

N311 Care Plan #2

Lakeview College of Nursing

April 1, 2020

Professor Cho RN, MSN

Professor Lawson MSN, RN, CMAC

Ashley Miller

Demographics (5 points)

Date of Admission 3/25/2020	Patient Initials HG	Age 68 years old (1/01/1943)	Gender Male
Race/Ethnicity Latino/ N/A	Occupation Retired	Marital Status Widowed	Allergies Ampicillin (Itching)
Code Status Full Code	Height 68in (173cm)	Weight 71Kg (156lbs)	

Medical History (5 Points)

Past Medical History: COPD

Past Surgical History: N/A

Family History: Unknown

Social History (tobacco/alcohol/drugs): Pt reports use of tobacco (smoking) one pack a day for 30 years. Reports use of alcohol (beer) a case (24-pack) a week. No recreational drug uses.

Admission Assessment

Chief Complaint (2 points): Difficulty breathing

History of present Illness (10 points): On March 25, 2020, a 68-year-old Latino widowed male was admitted to the Ed for pneumonia and exacerbation of COPD. C/O difficulty breathing, pt has COPD for 10 years, has gotten worse within the last week. Lungs/ chest source of breathing issue. The breathing becomes worse during the nighttime hours, pt states, "If I do not use any pillows usually 5 of them to help sit up the breathing does not get any better." Characteristics of the pt's breathing is exhausting makes him tired and restless. On a pain scale (Numerical 0-10), the pt states, "He denies have any pain." Aggravating the breathing is laying down flat. Relieving factors for pt is sitting up, oxygen use, and nebulizer use sometimes. There is no treatment source that completely relieves the symptoms.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): COPD

Secondary Diagnosis (if applicable): Pneumonia

Pathophysiology of the Disease, APA format (20 points):

COPD, stands for Chronic Obstructive Pulmonary Disease. It is a combination of three disorders, chronic bronchitis, emphysema, and hyperreactive airway disease (Capriotti, 2016, p. 466). In the United States, COPD is the third leading cause of death and disability (Capriotti, 2016, p. 466).

To describe COPD, there is poor airflow limitation caused by the three disorders which were again, chronic bronchitis, emphysema, and hyperreactive airway disease (Capriotti, 2016, p. 467). When a patient has COPD, what it does is changes the airflow limitation, such as, excessive mucus and fibrosis in the bronchioles, loss of the alveolar elastic recoil, smooth muscle hypertrophy (Capriotti, 2016, p. 467). When the chronic bronchitis inflames it may cause permanent damage to the pulmonary structure, which can cause the walls to thicken or the lumens to the constrict. With all these walls thicken or constricting it is causing or making it harder for the patient to exchange oxygen and carbon dioxide within the lungs. Instead of releasing carbon dioxide and bringing in oxygen the patient is retaining the carbon dioxide more than what they are the oxygen, which is what makes it hard for a COPD patient to breath during certain activities or just by laying down in bed.

Common causes of COPD, environmental factors, genetic susceptibility which is the AAT deficiency, intravenous drug abuse, Pneumocystis jiroveci infection is found in individuals with AIDS, connective tissue diseases include Marfan syndrome, and then the big causing factor of COPD is smoking (Capriotti, 2016, p. 467). The patient presented to the ED with difficulty

N311 Care Plan #2

breathing which the patient is a smoker. To improve the patient's COPD, have the patient think about quit smoking to improve the health.

Common signs and symptoms of COPD include: dyspnea, coughing, wheezing, as the disease progresses a patient with COPD may have signs of jugular venous distension, ascites, hepatosplenomegaly, ankle edema, clubbing of the finger nails, and accessory muscle usage while breathing (Capriotti, 2016, p. 468). The patient presented to the ED with complaints of difficulty breathing.

Diagnostic testing to confirm if a patient has COPD includes: pulmonary function tests (PFTs), FEV1/FVC, CBC, blood chemistry panel, chest x-ray, electrocardiogram (ECG), ABGs (Capriotti, 2016, p. 469). Also, a tool used in monitoring and screening for COPD is a pulse oximetry and a screening done to patients before the age of 45 who develop COPD before this age is Alpha-1 antitrypsin deficiency screening (Swearingen & D, 2019, p. 119). The patient received chest x-ray to show the COPD.

