

**Enhancing Registered Nurse Job Readiness and Patient Safety Outcomes
through Clinical Simulation**

Simulation Scenario Template: Adaptation of California Simulation Alliance (CSA)

Respiratory Distress: DVT to PE

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Final Draft

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SECTION I: SCENARIO OVERVIEW

Scenario Title:	Adult Med Surg/Critical Care: Respiratory Distress: DVT to PE
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Date - original scenario	January 2014
Validation:	April 2014
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Pilot testing:	
<p><u>Estimated Scenario Time:</u> Part A & B: 15 min each <u>Debriefing time:</u> Part A 10 min + Part B 20 min</p> <p><u>Target group:</u> Fourth year BNSc nursing students</p> <p><u>Core case:</u> Acute respiratory distress secondary to PE</p> <p><u>CNO/ CPSI/CIHC Competencies:</u> CNO: Professional responsibility and accountability; knowledge-based practice: competent application of knowledge CPSI: Domain 1 #1, Domain 2 #2, Domain 3 #2, Domain 4 #3, Domain 5 #2, Domain 6 #2 & #4 CIHC: role clarification, patient-centered care, interprofessional communication</p> <p><u>Best Practice Guidelines:</u> ICS Health Care Guideline: Venous Thromboembolism Diagnosis and Treatment https://www.icsi.org/asset/sw0pgp/VTE.pdf ICS Health Care Guideline: Diagnosis and Treatment of Chest Pain and Acute Coronary Syndrome (ACS) https://www.icsi.org/asset/ydv4b3/ACS-Interactive1112b.pdf</p> <p><u>Brief Summary of Case:</u> 67 year old male patient on an orthopedic unit, post-op day 2 with a DVT in R calf. Heparin protocol was initiated. Patient has a history of a previous anterior myocardial infarction (MI) 12 months ago with placement of 2 stents. V/S have been stable over the night shift with no complaints. Patient is mildly short of breath and complaining of mild chest pain. O2 saturation (sat) is 90% on room air. Heparin has been infusing at sub-therapeutic rate. Patient is diagnosed with PE and condition worsens to respiratory failure requiring placement of advanced airway and mechanical ventilation.</p>	

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SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES		
Do What	With What	For What
Communicate	A critical change in health status	To secure the appropriate collaboration to treat the patient's condition.
Perform	Critical measures for a postoperative patient experiencing a decline in health status	To prevent further deterioration of the patient's condition until help arrives.
Identify	Threats to patient safety	To minimize the extent of injury to a postoperative patient experiencing a decline in health status.
Communicate	Using therapeutic principles	To decrease anxiety in the patient during an emergency situation.
Use	Effective documentation tools	To ensure the events of the emergency are appropriately recorded.

B. Learning Outcome Assessment / Rubric			
Competency (based on “What For”)	Demonstrated attributes align with required competency	Demonstrated attributes need some improvement to align with required competency	Demonstrated attributes need major improvement to align with required competency
Communicate a critical change in health status to secure the appropriate collaboration to treat the patient’s condition.	<ul style="list-style-type: none"> Delivered data accurately portrays the critical nature of the patient’s condition Report is effective and results in immediate buy-in Secured collaboration is appropriate for the needs of the patient 	<ul style="list-style-type: none"> Delivered data somewhat accurately portrays the critical nature of the patient’s condition Report is somewhat effective and results in some buy-in Secured collaboration is somewhat appropriate for the needs of the patient 	<ul style="list-style-type: none"> Delivered data does not accurately portray the critical nature of the patient’s condition Report is not effective and results in little-to-no buy-in Secured collaboration is inappropriate for the needs of the patient
Comments			
Perform critical measures for a postoperative patient experiencing a decline in health status to prevent further deterioration of the patient’s condition until help arrives.	<ul style="list-style-type: none"> Actions reflect a thorough understanding of the significance of the abnormal findings Implements appropriate emergency measures Accesses a variety of resources that result in effective management Demonstrates regard for the urgency of the situation 	<ul style="list-style-type: none"> Actions reflect some understanding of the significance of abnormal findings Implements some appropriate emergency measures Accesses resources that result in some effective management Demonstrates some regard for the urgency of the situation 	<ul style="list-style-type: none"> Actions reflect little to no understanding of the significance of the abnormal findings Implements inappropriate emergency measures Accesses resources that do result in effective management Demonstrates little to no regard for the urgency of the situation

