Using Simulation to Bring ECCO to Life

Melissa Pollard DNP-c, RN-BC, APRN-BC, CEN
Christine Bone MSN, RN, CCRN
Mike Nickerson DNP-c, APRN, FNP/GNP-BC, CEN
Background

- Hospital Based Critical Care Orientation Course
  - Started by the Clinical Education department
  - Held for new ICU nurses or those planning to move to ICU
  - Course has evolved over the last 12 years
  - Tradition of being all day lectures with nurse experts and physician specialists
  - Many hours of Education time devoted to design, coordination, facilitation, and evaluation
  - Only held in daytime hours, annually
4 years ago adopted the Essentials of Critical Care Orientation online program

- Created by American Association of Critical Care Nurses
- 64 contact hours of material presented in a multimedia online format
- Allows participants to progress at their own pace, work at home (paid for time), and on a schedule convenient for each learner
- Evaluations have been positive, especially from younger and off-shift nurses
Initial Format

- Participants were asked to spend 4-8 hours a week on the modules
- Every other week group meeting with an educator
  - Review of materials
  - Class discussion of information found in modules
  - Case studies to apply new knowledge
- Educators noted that as weeks progressed, participation in these meeting diminished significantly
New Format

- AACN increased the content
  - Now 69 hours of continuing education
- Course is approximately 20 weeks long
  - Each participant was asked to work on the modules 4 hours/week
- Classroom time was decreased to monthly
  - Classroom and time spent in Sim Lab
  - Participants gave input on what they wanted covered in the classroom
  - Sense of ownership appeared to improve participation

To Victory!
Class Content

- Each month’s topic corresponded to that month’s online module
- Each class had both a didactic and simulation component
- Incorporating simulation with each system allowed the participants to apply what they were learning in a realistic situation
- Success in simulating some “low volume, high risk procedures”
<table>
<thead>
<tr>
<th>ECCO Module</th>
<th>Simulation Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Care of the Critically Ill</td>
<td></td>
</tr>
<tr>
<td>Care of the Patient with Cardiovascular Disorders</td>
<td>Managing Critical Care Drips</td>
</tr>
<tr>
<td>Care of the Patient with Pulmonary Disorders</td>
<td>The “in’s and out’s” of Ventilator Management</td>
</tr>
<tr>
<td>Basic Hemodynamic Monitoring</td>
<td>Basic Training for Hemodynamic Monitoring</td>
</tr>
<tr>
<td>Care of the Patient with Neurological Disorders</td>
<td>Neuro Assessment and Stroke Management</td>
</tr>
<tr>
<td>Care of the Patient with Gastrointestinal Disorders</td>
<td>Managing the Pancreatitis Patient</td>
</tr>
<tr>
<td>Care of the Patient with Renal Disorders</td>
<td>Acute Bedside Dialysis</td>
</tr>
<tr>
<td>Care of the Patient with Endocrine Disorders</td>
<td>Managing the Diabetic Patient in the ICU</td>
</tr>
<tr>
<td>Care of the Patient with Hematological Disorders</td>
<td>Basic Laboratory Interpretation</td>
</tr>
<tr>
<td>Care of the Patient with Multisystem Disorders</td>
<td>Multisystem Organ Failure &amp; Shock</td>
</tr>
</tbody>
</table>
The Simulation Modules

- Multiple modalities used
  - Case studies
  - Role play
  - Multi-dimensional simulators

- Locations
  - Clinical Education Simulation Lab
  - In Situ (ICU)
  - Classroom

- Capstone Simulation
  - In Sim Lab
  - Three (3) escalating, critical care cases meant to challenge the learners and put into practice what they have learned throughout the course
    - Cardiogenic Shock, Respiratory Failure, MSOF
  - Both formative and summative for learner and faculty
Evaluation

- Positive evaluations
- Some still struggle with time management and the online environment
  - Need for ongoing reminders and follow up to complete modules

The case study/simulation approach I felt was good as it allowed us to apply our learned knowledge, which ultimately is what we do at the bedside. There was plenty of structure to the time allotted and I wouldn’t change much at all about our class time. I enjoyed fairly informal conversations about topics more applicable to our specific job setting/patient population, I learned a lot from this.
Christine Bone MSN, RN, CCRN
Exeter Hospital ECCO Course Coordinator
Thank-you For Allowing Us This Time!

Melissa Pollard (mpollard@ehr.org)
Chris Bone (cbone@ehr.org)
Mike Nickerson (mnichkeson@ehr.org)