N321 Care Plan #

Lakeview College of Nursing

Name

Demographics (3 points)

Date of Admission	Client Initials	Age	Gender
1/18/23	**M.R.S.**	**89**	**female**
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
white	**Retired, used to be teacher**	**widow**	**Albuterol SO4, cephalexin /hives, doxycycline, hydromorphone, menthol, meperidine, Penicillin, sertraline, tiotropine, tramadol, verapamil/ anaphylaxis, vilazodone.**
Code Status	**Height**	**Weight**	
FULL	**5'3'' or 160cm**	**77.3kg or 170lb 8oz**	

Medical History (5 Points)

Past Medical History: COPD, DM, anxiety, depression, hypothyroidism, hyperlipidemia, CVA, restless leg syndrome, HTN, GERD w/ Barret's esophagus, insomnia, asthma, iron deficiency, Respiratory failure.

Past Surgical History: EGD 2016, colonoscopy 2014

Family History: mother- breast cancer at 89, father- massive stroke (died young), brother- died from lung cancer, sister died from stroke.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Denies alcohol, drugs, tobacco use. Quit smoking 28 years ago, used cigarettes, 45 years-pack history.

Assistive Devices: walker

Living Situation: living in Holly Brooke assisted living place

Education Level: educated to be a teacher, worked for many years

Admission Assessment this morning

Chief Complaint (2 points): shortness of breath

History of Present Illness – OLD CARTS (10 points): Patient started with having shortness of breath, fever, and midsternal chest pain this morning (1/18/23). She wanted to go to hospital to be checked. On admission, she did not need oxygen. She said that dyspnea worsens with activity. Nothing makes it better. No information found about the pain level or description/radiation of the pain. Patient stated that she had had productive cough one week earlier and the sputum was blood tinged.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia involving right lung

Secondary Diagnosis (if applicable): N/A

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

Pathophysiology of Pneumonia

Pneumonia is an inflammatory disease of the lungs. Etiologic factors are numerous. The most common etiologic agents are bacteria. In the community settings the most common causative bacteria is Streptococcus pneumoniae or Pneumococcus. These infections are spread by droplets. In this case, infection first starts in upper respiratory tract, where microorganism multiply, and then spreads down to the lungs. In hospitals, infections can be spread via central venous catheter. Or drug users can introduce bacteria via dirty needles. In this case bacteria is usually from Staphylococcus species. In hospital acquired infections the common cause is methicillin-resistant Staphylococcus aureus

(MRSA). Many other bacteria, viruses, fungi can cause pneumonia. Flu infections are very dangerous for starting pneumonia (2018). Although, flu virus does not cause pneumonia per se, it weakens body systems. That way help bacterial growth in the lungs and cause secondary infection, bacterial infection in the lungs. Other factors for development pneumonia can be Cancers, COPD, bronchiectasias, smoking. Aspiration of contents from oropharynx and stomach can cause aspirational pneumonia.

Pathophysiology of bacterial pneumonia starts with the inflammatory reaction in the lower parts of the respiratory tract in alveoli. Blood vessels become dilated and neutrophils come out to fight infection. Many chemicals are released during that process. Pus and edema are being formed. At the same time Goblet cells produce large amount of mucus. Edema and mucus fill up alveoli and it becomes hard for gases to get to the respiratory membrane. Many of the alveoli cannot open. This gives sound of crackles we can hear with stethoscope. Hypoxia and hypercapnia are developing. Cough is one of the first symptoms. Cough can be productive with mucus, pus or blood in the sputum. Or it can be dry, nonproductive. Also there can be fever, chills, pleuritic chest pain with deep breathing. Dyspnea develops too, with tachypnea, tachycardia, cyanosis. Egophony, bronchophony, whispered pectoriloquy can be find. There can be dullness in percussion over the affected area (2008). Tests for pneumonia are x-ray, sputum cultures, CBC (viral or bacterial).

My patient was admitted with diagnosis of Pneumonia of the right lung. She had a cough that was productive and was blood tinged. She had a chest pain, fever, dyspnea. All these symptoms are characteristic of Pneumonia. Sputum culture was not done. Instead of that, blood culture was done on the first day and it was negative which means no bacteria was present in the blood. X-ray was done and shoved infiltrate on the right lung. This

infiltrate has not changed in the last four days. ECG was negative for cardiac ischemia. The patient has many risk factors for developing pneumonia. She has COPD, HTN, hyperglycemia, hypothyroidism. She has GERD and that can cause aspirational pneumonia.

