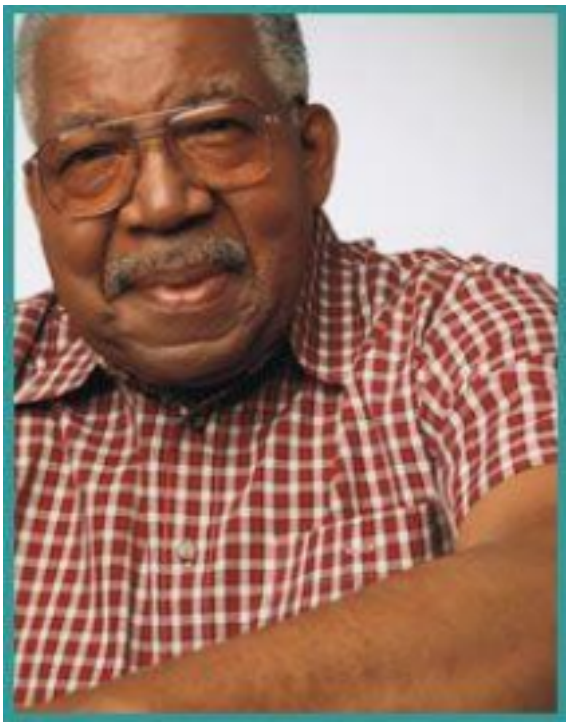
Novel Coronavirus Disease (COVID-19)

UNFOLDING Reasoning



John Taylor, 68 years old

Primary Concept			
Immunity			
Interrelated Concepts (In order of emphasis)			
• Clinical judgment • Communication			
NCLEX Client Need Categories	**Covered in Case Study**	**NCSBN Clinical Judgment Model**	**Covered in Case Study**
Safe and Effective Care Environment		Step 1: Recognize Cues	✓
• Management of Care	✓	Step 2: Analyze Cues	✓
• Safety and Infection Control	✓	Step 3: Prioritize Hypotheses	✓
Health Promotion and Maintenance	✓	Step 4: Generate Solutions	✓
Psychosocial Integrity	✓	Step 5: Take Action	✓
Physiological Integrity		Step 6: Evaluate Outcomes	
• Basic Care and Comfort			

• Pharmacological and Parenteral Therapies	✓		
• Reduction of Risk Potential	✓		
• Physiological Adaptation	✓		

Part I: Initial Nursing Assessment

Present Problem:

John Taylor is a 68-year-old African-American male with a history of type II diabetes and hypertension. He came to the emergency department (ED) triage window because he felt crummy, complaining of a headache, runny nose, feeling weaker, "achy all over" and hot to the touch and sweaty the past two days. When he woke up this morning, he no longer felt hot but began to develop a persistent "nagging cough" that continued to get worse throughout the day. John is visibly anxious and asks, "Do I have that killer virus that I hear about on the news?"

Personal/Social History:

John lives in a large inner-city that has had over three thousand confirmed cases of COVID-19. He has been married to Maxine, his wife of 45 years, and is a retired police officer and active in his local church.

1. What data from the histories are RELEVANT and must be NOTICED as clinically significant by the nurse?

(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential)

RELEVANT Data from Present Problem:	**Clinical Significance:**
68 yo African American male with a past medical history of hypertension and type 11 diabetes mellitus.	Present symptoms include H/A, running nose, weakness, pains, hot/sweaty for the past two days, and a new or worsening cough that started this morning.
RELEVANT Data from Social History:	**Clinical Significance:**
Patient currently lives with his wife and attends church regularly. There are 3000 confirmed covid cases in the area which the patient lives	His symptoms are likely caused by COVID because of the high number of cases and highly populated area where he lives. His wife is likely to get COVID if he has been exposed and is showing symptoms.

2. What additional clarifying questions does the triage nurse need to ask John to determine if his cluster of physical symptoms is consistent with COVID-19?

