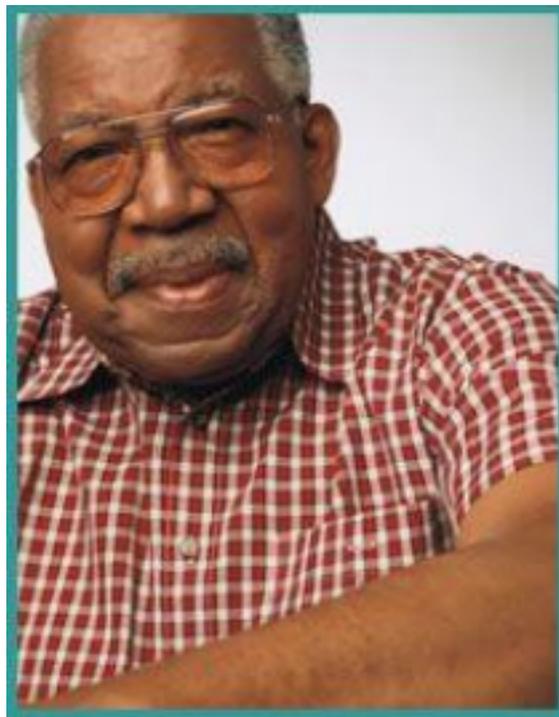


Novel Coronavirus Disease (COVID-19)

UNFOLDING Reasoning



John Taylor, 68 years old

Primary Concept			
Immunity			
Interrelated Concepts (In order of emphasis)			
<ul style="list-style-type: none"> • 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	✓		

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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, anxiety, type II diabetes, hypertension, headache, weakness, body aches, sweating and, worsening cough	COVID-19 is automatically a predisposition for the elderly. Anxiety in this case is expected with the community Mr. Taylor represents, that community is not well informed about COVID and neither are most communities. Provide reassurance and invoke trust with Mr. Taylor as a priority. Having diabetes and hypertension is an underlying condition which puts Mr. Taylor at high-risk due to decreased immunity. The other symptoms mirror a cold so more research and vitals would need to be obtained to move forward with Mr. Taylor.
RELEVANT Data from Social History:	Clinical Significance:
Large city dwelling with over 3,000 confirmed COVID-19 cases, active in local church, married 45 yrs.	The confirmed over 3,000 cases of COVID-19 in Mr. Taylor’s community increases the likelihood of him being positive. Being active in his church raises the possibility that because churches are usually close knit it was contracted there and spread rapidly. Living in close quarters with his wife could indicate she can also have contracted the disease and be spreading it throughout the community.

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?

When you go out to church or in the community do you wear a mask properly and social distance at least 6ft?
 Do you currently take medication to control your diabetes and hypertension? If so, what? Frequency? Last time you saw your primary care physician to follow up for your hypertension and your neurologist for your diabetes? What was your last blood sugar? Is that normal for you?
 Have you had a Pneumococcal vaccine? Your yearly Influenza vaccine?
 What was your temperature at home? Did you take any medications to relieve your warm feeling? If so, what? What time? When?
 How is your wife feeling?
 Have you quarantined at all since symptoms began?

3. Based on the clinical data collected, identify what measures need to be immediately implemented using the following clinical pathway.

Rapid COVID-19 nasal swab.
 Mask

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	Gloves, gown, handwashing
Droplet	N95 mask

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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)	Provoking/Palliative:	“moving makes it worse”
P: 118 (regular)	Quality:	“achy”
R: 22 (regular)	Region/Radiation:	“all over”
BP: 164/88 MAP: 113	Severity:	5/10
O2 sat: 92% room air	Timing:	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):
Temperature (100.3)	Temperature at his age is irregular	Request order for fever reducer
Pulse (118)	Elevated due to anxiety	Reassure patient of safety and expertise of staff
Blood Pressure 164/88	Due to illness and anxiety	Provide assurance of safety and if need be medication
O2 SAT (92)	Anxiety, cough	Nasal cannula, 2L(monitor closely)
Achy (5/10)	Body aches is a normal sign of COVID-19	Ask for order of Ibuprofen of Gabapentin possibly

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:
<i>Respiratory</i>	<p>Inspection- see if client is having visible breathing distress (accessory muscle use, pursed lips, cyanosis peripherally)</p> <p>Auscultation- Listen to each point for heart to include all points of the heart and lungs.</p>

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.
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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:
Appears anxious, body tense	Mr. Taylor asked, "Do I have that killer virus that I hear about on the news?" He believes he may die which is increasing his heart rate, blood pressure and pulse.
Generalized Weakness	Common with positive COVID-19 as well as older age.
Breath sounds fine dry crackles bilat. with diminished aeration on inspiration and expiration in all lobes anteriorly, posteriorly and laterally, episodic non-productive cough	Could be indicative of COVID-19 respiratory difficulty and needs to be addressed immediately.
Skin hot, dry	If Mr. Taylor indeed has a fever; it would explain his hot and dry skin. The heat would absorb the skin's moisture.

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:
COVID-19 Influenza URI	COVID-19	We should test Mr. Taylor for all possibilities while trying to confirm if he has COVID-19.

