

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?

Have you been in contact with anyone with COVID-19 or symptoms of COVID?

Have you traveled in the last 14 days?

What symptoms are you experiencing?

How long have these symptoms been going on for?

Do you have a cough?

Have you experienced any loss of smell or taste?

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?

Shortness of breath with productive cough

rhinorrhea

Fever

Fatigue

tachycardia

Explain the significance of these signs and symptoms.

Shortness of breath with productive cough – related to respiratory problem

Rhinorrhea – could compromise respiratory function

Fever – a sign of infection

Fatigue – the immune system is compromised

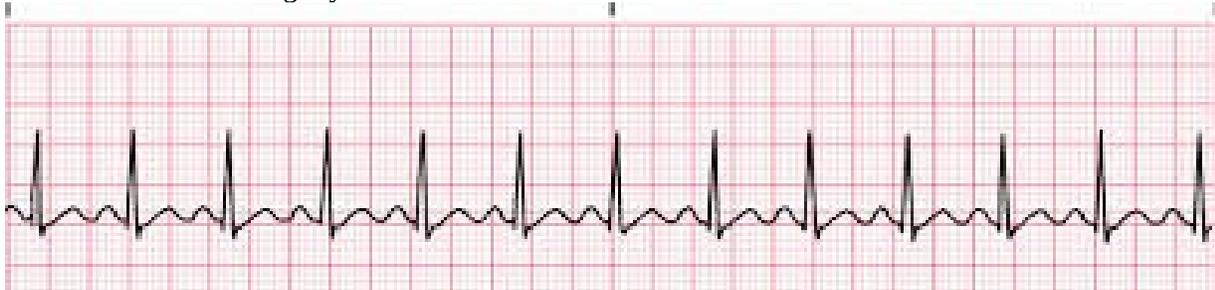
Tachycardia – could compromise the cardiac function

What type of isolation precautions should this patient have?

Negative pressure airborne isolation

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:

N95 mask
Gloves
Gown
Face shield

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: WBCs, RBCs, H/H, etc.
BMP: Na, K⁺, Ca⁺, etc.
Other Labs?

CBC

WBC: 16,000/mm³

RBC: 6.9 units

Hct: 45%

Hgb: 18%

Neutrophils: 82%
Lymphocytes: 53%
Monocytes: 1.5%
Eosinophils: 3%
Basophils: 0.5%

BMP

Potassium: 5.7 mEq/L
Chloride: 109 mEq/L
Calcium: 9.2 mg/dL
CO₂: 17 mEq/L
BUN: 15 mg/dL
Creatinine: 0.8 mg/dL
Glucose: 120 mg/dL

ABG

pH: 7.23
CO₂ : 54
HCO₃ : 24
SaO₂ : 86%

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

If the SaO₂ improves to the normal range

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): Patient Grace Yi is a 35-year-old woman, who reported to the ed with complaints of a fever, coryza of head and neck, SOB with productive cough, and rhinorrhea.

B (Background): She traveled to China a week ago. She was swabbed for the flu and COVID-19 and put on airborne isolation pending results. She was admitted to the ICU with bilateral pneumonia with worsening symptoms of sob, hypoxia, tachycardia, and fever. The patient has nonrebreather mask saturation at 90%. Labs were ordered, and the results are in their chart.

A (Assessment): close monitoring, last vitals are temp. 39.2°C, BP 100/60, HR 130

R (Recommendations): Remaining in isolation until results are in and obtaining an x-ray of the chest and lungs.

-Nurse Gozi

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> <ul style="list-style-type: none">• <u>Notify provider immediately</u>• <u>Call rapid response</u>• <u>Sepsis protocol</u>• <u>Increase oxygen</u>
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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?

She has a score of 3, a high risk for organ dysfunction with blood testing.

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

The rapid response team would come and draw labs, order medications, and push fluids to the patients.

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.

I would direct the sister to a waiting area away from the patient receiving care and explain to her therapeutically what is happening.

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	third
• Administer a Normal saline fluid bolus	second
• Assist with intubation	fourth
• Call the laboratory to draw blood cultures	first

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.

15 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 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> <ul style="list-style-type: none">• pH- 7.34• CO₂- 35• HCO₃-18• pO₂- 200
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What's the significance of the assessment?

To see how the client responded to the care that was provided, BP was restored, and PR and RR were lowered.

Any recommendations for treatments not currently being given?

No recommendations

Follow up considerations:

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

The family living with the client will have to get tested and go into quarantine for 14 days.

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

They would be monitored for signs and symptoms.

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

Providers are at risk of contracting COVID-19.

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

A nurse is obligated to care for a client no matter what they have and know they are risking their health to save another individual.

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

Have a COVID-19 Plan to help stop the spread of the virus.

How to manage COVID-19 symptoms if infected.

How to isolate and take precautions if you are suspected of contracting COVID-19.

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

How to take precautions

10 Things to do to manage COVID-19 symptoms

What to do after isolation

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

Authorized websites

Infographic brochures

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

Medications

Long-term treatment

Prevention plans

5) How will you answer these questions?

Letting them know how to prevent COVID-19, providing resources, and informing them about COVID-19 and its effects on an individual.