References

Bare, G.B., Cheever, K.H., Hinkle, J.L., & Smeltzer, S.C. (2008). ***Brunner & Suddarth's Textbook of Medical-Surgical Nursing.*** **Lippincott Williams & Wilkins.**

Parker, N., Schnegurt, M., Anh-Hue, T.T., Forster, B. M., & Lister, P. (2018). ***Microbiology*****. OpenStax.**

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 mill/mcL	3.80-5.30	4.11 mil/mcL	4.69mil/mcL	normal
Hgb g/dL	12.0- 15.8	11.4 g/dL	13.1g/dL	normal
Hct %	36.0- 47.0%	35.1 %	39.5 %	normal
Platelets	140-440 mcL	247 mcL	301 mcL	normal
WBC	4.00- 12.00 mcL	18.00mcL	10.30 mcL	Normal today, It was increased due to infection/ pneumonia (2006).
Neutrophils	47.00- 73.00 %	88.7%	89.7%	Increased due to infection (2006).
Lymphocytes	18.0-42 %	62%	47.5%	Increased due to infection (2006).
Monocytes	4.0- 12.0%	4.5%	2.8%	May be deecreased by corticosteroid therapy (2006).
Eosinophils	0.0-5.0 %	0.5%	0.0%	normal
Bands	Not available	n/a	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- mmol/L	136-145	140	138	normal
K+ mmol/L	3.5- 5.1	3.5	3.6	normal
Cl- mmol/L	98- 107	106	99	normal

CO2 mmol/L	**22-30**	**25**	**28**	**normal**
Glucose mg/dL	**70-99**	**129**	**253**	**Increased level of glucose can be due to stress, some medications can increase glucose, maybe the patient did not fast before giving blood sample (2006).**
BUN mg/dL	**10-20 mg/dL**	**16**	**21**	**normal**
Creatinine mg/dL	**0.68-1.00**	**0.68**	**0.77**	**normal**
Albumin g/dL	**3.5-5.0**	**3.1**	**n/a**	**normal**
Calcium	**8.7-10.5**	**7.8**	**9.3**	**Normal today**
Mag	**1.5-2.5mEq/L**	**n/a**	**n/a**	**n/a**
Phosphate	**2.5-4.5 mg/dL**	**n/a**	**n/a**	**n/a**
Bilirubin	**<1mg/dL**	**0.9**	**n/a**	**Normal value**
Alk Phos	**40-150 units/L**	**73 units/L**	**n/a**	**Normal value**
AST	**5-40units/L**	**16**	**n/a**	**Normal value**
ALT	**7-56 units/L**	**19**	**n/a**	**Normal value**
Amylase	**23-85 units/L**	**n/a**	**n/a**	**n/a**
Lipase	**0-160 units/L**	**n/a**	**n/a**	**n/a**
Lactic Acid	**0.5-2.2 mmol/L**	**1.0 mmol/L**	**n/a**	**Normal value**

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	**0-1.5**	**n/a**	**n/a**	**n/a**
PT	**11.0-12.5 seconds**	**n/a**	**n/a**	**n/a**
PTT	**60-70 seconds**	**n/a**	**n/a**	**n/a**
D-Dimer	**<250mcg/L**	**n/a**	**n/a**	**n/a**
BNP	**22-77ng/L**	**n/a**	**n/a**	**n/a**
HDL	**65mg/L<**	**n/a**	**n/a**	**n/a**
LDL	**<100mgL**	**n/a**	**n/a**	**n/a**
Cholesterol	**<200mg/dL**	**n/a**	**n/a**	**n/a**
Triglycerides	**<150mg/dL**	**n/a**	**n/a**	**n/a**
Hgb A1c	**<5.7- 6.4**	**n/a**	**n/a**	**n/a**
TSH	**0.4-4.0 milli units/L**	**n/a**	**n/a**	**n/a**

