

N321 Care Plan #2
Lakeview College of Nursing
Airelle Mitchell

N321 CARE PLAN

Demographics (3 points)

| | | | |
|--|---------------------------------|----------------------------------|---|
| Date of Admission 11/05/2021 | Patient Initials S.L. | Age 75 | Gender Female |
| Race/Ethnicity Caucasian | Occupation Retired | Marital Status Married | Allergies Penicillin - Hives/Rash |
| Code Status Full Code | Height 155 cm | Weight 50.100 kg | |

Medical History (5 Points)

Past Medical History: Abdominal EKG, Hypertension, Arthritis, Hyperlipidemia, Gastroesophageal reflux disease, Hypercholesterolemia, Squamous cell stage 1 lung cancer, COPD exacerbation stage 3, Tachycardia, New onset atrial fibrillation, shortness of breath.

Past Surgical History: Cataracts removal x2 (2017), tubal ligation (1997).

Family History: Mother: Hypertension and diabetes melitus.

Father: Alzheimer's disease.

Social History (tobacco/alcohol/drugs): Tobacco: 1 pack a day since the client was 16 years old (Smoking for 59 years).

Alcohol: Denies use. Previously she used to drink alcohol, mainly beer, but stopped about 10 years ago.

Drugs: Denies use.

Assistive Devices: The client uses assistive devices such as a gait belt and walker. Dentures top and bottom. Reading glasses.

Living Situation: The client lives at home with her husband, grandson, and granddaughter.

Education Level: The client completed part of high school.

Admission Assessment

N321 CARE PLAN

Chief Complaint (2 points): Shortness of breath

History of present Illness (10 points): The client is a 75 year old caucasian female who presented to the emergency room on 11/05/2021 because she had worsening shortness of breath. The client had a right lung biopsy on november 1st and has had worsening shortness of breath since then. The client's home oxygen on 2 L via nasal cannula intermittently, but was 85% on room air. The shortness of breath was not being relieved in a tripod position or at rest. The client said "It was really hard to catch my breath and I wasn't getting enough oxygen." The client did not have any associated factors with her shortness of breath. The client reported a 0 on a numeric pain scale from 0-10.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): COPD exacerbation stage 3

Secondary Diagnosis (if applicable): Lung cancer stage 1

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

Chronic obstructive pulmonary disease (COPD) is a combination of emphysema and bronchitis. Exacerbation is when the disease process is getting worse and worse. Chronic bronchitis is the inflammation of the bronchioles and can cause mucus build-up in the airway, hypoxia, and cyanosis (Capriotti, 2020). Hypoxia is low oxygen in the tissues, and cyanosis results when the client has poor circulation. Emphysema is an obstruction of expiratory airflow and air that is trapped in the alveoli (Capriotti, 2020). This can lead to high carbon dioxide retention in the lungs. Airflow limitation in chronic obstructive pulmonary disease causes airway narrowing, fibrosis in bronchioles, hyperinflation, loss of alveolar elastic recoil, and

N321 CARE PLAN

inflammation (Capriotti, 2020). This can lead to poor ventilation and hypoxia. Inflammation can be followed by many different white blood cells.

Inflammation causes stimulation of macrophages that are followed by neutrophils, lymphocytes, and cytokines (Capriotti, 2020). Since the client has been smoking for 59 years, this could stimulate the enzyme proteolytic released by macrophages and neutrophils (Capriotti, 2020). Smoking is the number one cause of chronic obstructive pulmonary disease along with occupation and environmental factors. Smoking cigarettes also contain free radicals that damage respiratory cell membranes and can inactivate the body's natural antioxidant enzymes (Capriotti, 2020). Further, with chronic obstructive pulmonary disease, the client can have high carbon dioxide levels. This can cause carbon dioxide retention and hypoxia.

The signs and symptoms consist of dyspnea, and cough could be nonproductive or productive, wheezing, hypoxia, cyanosis, use of accessory muscles, and respiratory distress (Capriotti, 2020). The client presented signs of hypoxia upon admission with 84% with room air, wheezing, nonproductive cough, dyspnea, shortness of breath, and the use of accessory muscles. A client can have many risk factors, including smoking, a considerable risk factor in chronic obstructive pulmonary disease. Today, 90% of clients with COPD are smokers (Capriotti, 2020). My client has smoked a pack a day since she was 16 years old and was recently diagnosed with lung cancer. Other risk factors include increased age, occupational exposure, chemical, pollution, and genetic abnormalities (Hinkle & Cheever, 2018). There are many risk factors that can affect one's life and lead to chronic obstructive pulmonary disease.