Comments			
Identify threats to patient safety to minimize the extent of injury to a postoperative patient experiencing a decline in health status.	<ul style="list-style-type: none"> Effectively carries out safety checks Care demonstrates a regard for infection control practices Demonstrates accountability for minimizing harm 	<ul style="list-style-type: none"> Carries out some safety checks Care demonstrates some regard for infection control practices Demonstrates some accountability for minimizing harm 	<ul style="list-style-type: none"> Fails to carry out safety checks Care demonstrates little to no regard for infection control practices Demonstrates little to no accountability for minimizing harm
Comments			
Communicate using therapeutic principles to decrease anxiety in the patient during an emergency situation.	<ul style="list-style-type: none"> Uses a caring demeanour, resulting in compliance with care Interacts with the patient in a way that facilitates open communication Demonstrates a regard for respecting the patient and their family's right to be informed Conveys information to patient and family in a way that promotes understanding 	<ul style="list-style-type: none"> Uses a somewhat caring demeanour, resulting in some compliance with care Interacts with the patient in a way that facilitates some open communication Demonstrates some regard for respecting the patient and their family's right to be informed Conveys information to patient and family in a way that promotes some understanding 	<ul style="list-style-type: none"> Does not use a caring demeanour, resulting in little to no compliance with care Interacts with the patient in a way that does not facilitate open communication Demonstrates little to no regard for respecting the patient and their family's right to be informed Conveys information to patient and family in a way that does not promote understanding
Comments			

Use effective documentation tools to ensure the events of the emergency are appropriately recorded.	<ul style="list-style-type: none"> • Records details of event in a timely manner • Data is documented so as to accurately represent the sequence of the ensuing events • Documentation follows institutional policy 	<ul style="list-style-type: none"> • Records details of event in a somewhat timely manner • Data is documented so as to somewhat accurately represent the sequence of the ensuing events, however some clarification is needed • Documentation somewhat follows institutional policy 	<ul style="list-style-type: none"> • Does not record details of event in a timely manner • Data is not documented so as to accurately represent the sequence of the ensuing events, and requires extensive clarification • Documentation does not follow institutional policy
Comments			

C. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Care of patient with a DVT	<input type="checkbox"/> SBAR communication
<input type="checkbox"/> Pharmacology of heparin, morphine	<input type="checkbox"/> Administration of heparin, morphine
<input type="checkbox"/> Oxygen therapy	<input type="checkbox"/> Safe oxygen administration
<input type="checkbox"/> Indications for advanced airway placement	<input type="checkbox"/> Assisting with advanced airway placement
<input type="checkbox"/> Pathophysiology, risk factors & treatment of MI, PE & respiratory failure	<input type="checkbox"/> Communication with acutely ill, anxious patients
<input type="checkbox"/> Principles of teamwork and collaboration	<input type="checkbox"/> Recognizing a change in patient status

SECTION III: SCENARIO SCRIPT

A. Case summary

Part 1: 67 year old male on an orthopedic unit, post-op day 3 following right total hip replacement (RTHR). Diagnosed post-op day 2 with a deep vein thrombosis (DVT) in his R calf. Heparin protocol was initiated. Patient has a history of a previous anterior myocardial infarction (MI) 12 months ago with placement of 2 stents. V/S have been stable over the night shift with no complaints. Learners are expected to perform a baseline assessment where they should discover the patient is mildly short of breath and complaining of mild chest pain. O₂ saturation (sat) is 90% on room air. Upon successful communication from nurses, physician will order a spiral (helical) CT scan and a 12-lead ECG.