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/clear**	**Clear, yellow**	**n/a**	**normal**
pH	**4.5-8.0**	**7.5**	**n/a**	**normal**
Specific Gravity	**1.005-1.025**	**1.011**	**n/a**	**normal**
Glucose	**negative**	**negative**	**n/a**	**normal**
Protein	**0mg/dL**	**negative**	**n/a**	**normal**
Ketones	**negative**	**negative**	**n/a**	**normal**
WBC	**negative**	**0-5**	**n/a**	**normal**
RBC	**negative**	**negative**	**n/a**	**normal**
Leukoesterase	**negative**	**Trace!**	**n/a**	**normal**

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**	**n/a**
Blood Culture	**negative**	**negative**	**negative**	**normal**
Sputum Culture	**negative**	**n/a**	**n/a**	**n/a**
Stool Culture	**negative**	**n/a**	**n/a**	**n/a**

Lab Correlations Reference (1) (APA

Pagana, K. D., & Pagana, T. J. (2006). ***Mosby's Manual of Diagnostic and Laboratory Tests.***

Mosby Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): x-ray, blood culture, ECG

Diagnostic Test Correlation (5 points): X-ray was done to see changes on the lungs and confirm pneumonia. Blood culture was done to check presence of bacteria in the blood, none found. ECG was doe to eliminate infarct because of the chest pain.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., & Pagana, T. J. (2006) ***Mosby' Manual of Diagnostic and Laboratory Tests.***

Mosby Elsevier.

Cappriotti, T. (2020). ***Davis Advantage for Pathophysiology*****. F.A.Davis.**

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/ Generic	**Acetaminophen (Tylenol) Control release**	**Amlodipine besylate (Norvasc)**	**Atorvastatin Lipitor)**	**Clopidogrel (Plavix)**	**Furosem (Lasix)**
Dose	**650mg tab**	**10mg tab**	**10mg tab**	**75mg tab**	**20mg tab**
Frequency	**Every 6 hours as needed/ PRN**	**daily**	**daily**	**daily**	**daily**
Route	**oral/ PO**	**Oral/PO**	**Oral/ PO**	**oral**	**oral**
Classificati on	**Nonsalycilate, para-aminophenol, antipyretic, nonopioid analgesic**	**Calcium channel blocker, Antianginal, antihypertensive**	**HMG-CoA reductase inhibitor, antihyperlipidemi c**	**P2Y platelet aggregation inhibitor**	**Loop diu antihype ve**
Mechanis m of Action	**inhibits cyclooxygenase, by blocking prostaglandin production and that prevents pain formation in PNS**	**Binds to myocardial cells and smooth muscle cells and blocks influx of calcium ions. This lovers BP by decreasing peripheral vascular resistance. Also decrease anginal pain.**	**Reduces plasma cholesterol level by inhibiting HMG -CoA reductase**	**Binds to ADP receptors on platelets, blocks them and prevents fibrinogen from attaching. No thrombi formation,**	**Inhibits v and sodiu reabsorp in the loo Henle, increases urine formatio**
Reason Client	**For mild to moderate pain**	**For HTN**	**For hyperlipidemia**	**Prevent thrombosis**	**Reduce e caused by**

Taking					
Contraindications (2)	**1.severe liver disease 2.hypersensitivity to acetaminophen**	**1.hypersensitivity to drug 2.not listed**	**1.hypersensitivity to atorvastatin 2.active liver disease**	**1.intracranial bleeding 2.peptic ulcer**	**1.Hypersvity to furosemi 2.anuria**
Side Effects/Adverse Reactions (2)	**1.Atelectasis 2.Pulmonary edema**	**1.pancreatitis 2.arrhytmias**	**1.rhabdomyolysis 2.leg cramps**	**1. Stevens-Johnson syndrome 2.bronchospasm**	**1.Arrhyt 2.thromb bolism**
Nursing Considerations (2)	**1.Calculate total daily intake 2.monitor liver function**	**1use cautiously in heart failure 2.monitor BP**	**1.lipitor can affect blood glucose control 2.may be used with other drugs for additive antihyperlipidemic effect**	**1. prolongs bleeding time, stop it five days before surgery 2.obtain blood cell count if signs of hematologic problem**	**1.caution advanced cirrhosis 2.Alergy sulfonam connecte allergy to furosemi**

