### Scenario-Facilitator copy

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<th>Early Recognition of Respiratory Distress involving Sepsis</th>
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### Goal

The goal of this simulated experience is to develop and apply critical thinking, problem-solving, and current evidence to the care of a patient experiencing respiratory distress and septic episode.

### Overall Simulation Activity Behavioral Objectives

1. Identifies emergency patient situation and responds appropriately including assessment, intervention and reporting
2. Identifies signs and symptoms of declining state
3. Identifies the appropriate sequence of events for care of the patient with declining status, including escalation of level of care.

### Prerequisite Knowledge

Learners should possess the following competencies prior to participation in this scenario:

- Knowledge of the etiologies/risk factors for respiratory distress
- Application of the nursing process to the patient experiencing signs and symptoms of respiratory distress
- Knowledge of UMHS resources for escalating care (e.g., Rapid Response Team)
- Current CAC, BLS

### Pre-Assessment

- Demographics
- Self-assessment (via Qualtrics)
- Rate confidence level in recognizing signs and symptoms of a deteriorating patient

### Pre-Brief

- Orientation to Simulator, roles and scenario
- Reflection on experiences with a deteriorating patient, and fears/concerns

### Definition(s)

**Respiratory Distress:** Lung condition that leads to low oxygen levels in the blood, characterized by diminished ability to exchange Oxygen and/or Carbon Dioxide. **Septicemia:** Sepsis is a serious medical condition caused by an overwhelming immune response to infection. Chemicals released into the blood to fight infection trigger widespread inflammation.

### Patient Story

Mr. Canbree is a 65-year-old male, who was admitted 2 days ago for Pneumonia. He was residing at a skilled nursing facility, after being discharged from the hospital 1 week ago. He was being treated for an open wound on his lower leg and has a PICC line in his left antecubital vein. The patient has a past medical history of Congestive Heart Failure, hypoventilation syndrome requiring Bi-pap every night, Type II diabetes, Deep Vein Thrombosis. During report the off-going nurse relays that Mr. Canbree wore his Bi-pap for approx. 2 hours overnight and his oxygen requirements slowly increased from 3-6 l/min.

- Sputum results still pending
CXR was wet
Team increased Lasix dose
He is lying flat
Holding his O2 tubing and waving it around and asks you to “get this snake out of his bed”
His temp 38.9 C with diaphoresis.
He weighs 225 lb and is 5’10” tall.
Vital signs at 0800 were T: 38.9 C, HR: 108, RR: 34, BP: 100/82, Pulse Ox: 89% on room air as he had taken off his oxygen cannula

**Simulation Sequence**

**Q: What are your next steps?**

- Repeat vital signs

**Focused assessment - includes facilitator answers to findings**

- Level of consciousness: Delirium vs. Confusion, CAM- (confusion assessment method) use delirium assessment cards (Patient is unable to respond appropriately to questions)
- Respiratory-lung sounds, effort- struggling to breathe, sl. cyanotic, coarse breath sounds
- Pain/wound lower leg - yes- 7/10
- IV access-PICC line from outside hospital

- Intervention? - expected responses
  - Increase O2 support
  - Raise the head of the bed
  - Reposition to minimize work of breathing
  - Check glucose level-why?

**Repeat Vital Signs:**

- T: 38.9 C
- HR: 126
- RR: 40
- BP: 90/50
- SpO2: 82% on 2 liters nasal cannula

**Chest Tightness & Lower leg pain**

- Worsens on inspiration
- Lower leg tender
- Assess wound-(wound appears open, inflamed with purulent drainage)

**Q: What additional signs and symptoms would be important for the nurse to know?**

- Bilateral Leg Edema? A: YES,+2
- Productive Cough? A: Yes. Clear, mucoid sputum
- Chest pain? A: None
- Abdominal pain? A: No
- Dyspnea on Exertion? A: Yes.
- Pain to lower extremities? A: Yes
**Q: Based on the above information, what would you do next and why?**

- Call for another nurse. (Activate staff assist)
- Call for arrest cart and apply cardiac monitor.
- Patient meets criteria - call Rapid Response Team (RRT). *(Describe criteria for calling RRT)*
- Page primary provider and attending. *(Required when activating RRT)*
- Obtain vital signs every 5-10 minutes.
- Titrate oxygen to 4 liters/min, per order, to achieve SpO2 goal >90%. *(Discuss CO2 retention and oxygen titration)*
- Assign recorder to document vital signs and interventions in medical record.
- **SBAR format for incoming support staff, MD’s, RRT**
- RRT Nurse obtains ABGs while patient was on 4L NC.
  - ABG results: PH-7.24 PCO2-49 PO2- 65 HCO3-22

**Q: What is your interpretation of these findings?**

What would be the next intervention if Pulse Ox remains too low.100% NRB- discuss methods for initiating this?