Part 2: Shift report indicates patient has remained stable following results of CT scan indicating PE. Heparin rates have been readjusted. Family member interrupts shift report to indicate that the patient is now having increased chest pain and shortness of breath. Learners are expected to assess the patient and report urgency of situation to physician. O₂ sats are 80% and falling. Patient is now gasping for breath. Condition worsens to respiratory failure requiring placement of advanced airway and mechanical ventilation.

B. Key contextual details

Part 1: Takes place at the beginning of a day shift. Heparin drip has been infusing at the wrong rate overnight i.e. sub-therapeutic which has contributed to DVT progressing to a PE. MAR indicates infusion was increased by 2 mL/hr when it was actually decreased by 2 mL/hr. Also, IV site is not patent. Site is bruised with fluid leaking.

Part 2: Takes place at change of shift from day shift to night shift. O₂ tubing is not connected to the wall outlet which has contributed to worsening oxygenation.

C. Scenario Cast

Patient/ Client	<input checked="" type="checkbox"/> High fidelity simulator	
	<input type="checkbox"/> Mid-level simulator	
	<input type="checkbox"/> Task trainer	
	<input type="checkbox"/> Hybrid (Blended simulator)	
	<input type="checkbox"/> Standardized patient	
Role	Brief Descriptor (Optional)	Confederate/Actor (C/A) or Learner (L)
Part 1 Nurse		Learner #1
Part 1 Nurse		Learner #2
Part 1 Nurse		Learner #3
Part 1 Family member		Learner #4
Part 2 Nurse		Learner #5
Part 2 Nurse		Learner #6
Part 2 Nurse		Learner #7

Part 2 Family member		Learner #8
Physician/NP and/or respiratory therapist (from Rapid Response Team)		Confederate

D. Patient/Client Profile				
Last name:	Fisher	First name:	Maxwell	
Gender: M	Age: 67	Ht: 178 cm	Wt: 111.5 kg	Code Status: Not determined
Spiritual Practice: Not determined		Ethnicity: Caucasian		Primary Language spoken: English
1. Past history				
Smoking history of 1PPD X 42 years, quit after MI 12 months ago with placement of 2 stents. Obese. Osteoarthritis of hips and knees.				
Primary Medical Diagnosis		Right total hip replacement		

2. Review of Systems	
CNS	Alert & oriented, active & symmetrical movement of all 4 extremities, comprehends & follows simple instructions, communicates clearly & appropriately, behaviour appropriate
Cardiovascular	Heart rate & rhythm regular, absence of peripheral edema, skin warm & dry, dorsalis pedis & posterior tibial pulses present but weak on R side, V/S: 37.8, 88, 18, 144/84
Pulmonary	Respirations regular & unlaboured, air entry equal to bases with no adventitious sounds, no evidence of dyspnea or orthopnea, O2 sat: 94% on room air
Renal/Hepatic	Continent of urine, voiding adequate amounts of clear amber urine
Gastrointestinal	Tolerating regular diet with no nausea or vomiting, bowel sounds audible, last bowel movement yesterday was normal, abdomen soft and non-tender, mouth and tongue moist and clean, no difficulties swallowing
Endocrine	Lab values within normal limits
Heme/Coag	PTT was 45; heparin infusion increased by 2 mL/hr
Musculoskeletal	R calf swollen, reddened & tender, R hip area tissue swollen
Integument	R hip incision open to air, staples intact, slight redness around staples
Developmental Hx	Normal
Psychiatric Hx	None reported
Social Hx	Married X 42 years, wife Marie frequently at bedside, 3 adult children live out of town

Alternative/ Complementary Medicine Hx	None
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Medication allergies:	Penicillin	Reaction:	Hives
Food/other allergies:	Shrimp	Reaction:	Swollen lips and tongue