Brand/Generic	**Enoxaparin (Lovenox)**	**Gabapentin (Neurontin)**	**Insulin glargine (Lantus)**	**Insulin lispro (Humalog)**	**levofloxacin (Levaquin)**
Dose	**40mg inj.**	**100mg caps.**	**10mg tablet**	**75mg tablet**	**750mg tablet**
Frequency	**daily**	**nightly**	**daily**	**daily**	**Q 48 hours**
Route	**subcutaneous**	**oral/PO**	**subcutaneous**	**subcutaneous**	**oral/ PO**
Classification	**Low MW heparin, anticoagulant**	**Anticonvulsant, 1-amino-methyl cyclohexane acetic acid**	**Insulin hormone**	**Insulin hormone**	**Antibiotic, fluoroquinolone**
Mechanism of Action	**Binds to antithrombin III and inactivates clotting factor X and thrombin. Thrombus cannot form.**	**For neuronal pain, similar to GABA**	**Lovers glucose in blood, slow action, regulates glucose metabolism**	**Lovers glucose in blood, fast action, regulates glucose metabolism**	**Interferes with bacterial cell replication**

Reason Client Taking	**To prevent thrombus formation.**	**for restless leg syndrome**	**hyperglycemia**	**hyperglycemia**	**Infection**
Contraindications (2)	**1.active bleeding 2. Immune mediated heparin caused thrombocytopenia**	**1.hypersensitivity 2. N/A**	**1.Hyper sensitivity 2. N/A**	**1.hypersensitivity 2.N/A**	**1.hypersensitivity 2.N/A**
Side Effects/Adverse Reactions (2)	**1.CHF 2.melena**	**1.hyperglycemia 2. agitation**	**1.hypoglucemia 2.sweling of injection site**	**1.hypoglucemia 2. scars on the skin**	**1.liver failure 2.confusion**
Nursing Considerations (2)	**1.diabetic retinopathy 2. increased risk of bleeding**	**1.monitor renal function 2. suicidal thinking**	**1. careful with doses 2. check sugar before injecting**	**1. checking on patient after giving insulin 2. checking on pt to have food before injection**	**1. monitor renal function 2.caution in elderly for tendone rupture**

Medications Reference (1) (APA):

Ambrose, P. J., Barros, M.C., Bednarczyk, E. M., Bello, C. E., (…) & Williams, C. (2022).

NDH Nurse's Drug Handbook. **Jones & Bartlett Learning.**

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness: alert** **Orientation: oriented x4 to place, time , person and situation** **Distress: patient is not in distress** **Overall appearance: well groomed, clean**	
INTEGUMENTARY: **Skin color: pink** **Character: dry** **Temperature: worm** **Turgor: present, recoil good** **Rashes: no rashes noted** **Bruises: bruises present on her arms and her abdomen from injections** **Wounds: no wounds found** **Braden Score: 20** **Drains present: Y☐ N ☒** **Type: n/a**	
HEENT: **Head/Neck: round and symetrical** **Ears: has hearing aids** **Eyes: wears glasses** **Nose: in midline, symmetrical, no discharge, no skin rashes or growth** **Teeth: has dentures**	.
CARDIOVASCULAR: **Heart sounds: clear, S1 and S2 present, no murmurs, galops** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): rhythm regular.** **Peripheral Pulses: all palpable** **Capillary refill: normal, less than2 seconds** **Neck Vein Distention: Y ☐ N ☒ Edema Y ☒ N ☐** **Location of Edema: pitting edema on lower legs**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Breath sounds diminished on the right side, crackles present.**	.

GASTROINTESTINAL: **Diet at home: regular , avoiding salt and fats** **Current Diet: regular** **Height: 5'3''** **Weight:170lb 8oz** **Auscultation Bowel sounds: diminished** **Last BM: one week ago (1/15/23)** **Palpation: Pain, Mass etc.: no pain or masses palpated** **Inspection:** **Distention: abdomen not distended** **Incisions: no incisions noted** **Scars: no scars** **Drains: no drains** **Wounds: no wounds found** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size: N/A** **Feeding tubes/PEG tube Y ☐ N ☒** **Type: N/A**	.
GENITOURINARY: **Color: yellow** **Character: clear** **Quantity of urine: 2- occurrences during the shift** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: n/a** **Catheter: Y ☐ N ☒** **Type: n/a** **Size: n/a**	
MUSCULOSKELETAL: **Neurovascular status: appropriate for the age** **ROM: some range of motion is present** **Supportive devices: walker** **Strength: good strength** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 95** **Activity/Mobility Status: active and mobile with limitations** **Independent (up ad lib) ☐x** **Needs assistance with equipment ☐x** **Needs support to stand and walk ☐x**	.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐**	.

Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐ **Orientation: oriented x4 to place, person, time and situation** **Mental Status: good** **Speech: fluent** **Sensory: functional** **LOC: alert and awake**	
PSYCHOSOCIAL/CULTURAL: **Coping method(s): good, accept her situation very well** **Developmental level: Erickson's ego integrity** **Religion & what it means to pt.: Cristian, believer, does not talk about religion** **Personal/Family Data (Think about home environment, family structure, and available family support): patient lives in Assisted Living place because she 'does not want to burden her family'. She has five children , all middle age who are willing to help her, all working.**	.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0750	**82**	**146/58**	**20**	**96.3 F**	**93%**
1100	**98**	**144/72**	**24**	**97.5 F**	**97%**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0900	**0-10**	**n/a**	**0**	**n/a**	**n/a**
1100	**0-10**	**n/a**	**0**	**n/a**	**n/a**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 gauge	

Location of IV: left forearm. **Date on IV: 1/18/23** **Patency of IV: patent** **Signs of erythema, drainage, etc.: no signs of erythema or drainage** **IV dressing assessment: dry, clean, intact**	

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
420mL during the shift	**X2 occurrences**

Nursing Care

Summary of Care (2 points)

Overview of care: basic care

Procedures/testing done: chest X-ray, no changes

Complaints/Issues: no complaints

Vital signs (stable/unstable): stable

Tolerating diet, activity, etc.: tolerating diet well, breakfast 100%, good apetite

Physician notifications: no notifications

Future plans for client: help her with her needs

Discharge Planning (2 points)

Discharge location: Assisted living

Home health needs (if applicable): No specific needs

Equipment needs (if applicable): Walker

Follow up plan: exercise by walking and exercise breathing

Education needs: Educate about mouth hygiene, and to recognize symptoms of pneumonia

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Ineffective Airway clearance related to copious tracheobronchial Secretions as evidenced by infiltrates on lung x-ray film	**Patient has diminished breath sounds over the lung infiltrates**	**1.Improving airway patency by deep breathing and using incentive spirometry** 2. Using humidifier	**1. Patient will demonstrate airway patency**	**Client agreed with the nurses actions.**
2.Activity intolerance related to impaired respiratory function as evidenced by difficulty getting to the bathroom	**Dyspnea is the cause of fatigue**	**1. Rest to conserve energy** **2.assume comfortable position**	**1. Patient will preserve energy and than slowly increase activity**	**Client is willing to work on achieving these goals**
3.Risk for deficient fluid volume related to fever and rapid respiratory rate as evidenced by rapid breathing.	**Insensible fluid loss in pneumonia**	**1.assess patients hydration status** **2.promote fluid intake**	**1. Patient will maintain adequate hydration as evidence with normal intake and output**	**Client will take adequate hydration.**

Other References (APA):

Cheever, K. H., Bare, B. G., Hinkle, J. L. & Smeltzer S. C. (2008). ***Textbook Of Medical - Surgical Nursing.*** **Lippincott Williams & Willkins.**

Concept Map (20 Points):

