

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 ₂ Sat: 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?

- How long has she been experiencing these symptoms?
- Does anything worsen these symptoms?
- Does anything lessen these symptoms?
- Has she been exposed to anyone with COVID?
- Have you traveled outside of the United States recently?
- When was the last time she took ibuprofen or acetaminophen?

Extra Patient Information

A. Further History	
<i>She has traveled from China a week ago because she was visiting family.</i>	
She also has seasonal allergies.	
B. Physical Exam	
<i>List any pertinent positive and negative findings</i>	
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, wheezes, and coryza.

Explain the significance of these signs and symptoms.

-Tachycardia- if left untreated, can damage the heart

-Wheezing- narrowing of the airway, which can affect someone's breathing and cause respiratory distress

-Crepitus- can indicate infection

What type of isolation precautions should this patient have?

The patient should be placed in airborne isolation due to suspected COVID exposure.

Emergency Room: Part 2 Time: 2 hours later

You notice the following rhythm:



What rhythm is this patient experiencing?

Tachycardia

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

I would wear a gown, gloves, N95, and goggles.

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

Patient is experiencing worsening shortness of breath with RR: 28 and O₂SAT: 84%. You work with the healthcare team to complete the following orders:

Apply O₂ 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

WBC: 12.2
RBC: 5.50
Hct: 45.5%
Hgb: 15.3
Neutrophils: 75.5%

ABGs

pH: 7.25
CO₂: 55
HCO₂: 25
O₂ Sat: 85%

BMP: Na, K⁺, Ca⁺, etc.
Other Labs?

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

You would know if the nonrebreather mask is working when the patient's oxygen level goes up and they begin breathing better.

Emergency Room: Part 3 Time: 15 minutes later

O₂Sat increases to 90% with supplemental O₂
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 is being sent to the ICU due to respiratory issues brought on by COVID. She is a 35-year-old woman who presents to the emergency department with fever, coryza, shortness of breath with a productive cough, and rhinorrhea. Her past medical history is unknown. She has bilateral COVID pneumonia, which has been identified, and has been stabilized with extra oxygen delivered via a non-rebreather. She is being sent to the intensive care unit (ICU) for more frequent observation and continued care.

B (Background):

Her medical history is unknown. Other than the occasional acetaminophen and ibuprofen, she doesn't take any medications on a regular basis. There are no known drug allergies. She recently returned from a trip to China and began exhibiting her symptoms when she got home.

A (Assessment):

The vital signs for Grace are as follows: T-102 F, Pulse-118, B/P-100/60, RR-20, O₂- 90% via non-rebreather. She claims that she is breathing more easily and is not using her accessory muscles as much as she was before being admitted. She is AOX₄. ABGs point to respiratory acidosis. She was put in airborne isolation because of her symptoms and a probable COVID-19 infection, and a chest x-ray revealed bilateral pneumonia.

R (Recommendations):

Grace's vital signs, ABG, and CBC levels need to be closely watched. She should keep taking her pain meds, inhalers, and fever reducers as necessary. For a more thorough analysis and to plan a course of treatment, a pulmonary consult should be requested. Grace's family is aware of her condition, her recommended course of action, and the expected outcomes.

ICU Room: Part 4 Time: 1 hour later

You complete an assessment

Vitals: T: 38.6 BP: 88/50 Pulse: 130 RR: 30 O ₂ SAT: 86% NRB	Focused Assessment: Patient becoming more hypoxic, agitated. Pale, cool clammy skin	<u>What actions should you take next? Make a check list below</u> • Call a rapid response right away
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Task Alert:

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

What are your findings?

Grace scored a 3, which is considered high risk.

You call a code sepsis. What actions do you expect next?

- lab will come and take the patient's blood
- ABGs will be taken
- RN will administer medicine for the patient

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.

“Hello, my name is Kaitlyn, and I am your sister's nurse. Your sister is sick right now, and we are trying to stabilize her. Is there anything I can do for you?”

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
<ul style="list-style-type: none"> • Start Levophed drip 	3
<ul style="list-style-type: none"> • Administer a Normal saline fluid bolus 	4
<ul style="list-style-type: none"> • Assist with intubation 	2
<ul style="list-style-type: none"> • Call the laboratory to draw blood cultures 	1

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.

- 15ml/ 1 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 ₂ SAT: 92% (Vented 100% FiO ₂)	Focused Assessment: Patient is sedated, course lung sound present throughout, secretions thick with yellowish hue	<u>ABG's noted below.</u> ● <u> </u> pH- 7.34 ● <u> </u> CO ₂ - 35 ● <u> </u> HCO ₃ -18 ● <u> </u> pO ₂ - 200
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What's the significance of the assessment?

The purpose of this assessment was to see how the patient was reacting to the ventilation and if their ABGs were back to normal.

Any recommendations for treatments not currently being given?

-Continuous IV fluids

-Nebulizer treatments after the patient is off the ventilator

Follow up considerations:

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

They should alert anyone that the patient is around and inform them of her diagnosis. They should be aware if they develop any symptoms.

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

The next step is to keep an eye out for COVID-19-related symptoms, be tested if any appear, and take preventative measures if none do.

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

Potential risk factors involved with the care of this patient include contracting COVID yourself, sudden deterioration, and fluid volume excess.

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

The legal and ethical considerations that I would consider when caring for this patient are being aware of her POA and making sure there is a translator available to them 24/7 considering English is their second language.

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

- 2) What will you share with the patient regarding these 3 points?

- 3) Consider any visuals or other resources you might use to demonstrate and teach regarding these 3 points.

- 4) What questions do you anticipate the patient might have once you provide teaching?

- 5) How will you answer these questions?