3. Current medications	Drug	Dose	Route	Frequency
	Aspirin	81 mg	P.O.	Daily
	Metoprolol	50 mg	P.O.	BID
	Ramipril	10 mg	P.O.	Daily
	Lipitor	20 mg	P.O.	Daily
	Morphine	10 mg	P.O.	Q4h prn for pain
	Ibuprofen	600 mg	P.O.	Q4H prn for pain

4. Laboratory, Diagnostic Study Results					
Na: 136 mmol/L	K: 4.1 mmol/L	Cl: 99 mmol/L	HCO ₃ : 22 mEq/L	BUN: 4.4 mmol/L	Cr: 68 umol/L
Ca:	Mg:	Phos:	Glucose:	HgA1C:	
Hgb: 130 g/L	Hct: 52%	Plt: 250 x 10 ⁹ /L	WBC: 9 x 10 ⁹ /L	ABO Blood Type: O+	
PT 10 sec	PTT 35 sec	INR 1.25	Troponin:	BNP:	
ABG-pH:	paO ₂ :	paCO ₂ :	HCO ₃ /BE:	SaO ₂ :	
VDRL:	GBS:	Herpes:	HIV:	Cxr:	EKG

E. Baseline Simulator/Standardized Patient State

(This may vary from the baseline data provided to learners)

1. Initial physical appearance					
Gender: Male		Attire: Hospital gown			
<u>Alterations in appearance (moulage):</u> Patient is supine in low Fowler's position. R hip incision with staples is open to air (or ABD dressing, if wound with staples not available)					
X	ID band present, accurate		ID band present, inaccurate		ID band absent or not applicable
	Allergy band present, accurate		Allergy band inaccurate	X	Allergy band absent or N/A

2. Initial Vital Signs Monitor display in simulation action room:					
X	No monitor display		Monitor on, but no data displayed		Monitor on, standard display
				X	Display vital signs when learner takes them

BP: 154/92	HR: 110	RR: 24	T: 38.0	SpO ² : 90%
CVP:	PAS:	PAD:	PCWP:	CO:
AIRWAY:	ETCO ² :	FHR:		
Lungs: Sounds/mechanics	Left: clear	Right: ↓ A/E RLL		
Heart:	Sounds:		Normal	
	ECG rhythm:		Sinus tachycardia	
	Other:			
Bowel sounds:			Other: ↓ pedal pulses on R side	

3. Initial Intravenous line set up						
	Saline lock #1	Site:				IV patent (Y/N)
	IV #1	Site:	L arm	Fluid type:	Initial rate:	IV patent (Y/N)
X	Main			D5W	TKVO	No: IV site bruised & leaking fluid
X	Piggyback			Heparin 25,000 units in 500 mL D5W	26 mL/hr	
4. Initial Non-invasive monitors set up						
	NIBP			ECG First lead:		ECG Second lead:
	Pulse oximeter			Temp monitor/type	X	Other: cardiac rhythm, HR, BP, T
5. Initial Hemodynamic monitors set up						
	A-line Site:			Catheter/tubing Patency (Y/N)	CVP Site:	PAC Site:
6. Other monitors/devices						
	Foley catheter		Amount:		Appearance of urine:	
	Epidural catheter	X	Infusion pump:		Pump settings: 26 cc/hr	
	Fetal Heart rate monitor/tocometer				Internal	External
Environment, Equipment, Essential props						
Recommend standardized set ups for each commonly simulated environment						
1. Scenario setting: (example: patient room, home, ED, lobby)						
Patient room on orthopedic unit: hospital bed, monitor, bedside table, overbed table						

2. Equipment, supplies, monitors						
(In simulation action room or available in adjacent core storage rooms)						
X	Bedpan/ Urinal			Foley catheter kit	Straight cath. kit	X Incentive spirometer
X	IV Infusion pump			Feeding pump	Pressure bag	X Wall suction
	Nasogastric tube			ETT suction catheters	Oral suction catheters	Chest tube kit
X	Defibrillator	X		Code Cart	12-lead ECG	Chest tube equip