Expected lab values with chronic obstructive pulmonary disease (COPD) are increased carbon dioxide, CBC showing white blood cells, neutrophils, and lymphocytes (Hinkle &

N321 CARE PLAN

Cheever, 2018). My client had an increase in White blood cells, an increase in neutrophils, and a decrease in lymphocytes. These labs reveal infection or inflammation related to the patient's COPD. She also exhibited a carbon dioxide value of 38, which is an increase above the expected value. Chest x-rays should also be utilized as a diagnostic tool. Arterial blood gas measurements are another expected lab draw. Arterial blood gas measurements can show blue bloaters that increase PaCO₂ and a decrease in PaO₂. Pink puffers arterial blood gases reveal a normal PaCO₂ and an increase in PaO₂ (Hinkle & Cheever, 2018).

Spirometry, also called PFTs, is another standard diagnostic tool. This test can measure the FVC, the total volume of air exhaled on maximum effort. FEV₁ is the volume expelled after the first, second exhalation of air from the lungs (Hinkle & Cheever, 2018). Four grades are characterized by chronic obstructive pulmonary disease: stage 1 is mild, stage two is moderate, stage three is severe, and stage four is very severe. The client is graded with a stage three out of four exacerbation, which is very severe. Vital signs with a low oxygen saturation, increased respiration, high blood pressure due to pulmonary hypertension, wheezing, use of accessory muscle, and an increased heart rate. The client upon admission showed a decrease in oxygen saturation, high respirations, and the use of accessory muscles.

Treatment for chronic obstructive pulmonary disease can promote smoking cessation, medications including corticosteroids, bronchodilators, and providing supplemental oxygen (Hinkle & Cheever, 2018). Since the client is at stage three, she will need multiple medications, including corticosteroids, bronchodilators, and selective beta-adrenergic to help with treatment. The client takes a bronchodilator that is key to this disease's symptom relief and side effects relief. The medication is called Albuterol, and this can help relieve bronchospasms by improving

N321 CARE PLAN

expiratory and widening the airways due to narrowing (Hinkle & Cheever, 2018). Another medication the client is taking is a corticosteroid, and it is Methylprednisolone. Corticosteroids help with long-term use by improving the symptoms but do not cure or slow down the disease process from worsening (Hinkle & Cheever, 2018). Also, the client is taking a combination drug consisting of a selective beta-adrenergic agonist and a corticosteroid called Budesonide-formoterol. This drug can help long-term with the client's chronic obstructive pulmonary disease. By using these medications, it won't cure the disease, but it can subside the symptoms and side effects.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology* (2nd ed.). F. A. Davis.

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed). Wolters Kluwer.

Laboratory Data (15 points)

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 | 3.90-5.41 | 4.40 | 4.10 | |
| Hgb | 11.0-15.2 | 13.1 | 12.6 | |
| Hct | 33.2-45.3 | 39.6 | 36.5 | |
| Platelets | 140-400 | 386 | 372 | |
| WBC | 4.0-11.7 | 14.6 | 7.7 | The client has lung cancer and chronic obstructive pulmonary disease stage 3 |

N321 CARE PLAN

| | | | | |
|--------------------|------------|------------|-------------|---|
| | | | | which can cause an increase in white blood cells because of ongoing inflammation and infection. |
| Neutrophils | 45.3-79.0 | 78.5 | 82.8 | Irritation of the airways related to chronic obstructive pulmonary disease causes inflammation and can lead to neutrophils being present (Pagana et al., 2021). |
| Lymphocytes | 11.8-45.9 | 8.0 | 12.1 | Due to the client's chronic inflammation from COPD, this can cause a low lymphocyte count (Pagana et al., 2021). |
| Monocytes | 4.4 - 12.0 | 11.0 | 5.5 | |
| Eosinophils | 0.0-6.3 | N/A | N/A | |
| Bands | 0.2-1.6 | N/A | 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 | 134 | 136 | |
| K+ | 3.5-5.1 | 3.5 | 3.7 | |
| Cl- | 98-107 | 99 | 98 | |
| CO2 | 21-31 | 29 | 38 | The client has been diagnosed with COPD exacerbation stage 3 that is a combination of chronic bronchitis and emphysema. Emphysema can be caused by trapping of air in the alveoli causing hypoxia leading to an increased retention of carbon dioxide (Pagana et al., 2021). |
| Glucose | 74-109 | 103 | 80 | |
| BUN | 7-25 | 16 | 12 | |
| Creatinine | 0.6-1.2 | 0.79 | 0.66 | |

