

## Simulation Design Template

**Date:** May 7, 2008

**File Name:** Group 4

**Discipline:** Nursing, medicine, radiology, EMT, possible consultant (specialist ie 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

<p>Admission Date:      Today's Date:</p> <p><b>Brief Description of Client</b> 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 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</p> <p>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 &amp; Dates: No past history</p>	<p><b>Psychomotor Skills Required Prior to Simulation</b></p> <p>Students should review and have awareness of proper neck and spine precautions during movement/ transfer and care of suspected spinal cord injury client</p> <p><b>Cognitive Activities Required prior to Simulation</b> [i.e. independent reading (R), video review (V), computer simulations (CS), lecture (L)]</p> <p>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</p>
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**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
- 3<sup>rd</sup> or 4<sup>th</sup> 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)

<p><b>Setting/Environment</b></p> <ul style="list-style-type: none"> <li>• ER <ul style="list-style-type: none"> <li>○ Med-Surg</li> <li>○ Peds</li> <li>○ ICU</li> <li>○ OR / PACU</li> <li>○ Women's Center</li> <li>○ Behavioral Health</li> <li>○ Home Health</li> <li>○ Pre-Hospital</li> <li>○ Other : @ ER nursing station</li> </ul> </li> </ul> <p><b>Simulator Manikin/s Needed:</b> 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.</p> <p>Team to demonstrate and practice care, movement and transfer of client.</p> <p>Vocal response to answer questions if determining S &amp; S, choices re transfer etc.</p> <p>Trends can be set to indicate typical response to spinal cord injury, response to MVA.</p> <p><b>Props:</b> 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.</p> <p>Could include a set up that reflects a teleconference to mimic likely communication with external consult or regarding transfer process</p> <p><b>Equipment attached to manikin:</b></p> <ul style="list-style-type: none"> <li>• IV tubing with primary line x 2 same arm of N/S__ fluids running at 50_ cc/hr <ul style="list-style-type: none"> <li>○ Secondary IV line __ running at __cc/hr</li> </ul> </li> <li>• IV pump</li> <li>• Foley catheter insitu, 100 cc output <ul style="list-style-type: none"> <li>○ PCA pump running</li> <li>○ IVPB with ____ running at ____ cc/hr</li> </ul> </li> <li>• O2 by mask or N/P</li> <li>• Monitor attached</li> <li>• ID band _____</li> <li>• Other; neck brace, on back board as above</li> </ul>	<p><b>Medications and Fluids</b></p> <ul style="list-style-type: none"> <li>• IV Fluids: <ul style="list-style-type: none"> <li>○ Oral Meds:</li> <li>○ IVPB:</li> <li>○ IV Push:</li> <li>○ IM or SC:</li> </ul> </li> </ul> <p><b>Diagnostics Available</b></p> <ul style="list-style-type: none"> <li>• <u>Labs</u></li> <li>• <u>X-rays (Images)</u></li> <li>• <u>12-Lead EKG</u></li> <li>• Other possible use of teleconferencing with larger trauma centre</li> </ul> <hr/> <p><b>Documentation Forms</b></p> <ul style="list-style-type: none"> <li>• Physician Orders:</li> <li>• X-ray requisition signed by a physician with correct orders</li> <li>• Admit Orders</li> <li>• Flow sheet</li> <li>• Neurological assessment tool</li> <li>• Medication Administration Record</li> <li>• Kardex</li> <li>• Graphic Record</li> <li>• Shift Assessment</li> <li>• Triage Forms <ul style="list-style-type: none"> <li>○ Code Record</li> <li>○ Anesthesia / PACU Record</li> </ul> </li> <li>• Standing (Protocol) Orders</li> <li>• Transfer Orders</li> <li>• Other: forms re out of province coverage</li> </ul> <p><b>Recommended Mode for Simulation (i.e. manual, programmed, etc.)</b></p> <p><b>Manual</b></p> <p>To respond to varied team input</p>
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<p><b>Equipment available in room</b></p> <ul style="list-style-type: none"> <li>○ Bedpan/Urinal</li> <li>○ Foley kit</li> <li>○ Straight Catheter Kit</li> <li>○ Incentive Spirometer</li> <li>○ Fluids</li> <li>○ IV start kit</li> <li>○ IV tubing</li> <li>○ IVPB Tubing</li> <li>○ IV Pump</li> <li>○ Feeding Pump</li> <li>○ Pressure Bag</li> <li>● 02 delivery device (type)</li> <li>● Crash cart with airway devices and emergency medications</li> <li>○ Defibrillator/Pacer</li> <li>● Suction</li> <li>● Antistatic slider board</li> <li>● Portable x-ray machine</li> <li>● Cassettes</li> <li>● “Grid” sleeves</li> <li>● Tape</li> <li>● Lead protection for client and staff</li> </ul>	
<p><b>Roles / Guidelines for Roles</b></p> <ul style="list-style-type: none"> <li>● Primary Nurse <ul style="list-style-type: none"> <li>○ Secondary Nurse</li> <li>○ Clinical Instructor</li> <li>○ Family Member #1</li> <li>○ Family Member #2</li> </ul> </li> <li>● Observer/s</li> <li>● Recorder <ul style="list-style-type: none"> <li>○ Physician / Advanced Practice Nurse</li> <li>○ Respiratory Therapy</li> <li>○ Anesthesia</li> <li>○ Pharmacy</li> <li>○ Lab</li> </ul> </li> <li>● Imaging <ul style="list-style-type: none"> <li>○ Social Services (possible)</li> <li>○ Clergy (possible)</li> <li>○ Unlicensed Assistive Personnel</li> <li>○ Code Team</li> </ul> </li> <li>● Other; EMT, medical student, player of teleconference consultant_____</li> </ul> <p><b>Important Information Related to Roles</b></p> <p><b>Ensure roles relevant to level of practice, education</b></p>	<p><b>Student Information Needed Prior to Scenario:</b></p> <ul style="list-style-type: none"> <li>● Has been oriented to simulator</li> <li>● Understands guidelines /expectations for scenario</li> <li>● Has accomplished all pre-simulation requirements</li> <li>● All participants understand their assigned roles</li> <li>● Has been given time frame expectations</li> <li>● Inform Radiology that client is a trauma code</li> </ul> <p><b>Report Students Will Receive Before Simulation</b></p> <p>Time: re medical history of client, their role</p>

