N321 Care Plan # 1

Lakeview College of Nursing

Kerrigan Shafer

Demographics (3 points)

Date of Admission 1/26/2022	**Client Initials** C.L	**Age** 52	**Gender** Female
Race/Ethnicity White	**Occupation** Disability	**Marital Status** Widowed	**Allergies** Strawberry extract: Hives
Code Status Full code	**Height** 233 lbs	**Weight** 5'4"	

Medical History (5 Points)

Past Medical History: Bipolar 1 disorder, depression and lung cancer

Past Surgical History: Gastric bypass and incontinence surgery

Family History: When patient was asked about family history she did not want to disclose much information. She told me that her husband was diseased by a heart attack and she had healthy step kids

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Patient declined use of tobacco, alcohol, and drugs

Assistive Devices: N/A

Living Situation: Lives at home alone

Education Level: Patient did not disclose this information when asked

Admission Assessment

Chief Complaint (2 points): Slurred speech, diplopia and shortness of breath

History of Present Illness – OLD CARTS (10 points):

The patient admitted complaints of slurred speech, diplopia, and shortness of breath. She expressed that slurred speech is a common occurrence, but the others are not. Her daughter noticed that her slurred speech had gotten worse than usual. The others were not normal, and they started a few days before she decided to go to the hospital. The patient was admitted on 1/26/2022. The patient said she was in no pain. She was just worried about the worsening of her slurred speech. The duration of her slurred speech is all the time, but it had gotten worse days before. Characteristics were unable to talk in complete sentences, and people understood her. Nothing served as an aggravating factor. The patient has been seen for this previously. The severity was severe enough to suspect a stroke.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Slurred speech, diplopia and shortness of breath

Secondary Diagnosis (if applicable): Lung cancer metastasized to brain cancer

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

Lung Cancer Metastasized to Brain Cancer

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Adult Health 1

Professor Unrein

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Lung cancer is the most frequent source of brain metastases. An article states, “20%-50% of patients with lung cancer develop brain metastases during the course of disease” (Kwon et al.,2020, p. 1). There have been many advanced therapies to improve the survival rates of lung cancer, but brain metastases are important as they are related to progressive neurological deficits. The study also found that for small cell cancer, the cerebellum was affected, and for squamous cell carcinoma, it was found in the right parietal lobe. They did diagnostic testing using an MRI of the brain to find these results. Some doctors may also order a CT scan of the head and brain. When people have lung cancer and start to have signs of neurological issues, it is a very good first sign that this cancer has spread. The most common symptoms include headache, weakness, alterations in higher brain function such as speech and seizures. Treatment can be tricky, just like with any cancer. Treatments can consist of surgery for a tumor, radiotherapy, chemotherapy, and drugs such as antiepileptics and corticosteroids. The article states, “The prognosis of dural metastases can be extrapolated from the prognosis of brain metastases under one year of survival. Most patients die due to systemic disease complications before they die from neurological complications” (Navarro-Olvera et al., 2017, p. 64). After reviewing all the tests and medications and reading these articles, it makes sense why the doctors ordered the test and put

her on the medications. As well as what is causing her slurred speech to occur, the part of the brain affected has some control in speech.

Pathophysiology References (2) (APA):

Kwon, H., Kim, J. W., Park, M., Kim, J. W., Kim, M., Suh, S. H., Chang, Y. S., Ahn, S. J., & Lee, J.-M. (2020). Brain metastases from lung adenocarcinoma may preferentially involve the distal middle cerebral artery territory and cerebellum. *Frontiers in Oncology*, *10*. https://doi.org/10.3389/fonc.2020.01664

Navarro-Olvera, J. L., Ariñez-Barahona, E., Esqueda-Liquidano, M. A., & Muñoz-Cobos, A. (2017). Brain Metastases: Literature review. *Revista Médica Del Hospital General De México*, *80*(1), 60–66. https://doi.org/10.1016/j.hgmx.2016.04.006

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	3.80-5.30	3.48	3.34	Patient may have a vitamin B deficiency which would cause low counts and why she is taking daily B-12 injections. May also be caused by the cancer.
Hgb	12.0-15.8	10.9	10.6	Patient may have a vitamin B deficiency which would cause low counts and why she is taking daily B-12 injections. May also be caused by the cancer.
Hct	36.0-47.0	32.4	31.3	Patient may have a vitamin B deficiency which would cause low counts and why she is taking daily B-12 injections. This is am issues caused by her low RBC count.May also be caused by the cancer.
Platelets	140-440	256	225	N/A
WBC	4.00-12.00	7.10	5.80	N/A
Neutrophils	47.0-73.0	82.5	90.8	Cancer can cause high levels because they are the first line of defense.
Lymphocytes	18.0-42.0	11.0	7.6	Patient may have weak immune system causing the low levels in relation to her body trying ti fight of cancer and being tired.
Monocytes	4.0-12.0	5.8	1.2	Patient levels are decreased due to the cancer medication she is taking.
Eosinophils	0.0-5.0	0.5	0.2	N/A
Bands	N/A	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-	133-144	137	141	N/A
K+	3.5-5.1	4.9	4.7	N/A
Cl-	98-107	102	105	N/A
CO2	21-31	31	31	N/A
Glucose	70-99	128	140	The patient was not diagnosed as being diabetic but these levels could be caused by cancer medications she was due to one of the side effects being hyperglycemia.
BUN	7-25	13	9	N/A
Creatinine	0.50-1.00	0.17	0.62	N/A
Albumin	3.5-5.7	3.8	3.4	N/A
Calcium	8.6-10.3	9.2	8.7	N/A
Mag	1.6-2.6	N/A	2.3	N/A
Phosphate	N/A	N/A	N/A	N/A
Bilirubin	N/A	N/A	N/A	N/A
Alk Phos	34-104	102	87	N/A
AST	13-39	22	19	N/A
ALT	7-25	14	13	N/A
Amylase	N/A	N/A	N/A	N/A
Lipase	N/A	N/A	N/A	N/A