	PCA infusion pump		Epidural infusion pump		Central line Insertion Kit		Dressing & equipment
X	IV fluid Type:	D5W (500mL) N/S (500mL)	IV fluid additives: Heparin	X	IV start tray with IV catheters, tegaderm, tape, alcohol swabs		Blood product ABO Type: # of units:

3. Respiratory therapy equipment/devices

X	Nasal cannula		Face tent	X	Venti-mask	X	Non re-breather mask
X	BVM/Ambu bag		Nebulizer tx kit		Flowmeters (extra supply)		

4. Documentation and Order Forms

X	Health Care Provider orders	X	Med Admin Record		H & P	X	Lab Results
X	Progress Notes	X	Graphic record		Anesthesia/PACU record		ED Record
	Medication reconciliation		Transfer orders		Standing (protocol) orders		ICU flow sheet
X	Nurses' Notes	X	Dx test reports		Code Record		Prenatal record
X	Actual medical record binder, constructed per institutional guidelines				Other Describe: substitute local institutions' heparin therapy protocol/preprinted orders		

5. Medications (to be available in sim action room)

#	Medication	Dosage	Route		#	Medication	Dosage	Route
6	Morphine	10 mg	P.O.		10	Ibuprofen	200 mg	P.O.
1	Nitrospray	0.4mg/dose	S.L.		1	Aspirin	81 mg	P.O.
1	Heparin	10,000 unit/ml	IV		1	Ramipril	10 mg	P.O.
1	Lipitor	20 mg	P.O.			Propofol (10mg/ml)	20mg	I.V.

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES			
Initiation of Scenario : Patient is lying in hospital bed. Team #1 nurses read night shift report and review patient chart and orders. V/S have been stable over the night shift with no complaints. Nurses approach patient to begin baseline assessment.			
STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
1. Baseline Patient is supine in low Fowler's position. When asked, patient complains of mild SOB & chest pain. HR-110; RR-24 BP-154/92; T-38°C O2 sat-90% on room air Description of chest pain: "It hurts when I breath," " it's kind of sharp," " I don't want to take deep breaths" Location: mostly on the right side, no radiation Severity: 5/10 on inspiration Family member: may ask questions, show concern	Operator Display V/S on monitor after learners take pulse and respiratory rate from the mannequin. Cues: If learners do not ask patient should prompt: "I'm having some trouble breathing." Cues: If learners do not raise HOB, patient should prompt: "I can't breathe, can you put my head up?" Cues: if learners do not check IV site, patient should prompt: "why is my arm all wet?" Cues: if learners do not recognize/report sub-therapeutic PTT and/or	Learner Actions 1. Performs focused respiratory/cardiac/pain assessment including V/S 2. Delegates/divides tasks amongst team members: 3. Raises HOB to 45° 4. Applies O2 at 2L/min per nasal prongs as per oxygen therapy protocol (OTP) orders on chart 5. Recognizes & reports sub-therapeutic PTT level 6. Recognizes interstitial IV & restarts IV in opposite arm 7. Calls physician/NP/Rapid Response Team to report change in patient's condition	Debriefing Points: 1. Recognizing abnormal assessment findings: V/S, SOB, CP, PTT 2. Collecting/communicating relevant data that will assist with diagnosis and distinguish between potential MI vs. PE and/or other conditions: V/S, lung sounds, description of CP, lab values, medications 3. Teamwork and collaboration 4. Measures to promote oxygenation 5. Recognizing & reporting medical errors or unsafe conditions