1. The nurse should ask the patient if he has had any previous respiratory issues
2. Is the patient up to date with vaccines
3. Is the patient aware of anyone that may have had covid

3. Based on the clinical data collected, identify what measures need to be immediately implemented using the following clinical pathway. Patient should be on standard precautions, and tested for Covid-19

4. What type of isolation precautions does the nurse need to implement if COVID-19 is suspected? What specific measures must be implemented to prevent transmission?

Type of Isolation:	**Implementation Components:**
Contact precautions Droplet precautions	Hand hygiene, gloves, and gown If patient is positive for covid caregivers should wear a N95 mask, and a face shield to protect mucous membranes.

Part II: Patient Care Begins in the ED:

John is brought back to a room. As the nurse responsible for his care, you collect the following clinical data:

Current VS:	**P-Q-R-S-T Pain Assessment:**	
T: 100.3 F/38.8 C (oral)	**P**rovoking/Palliative:	"moving makes it worse"
P: 118 **(**regular)	**Q**uality:	"achy"
R: 22 (regular)	**R**egion/Radiation:	"all over"
BP: 164/88 **MAP**: 113	**S**everity:	5/10
O2 sat: 92% room air	**T**iming:	continuous

1. What VS data are RELEVANT and must be NOTICED as clinically significant by the nurse?
(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential /Health Promotion and Maintenance)

RELEVANT VS Data:	**Clinical Significance:**	**Nursing Intervention (if needed):**
Temp 100.3 skin is hot **Patient appears anxious & pulse is 118** **Patient BP is slightly elevated** **Patient states 5/10 for body aches**	**Elevated temp is due to infection** **Patient is tachy which indicates he is ill appearing** **Patient Bp is elevated due to anxiety** **Achiness is a symptom related to covid**	**Give ice packs to cool patient down and possibly some tylenol** **Antibiotics should be given as ordered** **Patient should receive analgesics to reduce achiness**

2. What body system(s) will you assess most thoroughly performing a FOCUSED assessment based on the primary/priority problem? Identify correlating specific nursing assessments.
(NCLEX: Reduction of Risk Potential/Physiologic Adaptation)

PRIORITY Body System:	**PRIORITY Nursing Assessments:**

Respiratory System	Nurses should observe patient for signs of respiratory distress, and the use of accessory muscles.

Current FOCUSED Nursing Assessment:	
GENERAL SURVEY:	Appears anxious, body tense
NEUROLOGICAL:	Alert & oriented to person, place, time, and situation (x4), generalized weakness
HEENT:	Head normocephalic with symmetry of all facial features. Lips, tongue, and oral mucosa pink and moist.
RESPIRATORY:	Breath sounds fine dry crackles bilat. with diminished aeration on inspiration and expiration in all lobes anteriorly, posteriorly, and laterally, non-labored respiratory effort, episodic non productive cough
CARDIAC:	No edema, heart sounds regular, pulses strong, equal with palpation at radial/pedal/post-tibial landmarks, brisk cap refill. Heart tones audible and regular, S1 and S2 noted over A-P-T-M cardiac landmarks with no abnormal beats or murmurs. No JVD noted at 30-45 degrees.
ABDOMEN:	Deferred
GU:	Deferred
INTEGUMENTARY:	Skin hot, dry, intact, normal color for ethnicity. Skin integrity intact, skin turgor elastic, no tenting present.

3. What assessment data is RELEVANT and must be NOTICED as clinically significant by the nurse? *(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential Reduction of Risk Potential/Health Promotion & Maintenance)*

RELEVANT Assessment Data:	**Clinical Significance:**
Patient appears anxious **Patient appears to be lethargic** **Patient has crackles** **Patients skin is hot to touch**	**Patient does not have an adequate amount of oxygen, and due to the patient's hot temperature indicated that he has a fever which means infection.**

4. Interpreting clinical data collected, what problems are possible? Which problem is the PRIORITY? Why?
(NCSBN: Step 2: Analyze cues/Step 3: Prioritize hypotheses/NCLEX: Management of Care)

Problems:	**Priority Problem:**	**Rationale:**

Respiratory infection/complications	Covid-19 and infection	It is important for the nurse to monitor o2 levels and for the patient to note any changes in his breathing. Patients must remain in isolation to prevent the spread of infection.