N321 CARE PLAN

| | | | | |
|--------------------|----------|-----|-----|--|
| Albumin | 3.5-5.2 | 4.1 | N/A | |
| Calcium | 8.6-10.3 | 9.0 | 8.9 | |
| Mag | 1.6-2.1 | N/A | 1.8 | |
| Phosphate | 45-117 | N/A | N/A | |
| Bilirubin | 0.3-1.0 | 0.4 | N/A | |
| Alk Phos | 7-52 | N/A | N/A | |
| AST | 0.3-1.0 | 14 | N/A | |
| ALT | 13-39 | 11 | N/A | |
| Amylase | 30-110 | N/A | N/A | |
| Lipase | 11-82 | N/A | N/A | |
| Lactic Acid | 0.5-1.0 | N/A | N/A | |

Other Tests **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 |
|-----------------|-------------------------------|---------------------------|----------------------|----------------------------|
| INR | Normal: 1 Therapeutic: 2-3 | 0.94 | N/A | |
| PT | 10-12 seconds | 12.9 | N/A | |
| PTT | 30-45 seconds | 34.9 | N/A | |
| D-Dimer | < 200 | N/A | N/A | |
| BNP | 0-100 | N/A | N/A | |

N321 CARE PLAN

| | | | | |
|----------------------|-----------|-----|------|--|
| HDL | 23-92 | N/A | N/A | |
| LDL | < 100 | N/A | N/A | |
| Cholesterol | < 199 | N/A | N/A | |
| Triglycerides | 0-149 | N/A | N/A | |
| Hgb A1c | < 6.4 | N/A | N/A | |
| TSH | 0.45-5.33 | N/A | 1.89 | |

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 | Pale yellow/clear | N/A | N/A | |
| pH | 5-8 | N/A | N/A | |
| Specific Gravity | 1.005-1.030 | N/A | N/A | |
| Glucose | Negative | N/A | N/A | |
| Protein | Negative | N/A | N/A | |
| Ketones | Negative | N/A | N/A | |
| WBC | 0-5 | N/A | N/A | |
| RBC | 0-6 | N/A | N/A | |
| Leukoesterase | Negative | N/A | N/A | |

N321 CARE PLAN

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 | N/A | N/A | |
| Blood Culture | Negative | N/A | N/A | |
| Sputum Culture | Negative | N/A | N/A | |
| Stool Culture | Negative | N/A | N/A | |

Lab Correlations Reference (1) (APA):

Pagana, K. D., Pagana T. J., & Pagana T. N. (2021). *Mosby's diagnostic & laboratory test reference* (15th ed.) Elsevier.

Sarah bush reference information: Cerner 2021

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

1. EKG (11/08/2021) - Shows sinus tachycardia - new onset of atrial fibrillation.
2. XR Chest 1 View (11/05/2021) - Decrease in airspace disease at the right lateral sulcus hyperinfiltration.
3. XR Chest 2 Views (11/05/2021) - Hyperinflated lungs with chronic interstitial changes and redemonstrated spiculated right infrahilar opacity. No new infiltration.
Emphysematous lung changes with hyperventilation and unchanged right infrahilar opacity. No acute findings.
4. CT Biopsy Lung / mediastinum (11/01/2021) - Lung cancer

N321 CARE PLAN

5. XR Chest (11/01/2021) - CT guided right lung biopsy inspiration and expiration. Heart size is normal, right lower lobe nodule visualized, no pneumothorax or pleural effusion. Negative for pneumonia.

