Simulation Design Template

Date: May 7, 2008

Discipline: Nursing, medicine, radiology, EMT, possible consultant (specialist i.e. neurosurgeon via conference call), possible social work/pastoral care

Student Level: Advanced students

Expected Simulation Run Time: 15 – 20 min

Guided Reflection Time: 20 min.

Location: at desk/ nursing station in a small town, rural ER: discussion occurring regarding steps towards managing client with upcoming examinations, treatments, possible transfer

If using conference call item, would occur in room with that capability

Location for Reflection: conference room

<table>
<thead>
<tr>
<th>Admission Date:</th>
<th>Today’s Date:</th>
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</thead>
</table>

Brief Description of Client
Name: Larry Gender: M Age: 23 Race: Caucasian
Weight: 65 kg Height: 175 cm
Religion: not known
Major Support: traveling alone, from out of province
Phone:
Allergies: none known
Immunizations: states immunizations up to date prior to entering university last year
Attending Physician/Team: ER MD, EMT who transferred client from scene, ER nurse, radiology
Past Medical History: states no significant past medical history, always healthy, active in sports
Past History of Present Illness: Suspected spinal cord injury. Motor vehicle accident – no other visible injuries, was driver, wearing seat belt
Social History: university student in sports education program

Psychomotor Skills Required Prior to Simulation
Students should review and have awareness of proper neck and spine precautions during movement/transfer and care of suspected spinal cord injury client

Cognitive Activities Required prior to Simulation [i.e. independent reading (R), video review (V), computer simulations (CS), lecture (L)]
Re spinal cord injury: presenting signs and symptoms
Initial and ongoing assessments of physical, psychosocial, radiology parameters
Initial and ongoing treatments, timely interventions; medical, nursing, referral, transfer process

Primary Medical Diagnosis: Suspected spinal cord injury following MVA, conscious, may have had brief LOC following accident. Client removed from vehicle and transferred with neck and spine precautions.
Initial assessment at scene done and on admission to ER
Client requires preliminary x-rays prior to, possible transfer to larger centre with neurovascular unit
Surgeries/Procedures & Dates:
No past history
**Scenario TOPIC:** Management of suspected spinal cord injury in a rural area

**Context:** This scenario can be used in different locations, with different primary disciplinary focus.

It is a role playing simulation/round table discussion amongst an Interdisciplinary Planning Team where students would enter scenario with certain information and past knowledge.

- Scenario geared for higher level students;
- Radiation technologist student in Level 6
- 3rd or 4th year nursing students

**OVERALL GOAL:**
Effectively communicate, as a team, to develop an interdisciplinary care plan

**LEARNING OBJECTIVES**

**THE LEARNER WILL:**

1. Demonstrate an understanding of the roles and responsibilities of the interdisciplinary care team (present and anticipated)
2. Demonstrate group dynamics that ensures effective communication
3. Identify personal strengths and weaknesses in your communication
4. Work with other inter disciplinary team members, ensuring Radiation protection of the patient and team members

**Evaluation tool**
Team will submit an interdisciplinary care plan that ensures client safety and optimal outcomes
Fidelity (choose all that apply to this simulation)

<table>
<thead>
<tr>
<th>Setting/Environment</th>
<th>Medications and Fluids</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER</td>
<td>IV Fluids:</td>
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<tr>
<td>Med-Surg</td>
<td>Oral Meds:</td>
</tr>
<tr>
<td>OR / PACU</td>
<td>IVPB:</td>
</tr>
<tr>
<td>Women’s Center</td>
<td>IV Push:</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>IM or SC:</td>
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<tr>
<td>Home Health</td>
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<tr>
<td>Pre-Hospital</td>
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<tr>
<td>Other: @ ER nursing station</td>
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</tbody>
</table>

Simulator Manikin/s Needed: manikin with neck brace, on board. Full spinal precautions we should also include the hard collar sand bags or towel rolls and at least 5 straps for the back board.

Team to demonstrate and practice care, movement and transfer of client.

Vocal response to answer questions if determining S & S, choices re transfer etc.

Trends can be set to indicate typical response to spinal cord injury, response to MVA.

Props: Table, chairs, chart—could occur in radiology with a focus on working as a team to ensure best practice re client safety and xray procedure.

Could include a set up that reflects a teleconference to mimic likely communication with external consult or regarding transfer process

Equipment attached to manikin:
- IV tubing with primary line x 2 same arm of N/S__ fluids running at 50_ cc/hr
- Secondary IV line __ running at _cc/hr
- IV pump
- Foley catheter insitu, 100 cc output
- PCA pump running
- IVPB with ___ running at ___ cc/hr
- __02 by mask or N/P
- Monitor attached
- ID band _______
- Other; neck brace, on back board as above

Diagnostics Available
- Labs
- X-rays (Images)
- 12-Lead EKG
- Other possible use of teleconferencing with larger trauma centre

Documentation Forms
- Physician Orders:
- X-ray requisition signed by a physician with correct orders
- Admit Orders
- Flow sheet
- Neurological assessment tool
- Medication Administration Record
- Kardex
- Graphic Record
- Shift Assessment
- Triage Forms
- Code Record
- Anesthesia / PACU Record
- Standing (Protocol) Orders
- Transfer Orders
- Other: forms re out of province coverage

Recommended Mode for Simulation
(i.e. manual, programmed, etc.)