1. What nursing priority(ies) and goal will guide how the nurse RESPONDS to formulate a plan of care? *(NCSBN: Step 4 Generate solutions/Step 5: Take action/NCLEX: Management of Care)*

Nursing PRIORITY:	**Ensure that o2 levels are within normal limits**	
GOAL of Care:	**Patients o2 level will be between 90-100.**	
Nursing Interventions:	**Rationale:**	**Expected Outcome:**
The nurse should assess respiratory rate Assess patient for the use of accessory muscles Use continuous pulse ox Ensure that patient is in high fowlers	Respiratory rate should be monitored so if there are any changes the nurse can act fast The patient should not be using accessory muscles so this must be assessed to ensure patients breathing is improving, Continuous pulse ox should be used to keep track of o2 status Keeping the patient in high fowlers helps the patient is breathing sufficiently	The outcomes for this patient includes: an effective breathing pattern, patients breathing is relaxed, patient is no longer experiencing dyspnea.

[KR1]

Caring and the "Art" of Nursing

6. What is the patient likely experiencing/feeling right now in this situation? What can you do to engage yourself with this patient's experience, and show that they matter to you as a person? (*NCLEX: Psychosocial Integrity)*

What Patient is Experiencing:	**How to Engage:**
Patient is experiencing anxiety and fear as he thinks he may be in a critical condition due to covid. The patient is also unable to spend time with loved ones due to being in isolation.	It is best for the nurse to educate the patient on covid 19 and assure him that if preventive measures are followed accordingly it will reduce complications. The nurse should be a listening ear for the patient and be as sympathetic as possible. The nurse should include the patient's family in his care.

The ED physician assesses John
and orders the following:

Collaborative Care: Medical Management

7. State the rationale and expected outcomes for the medical plan of care. *(NCLEX: Pharm. and Parenteral Therapies)*

Care Provider Orders:	Rationale:	Expected Outcome:
Contact-Airborne-Droplet precautions	Patients who are known or suspected to have infections spread by airborne contact should take additional precautions.	reduce contamination of others by discharge
Influenza swab	There are diagnostic procedures for detecting influenza viruses in respiratory specimens.	Will detect if pt is positive for flu
COVID-19 swab (only if influenza neg)	Collecting samples from the nasal walls in order to search for infectious cells and respiratory secretions	Rule out infected patients
Chest x-ray	Assist in identifying lung diseases such TB, HF lung cancer, and pneumonia	Rule out respiratory illnesses
Complete blood count (CBC)	test to assess general health and a variety of conditions, such as infection	CBC lab results are normal
Metabolic panel (BMP)	To identify diseases, doctors check blood sugar levels, electrolytes, fluid balance, and renal function.	Bodily functions are working correctly
Lactate	Identify the disruptive pH and acid-base levels	Prevents acid imbalances
Nasal cannula titrate to keep O2 sat >90%[KR3]	Delivers oxygen to enhance oxygen	Breathing is improved

8. Which orders do you implement first? Why? *(NCLEX: Management of Care)*

Care Provider Orders:	Order of Priority:	Rationale:
•Contact-Airborne-Droplet precautions • COVID-19 swab • Nasal cannula titrate to keep O2 sat >95%	2 3 1	As the symptoms are comparable to upper respiratory issues, we are awaiting confirmation of COVID through testing. Patients should be handled as if they could be a COVID19 carrier. Because it is less urgent than the other two scenarios, the COVID swab should come last. To avoid depriving the heart's muscles of oxygen and ischemia, the airways should always come first.

Part III: Interpreting Diagnostic Data

The following diagnostic results just posted in the electronic health record:

Radiology Reports:

What diagnostic results are RELEVANT and must be NOTICED as clinically significant by the nurse?