Diagnostic Test Correlation (5 points):

An electrocardiogram shows graphic electrical impulses through electrodes that detect electrical activity via the heart (Pagana et al., 2021). The client had an electrocardiogram to monitor her heart due to her new onset diagnosis of atrial fibrillation and should be monitored throughout her stay in the hospital. Chest x-rays can be done to show a complete evaluation of the lungs and heart structures. A chest x-ray can reveal tumors, inflammation, fluid accumulation, air accumulation, fractures, and heart size (Pagana et al., 2021). The client had multiple chest x-rays done during her stay. These x-rays showed a decrease in the clients airspace, hyperventilation, and emphysema lung changes due to the clients chronic obstructive pulmonary disease and lung cancer. The client had a lung biopsy and CT before she was admitted and showed lung cancer in the lungs. She came to the hospital because she has had worsening hypoxia and shortness of breath.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana T. J., & Pagana T. N. (2021). *Mosby's diagnostic & laboratory test reference* (15th ed.) Elsevier.

**Current Medications (10 points, 1 point per completed med)
*10 different medications must be completed***

N321 CARE PLAN

Home Medications (5 required)

| | | | | | |
|----------------------------|--|--|--|--|--|
| Brand/Generic | Atorvastatin/ Lipitor | Methotrexate/ Otrexup | Albuterol/ ProAir HFA | Rivaroxaban/ Xarelto | Budesonide-formoterol/ Symbicort |
| Dose | 10 mg | 7.5 mg | 90 mcg | 15 mg | 160 mcg |
| Frequency | HS | Once a week | 2 puffs - Q4H | Daily | 2 puffs - BID |
| Route | PO | PO | Inhale | PO | Inhale |
| Classification | Pharmacologic: HMG-CoA reductase inhibitor Therapeutic: Antihyperlipidemic | Pharmacologic: Folate antagonists (antimetabolic) Therapeutic: Antineoplastic | Pharmacologic: Adrenergic Therapeutic: Bronchodilator | Pharmacologic: Factor Xa inhibitor Therapeutic: Anticoagulant | (Budesonide) Pharmacologic: Corticosteroid Therapeutic: Antiasthmatic, anti-inflammatory (Formoterol) Pharmacologic: Selective beta adrenergic agonist Therapeutic: Bronchodilator |
| Mechanism of Action | Reducing lipoprotein and cholesterol by inhibiting HMG-CoA reductase. (Jones, 2021). | Immunosuppressive effects by replicating B and T lymphocytes. Slows rapid growing cells. Methotrexate can interfere with DNA synthesis, replication, and repair (Jones, 2021). | Albuterol attached to the receptors stimulates the adenylate cyclase into ATP and is converted into CAMP. This will relax the bronchial smooth muscle (Jones, 2021). | Blocks the active site of Factor Xa for blood coagulation, if this is not there then blood clotting is impaired (Jones, 2021). | These medications work together in combination to reduce the inflammation and irritation of the airways. Budesonide inhibits inflammatory cells by decreasing influx into nasal passages and bronchial walls which decreases inflammation. |

N321 CARE PLAN

| | | | | | |
|---|---|---|--|---|--|
| | | | | | Formoterol helps by relaxing the bronchial smooth muscles of the airways (Jones, 2021). |
| Reason Client Taking | Hypercholesterolemia | Arthritis | For exercise induced bronchospasms. | To reduce risk of stroke or pulmonary embolism in patients with nonvascular atrial fibrillation (Jones, 2021). | Chronic obstructive pulmonary disease |
| Contraindications (2) | Hypersensitivity to atorvastatin, active hepatic disease (Jones, 2021). | alcoholism, alcoholic liver disease, leukopenia (Jones, 2021). | Hypersensitivity to albuterol and its components (Jones, 2021). | Active bleeding and hypersensitivity to its components (Jones, 2021). | Hypersensitivity to these drugs or their components; trauma from nasal sprays or inhalants (Jones, 2021). |
| Side Effects/Adverse Reactions (2) | Arrhythmias and dyspnea (Jones, 2021). | Interstitial pneumonitis and pulmonary infiltrates (Jones, 2021). | Arrhythmias and bronchospasms (Jones, 2021). | Pulmonary hemorrhage and agranulocytosis (Jones, 2021). | Bronchospasm, anaphylaxis, asthma exacerbation, and paradoxical bronchospasms (Jones, 2021). |
| Nursing Considerations (2) | Do not take this medication with grapefruit juice because it can increase atorvastatin levels in the blood. Withhold the medication and notify the provider if the patient develops myopathy (Jones, 2021). | Monitor results if CBC, chest x-ray, liver, and renal function test before, during, and after treatment. Follow standard precautions because this drug can cause immunosuppression (Jones, 2021). | Make sure the client is well educated on the proper use of an inhaler. Monitor serum potassium levels because albuterol could cause hypokalemia (Jones, 2021). | Monitor the clients renal and hepatic function while taking this drug. Rivoxaban should not be given to clients with high risk conditions that include active cancer (Jones, 2021). | Monitor patients who have had diabetes melitus, cataracts or glaucoma, and osteoporosis because glucocorticosteroid therapy might increase adverse effects. Watch closely for paradoxical bronchospasms and if it occurs |