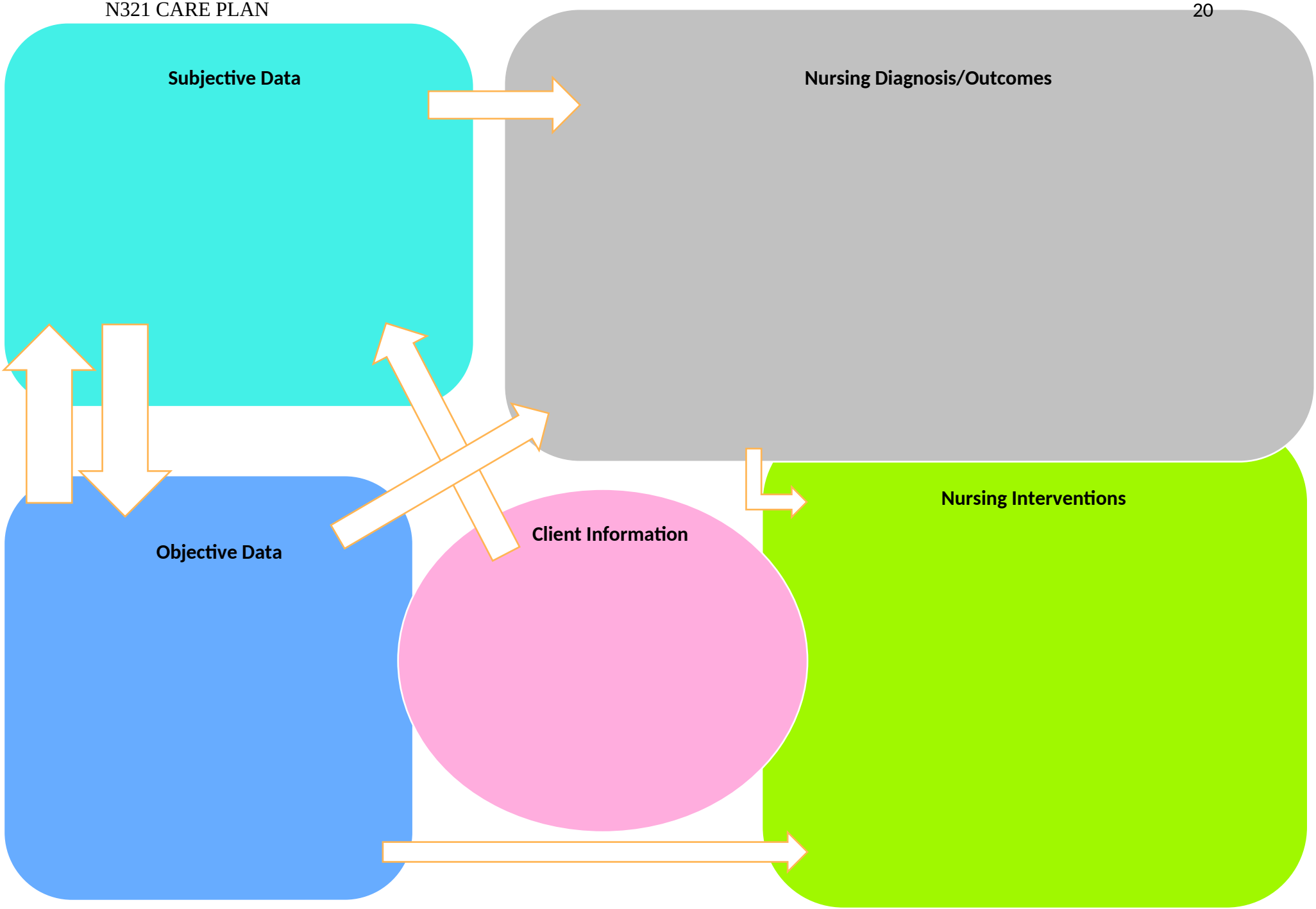
Subjective data: Patient complains of dyspnea, chest pain, cough.

Objective data: X-ray showed infiltrates in the lungs. Patient coughs, has diminished breathing sounds above the infiltrates. Crackles are present.

Client information: Patient is 89 year old female person. She was admitted to the hospital on 1/18/23 with diagnosis of Pneumonia involving right lung.

Nursing diagnosis/ outcomes: Ineffective airway clearance related to copious tracheobronchial secretions as evidenced by infiltrates on x-ray, dyspnea, crackles and diminished breathing sounds. Outcomes are improved breathing, increased airway patency.

Nursing interventions: Promoting oxygenation , and deep breathing with incentive spirometry. Monitor vitals and respiratory status. Preventing complications like atelectasis by percussion. Provide good oral hygiene.


Subjective Data
Nursing Diagnosis/Outcomes
Nursing Interventions
Client Information
Objective Data