<p><b>Significant Lab Values</b></p> <p><b>Physician Orders:</b>  IV's, foley catheter, monitor, O2 per mask  or N/P to keep o2 sats&gt; 95 %  neurological assessment per routine,  trauma assessment</p> <p><b>Trauma routine- AP supine Chest, pelvis  and cross table lateral cervical (and cross  table lumbar spine- due to patient  condition) x-rays</b></p> <p><b>Determine access for teleconference for  neurological consult once xrays obtained</b></p>	
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**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**

### Scenario Progression Outline

Timing (approximate)	Manikin Actions	Expected Interventions	May Use the Following Cues
0 -3	Questions what is happening, why do I have do wear this brace?	<ul style="list-style-type: none"> <li>Client's questions will be answered, reassurance given based on evidence of best practice</li> </ul>	Role member providing cue: Cue: mannequin voices questions
3 - 6	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	<ul style="list-style-type: none"> <li>Teamwork to create best options for care</li> <li>Indicate understanding of each disciplines scope of practice – ie need for clear xray orders, need for members to ensure safe transfer or movement.</li> <li>Client is placed on a antistatic board, which is radiolucent after spinal and rectal exam</li> </ul>	Role member providing cue:  Cue:
6 -10	<ul style="list-style-type: none"> <li>Team members work together to safely transfer and position client for xray on antistatic slider board</li> <li>Mannequin expresses fear and concerns while being moved.</li> <li>Client complains of discomfort while on slider board</li> </ul>	<ul style="list-style-type: none"> <li>Explanations given to client Integrity of spinal precautions maintained</li> <li>Technologist explains to client that slider will be elevated for some views. Staff need to be alerted to clear room or wear lead protection</li> </ul>	Role member providing cue:  Cue: voice prompts by mannequin  A team member asking question about best procedure
10 -15	Team members work together to discuss options – may expand scenario to have teleconference consult, possible arrange transfer	<ul style="list-style-type: none"> <li>Collegial discussion, collaborative effort towards positive client outcomes</li> <li>respect of each disciplines input, responsibilities</li> <li>ability to communicate client statuses via teleconference</li> </ul>	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

## **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**

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