N321 CARE PLAN

| | | | | | |
|--|--|--|--|--|---------------------------------|
| | | | | | stop medications (Jones, 2021). |
|--|--|--|--|--|---------------------------------|

Hospital Medications (5 required)

| | | | | | |
|------------------------------|---|--|--|--|--|
| Brand/Generic | Aspirin/ Enteric coated | Famotidine/ Pepcid | Metoprolol/ Lopressor | Losartan/ Cozaar | Methylprednisol one/ Solumedrol |
| Dose | 81 mg | 20 mg | 100 mg - 2 tablets | 100 mg - 4 tablets | 40 mg - 1 mL |
| Frequency | Daily | BID | Daily | Daily | BID |
| Route | PO | PO | PO | PO | IV push |
| Classification | Pharmacologic: Salicylic Therapeutic: NSAID (anti inflammatory, antipyretic, non opioid analgesic) | Pharmacologic: Histamine-2 blocker Therapeutic: Antiulcer agent | Pharmacologic: Beta adrenergic blocker Therapeutic: Antianginal, antihypertensive | Pharmacologic: Angiotensin II receptor blocker (ARB) Therapeutic: Antihypertensive | Pharmacologic: Glucocorticoid Therapeutic: Corticosteroid |
| Mechanism of Action | Blocks cyclooxygenase which will reduce inflammation and pain (Jones, 2021). | H-2 receptors reduce HCL formation by not allowing the histamine binding, by doing this the drug will help against peptic ulcers from forming (Jones, 2021). | Decrease in cardiac excitability, cardiac output, and myocardial oxygen demand / reduces blood pressure by lowering renin released by the kidneys (Jones, 2021). | Blocks angiotensin II receptors in tissues, adrenal glands, and vascular smooth muscle. Vasoconstricts and reduces blood pressure (Jones, 2021). | Binding of glucocorticoid receptors reduces inflammation and immune responses by inhibiting neutrophils in inflammation sites (Jones, 2021). |
| Reason Client Taking | Arthritis | GERD (gastroesophageal reflux disease). | Hypertension | Hypertension | Treats immune and inflammatory disorders like COPD. |
| Contraindications (2) | Active bleeding and | Hypersensitivity to other | Heart rate less than 45 bpm and | Hypersensitivity to this | Hypersensitivity to cow's milk or |

N321 CARE PLAN

| | | | | | |
|---|---|---|---|---|--|
| | hypersensitivity to other NSAIDs (Jones, 2021). | H2-receptors and these medication components (Jones, 2021). | hypersensitivity to metoprolol or its components (Jones, 2021). | medication or its components (Jones, 2021). | other dairy products and or hypersensitivity to its components (Jones, 2021). |
| Side Effects/Adverse Reactions (2) | Bronchospasms and hepatotoxicity (Jones, 2021). | Bronchospasm, wheezing, and prolonged QT interval (Jones, 2021). | Arterial insufficiency and bronchospasm / shortness of breath (Jones, 2021). | Hypotension and hyperkalemia (Jones, 2021). | pulmonary edema and cardiac arrest (Jones, 2021). |
| Nursing Considerations (2) | Do not crush timed release medication or controlled release unless the provider directed too. Make sure to monitor the client for tinnitus (Jones, 2021). | Shake the oral suspension vigorously for about 10 seconds before administration. Instruct the client to completely chew the tablet before swallowing and wait 30 minutes to an hour after taking famotidine to have an antacid (Jones, 2021). | If the dose exceeds 400 mg in a day, monitor the patient for bronchospasms and dyspnea because it blocks the beta blockers in the bronchial and vascular smooth muscle (Jones, 2021). | Monitor blood pressure and renal function to check the drugs effectiveness. Know that splitting the doses can be more effective and this drug may be used with other antihypertensives (Jones, 2021). | Give these tablets with food to prevent GI upset and indigestion. Expect to taper the drug over time when discontinuing it due to possible fatal acute adrenocortical insufficiency (Jones, 2021). |

Medications Reference (1) (APA):

Jones, D. W. (2021). *Nurse's drug handbook*. (A. Barlett, Ed.) (20th ed.). Jones & Bartlett

Learning.