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:	Impaired Gas Exchange	
GOAL of Care:	Patient will have normal breath sounds	
Nursing Interventions:	Rationale:	Expected Outcome:

Assist patient with ADLs.	Once Mr. Taylor understands the importance of moving around meticulously and why he will decrease his tissue oxygen demand.	Patient's respiratory rate remains within established limits.
Establish baseline values for respiratory assessment	Distinguish age-related changes that may mimic disease states from disease. Older adults take short breaths. This increases maximum breathing capacity, vital capacity, residual volume, and functional capacity.	Patient has normal breath sounds.

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:
Anxiety	Advise Mr. Taylor that he is in good hands and will be well taken care of. Advise Mr. Taylor that this facility deals with these kinds of issues frequently and are great at it. Advise Mr. Taylor that no question is ever too much to ask and no test or treatment will ever go without explaining.
Unsure	He is likely alone and doesn't feel comfortable without his wife present. He doesn't know what his results will come back as and he is worried. Constant reassurance and allowing him to call his spouse often and other support as needed.
Fear	Not knowing about the disease is causing Mr. Taylor to be fearful of his life. His spouse, finances, life insurance policy, burial benefits are likely brewing in his mind and he will not need to concern himself with any of that.

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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-Drop let precautions	Precaution used to stop the spread of the virus.	The spread stops.
Influenza swab	Rule out Flu because it closely mirrors COVID-19, we need to treat Mr. Taylor properly.	If negative swab for COVID-19
COVID-19 swab (only if influenza neg)	Once negative result of Influenza swab for COVID-19.	Once positive, treat and educate Mr. Taylor
Chest x-ray	R/O respiratory infection of pneumonia	Hopefully returns without negative impressions
Complete blood count (CBC)	We want to check for infections present in the blood, primarily Leukopenia	If positive COVID-19 WBC will be affected.
Metabolic panel (BMP)	Mr. Taylor is diabetic and COVID-19 can be damaging on important body organs. We want to check his liver, kidney and creatinine levels.	Hopefully neither is affected.
Lactate	This will give an indication to how his body is being nourished while sick.	These levels will not be normal.
Nasal cannula titrate to keep O2 sat >90%[KR3]	SAT at 92% on room, worsening cough, anxiety are all affecting Mr. Taylor's oxygen quality.	Once applied to the nares and increase in O2 SAT will occur.

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

Care Provider Orders:	Order of Priority:	Rationale:
<ul style="list-style-type: none"> Contact-Airborne-Drop let precautions COVID-19 swab Nasal cannula titrate to keep O2 sat >95% 	<p>Contact</p> <p>Cannula</p> <p>COVID Swab</p>	<p>We need to stop the spread of infection by getting Mr. Taylor isolated which protects staff and other patients.</p> <p>Mr. Taylor's SAT is 92% on room air he needs assistance breathing.</p> <p>We need to confirm that Mr. Taylor has COVID to ensure our nursing interventions are per protocol and accurate.</p>

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	Complication of COVID-19 as it progresses

Lab Results:

Hematology (CBC)								
	WBC	HGB	PLTS	% Neuts	% Lymphs	% Monos	% Eosin	Bands
Norms:	(4.5-11.0 mm ³)	(12-16 g/dL)	(150-450 x 10 ³ /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	

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:
COVID 19 (positive)	Positive simply means we continue our current plan of care and Mr. Taylor’s isolation.	Worse
WBC (3.5)	Infection is present	Worse
PLTS (224)	Infection is present	Worse
Neutrophils (92%)	Infection is present	Worse
Lymphocytes (8%)	Infection is present	Worse
CO2 (16)	O2 is 92% on room air	Worse
Glucose (178)	Ill, currently in distress	Worse
Monocytes, Eosinophils, Bands (0%)	Ill, infection is present	Worse

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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!

S ituation:
Name/age: Mr. John Taylor is a 68 yo, AA male.
BRIEF summary of primary problem: Mr. Taylor presented to the ED with % of a headache, runny nose, body weakness and sweaty for the past two days.
Day of admission/post-op #: Mr. Taylor was treated and stabilized. There is no change in his status.
B ackground: Mr. Taylor lives in a high transmission community and is married to his wife of 45 years.

Primary problem/diagnosis: Mr. Taylor is becoming more anxious and still has the same complaints expressed upon presentation to the ED.

RELEVANT past medical history: Mr. Taylor has a history of type II diabetes and hypertension

Assessment:

Most recent vital signs: No change in vital signs. Temp is 100.3, pulse is 118, respirations are 22, blood pressure is 164/88 and O2 sat is still at 95 with 2L nasal cannula.

RELEVANT body system nursing assessment data: Respiratory

RELEVANT lab values: COVID 19 (positive), WBC (3.5), PLTS (224), CO2 (16), Glucose (178)

How have you advanced the plan of care? We provided a nasal cannula, education and comfort measures.

Patient response: Patient is tolerating treatment well but is still exhibiting signs of anxiety.

INTERPRETATION of current clinical status (stable/unstable/worsening): Mr. Taylor is stable.

Recommendation:

Suggestions to advance the plan of care: This nurse suggest constantly providing education to Mr. Taylor as well as reassurance that we will take the best care possible of him.