<p>“should we be concerned/worried?”</p>	<p>incorrect heparin infusion rate, Physician should ask about PTT and/or prompt to check the rate:</p> <p>Triggers: Once new orders have been obtained from physician or 10 minutes have passed</p>	<p>and request that patient be seen/orders obtained. Upon successful communication, physician will order a spiral (helical) CT scan & 12-lead ECG</p>	
STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>2a.</p> <p>Patient condition remains unchanged despite O2 and change in position</p> <p>HR-118; RR-24</p> <p>BP-158/96; T-38°C</p> <p>O2 sat-90% on 2L/NP</p> <p>When asked patient reports: “it’s a little easier to breath sitting up”</p> <p>2b.</p> <p>HR-118; RR-20</p>	<p>Operator:</p> <p>Cues: if learners do not increase O2, patient should prompt: “is this oxygen working?”</p> <p>Triggers: Once learners increase O2 further, O2 sats may rise to 93%, or 5 minutes have passed, scenario pauses for debriefing</p> <p>While debriefing in progress, disconnect O2 tubing from wall flowmeter, leaving nasal prongs on patient</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Calls for spiral CT scan, and explains procedure to patient/family member 2. Performs 12-lead ECG 3. Reassesses/monitors ABCs, V/S, O2 sat/chest pain 4. Increases O2 to 4L/NP or switches to venti-mask when O2 sat does not rise 	<p>Debriefing Points:</p> <ol style="list-style-type: none"> 1. Communicating with patients and families 2. Monitoring unstable patients 3. Titrating oxygen

<p>BP-150/90; T-38°C</p> <p>O2 sat-90% on 4L/NP or venti-mask</p>			
STATE / PATIENT STATUS		DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE	
<p>3.</p> <p>Patient condition has worsened. Family member interrupts shift report to report chest pain and SOB is worse.</p> <p>Patient is gasping for breath and can barely speak.</p> <p>HR-128; RR-32</p> <p>BP-164/98; T-38.4°C</p> <p>O2 sat-80% on 4L/NP or venti-mask</p>	<p>Operator:</p> <p>Titrate V/S down from “state 3” to “state 4” over 5 minutes</p> <p>Triggers:</p> <p>Once call to physician/NP/Rapid Response Team has been completed</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Recognizes that O2 is not connected and reconnects tubing to flowmeter 2. Increases O2 and switches to non-rebreather mask 3. Repositions patient to high Fowler’s position 4. Performs lung auscultation 5. 1 nurse remains with patient and family member 6. 1 nurse calls physician/NP/Rapid Response Team to report critical change in patient’s condition and request that patient be seen immediately 	<p>Debriefing Points:</p> <ol style="list-style-type: none"> 1. Recognizing critical abnormal findings 2. Communicating urgency of patient status 3. Communicating with patients and family members during an emergency situation 4. Anticipating and preparing for patient deterioration

		7. 1 nurse brings crash cart to bedside	
STATE / PATIENT STATUS		DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE	
<p>4.</p> <p>Patient now unresponsive.</p> <p>HR-128; RR-40</p> <p>BP-164/98; T-38.4°C</p> <p>O2 sat-74% on non-rebreather</p> <p>Family member upset</p>	<p>Operator:</p> <p>Cues: physician/respiratory therapist from Rapid Response Team asks 1 nurse to assist with intubation and 1 nurse to call ahead to alert ICU of pending transfer</p> <p>Triggers:</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Reassesses/monitors ABCs, V/S, O2 sat 2. 1 nurse takes family member aside and explains procedures as they occur 3. 1 nurse assist physician with placement of advanced airway, delivers ventilations via BVM during setup of mechanical ventilation 4. 1 nurse calls report to ICU 	<p>Debriefing Points</p> <ol style="list-style-type: none"> 1. Providing assistance during emergency procedures e.g. intubation, locating equipment on the crash cart 2. Indications for advanced airway placement 3. Verifying correct placement of advanced airway
Scenario End Point:			

Once intubation & mechanical ventilation initiated, scenario ends for debriefing

Suggestions to decrease complexity: omit assisting with placement of advanced airway