Assessment

N321 CARE PLAN

Physical Exam (18 points)

| | |
|---|---|
| GENERAL (1 point): Alertness: Orientation: Distress: Overall appearance: | Alert and oriented to person, time, place, and situation (x4). The client was calm and not in any distress. She was well groomed and dressed appropriately. |
| INTEGUMENTARY (2 points): Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: Braden Score: 19 Drains present: Y <input type="checkbox"/> N X Type: | Pale Dry and no moisture present. Warm to touch on all extremities bilaterally. Turgor was greater than 3 seconds and tented. No rashes present. Bruising on hands, arms bilaterally, and one bruise on her left leg. No wounds present. Braden score of 19. |
| HEENT (1 point): Head/Neck: Ears: Eyes: Nose: Teeth: | Head and neck were normal cephalic and symmetrical with normal range of motion in the head and neck. No drainage of inflammation noted in the ears. Exhibited PERLA (3 mm) and the client uses “readers” for glasses. The sclera was white and conjunctiva was pink. The nose was symmetrical and midline. No drainage or inflammation of the nose. The client has dentures on top and bottom. |
| CARDIOVASCULAR (2 points): Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N X Edema Y <input type="checkbox"/> N X Location of Edema: | S1 and S2 heard. No murmur or gallop present when listening to the aortic, pulmonic, Erb's point, tricuspid, and mitral locations. Irregularly irregular rhythm atrial fibrillation. S1 was more intense. Pulses 2+ bilaterally in the carotid arteries, radial arteries, and dorsalis pedis arteries. All locations were easily palpable. Capillary refill was less than 3 seconds in all extremities. No edema present. |
| RESPIRATORY (2 points): Accessory muscle use: YX N Breath Sounds: Location, character | The client had wheezes in the upper lungs on expiration posteriorly. Respirations were 18 rpm and were equal. Use of accessory muscles with room air. Nasal cannula oxygen 2L intermittently, not constant. |

N321 CARE PLAN

| | |
|--|--|
| <p>GASTROINTESTINAL (2 points): Diet at home: Current Diet Height: Weight: Auscultation Bowel sounds: Last BM: Palpation: Pain, Mass etc.: Inspection: Distention: Incisions: Scars: Drains: Wounds: Ostomy: Y <input type="checkbox"/> N X Nasogastric: Y <input type="checkbox"/> N X Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N X Type:</p> | <p>Regular diet at home. Heart healthy diet in hospital. 50.100 kg 155 cm Active in all four quadrants. Last BM: November 6th. No pain or masses present during palpation. No distention, wounds, incisions, or drains present. Scar on lower abdomen. Ostomy, nasogastric, or feeding tubes present.</p> |
| <p>GENTOURINARY (2 Points): Color: Character: Quantity of urine: Pain with urination: Y <input type="checkbox"/> N X Dialysis: Y <input type="checkbox"/> N X Inspection of genitals: Catheter: Y <input type="checkbox"/> N X Type: Size:</p> | <p>Yellow Clear 1800 mL (3 cups of 600 mL of water/soda) No pain, urgency, or burning while urinating. The client states she has frequency because she has had a lot to drink. Inspection of genitals: pink, dry, and clean.</p> |
| <p>MUSCULOSKELETAL (2 points): Neurovascular status: ROM: Supportive devices: Strength: ADL Assistance: Y N X Fall Risk: Y X N <input type="checkbox"/> Fall Score: 45 Activity/Mobility Status: Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment X Needs support to stand and walk <input type="checkbox"/></p> | <p>The client's strength was 5/5 on all extremities. The clients reflexes within normal range. active ROM in all extremities bilaterally. Pulses were present in all extremities and the client was warm to touch. Gait belt, walker, dentures, and glasses. Fall risk: 45 Client has a bed and chair alarm, so she can not get up without assistance with a walker or gait belt. Client denies needing help with anything</p> |