Treatments associated with COPD: short-acting bronchodilator agents for mild patients, long-acting agents for patients that progress into the severe stage of the disease, beta-2 adrenergic agonist inhalers, inhaled bronchodilators, monotherapy with anticholinergic bronchodilator, inhaled corticosteroids, phosphodiesterase inhibitors, leukotriene antagonists, nonpharmacological interventions, continuous oxygen therapy, or lung volume reduction surgery (LVRS) is used for patients who have severe emphysema (Capriotti, 2016, p. 469-470). For the patient a couple possible treatments would be smoking cessation to help quit smoking and an inhaled bronchodilator to help dilate the bronchioles.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P. (2016). *Pathophysiology: introductory concepts and clinical perspectives*. (1st ed.). Philadelphia, PA: F A Davis.

Swearingen, P.L., & D, J. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. Elsevier.

Laboratory Data (20 points)

If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.5-6.3	UNK	4.8	N/A
Hgb	14-18	UNK	9.3	Deficient number of RBC's result in a lowered Hgb count (Jane Vincent Corbett & Angela Denise Banks, 2019)
Hct	41-51	UNK	29%	Deficient number of RBC's result in a lowered Hct count (Jane Vincent Corbett & Angela Denise Banks, 2019)
Platelets	140-440	UNK	162,000	N/A
WBC	4-10	UNK	13,000	Increased WBC's for a bacterial infection from pneumonia (Jane Vincent Corbett & Angela Denise Banks, 2019)
Neutrophils	2-6.9	UNK	UNK	N/A
Lymphocytes	0.6-3.4	UNK	UNK	N/A
Monocytes	0-8	UNK	UNK	N/A
Eosinophils	0-0.5	UNK	UNK	N/A
Bands	UNK	UNK	UNK	N/A

Chemistry **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136-145	UNK	135	SIADH (Lewis. James, 2019)
K+	3.5-5.1	UNK	4.4	N/A
Cl-	98-107	UNK	100	N/A
CO2	21-31	UNK	54	COPD, breathing disorder (Sany Calhoun Rice, 2018).
Glucose	74-109	UNK	180	Stress on the body from the pneumonia (Martel, 2012)
BUN	7-25	UNK	22	N/A
Creatinine	0.7-1.2	UNK	1.0	N/A
Albumin	3.5-5.2	UNK	3.0	Lowered from being NPO and not getting the correct nutrition (Jane Vincent Corbett & Angela Denise Banks, 2019)
Calcium	8.6-10.3	UNK	9.0	N/A
Mag	UNK	UNK	UNK	N/A
Phosphate	UNK	UNK	UNK	N/A
Bilirubin	0.3-1.0	UNK	UNK	N/A
Alk Phos	40-130	UNK	UNK	N/A

Reference:

Jane Vincent Corbett, & Angela Denise Banks. (2019). *Laboratory tests and diagnostic procedures: with nursing diagnoses*. Pearson.

Lewis. James, (2019). *Hyponatremia (Low Level of Sodium in the Blood)*. Merck Manuals Consumer Version; Merck Manuals. Retrieved April 1, 2020, from <http://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/electrolyte-balance/hyponatremia-low-level-of-sodium-in-the-blood>.

Martel, J. (2012, July 2). *Blood Glucose Test*. Healthline; Healthline Media. Retrieved April 1, 2020, from <https://www.healthline.com/health/glucose-test-blood#diabetes>.

Sandy Calhoun Rice. (2018, September 26). *CO2 Blood Test*. Healthline; Healthline Media. Retrieved April 1, 2020, from <https://www.healthline.com/health/co2-blood-test>.

Sarah Bush Lincoln Health Center (2020). *Reference Range (lab values)*. Mattoon, IL.

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow (light/pale to dark/deep amber)	UNK	Yellow/Clear	N/A
pH	4.5-8	UNK	5.8	N/A
Specific Gravity	1.005-1.025	UNK	1.002	Diabetes Insipidus (Urine specific gravity test: Procedure and results, n.d.).
Glucose	Negative	UNK	Negative	N/A
Protein	Negative	UNK	Negative	N/A
Ketones	Negative	UNK	Negative	N/A
WBC	Negative	UNK	Negative	N/A
RBC	Negative	UNK	Negative	N/A
Leukoesterase	Negative	UNK	Negative	N/A

(Urinalysis: Reference Range, Interpretation, Collection and Panels, 2019).

Cultures **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	UNK	UNK	N/A
Blood Culture	Negative	UNK	Negative	N/A
Sputum Culture	Negative	UNK	Positive for Streptococci, Staphlococci	N/A
Stool Culture	Negative	UNK	UNK	N/A

(“Sputum Culture: Reference Range, Interpretation, Collection and Panels,”2020).

Lab Correlations Reference (APA):

Sputum Culture: Reference Range, Interpretation, Collection and Panels. (2020). *EMedicine*.