Manual
To respond to varied team input
### Equipment available in room
- Bedpan/Urinal
- Foley kit
- Straight Catheter Kit
- Incentive Spirometer
- Fluids
- IV start kit
- IV tubing
- IVPB Tubing
- IV Pump
- Feeding Pump
- Pressure Bag
- 02 delivery device (type)
- Crash cart with airway devices and emergency medications
- Defibrillator/Pacer
- Suction
- Antistatic slider board
- Portable x-ray machine
- Cassettes
- “Grid” sleeves
- Tape
- Lead protection for client and staff

### Roles / Guidelines for Roles
- Primary Nurse
- Secondary Nurse
- Clinical Instructor
- Family Member #1
- Family Member #2
- Observer/s
- Recorder
  - Physician / Advanced Practice Nurse
  - Respiratory Therapy
  - Anesthesia
  - Pharmacy
  - Lab
- Imaging
  - Social Services (possible)
  - Clergy (possible)
  - Unlicensed Assistive Personnel
  - Code Team
- Other; EMT, medical student, player of teleconference consultant

### Important Information Related to Roles
Ensure roles relevant to level of practice, education

### Student Information Needed Prior to Scenario:
- Has been oriented to simulator
- Understands guidelines /expectations for scenario
- Has accomplished all pre-simulation requirements
- All participants understand their assigned roles
- Has been given time frame expectations
- Inform Radiology that client is a trauma code

### Report Students Will Receive Before Simulation
Time: re medical history of client, their role
<table>
<thead>
<tr>
<th>Significant Lab Values</th>
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<tbody>
<tr>
<td><strong>Physician Orders:</strong> IV’s, foley catheter, monitor, O2 per mask or N/P to keep O2 sats &gt; 95% neurological assessment per routine, trauma assessment</td>
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<tr>
<td>Trauma routine- AP supine Chest, pelvis and cross table lateral cervical (and cross table lumbar spine- due to patient condition) x-rays</td>
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<tr>
<td>Determine access for teleconference for neurological consult once x-rays obtained</td>
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</table>

**References, Evidence-Based Practice Guidelines, Protocols, or Algorithms Used For This Scenario:**
(site source, author, year, and page)

Management of spinal cord injury (cite a med surgical nursing textbook)

Radiology sources re required xrays, positioning – need for xrays within department vs portable views
Portable x-rays usually done as a trauma routine on arrival of client, CXR, AP Pelvis, lateral cervical spine. In this instance a portable cross table lateral is also requested
<table>
<thead>
<tr>
<th>Timing (approximate)</th>
<th>Manikin Actions</th>
<th>Expected Interventions</th>
<th>May Use the Following Cues</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 -3</td>
<td>Questions what is happening, why do I have do wear this brace?</td>
<td>• Client’s questions will be answered, reassurance given based on evidence of best practice</td>
<td>Role member providing cue: Cue: mannequin voices questions</td>
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<tr>
<td>3 - 6</td>
<td>Resting, Team members present For discussion re required treatments or x ray or transfer One team member can be assigned responsibility of monitoring client status ; IV’s, monitor, c/o pain, neurological status</td>
<td>• Teamwork to create best options for care • Indicate understanding of each disciplines scope of practice – ie need for clear xray orders, need for members to ensure safe transfer or movement. • Client is placed on an antistatic board, which is radiolucent after spinal and rectal exam</td>
<td>Role member providing cue: Cue:</td>
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<td>6 -10</td>
<td>• Team members work together to safely transfer and position client for xray on antistatic slider board • Mannequin expresses fear and concerns while being moved. • Client complains of discomfort while on slider board</td>
<td>• Explanations given to client Integrity of spinal precautions maintained • Technologist explains to client that slider will be elevated for some views. Staff need to be alerted to clear room or wear lead protection</td>
<td>Role member providing cue: Cue: voice prompts by mannequin A team member asking question about best procedure</td>
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<td>10 -15</td>
<td>Team members work together to discuss options – may expand scenario to have teleconference consult, possible arrange transfer</td>
<td>• Collegial discussion, collaborative effort towards positive client outcomes • respect of each disciplines input, responsibilities • ability to communicate client statues via teleconference</td>
<td>Role member providing cue: each member can ask question that relates to their discipline Cue: each member can be given a written prompt at beginning of scenario to use at this point</td>
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Debriefing / Guided Reflection Questions for This Simulation
(Remember to identify important concepts or curricular threads that are specific to your program)

1. How did you feel throughout the simulation experience?
2. Describe the objectives you were able to achieve?
3. Which ones were you unable to achieve (if any)?
4. Did you have the knowledge and skills to meet objectives?
5. Were you satisfied with your ability to work through the simulation?
6. To Observer: Could the nurses/Technologist have handled any aspects of the simulation differently?
7. If you were able to do this again, how could you have handled the situation differently?
8. What did the group do well?
9. What did the team feel was the primary nursing diagnosis?
10. What were the key assessments and interventions?
11. Did the x-ray technologist perform the exam in the logical order, with attention to patient condition?
12. Did the Technologist adhere to the Radiation protection guidelines of the department and ALARA?
13. Did the Technologist use appropriate skills for imaging client?
14. Is there anything else you would like to discuss

* ask re leadership styles, communication within team, and increased awareness of multidisciplinary scope of practice

Complexity – Simple to Complex

Suggestions for Changing the Complexity of This Scenario to Adapt to Different Levels of Learners