**Q: What are you suspecting is the cause of this patient’s respiratory distress?**

- Pain, hypoxia, impending sepsis
- Pending Septic episode, fluid third spacing
- Pulmonary Edema? possible
- Pneumothorax? no
- Fever
- Infection

**Q: What does this patient have going on that are you suspecting could be the source of infection?**

- Pneumonia
- Leg wound
- Pre-existing PICC line from outside facility

**Q: What interventions are you anticipating being ordered?**

- Chest x-ray *(Discuss need for portable chest x-ray as opposed to patient leaving the unit)*
- Labs (CBCP, Basic, Mag, Phos, PT, PTT, Troponins, CKMB, ABG, blood and urine cultures)
  - Wound cultures?
- EKG
- Breathing treatments
- Fluid resuscitation
- Assess for source of infection
- Treatment for fever

**Repeat Vital Signs:**

- HR: 120
- RR: 44
- BP: 86/45
- SpO2: 87% on 4 liters nasal cannula

**Focused Exam Findings:**
- Lungs: remain coarse, wheezes throughout and diminished bases
- Heart: regular and fast, normal S1 S2
- Extremities: cool, slightly diaphoretic
- Neuro: confused, agitated and anxious

**Diagnostic Findings:**
- Chest X-ray: Marked upper lobe congestion
- CBCP: Significant for WBC 18K
- Basic: K 3.5
- Cardiac enzymes negative *(Discuss need for serial troponins)*
- EKG: Sinus Tachycardia (Normal)

**Q: What additional monitoring should the nurse anticipate and why?**
- Continue to monitor, fluid resuscitation, identify cause for infection
- Protect patient from harm-confusion
- Support family concerns related to marked change in condition

**Repeat Vital Signs:**
- HR: 120
- RR: 30
- BP: 90/50
- SpO2: 90% on 100% Non-rebreather-
- Bi-pap 60% initiated with improvement of respiratory status

**Focused Exam Findings:**
- Lungs: congestion noted throughout
- Heart: regular
- Extremities: cool
- Neuro: lethargic, slow to respond

**Scenario progression to treatment intervention:**
- Respiratory support
- Fluid resuscitation
- Possible vasopressor or inotropic support
- Fever control
- Pain control
- Possible sedation for pending wound treatment
- Appropriate antibiotic coverage for wound/pneumonia

Story progression: Patient is supported for three days, with improvement in status of pneumonia and wound infection, stable VS, stable neurological status and wound progression to healing. As you prepare to transition this patient home, think of the University of Michigan Health System model of care.

**Q: What type of assessment and patient teaching should be done in each domain of self-care efficacy?**
| Medications (any issues with meds – taking, side effects, etc; understanding of meds) |
| Symptom management (how to manage symptoms at home; when to seek help) |
| Nutrition (understanding and adherence to diet that meets requirements r/t disease process, e.g. low sodium or diabetic diet) |
| Activity (level of functioning from independent to total assist; impact of activity on illness, skin integrity) |
| Use of family and support systems (assess support systems and ways to overcome barriers) |
| Use of health system (information and resources available to the patient/family e.g., nutritionist consultation; how to use the health system, e.g., when to call or go to ER) |

**Debrief**

Guided reflection:
- How do you think the simulation went?
- What challenges did you face?
- What would you do differently next time?
- What are some of the barriers to effective treatment for this patient?
- What are some of the other possible causes of respiratory distress in this patient?
- Discuss feelings related to working as a member of a team in the care of this patient

**Evaluations**

Self-Assessment (pre and post):
If this situation occurred, rate your overall confidence level in your ability to (on a scale of 1-5, with 1 being very uncomfortable to 5 being very comfortable):
- Recognize deterioration
- Respond appropriately to non-life threatening deterioration
- Anticipate precipitating factors and potentially prevent deterioration
- Choose appropriate interventions based on rational

Post-simulation Program Evaluation - assessment of the process utilized in strengthening knowledge when caring for a patient with a deteriorating status (via Qualtrics)