Suggestions to increase complexity: include setup/troubleshooting of ventilator

APPENDIX A: HEALTH CARE PROVIDER ORDERS**Orders for State #1**

Patient Name: Fisher, Maxwell		Diagnosis: Right Total Hip Replacement
DOB:		
Age: 67 yrs		
MR#:		
†No Known Allergies		
†Allergies & Sensitivities: Penicillin (hives); shrimp (swollen tongue and lips)		
Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE
		Postoperative Elective Hip Replacement Surgery Orders
XX	XX	Clear fluids, progress to regular diet as tolerated
		Discontinue urinary catheter postoperative day 1
		Discontinue hemovac drain postoperative day 2
		Change hip dressing on postoperative day 2
		Activity: Partial weight bearing
		Consult physiotherapy
		CBC postoperative days 1, 3 & 6
		INR daily
		Oxygen Therapy Protocol Orders
		Adjust oxygen to achieve minimum target SpO2 of 92%
		If SpO2 is below target increase oxygen until target achieved
		If SpO2 is above target decrease oxygen by 1-2LPM or 10% increments until target achieved
		Repeat SpO2 at least 10 minutes after each oxygen change
		Once target achieved, repeat SpO2 q 12 hours
		Notify physician if more than 50% oxygen is required
Signature		

Orders for State #1

Patient Name: Fisher, Maxwell	Diagnosis:
DOB:	Right Total Hip Replacement
Age: 67 yrs	
MR#:	

† No Known Allergies

† Allergies & Sensitivities: Penicillin (hives); shrimp (swollen tongue and lips)

Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE				
XX	XX	Unfractionated Heparin Orders: Venous Thromboembolic Disease				
		CBC, PT/INR, PTT stat				
		CBC, PT/INR, PTT daily in AM				
		No IM injections				
		Discontinue subcutaneous unfractionated or low molecular weight heparin				
		IV 5% dextrose in water (D5W) TKVO				
		Heparin 5000 units (80 units/kg, maximum 5,000 units) IV bolus				
		Initiate heparin 25,000 units in 500 mL D5W IV infusion at 1400 units (18 units/kg/hr, maximum 1400 units/hr); initial infusion rate based on 50 units/mL is 28mL/hr				
		PTT at 6 hrs after start of heparin IV infusion				
		Adjust heparin IV infusion rate according to the following table:				
		PTT (seconds)	Bolus Dose (units)	Hold Infusion (minutes)	Rate Change	Repeat PTT
		Less than 40	5000	0	Increase by 150 units/hr (3mL/hr)	In 6 hours
		40-59	0	0	Increase by 100 units/hr (2mL/hr)	In 6 hours
		60-85	0	0	No rate change	Next AM
		86-100	0	0	Decrease by 50 units/hr (1mL/hr)	In 6 hours
		101-120	0	30	Decrease by 100 units/hr (2mL/hr)	In 6 hours
		Greater than 120	0	60	Decrease by 150 units/hr (3mL/hr)	In 6 hours
Signature						

Orders to be received in State #1 and completed in State #2

Patient Name: Fisher, Maxwell DOB: Age: 67 yrs MR#:	Diagnosis: Right Total Hip Replacement
--	---

†No Known Allergies

†Allergies & Sensitivities: Penicillin (hives); shrimp (swollen tongue and lips)

Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE
XX	XX	Spiral CT scan now
		12-lead ECG now

Signature	
Patient Name: Fisher, Maxwell	Diagnosis: Right Total Hip Replacement
DOB:	
Age: 67 yrs	
MR#:	

† No Known Allergies
† Allergies & Sensitivities: Penicillin (hives); shrimp (swollen tongue and lips)

Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE
XX	XX	

Signature	
------------------	--

APPENDIX B: Digital images of manikin and/or scenario milieu

<p>Insert digital photo here</p>	<p>Insert digital photo here</p>
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<p>Insert digital photo here</p>	<p>Insert digital photo here</p>
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APPENDIX C: DEBRIEFING GUIDE