Retrieved April 1, 2020, from <https://emedicine.medscape.com/article/2119232-overview#a1>.

Urinalysis: Reference Range, Interpretation, Collection and Panels. (2019, November 9).

Medscape.com. Retrieved April 1, 2020, from <http://medicine.medscape.com/article/2074001-overview#a1>.

Urine specific gravity test: Procedure and results. (n.d.). www.medicalnewstoday.com.

Retrieved April 1, 2020, from <https://www.medicalnewstoday.com/articles/322125#results>.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

-Chest X-Ray

**Current Medications (10 points, 2 points per completed med)
*5 different medications must be completed***

Medications (5 required)

Brand/Generic	Tylenol/ Acetaminophen	Albuterol sulfate/ Proair HFA	Ceftriazone sodium/ Rocephin	Nicotine transdermal system/ Nicoderm	Prednisone/ Prednisone Intenso
Dose	650mg	1.25mg/3mL	1 g	21mg	10mg
Frequency	Every 4 hours PRN (6x day)	Every 4 hours (6x day)	Every 12 hours (2x day)	Daily (1x day)	Every 12 hours (2x day)
Route	PO	RT to Administer (Oral)	IV	Transdermal	IV Bolus
Classification	Antipyretic, Nonopoid Analgesic	Bronchodilator	Antibiotic	Smoking Cessation Adjunct	Immunosuppressan
Mechanism of Action	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.	Albuterol attaches to beta receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to converts ATP to cAMP. Decreases intracellular calcium levels, but also increases intracellular	Interferes with bacterial cell wall synthesis by inhibiting cross- linking of peptidoglycan strands. Peptidoglycan makes the cell membrane rigid and protective. Without it, bacterial cells rupture and die	Binds selectively to nicotinic- cholinergic receptors at autonomic ganglia, in the adrenal medulla, at neuromuscular junctions, and in the brain. By providing a lower dose of nicotine than cigarettes, this drug reduces nicotine craving and withdrawal	Binds to intracellular glucocorticoid receptors and suppresses inflammatory and immune responses by: inhibiting neutrophil and monocyte accumulation at inflammation site and suppressing their phagocytic and bactericidal activity Stabilizing lysosomal membranes

		levels of cAMP. Helps relax bronchial smooth-muscle cells and inhibit histamine release.		symptoms	
Reason Client Taking	To relieve pain	To treat bronchospasm	Pneumonia	Nicotine craving and withdrawal of symptoms	COPD
Contraindications (2)	Hypersensitivity to acetaminophen or its components, severe hepatic impairment, severe active liver disease	Hypersensitivity to albuterol or its components	Calcium-containing I.V. solutions; hyperbilirubinemic or premature neonates; Hypersensitivity to ceftriaxone	Hypersensitivity to nicotine, its components, components of transdermal system or soy: life-threatening arrhythmias	Hypersensitivity to prednisone or its components, systemic fungal infection
Side Effects/Adverse Reactions (2)	Parenteral form: atelectasis, dyspnea, plural effusion, pulmonary edema, wheezing	Bronchospasm, cough, dyspnea, paradoxical bronchospasm, pulmonary edema	Allergic pneumonitis, dyspnea	Cough, transdermal; bronchitis, bronchospasm, chest tightness, dyspnea, increased sputum production; wheezing	Edema, heart failure, hypertension

(2020 Nurse's drug handbook., 2020).

Medications Reference (APA):

2020 Nurse's drug handbook. (2020). Jones and Bartlett learning.

Assessment

Physical Exam (18 points)

<p>GENERAL: Alertness: Orientation: Distress: Overall appearance:</p>	<p>A/O X3 to person, place, and time Yes, difficulty breathing Well-groomed and appropriately dressed for place</p>
<p>INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: Braden Score: Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	<p>Pink Dry Normal Good (No tinting) N/A N/A N/A 20 (Mild Risk) N/A</p>
<p>HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:</p>	<p>Symmetrical and lymph nodes are no palpable TM pearly gray, symmetrical PERRLA Symmetrical, no deviation or turbinates or polyps No decay, moist, pink, and intact</p>
<p>CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Location of Edema:</p>	<p>Normal, present with S1 and S2, no murmurs, gallops or rubs in S3 or S4 Regular Strong and equal Less than 3 seconds N/A</p>
<p>RESPIRATORY: Accessory muscle use: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Breath Sounds: Location, character</p>	<p>Lung sounds are diminished in the bases, occasional rhonchi with wheezes in both anterior and posterior upper lobes. Cough with productive greenish-yellow tenacious sputum. Pt is on 5 liters of oxygen by nasal cannula.</p>
<p>GASTROINTESTINAL: Diet at home: Current Diet</p>	<p>Regular NPO</p>

