Impact of Mock Code Training on the Quality of Cardiopulmonary Resuscitation in Mock Code Simulations: Fostering Nursing Staff Collaboration to Improve Care Quality
Laura Sweatt, BSN, RN
Baptist Hospitals of Southeast Texas
Roderick Hadnot

Research Problem:
Does Mock Code Training simulation in acute care hospital setting impact quality of cardiopulmonary resuscitation simulation outcomes?

Evidence:
Patient Clinical Simulation:
- Provides realistic real time situation without risks
- Increases psychomotor skills/critical thinking
- Increases communication skills

Strategy:
ACE Star Model was guiding structure for project.

Practice Change:
Mock Code Training sessions (37) were conducted collecting data on 11 specific metrics over 6 months to determine impact of repeated simulation Code events on staff performance of each metric.

Evaluation:
The data metrics collected:
1. Staff respond to room in <60 sec
2. Assess responsiveness/activate CODE <15sec
3. Open airway/ assess >5sec & <10sec
4. Provide 2 ventilations
5. Assess pulse in accurate location >5sec & <10sec
6. Utilize CPR quick release and/or use CPR board
7. 30 compressions in>18sec and <23sec
8. Crash Cart with Defibrillator /AED arrive to room <90sec?
9. Appropriately apply Defib/AED pads to patient chest?
10. Deliver 5 cycles CPR with Bag-valve-mask ventilations adequately?
11. Was CODE initiated/run effectively?
Results:
Data analysis included frequencies and percentages. Single factor ANOVA for aggregate percentage compliance to training elements contained in data collection tool was:
- p-value=0.002 suggesting results are meaningful
- overall compliance increased from 30% to 66% in six months (120% net increase)

Summary of Results by Metric:

<table>
<thead>
<tr>
<th>Metric #</th>
<th>Initial Performance Compliance Rate</th>
<th>Six Month Compliance Rate</th>
<th>Percentage of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>77%</td>
<td>100%</td>
<td>38% Improvement</td>
</tr>
<tr>
<td>2</td>
<td>38%</td>
<td>67%</td>
<td>76% Improvement</td>
</tr>
<tr>
<td>3</td>
<td>31%</td>
<td>17%</td>
<td>45% Decline</td>
</tr>
<tr>
<td>4</td>
<td>8%</td>
<td>33%</td>
<td>312% Improvement</td>
</tr>
<tr>
<td>5</td>
<td>15%</td>
<td>59%</td>
<td>233% Improvement</td>
</tr>
<tr>
<td>6</td>
<td>23%</td>
<td>100%</td>
<td>334% Improvement</td>
</tr>
<tr>
<td>7</td>
<td>15%</td>
<td>67%</td>
<td>346% Improvement</td>
</tr>
<tr>
<td>8</td>
<td>15%</td>
<td>100%</td>
<td>566% Improvement</td>
</tr>
<tr>
<td>9</td>
<td>62%</td>
<td>100%</td>
<td>61% Improvement</td>
</tr>
<tr>
<td>10</td>
<td>23%</td>
<td>50%</td>
<td>117% Improvement</td>
</tr>
<tr>
<td>11</td>
<td>8%</td>
<td>40%</td>
<td>400% Improvement</td>
</tr>
</tbody>
</table>

Recommendations:
Continue Mock Code Training to improve staff response to Code events. Repeat study implementing the 2010 AHA BLS Guidelines.

Lessons Learned:
Immediate debriefing on performance provides staff with opportunity to clarify misunderstanding of performance expectations.

Bibliography:


