

**Note to user:** As guidelines and protocols are evolving rapidly in the CoVid-19 pandemic, the user is encouraged to add agency specific orders, laboratory & diagnostic test results along with chest x-rays and EKG's to this scenario.

### SECTION I: SCENARIO OVERVIEW

Scenario Title:	CoVid-19, pneumonia	
Original Scenario Developer(s):	Marjorie Miller, MA, RN, CHSE; Deborah Bennett, PhD, RN, CHSE Anne Lucero, MSN, RN	
Date - original scenario – 3/26/20	Validation: Cynthia Shum, DNP, RN, CHSE	Pilot testing:
Estimated Scenario Time : 15 minutes		
Debriefing time: 30 min		
Target group: Staff physicians, providers, nurses & respiratory therapists		
Purpose: Teamwork and Collaboration: assess & increase team preparedness for safely caring for a CoVid patient in acute care.		
Core case: 50 year old healthy male w/ acute respiratory symptoms (fever, high travel risk, + CoVid screen)		
Brief Summary of Case: 50 year old healthy male admitted to acute care isolation on previous night following + CoVid-19 screening for fever, respiratory symptoms & increased travel risk. Patient will demonstrate signs & symptoms of respiratory deterioration during scenario. Interprofessional team expected to recognize & respond to acute deterioration, and manage patient following scope of practice, hospital, WHO guidelines. Scenario ends with hand-off report after patient receives high flow O <sub>2</sub> .		
QSEN Competencies & TeamSTEPPS Competencies (highlight)		
<ul style="list-style-type: none"> <li><input type="checkbox"/> Patient Centered Care</li> <li><input type="checkbox"/> Patient Safety</li> <li><input type="checkbox"/> Teamwork and Collaboration</li> <li><input type="checkbox"/> Evidence Based Practice</li> <li><input type="checkbox"/> Informatics</li> <li><input type="checkbox"/> Quality Improvement</li> </ul>		

EVIDENCE BASE / REFERENCES (APA Format)
AHA. Science News.
WHO protocols for PPE <a href="https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/health-workers">https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/health-workers'</a>
CDC Guidelines for PPE <a href="https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html">https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html</a>
Rapid Response Team Guidelines

## SECTION II: CURRICULUM INTEGRATION

### A. SCENARIO LEARNING OBJECTIVES

1. Elements of a focused respiratory assessment for patient positive for CoVid-19
2. Management of CoVid-19 patient to minimize risk of transmission to self and others
3. Principles of team communication utilizing Team STEPPS guidelines

#### Critical Learner Actions

1. Perform a focused assessment for a patient with CoVid-19
2. Mitigate personal risk by appropriate donning/doffing of PPE
3. Recognize and respond to deteriorating respiratory status; set priorities based on assessment
4. Communicate with interprofessional team using standard communication SBAR tool

### B. PRE-SCENARIO LEARNER ACTIVITIES

#### Prerequisite Competencies

Knowledge	Skills/ Attitudes
1. Focused assessment	1. Donning/Doffing PPE in CoVid-19 patient
2. Interprofessional team role allocation	2. Communication with deteriorating patient
3. SBAR communication tool	3. Mobilization of Rapid Response teams
4. Respiratory Isolation for CoVid-19	4. Assuring correct donning/doffing of team
5. Pathophysiology of respiratory failure	5. SBAR communication with RR team

## SECTION III: SCENARIO SCRIPT

### A. Case summary

See page 1 – patient deterioration and participant response

### B. Key contextual details

Setting: Acute Care; Respiratory Isolation; CoVid-19 Unit if available

### C. Scenario Cast

Patient	<input type="checkbox"/> High fidelity simulator	<input type="checkbox"/> Mid-level simulator	<input type="checkbox"/> Standardized Patient
	<input type="checkbox"/> Task trainer	<input type="checkbox"/> Hybrid (Blended simulator)	
Participants/Role	Brief Descriptor (Optional)	Imbedded Participant (IP) or Learner (L)	
Patient		Imbedded Participant	
Primary Nurse	does assessment communicates SBAR to provider	Learner	
Provider	Receives SBAR from nurse	Learner	
Respiratory Therapist	Performs respiratory care in role	Learner	

D. Patient/Client Profile					
Last name: Brown	First name: Thomas	Gender: M	Age: 50	Ht: 6'	Wt: 180
Spiritual Practice: unknown	Ethnicity: Caucasian	Language: English		Code Status: Full	
1. History, chief complaint, assessment data					
Patient began feeling fatigued & unwell following return 7 days ago from a business trip to China but thought it was due to "jet lag". Reported to Clinic after a 2 day history of fever, dry, non-productive cough and difficulty breathing that was "getting worse" as days passed. CoVid-19 screening results positive. Patient is normally fit, jogger and has never smoked.					
2. Assessment Data: Temp 101 ° F., 38.3°C. BP 145/78, HR 88, regular rhythm, R 22, O <sub>2</sub> sats 92%					
Respiratory: short of breath, coughing, states "can't catch my breath".					
Breath sounds: bilateral expiratory crackles, diminished in bases					
Cardiovascular: no pedal edema, no calf tenderness					
Medication allergies:	None	Reaction:			
Food/other allergies:	None	Reaction:			
Primary Medical Diagnosis	CoVid-19, pneumonia				

3. current meds	Drug	Dose	Route	Frequency
	multivitamin	1	PO	daily

4. Laboratory, Diagnostic Study Results (List significant labs,& diagnostic test results)
Chest x-ray: bilateral pneumonia
Blood gases: pending when ordered during scenario (pH 7.28, pCO <sub>2</sub> 32, pO <sub>2</sub> )
Electrolytes: Na 142, K 4.2, Glucose 150, Lactic Acid 4.8, Creat 1.0
Hematology: Hb 17, Hct 52%, Platelets 300, WBC 3900

As guidelines and protocols are evolving daily in the CoVid-19 pandemic, the simulation user is encouraged to include agency specific laboratory and diagnostic test chart forms to this scenario

Sim Set-up card		
Patient Information	Set-Up / Moulage	Medications/Equipment/Supplies
<p>Scenario: CoVid-19, pneumonia → respiratory failure</p> <p>Identifying Information (for identaband) Name: Thomas Brown DOB: 3/26/70 MR #: 123456</p> <p>Physician: Julia Cosgrove, MD</p> <p>Allergies: None noted</p> <p>Code status: Full</p>	<p>Patient sitting with HOB ↑ 45 ° Dressed in patient gown</p> <p>Brown grey wig, mustache, glasses Pale skin, diaphoretic O2 @ 5L/min via nasal cannula</p> <p>IV in left lower arm 1000 mL normal saline running at TKO rate</p> <p>Chart or electronic chart with updated chart forms, lab &amp; diagnostic reports</p>	<p>IV pump capable of programming ICU medications, tubings</p> <p>Extra IV solutions (based on agency protocols)</p> <p>Non-rebreather oxygen equipment High flow nasal cannula equipment</p> <p>Physician telephone orders when called</p> <p>Table set up and trash receptacle outside isolation room with extra PPE for team members of emergency team.</p> <p>Code cart.</p>

Case Flow / Triggers/ Scenario Development States			
<b>Initiation of Scenario:</b> Begins with hand off report to oncoming shift			
<p><b>S.</b> Thomas Brown is a 50 year old man admitted last night from ED to an isolation room for a positive corona virus exposure screen – fever, respiratory symptoms and high risk travel in last 2 weeks.</p> <p><b>B.</b> He returned from China 7 days ago and felt unwell and fatigued, but thought it was just “jet lag”. 2 days ago, he developed a sore throat, cough and fever and presented to the Emergency Department as he felt worse as days went by. He is normally fit and well, is a non-smoker and only takes a multivitamin daily.</p> <p><b>A.</b> Since his arrival, his vital signs have remained stable HR 88 bpm, BP 145/78, Sats 92% on 5L/NC, temp 101°F.; 38.3 C.° Breath sounds diminished with bilateral wheezes and slight crackles on the left. Coughing frequently with no sputum produced. His last dose of acetaminophen (650 mg) was 30 minutes ago for elevated temp. He slept intermittently during the night, awakened by coughing. His appetite is poor, but fluid intake is 1200 mL/shift. He has an IV of NS running KVO in left forearm. You have 750 mL credit</p> <p><b>R.</b> Thanks for taking over his care, he’s just due another set of vital signs now.</p>			
State / Patient Status	Desired learner actions & triggers to move to next state		
Baseline	Operator	Learner Actions	Debriefing Points:
<p>Lying in bed with HOB ↑45° coughing, rapid breathing and c/o shortness of breath with O<sub>2</sub> per NC @ 5L/min</p> <p>Interrupted speech “I just returned ...from a business ....trip in China. I thought ...I had a case ...of ‘jet lag’, ...but I started to feel terrible ...a couple of days... ago. ...Now I can’t ...seem to catch ...my breath”.</p>	<p>EKG: 140 sinus tachy BP: 100/60 T. 100.6° F., 38.1°C. RR: 24 sl. Labored O<sub>2</sub>sats: 92% →90% trend Breath sounds: wheezes</p> <p>Triggers</p> <p>Rapid Response team activated</p>	<ol style="list-style-type: none"> <li>1. Accurately don PPE</li> <li>2. Perform focused assessment, including vital signs</li> <li>3. Apply O<sub>2</sub> via non-rebreather mask</li> <li>4. Call for Rapid Response</li> <li>5. Call for respiratory therapy assistance</li> <li>6. Deliver SBAR while RT &amp; RRT team donning PPE.</li> </ol>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Donning &amp; doffing PPE</li> <li><input type="checkbox"/> Recognition of deteriorating status; concerning changes in status since handoff report</li> <li><input type="checkbox"/> Criteria for Rapid Response team activation</li> <li><input type="checkbox"/> Role of RT</li> <li><input type="checkbox"/> Communication with RT &amp; RRT while they are donning PPE outside room</li> </ul>

State / Patient Status	Desired actions & triggers to move to next state				
Frame 2	Operator	Learner Actions:	Debriefing Points:		
Patient extremely anxious Giving one word answers to questions	EKG: 145 sinus tachy BP: 96/58 T. no change RR: 28 Labored O <sub>2</sub> sats: 87% →90% on non-rebreather mask Breath sounds: wheezes	1. Rapid Response team arrives 2. Primary nurse confirms SBAR 3. Rapid Response take lead role 4. RR assigns roles to team; Minimizes # of staff in room 5. RT – Changes O <sub>2</sub> to high flow nasal cannula. (HFNC) 6. Primary nurse reassesses patient vital signs, breath sounds 7. Rapid response calls for x-ray, EKG, labs 8. ↑ IV rate to 150 mL	<input type="checkbox"/> Practice SBAR to Rapid Response team <input type="checkbox"/> Progressive signs of deteriorating status <input type="checkbox"/> Communication with patient to keep informed and allay anxiety <input type="checkbox"/> Rationale for allocating roles & decreasing # of people in room <input type="checkbox"/> Rationale for increasing IV rate <input type="checkbox"/> Rationale for changing O <sub>2</sub> to HFNC		
	Triggers:				
	Team arrives O <sub>2</sub> per HFNC Continued deterioration				

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
Frame 3	Operator:	Learner Actions:	Debriefing Points:
Patient increasingly agitated  Slightly disoriented & confused	EKG: 145 sinus tachy BP: 90/50 T. 100.6 F. RR: 32 Labored O <sub>2</sub> sats: 87-89% on HFNC Breath sounds: wheezes	1. Reassure patient while working quickly 2. Reassess clinical assessment 3. Communicate with team about decision for rapid sequence intubation 4. Discussion about location of RSI procedure 5. Call for transfer to ICU 6. Prep for RSI (drugs, equipment, personnel) 7. OR Prep for transfer to ICU	<input type="checkbox"/> Practice reassuring patient while escalating treatment <input type="checkbox"/> Focus of continued reassessment <input type="checkbox"/> Factors involved in decision to perform RSI in room or wait until transfer to ICU
	Triggers:		
	Decision to perform RSI in acute care room or transfer to ICU		
Scenario End Point: Preparation for RSI in patient room or ready for transfer to ICU			
Suggestions to decrease complexity: start with screening in ED, then transfer to acute care ward			
Suggestions to increase complexity: follow with RSI procedure, then transfer to ICU; follow case in ICU			
Notes for future sessions: suggest making this the core case for 3-4 unfolding scenarios, starting with patient in Clinic for screening, follow up in ED and transfer to acute care unit, deterioration, transfer to ICU and then follow to ICU for critical care (ARDS), etc.			