(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential/Reduction of Risk Potential/Physiologic Adaptation)

Radiology: Chest X-Ray	
Results:	**Clinical Significance:**
Diffuse bilateral pulmonary infiltrates	Patient has an infectious substance in the lungs. The patient should receive additional testing so he can know what exactly is going on.

Lab Results:

Hematology (CBC)								
	WBC	**HGB**	**PLTS**	**% Neuts**	**% Lymphs**	**% Monos**	**% Eosin**	**Bands**
Norms:	(4.5-11.0 mm 3)	(12-16 g/dL)	(150-450x 103/µl)	(55-70)	(20-40)	(2-8)	(1-4)	(3-5%)
Current:	3.5	12.8	224	92	8	0	0	0

Metabolic Panel (BMP)										
	Na	**K**	**Cl**	**CO2**	**AG**	**Gluc**	**Ca**	**BUN**	**Creat**	**GFR**
	135-145 mEq/L	3.5-5.0 mEq/L	101-111 mmol/L	20-29 mmol/L	(7-16 mEq/L)	64-110 mg/dL	8.5-10.2 mg/dL	10-20 mg/dL	0.8-1.2 mg/dL	>60 mL/min
Current:	141	3.9	105	16		178		18	1.10	>60

Misc.					
	Influenza	**COVID-19**	**Lactate (Ven)**		
	Neg	Neg	(0.5-2.2 mmol/L)		
Current:	Neg	Pos	1.9		

[KR4]

What lab results are RELEVANT and must be NOTICED as clinically significant by the nurse? *(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential Reduction of Risk Potential/Physiologic Adaptation)*

RELEVANT Lab(s):	**Clinical Significance:**	**TREND: Improve/Worsening/Stable:**
High Neutrophils Low lymphocytes Low monocytes Low Eosin Low WBC Low Bands Low CO2 Elevated glucose Positive for covid19	Indicate infection Indicated infection Indicated infection Indicates infection Infection can cause this count to be low Increases risk for infection ABGs are abnormal Glucose is elevated due to history of type ll diabetes patient will need insulin Patient currently has covid19 and is on precautions	It seems as if the patient is between worsening and stable.

There has been no change in John's status in the ED and is currently stable. He is being admitted to the general med/surg floor for observation.

To ensure a hand-off that will promote safe patient care to the next nurse, communicate a concise SBAR that captures the essence of John's status and summarizes the excellent care you have provided!

Situation:

Name/age: John 68 year old African American male

BRIEF summary of primary problem: Patient arrived at the ER with complaints of headache, runny nose, cough, & achiness. Patient also mentioned the feeling of being hot for the past two days prior to coming in.

Day of admission/post-op #: Patient was admitted to the ER on 9/16/2020

Background:

Primary problem/diagnosis: Patient has been diagnosed with Covid-19

RELEVANT past medical history: Hypertension, and diabetes mellitus

Assessment:

Most recent vital signs: Temp: 100.3 F (oral) Pulse:118, Respirations: 22, BP, 164/88, Oxygen:92

RELEVANT body system nursing assessment data: Patient appears anxious, patient is alert and orientedx4, pt states general weakness, pt has some fine crackles bilaterally along with coughing here and there. Skin is hot to touch.

RELEVANT lab values: WBC, Neutrophils, Positive covid-19 results

How have you advanced the plan of care? The Patient's family has been informed, and teaching has been provided. Patient has maintained isolation. Vitals are being taken every 30 minutes (BP and O2).

Patient response: Patients' condition is improved.

INTERPRETATION of current clinical status (stable/unstable/worsening): Patient condition is stable and is less anxious. Patient is being transferred to the med/surg floor.

Suggestions to advance the plan of care: Manage patients pain to prevent further complications, Put in orders for insulin, continue a continuous pulse ox, monitor vital signs, and ensure that the patient remains on isolation