Braden
Percival

Suspected Corona Virus Patient Case Study

TRIAGE					
Date: Today Time: Now					
Patient Name: Ms. Grace Yi			Age: 35	Gender: F	Weight: 60kg
Presenting complaint: Shortness of breath, cough, fever					
Temp: 39.2	HR: 140	BP: 100/60	RR: 22	O_2Sat: 90%	FiO_2: RA
Cap glucose: 130			GCS: 15		
Triage note: 35-year-old woman became febrile last night with coryza and woke up acutely short of breath with productive cough, rhinorrhea, and a subjective fever.					
Allergies: None					
Past Medical History: None			Current Medications: Ibuprofen 600mg q 6 hours PRN Acetaminophen 500 mg q 4 hours PRN		

Task Alert:
Review a COVID-19 screening tool: https://www.chop.edu/clinical-pathway/2019-novel-coronavirus-emergency-clinical-pathway

What questions would be important to ask this patient?

Have you come into contact with anyone who has a confirmed diagnosis of COVID-19 in the last 14 days?

Are you experiencing any signs of a respiratory illness such as a cough, congestion, or excess mucous production? (Last 14 days).

How long have you been experiencing a fever of more than 100° F?

Have you recently traveled out of the country, or been in large crowds within the last 14 days?

Extra Patient Information

A. Further History
She has traveled from China a week ago because she was visiting family. She also has seasonal allergies.

B. Physical Exam	
List any pertinent positive and negative findings	
Cardio: Tachycardia	Neuro: WNL
Resp: Crepitus and expiratory wheezes bilaterally, productive cough	Head & Neck: Coryza
Abdo: WNL	MSK/skin: Flushed
Other: She feels very weak and tired	

She screens positive for potential coronavirus exposure due to fever, respiratory symptoms and a high-risk travel history.

What signs and symptoms are most concerning?

Tachycardia, Crepitus and expiratory wheezes bilaterally w/ Productive cough, Coryza, flushed skin, and feeling weak.

Explain the significance of these signs and symptoms.

The heart is working harder due to her infection, especially for her Coryza. Her remaining symptoms correlate to the S/S of the COVID-19 Virus.

What type of isolation precautions should this patient have?

Contact, droplet, and Standard Precautions.

Emergency Room: Part 2 Time: 2 hours later

You notice the following rhythm:

What rhythm is this patient experiencing?

Sinus Tachycardia

Before you go into assess the patient describe what PPE you will use:

Full PPE, gown, gloves, Sheild, mask, (N95)

Now you are in the patient's room and notice the following changes:

Patient is experiencing worsening shortness of breath with RR: 28 (22) and O_2SAT: 84% (90%). You work with the healthcare team to complete the following orders:

Apply O_2 by NRB mask
Portable chest Xray, BMP, CBC, ECG

Task Alert:

1) Review the chest x-ray results here: https://emsimcases.com/2020/02/18/suspected-covid-19/

Results indicate bilateral pneumonia.

2) Create a set of lab values based on what you might expect to see:
   CBC: WBCs, RBCs, H/H, etc.
   BMP: Na, K+, Ca+, etc.
   Other Labs?
   Sputum test? Call RT, ABG

WBC: ↑ Na: 135 meq ↓
RBC: ↑ K: 3.5 ↓
H/H: ↓ (Clotting) Ca: 2.2 ↓

3) How would you know if the non-rebreather mask is working?

Seeing an increase in SaO2 levels after using NRB Mask

Emergency Room: Part 3 Time: 15 minutes later

O_2Sat increases to 90% with supplemental O_2
Swabs for flu and coronavirus are sent

The patient will transfer to ICU. Write Report in SBAR frame you would give to the ICU RN.

S (Situation): Grace Yi, 35 Female, Presenting dyspnea, cough, and a fever on admission

B (Background): Grace became febrile last night with coryza among her presenting symptoms.

A (Assessment): PT has been noted to be experiencing sinus tach, crepitus + wheezes bilaterally, weak and tired, with worsening vitals relating to respiratory system.

R (Recommendations):

1st Set Vitals

TemP: 39.2°C
HR: 140
BP: 100/60
RR: 22
O2: 90% RA
glucose: 130

→

Changes in Vitals

↓

RR: 28
O2: 84%

→

Notes/Orders

Apply O_2 NRB Mask
Chest X-ray
BMP, LBC, ECG

After apply NRB SaO2 increase and went back to 90%.
PT needs closer supervision sending to ICU.