N321 CARE PLAN

| | |
|---|--|
| | and should be able to go to the bathroom and do things on her own. |
| NEUROLOGICAL (2 points): MAEW: Y X N <input type="checkbox"/> PERLA: Y X N <input type="checkbox"/> Strength Equal: Y X N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Mental Status: Speech: Sensory: LOC: | <p>Client is A&O times 4. Mental status is fully intact. Speech is clear and within normal vocal range. Sensory is intact and bilaterally on both sides of the upper and lower body equally. Level of consciousness is Alert and oriented.</p> |
| PSYCHOSOCIAL/CULTURAL (2 points): Coping method(s): Developmental level: Religion & what it means to pt.: Personal/Family Data (Think about home environment, family structure, and available family support): | <p>The client is dealing with her disease and cancer through her family support. She is able to cope through the support of her family and does a lot of activities during the day like crossword puzzles, puzzles, and reading. She has her grandson, granddaughter, and husband there for support. Client's developmental level is appropriate for her age. She has no religious preference or affiliations.</p> |

Vital Signs, 2 sets (5 points)

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|------|--------|----------------|-----------|--------|---|
| 0740 | 82 bpm | 121/75 mmHg | 18 rpm | 36.3 C | 96% 2L oxygen intermittently via nasal cannula. |
| 1100 | 90 bpm | 124/75 mmHg | 20 rpm | 36.8 C | 94 % 2L oxygen intermittently via nasal cannula. |

N321 CARE PLAN

Pain Assessment, 2 sets (2 points)

| Time | Scale | Location | Severity | Characteristics | Interventions |
|-------------|--------------------------|-----------------|-----------------|------------------------|--------------------------------|
| 0740 | 0-10 Numeric Scale | N/A | 0 | N/A | Tramadol can be given for pain |
| 1100 | 0-10 Numeric Scale | N/A | 0 | N/A | Tramadol can be given for pain |

IV Assessment (2 Points)

| IV Assessment | Fluid Type/Rate or Saline Lock |
|--|--|
| Size of IV: Location of IV: Date on IV: Patency of IV: Signs of erythema, drainage, etc.: IV dressing assessment: | 18 gauge Right antecubital. 11/07/2021 Patent, flushes easily No signs of erythema, phlebitis, or drainage. Dry, intact, saline locked until the next dose of Solumedrol - 40 mg - 1mL - IV push. |

Intake and Output (2 points)

| Intake (in mL) | Output (in mL) |
|---|-----------------------|
| 1800 mL - 3 cups of 600 mL of water / coke Ate all over breakfast which consisted of ham, scrambled eggs, and toast. | 1800 mL - urine |

Nursing Care**Summary of Care (2 points)**

Overview of care: During my shift, I was able to administer the client's medications and do a head to toe assessment.

N321 CARE PLAN

Procedures/testing done: Patient had an EKG and chest x-ray done.

Complaints/Issues: The client was not happy when she asked us to turn off the bed alarm so she could use the restroom by herself. If the client is a fall risk, per hospital policy she needs a gait belt, and in her orders she is supposed to be using a gait belt and walker. This was the only issue she had and later apologized for getting angry at the students. No other complaints.

Vital signs (stable/unstable): Stable, but the oxygen saturation should be monitored.

Tolerating diet, activity, etc.: The client is tolerating the diet as heart healthy in the hospital, but when she leaves she said she will go back to her diet at home.

Physician notifications: None during my shift.

Future plans for patient: The client is planning on being discharged later today (11/10/2021) and since the client was just diagnosed with lung cancer, she will be following up with a treatment center for cancer.

Discharge Planning (2 points)

Discharge location: The client will be discharged home with her husband and grandchildren.

Home health needs (if applicable): The client has no specific needs for home health care at this time.

Equipment needs (if applicable): The client wants a walker at home, but might not use it right away.

Follow up plan: The client should follow up with her primary care provider and a cancer treatment center due to her new diagnosis of lung cancer.

N321 CARE PLAN

Education needs: The client should be educated on how to treat her diagnosis of COPD exacerbation and her lung cancer.