<p>Height: Weight: Auscultation Bowel sounds: Last BM: Palpation: Pain, Mass etc.: Inspection: Distention: Incisions: Scars: Drains: Wounds: Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: N/A Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: N/A</p>	<p>68in (173cm) 71Kg (156lbs) Hypoactive present in all 4 quadrants 3/25/2020 No pain on palpation N/A N/A N/A N/A N/A</p>
<p>GENITOURINARY: Color: Character: Quantity of urine: Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: N/A Size: N/A</p>	<p>Clear Yellow 250mL output Normal</p>
<p>MUSCULOSKELETAL: Neurovascular status: ROM: Supportive devices: Strength: ADL Assistance: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Score: High Risk 45 Activity/Mobility Status: Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment <input type="checkbox"/> Needs support to stand and walk <input type="checkbox"/></p>	<p>Normal, good in all extremities N/A Weak bilaterally 1 assist No No Yes-1 assist</p>
<p>NEUROLOGICAL: MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> PERRLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input checked="" type="checkbox"/></p>	

Orientation: Mental Status: Speech: Sensory: LOC:	Weak bilaterally A/O X3 Clear Alert A/O X3
PSYCHOSOCIAL/CULTURAL: Coping method(s): Developmental level: Religion & what it means to pt.: Personal/Family Data (Think about home environment, family structure, and available family support):	Alcohol Appropriate N/A Pt lives at home by himself but has a daughter that comes and checks up on him. Lost his wife awhile back. Daughter is a good support system.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0505	100 beats	150/94	36 breathes	99.2 °F	91% NC
	per minute	mmHg	per minute	(37.33 °C)	5L Oxygen

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0505	0 to 10 Numeric	N/A	N/A	N/A	N/A

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
NPO	Total: 970mL
Total: 1795mL	Urine: 970mL
IV: 350mL	
PO: 1445mL	

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

<p>Nursing Diagnosis</p> <ul style="list-style-type: none"> • Include full nursing diagnosis with “related to” and “as evidenced by” components 	<p>Rational</p> <ul style="list-style-type: none"> • Explain why the nursing diagnosis was chosen 	<p>Intervention (2 per dx)</p>	<p>Evaluation</p> <ul style="list-style-type: none"> • How did the patient/family respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
<p>1. Decreased Gas Exchange</p>	<p>Related to the COPD and not having a good enough exchange between the oxygen and carbon dioxide as evidence by: that the pt CO2 level was above the normal range of where it should have been. The pt O2 was 91% on 5 liters of oxygen.</p>	<p>1. Monitor pulse oximetry readings and titrate oxygen to keep SpO2 between 88% and 92%.</p> <p>2. Auscultate breath sounds every 2-4 hour and as indicated by the patient’s condition and report significant findings</p>	<p>Pt will have O2 at 93% by end of shift.</p> <p>Breath sounds will become clearer at the end of the day.</p>
<p>2. Potential for Insufficient Airway Clearance</p>	<p>Related to the pt having pneumonia on admission at the ED room of the hospital. As evidence by: the ED nursing relaying the information to the nurse of the</p>	<p>1. Inspect sputum for quantity, odor, color, and consistency; document findings</p> <p>2. Assist the patient with position changes every 2 hours. If the patient</p>	<p>Pt sputum culture came back normal.</p> <p>Pt would get up and go to the restroom</p>

N311 Care Plan #2

	medical unit where the pt was being placed. The pt also had two Albuterol nebulizer treatments before going to the medical unit.	is ambulatory, encourage ambulation to the patient's tolerance.	
--	--	---	--

(Swearingen & D, 2019).

Other References (APA):

Swearingen, P.L., & D, J. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. Elsevier.

Concept Map (20 Points):

Subjective Data

Patient came in stating, "He was having difficulty breathing."

Nursing Diagnosis/Outcomes

1. Decreased Gas Exchange, related to the COPD and not having a good enough exchange between the oxygen and carbon dioxide as evidence by: that the pt CO2 level was above the normal range of where it should have been. The pt O2 was 91% on 5 liters of oxygen.
 - Goal Met: Pt will have O2 at 93% by end of shift.
 - Goal Met: Breath sounds will become clearer at the end of shift.
2. Potential for Insufficient Airway Clearance, related to the pt having pneumonia on admission at the ED room of the hospital. As evidence by: the ED nursing relaying the information to the nurse of the medical unit where the pt was being placed. The pt also had two Albuterol nebulizer treatments before going to the medical unit.
 - Pt sputum culture came back normal.