General Debriefing Plan			
<input type="checkbox"/> Individual	X Group	<input type="checkbox"/> With Video	X Without Video
Debriefing Materials			
X Debriefing Guide	X Objectives	X Debriefing Points: See Appendix D: student requirements	X Assessment Rubric
CPSI Competencies to consider for debriefing scenarios			
<input type="checkbox"/> Culture	X Teamwork/Collaboration	X Identify safety risk	
X Communication	<input type="checkbox"/> Issues in environment	X Respond to safety risk	
Sample Questions for Debriefing			
1. How did you feel about the communication and collaboration amongst your team members? 2. What safety risks did you encounter during the scenario? How did your team manage these safety risks?			
Interprofessional Competencies to consider for debriefing scenarios			
<input type="checkbox"/> Role Clarification		<input type="checkbox"/> Interprofessional Teamwork Functioning	
X Patient/Family /Client/Community-centred care		<input type="checkbox"/> Collaborative Leadership	
X Interprofessional Communication			
Sample Questions for Debriefing			
1. How did you feel about your team's interprofessional communication and collaboration? 2. How did you feel about your team's communication with the patient and family member?			

Appendix D:
Student Requirements: Queen's Respiratory Distress

Learning Outcomes	Student Requirements
To obtain assistance to diagnose and treat patient condition	<ul style="list-style-type: none"> -communicates relevant data <ul style="list-style-type: none"> -focused respiratory/cardiac/pain assessment data -lab values -medications -uses SBAR effectively <ul style="list-style-type: none"> -situation: concerned regarding change in patient status/symptoms -background: post-op DVT, on heparin infusion -assessment: change in patient status/potential PE or MI -recommendation: patient to be seen now -communicates urgency of situation -communicates in a timely manner
To prevent further deterioration of patient until help arrives	<ul style="list-style-type: none"> -recognizes urgency of critical abnormal findings <ul style="list-style-type: none"> -recognizes increase RR & decreased O2 sat -recognizes increased anxiety & restlessness inpatient -implements appropriate emergency measures <ul style="list-style-type: none"> -monitors ABCs/V/S/pain/O2 sat/lung sounds -applies/adjusts oxygen -raises head of bed -requests/brings crash cart to bedside -verbalizes anticipated advanced airway placement -accesses appropriate resources <ul style="list-style-type: none"> -calls physician/NP/RACE team -performs actions in a timely manner
To prevent adverse events	<ul style="list-style-type: none"> -employs universal/routine infection control practices <ul style="list-style-type: none"> -hand hygiene -recognizes medical errors/near misses/unsafe practices/conditions <ul style="list-style-type: none"> -recognizes sub-therapeutic PTT levels -identifies heparin infusing at incorrect rate -identifies O2 tubing not connected to O2 supply & reconnects -reports medical errors/near misses/unsafe practices/conditions -reports medication error
To decrease anxiety in the patient	<ul style="list-style-type: none"> -stays with patient in emergency situation -uses calm approach with patient and family members -uses short sentences/lay terms with patient and family members -uses eye contact/touch to reassure patient
To record events accurately, completely, and in a timely manner	<ul style="list-style-type: none"> -always uses appropriate terminology and documentation tools -always records events accurately, completely and in a timely manner

Appendix E:**Script for Family Member**

You are the wife (Marie) of Mr. Maxwell Fisher. You have been married for 42 years and have 3 adult children who live out of town.

Or

You are the oldest son of Marie and Maxwell (the patient) Fisher. You live out of town but have arrived to give your mother a break from the bedside.

Your husband/father has been a smoker for over 40 years, but quit after he had a heart attack and heart surgery a year ago. He is now in hospital following a right total hip replacement complicated by the development of a deep vein thrombosis (DVT) in his right calf.

Part 1

Your husband/father is complaining of mild shortness of breath and chest pain.

While nurses are assessing your husband/father you may ask the nurses questions such as: "What's happening?" "Should we be concerned?" "Is he having another heart attack?"

Show concern without being overwhelming to the nurses.

Part 2

Your husband/father is now gasping for breath and can barely speak.

You should interrupt the nurses who are giving/taking report and tell them that you are concerned that your husband/father's condition is getting worse. Ask them: "What are you going to do?"

When the team begins to intubate your husband/father you should be very upset. If one of the nurses takes you aside and explains things to you, you should settle down. If not, continue to be upset and ask "What's going on?" and "What are you doing?"