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis and listed in order of priority

| Nursing Diagnosis <ul style="list-style-type: none"> ● Include full nursing diagnosis with “related to” and “as evidenced by” components | Rational <ul style="list-style-type: none"> ● Explain why the nursing diagnosis was chosen | Intervention (2 per dx) | Evaluation <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. |
|--|---|--|--|
| 1. Ineffective airway clearance related to COPD as evidenced by nonproductive cough and sitting in a tripod position. | When talking with the client she showed symptoms of a nonproductive cough which can block the client's airway clearance because it's not an effective cough by getting the debri out. The client also was sitting in the tripod position to have a better airway clearance due to her COPD. | <ol style="list-style-type: none"> 1. Auscultate the lungs after coughing for abnormalities such as wheezing. 2. Use of an incentive spirometer and education on proper use. | Goal Met: I was able to assess the client’s lung sounds twice during the morning and was able to hear wheezing. Goal Met: The client was using her incentive spirometer during her time in the hospital and was educated on how to properly use it. |
| 2. Ineffective breathing pattern related to COPD as evidenced by hypoxia of oxygen saturation 84% on room air upon admission on (11/05/2021). | The client’s COPD exacerbation is causing an ineffective breathing pattern of not enough oxygen of 84% in which she was admitted for. | <ol style="list-style-type: none"> 1. Use a pulse oximetry to monitor oxygen saturation. 2. Assess for altered breathing patterns. | Goal Met: The client had the pulse oximeter on her right index finger measuring her oxygen continuously. The oxygen with 2 L nasal cannula was at 96% and 94% during both vital checks. Goal met: during my head to toe i was able to assess |

N321 CARE PLAN

| | | | |
|---|---|--|---|
| | | | the client's respirations rate (18 rpm). |
| 3. Impaired gas exchange related to COPD exacerbation stage 3 as evidenced by the client has a carbon dioxide level of 38 - hypercapnia. | The client's impaired gas exchange related to emphysematous lungs observed in the chest x-ray which is from damage or obstructed alveoli. As a result of the emphysema this makes it difficult for ventilation and causes carbon dioxide retention. | <ol style="list-style-type: none"> 1. Educate on slow deep breathing and pursed lip breathing. 2. Asses for favored positioning for maximum lung capacity while breathing. | <p>Goal not met: During my shift, I was not able to educate her on pursed lip breathing and deep breathing although it is a good way to move oxygen into the lungs and co2 out of the lungs.</p> <p>Goal Met: The client uses tripod positioning to have better ventilation and help with her gas exchange.</p> |

Other References (APA):**Concept Map (20 Points):**

Objective Data:

1. The client's respirations were 19 rpm and 20 rpm during both vital checks.
2. The client's O2 saturation was 96% and 94% on 2L of oxygen.
3. The client was alert and oriented times 4 to person, place, situation, and time.
4. The client sits in a tripod position to gain full breathing capacity.

Subjective Data:

1. The client has been smoking for the last 59 years.
2. The client complained of shortness of breath and low oxygen upon admission.
3. The client states she has no religious preference that will affect her care.

Patient Information:

The client is a 75 year old female that presented to the emergency room with 85% O2 sat on room air. She complained of low oxygen and shortness of breath. She has had this since her lung biopsy on November 1st.

Nursing Diagnosis/Goals:

1. Ineffective airway related to COPD as evidenced by non reproductive cough and sitting in a tripod position.
 - a. Goal: The client can be able improve airway clearance by coughing, using incentive spirometer, and through positioning. The client's wheezes should be cleared before discharge.
2. Ineffective breathing pattern related to COPD as evidenced by hypoxia of oxygen saturation 84% on room air upon admission on 11/05/2021.
 - a. Goal: The client can be given oxygen in the hospital to improve the client's oxygen saturation before discharge. The client should be above 92% on 2L before discharging.
3. Impaired gas exchange related to COPD exacerbation stage 3 as evidenced by the client having a CO2 level of 38 - hypercapnia.
 - a. Goal: The client can use pursed lip breathing to help move CO2 retention out of her lungs. The healthy range for CO2 is 21-31 by her lab draw before discharge. Which would be met.

Nursing Interventions:

1. Auscultate the lungs after coughing for abnormalities such as wheezing.
2. Use incentive spirometer and educate on proper use.
3. Use continuous pulse oximetry to monitor oxygen saturation.
4. Assess for altered breathing pattern.
5. Educate on slow deep breathing and pursed lip breathing.
6. Assess for favored positioning for maximum lung capacity while breathing.