ICU Room: Part 4 Time: 1 hour later

You complete an assessment

Vitals:	**Focused Assessment:**	What actions should you take next? Make a check list below
T: 38.6 BP: 88/50 Pulse: 130 RR: 30 O_2SAT: 86% NRB	Patient becoming more hypoxic, agitated. Pale, cool clammy skin	• Give anti-inflammatory meds for fever/inflammation • Administer supplemented oxygen • Provide calm and quiet environment • Monitor Vitals • Assess O2 levels

Task Alert:
Complete the QSOFA Score found here https://www.mdcalc.com/qsofa-quick-sofa-score-sepsis

What are your findings?
High risk, Assess for organ dysfunction, blood testing including serum lactate.

You call a code sepsis. What actions do you expect next?
Initiate rapid response broad-spectrum antibiotics, blood cultures, and fluid resuscitation.

While the team is providing care for the patient, the patient's sister comes into the room upset and wanting to know what happened. Describe how you would handle the situation.
Approach the daughter with empathy and clarity. Therapeutic communication is key, for example;

"I'm here for your needs and your Mothers', your mom's condition is critical and the medical care team are working to help her. We are doing everything we can, and will keep you updated on your mothers status."

ICU Room: Part 5 Time: 15 minutes later

You must complete the following actions. What order will you complete these interventions. Place them in order of priority highest to lowest.

Interventions:	Prioritized Interventions
• Start Levophed drip	1
• Administer a Normal saline fluid bolus	2
• Assist with intubation	3
• Call the laboratory to draw blood cultures	4

Task Alert:
Calculate the rate (ml.hr) for the Levophed drip. The order is to give 4mcg/min. The pharmacist prepares a bag of Levophed with 4 mg/250 ml.

$$\frac{4\text{mcg}}{1\text{min}} \cdot \frac{60\text{min}}{1\text{hr}} \cdot \frac{1\text{mg}}{1000\text{mcg}} \cdot \frac{250\text{mL}}{4\text{mg}} = \frac{60{,}000}{4{,}000} = 15\text{mL/hr}$$

ICU Room: Part 6 Time: 2 hours later

You complete an assessment

Vitals: T: 37.4 BP: 110/70 Pulse: 90 RR: 14 O_2SAT: 92% (Vented 100% FiO2)	**Focused Assessment:** Patient is sedated, course lung sound present throughout, secretions thick with yellowish hue	ABG's noted below. • pH- 7.34 – acidic • CO2- 35 – normal • HCO3-18 acidic • pO2- 200

What's the significance of the assessment?

Metabolic Acidosis Uncompensated

Any recommendations for treatments not currently being given?

- Increase Fluid intake to thin secretions and nourish body
- HOB 30°

Follow up considerations:

1) Identify potential exposed persons, nature of exposure and discuss necessary actions

2) What are next steps for individuals who may have been inadvertently exposed?

3) Discuss potential risk factors involved with the care of this patient

4) Discuss legal ethical considerations that you might consider in caring for this patient

1.) The family she visited in China would all be exposed and should be notified about a recent exposure to get tested.

The care team would also be alerted of exposure Those exposed should get tested and stay away from others if symptoms are present

2.) Isolate immediately, get tested, stay away from others until negative result

3.) The patient is young but has seasonal allergies that may worsen with her dx of COVID-19. The patient also has a diagnosis of Coryza, and may be at risk for respiratory diseases/failure.

4.) - Use of translator (if needed)
- Vaccination coverage
- Insurance coverage
- Transportation
- ability to take time off work
- access to outpatient therapy

ICU Room: Part 7 Time: 5 days later

The patient is doing much better, so you the nurse are preparing for the patient for discharge.

Review the COVID-19 Fact Sheet for Nurses pdf document and prepare to educate the patient using the prompts below.

Patient education

1) Choose 3 points under the patient teaching sections general and/or discharge planning
- Isolation
- Hand washing and Protection from bacteria,
- well-fitting mask

2) What will you share with the patient regarding these 3 points?
- Isolation - Stay in specific room, use separate bathroom if possible, and have food brought to you
- Handwashing - use soap and warm water for at least 20 seconds
- Mask - protect yourself and others (N95 education)

3) Consider any visuals or other resources you might use to demonstrate and teach regarding these 3 points.
A nurse can provide COVID-19 Handouts and eduation and refer to CDC guidlines for more resources

4) What questions do you anticipate the patient might have once you provide teaching?
How long to isolate, when and if they can leave their isolation room.
where and how to get tested, and what to do if symptoms persist.

5) How will you answer these questions?
Use therapeutic communication, open-ended questions/answers, and refer to educational material on COVID-19.