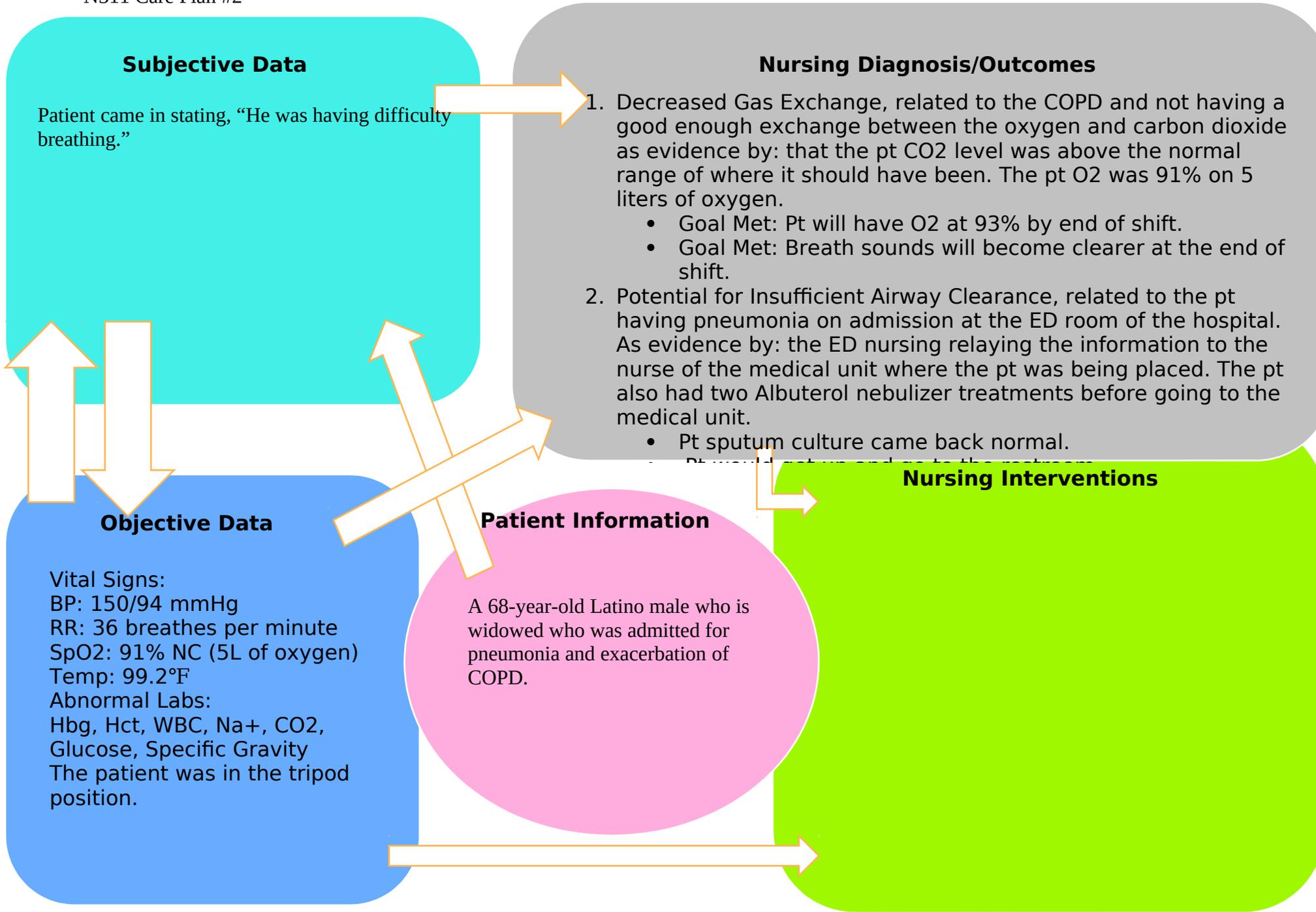
Objective Data

Vital Signs:
BP: 150/94 mmHg
RR: 36 breathes per minute
SpO2: 91% NC (5L of oxygen)
Temp: 99.2°F
Abnormal Labs:
Hbg, Hct, WBC, Na+, CO2,
Glucose, Specific Gravity
The patient was in the tripod position.

Patient Information

A 68-year-old Latino male who is widowed who was admitted for pneumonia and exacerbation of COPD.

Nursing Interventions



N311 Care Plan #2