir of experience that becomes an increasing resource for learning.

Readiness to Learn
- As a person matures, his/her readiness to learn becomes increasingly to the developmental task of his/her social roles.

Orientation to Learning
- As a personal matures, his/her time perspectives changes from one of postponed application of knowledge to immediacy of application, and accordingly his/her orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.

Motivation to Learn
- As a person mature, the motivation to learn is internal.
Learning styles
Required competency elements

• For each competency there is
  – Conceptual understanding – Why

Skills performance - How

– Abilities component- actual patient performance that include professional behaviors i.e. critical thinking, ethics, patient safety.
Adult attention span
Getting Started
What does the learner need to know?

• Two parts
• 1. basic dialysis knowledge to understand process.

• 2. Skills required for competency
Nurse - knowledge

- How CRRT works
  - Principles of diffusion, ultrafiltration, convection and absorption
- Reason for treatment
  - Disease states, AKI, ICP, Hepato-renal, Cardiopulmonary
- Roles of Solutions
  - Dialysate, replacement, Convective fluid
- Dose of dialysis
- Draw ports for labs
- Most common alarms
- Role of anticoagulation
- When to reach the nephrology team
- Assessment of clotting
- When to terminate treatment
- Institutional policies
Skill set

– Determine what skill set the RN needs to perform the task.

- based on:
  • Evidence
  • Professional Standards of Practice/Care
  • Job descriptions/clinical practice
    – guidelines
  • Protocols
  • Regulations
2. Nurse - Skills

- Set up and prime machine
- Equipment operation
- Alarm troubleshooting
- How to do fluid balance calculations
- How to adjust AP/VP limits, BFR, or UFR
- How to verify dialysis fluid or replacement fluid and/or rate changes
- Regulation of anticoagulation
  How to contact Nephrology team
- How to terminate treatment
- How to deal with emergency situations
- Catheter care
- Institutional procedures.
Develop an Educational plan

• Didactic class room/Computer based
• Simulation lab
• Mentors and Proctors
• Case scenarios

• Keep in mind adult learning styles and include information to address all learning styles.
Keep it fresh

• Real life story telling
• Analogies
• Humor
• Q and A with class
• To engage them.

Your tests reveal that you are retaining fluids!
Assessment

• Competency assessment is always outcome oriented.
• The goal is to evaluate performance for the effective application of knowledge and skill in the practice setting.
• Can the nurse integrate knowledge and skills; perform the task; and recognize warning signs when caring for the patient?
Performance in Practice

• Ability to integrate the cognitive data with the skill set in a patient environment using professional behaviors such as ensuring patient safety, ethics, cultural sensitivity etc.
  – Mentorship program
  – Evaluating without bias
  – Checklists- good or bad?
Skills evaluation

• What evaluation method do you want to use?
  – Hands on return demonstration
  – Simulator
  – 1:1 Mentoring
  – Skills day
Competency Validation Methods

There is no one set method for validation of competency. The method selected must compliment the competency and enhance the use of the method.

<table>
<thead>
<tr>
<th>Method</th>
<th>Use/Intent</th>
<th>Weakness</th>
<th>Additional considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test/ Exam</td>
<td>Measure attainment of cognitive information</td>
<td>Does not measure behavior, performance, psychomotor skills</td>
<td>What is the acceptable score? Are there elements that must have 100% Score</td>
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<tr>
<td>Return Demonstration</td>
<td>Technical Skill</td>
<td>Use in real world only if it will not harm patients Do not measure interpersonal or critical thinking skills</td>
<td>Need uniform documented evaluation criteria</td>
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<tr>
<td>Daily Work</td>
<td>Capture skills done on an everyday basis</td>
<td>Ability to capture and document</td>
<td>Use other team members/departments to promote team building</td>
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<td>Case Studies</td>
<td>Critical thinking skills - can be combined with discussion</td>
<td>Difficult to measure psychomotor skills</td>
<td>2 methods creation of a story w/ question following Identify questions and have employees use their own real life situations</td>
</tr>
<tr>
<td>Exemplars</td>
<td>Critical thinking &amp; interpersonal skill</td>
<td>Unable to assess psychomotor performance</td>
<td>Written by the employee - describe, explain rationale Can be used for many job classifications Able to assess actions not taken as well</td>
</tr>
<tr>
<td>Peer Review</td>
<td>Interpersonal skills, critical thinking</td>
<td>Cannot measure all aspects of job</td>
<td>Keep short and focused “peers” see you do the job - may not be in the same job class</td>
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<td>person receiving the feedback</td>
<td>Must be safe for the person interpreting the feedback</td>
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<tr>
<td>Self assessment</td>
<td>Critical thinking skills especially beliefs and values, judgment (affective domain)</td>
<td>Purpose must be very clear</td>
<td>Allows employees to reflect on own competency</td>
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<td>Discussion group</td>
<td>Critical thinking- increase teamwork, Can help build critical thinking within the group</td>
<td>Need facilitator Goals must be clearly established Documentation should be brief and simple</td>
<td>Group ground rules are important May evaluate group outcome</td>
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<tr>
<td>Presentation- giving</td>
<td>Assesses knowledge and understanding of concepts</td>
<td>May need to assess by other methods if staff not as skilled in presenting</td>
<td>Self evaluation possible done by presenter Example: “I feel comfortable putting these concepts into my daily practice.”</td>
</tr>
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<td>Mock event</td>
<td>Assess daily work/practice- drills, mock codes, mock audits</td>
<td>Reflection on individual performance – cannot be extrapolated to the larger group</td>
<td>Debriefing is essential May be announced or unannounced May be used for real world events as well</td>
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<td>Quality Improvement</td>
<td>Can be used for technical, critical thinking &amp;interpersonal skills</td>
<td>Reflection on individual performance – cannot be extrapolated to the larger group</td>
<td>Methods- chart review Compliance with policy Appropriate use of equipment</td>
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Tracking tool
Continuing Competencies

• Organization needs to determine
  – How often to reevaluate skill competencies?
  – Which skills to focus on
  – How to determine a need for refresher course?
    • Performance improvement projects
    • Multidisciplinary CRRT committee input
  – When do standards need to be raised?
Focus

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Identifying Ongoing Needs

- Quality variance reporting
- Data collection/ Audit tool
- Antidotal information
- Walking rounds
- New policies
- New equipment
- Multidisciplinary committee input
Success

• Involve bedside nurse
• Keep your expectation of excellence
• Use your champions
• Promote a culture of safety not shame and blame
• Give a consistent message
The Role of Ca in Citrate Anticoagulation

The objective of anticoagulation is to prevent clotting in the dialyzer.

The patient needs to maintain their clotting status.

Calcium is infused into a central vein away from the Citrate infusion.

Calcium replaces the Calcium lost in the filter from the low CA dialysate bath and CA bonded to the Citrate and prevents the patient from being anti-coagulated.

The liver breaks down Citrate and releases the CA, three molecules of NA and HCO₃ (providing an excellent base buffer to the blood).