Lactic Acid	N/A	N/A	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	0.8-1.1	1.5	N/A	The patient is taking a blood thinner and that slows the amount of time it takes to clot the blood.
PT	10.1-13.1	17.3	N/A	The patient is taking a blood thinner and that slows the amount of time it takes to clot the blood.
PTT	N/A	N/A	N/A	N/A
D-Dimer	N/A	N/A	N/A	N/A
BNP	N/A	N/A	N/A	N/A
HDL	N/A	N/A	N/A	N/A
LDL	N/A	N/A	N/A	N/A
Cholesterol	N/A	N/A	N/A	N/A
Triglycerides	N/A	N/A	N/A	N/A
Hgb A1c	N/A	N/A	N/A	N/A
TSH	N/A	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	Pale/yellow	Yellow	N/A	N/A
pH	5.0-9.0	6.0	N/A	N/A
Specific Gravity	1.003-1.030	1.025	N/A	N/A
Glucose	Negative	Negative	N/A	N/A
Protein	Negative	Negative	N/A	N/A
Ketones	Negative	Negative	N/A	N/A
WBC	Negative	Negative	N/A	N/A
RBC	Negative	Negative	N/A	N/A
Leukoesterase	N/A	N/A	N/A	N/A

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	N/A	N/A	N/A	N/A
Blood Culture	N/A	N/A	N/A	N/A
Sputum Culture	N/A	N/A	N/A	N/A
Stool Culture	N/A	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Kee, J. (2017). *Pearson's Handbook of Laboratory and Diagnostic Tests (Laboratory & Diagnostic Tests With Nursing Applications)* (10th ed.). Pearson.

EPIC (2021). *OSF*

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Chest x-ray, CT of head and brain, CT of chest with contrast

Diagnostic Test Correlation (5 points):

The patient came in with complaints of shortness of breath, as for the chest x-ray test. A doctor would request this test to look at the lungs. The patient had shortness of breath and was also diagnosed with stage 4 lung cancer. An x-ray will help better look at the lungs through radioactive waves. A chest x-ray is used to screen for chest diseases such as cancer. They are low cost, can be used at the patient bedside, and provide a large amount of information for the diagnosis. The patient also received two CT scans, one of the head and brain, and the other was of the chest with contrast. In a routine CT scan that gives high-resolution maps of tissue anatomy. A CT scan with contrast is the same imaging of a CT skin, but the patient is given a dye through an IV to make the picture "light" up. The contrast makes it easier to point out the disease and its progression. It would make sense that the doctor ordered these tests. The patient came in with slurred speech and could have been diagnosed with a stroke through a CT scan but found brain cancer. As for the contrast, a CT scan of the chest would also give the doctor a better picture of the patient's stage 4 lung cancer progression.

Diagnostic Test Reference (1) (APA):

Brindle, K. M., Izquierdo-García, J. L., Lewis, D. Y., Mair, R. J., & Wright, A. J. (2017). Brain tumor imaging. *Journal of Clinical Oncology*, *35*(21), 2432–2438. https://doi.org 10.1200/jco.2017.72.7636

Kim, J., & Kim, K. H. (2020). Role of chest radiographs in early lung cancer detection. *Translational Lung Cancer Research*, *9*(3), 522–531. https://doi.org/10.21037/ tlcr.2020.04.02

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

Home Medications (5 required)

Brand/Generic	Eliquis/ apixaban	Citalopram hydrobromide/Celexa	Risperidone/ risperdal	Lorlatinib/ Lorbrena	Dexamethasone/ Decadon
Dose	2.5 mg	40 mg	4 mg	100 mg	1 mg
Frequency	2 x daily	Daily	Daily	Daily	Daily
Route	Oral	Oral	Oral	Oral	Oral
Classification	Pharm: Factor Xa inhibitor Therapeutic: anticoagulant	Pharm: selective seretonin reuptake inhibitor (SSRI) Therapeutic: Antidepressant	Pharm: benzisoxazole derivative Therapeutic: antipsychotic	Antineoplastics, Anaplastic Lymphoma Kinase Inhibitors	Pharm: Glucocorticoid Therapeutic: Anti inflammatory
Mechanism of Action	Blood thinner that reduces blood clotting.	Helping restore the balance of serotonin in the brain	Decreases the dopaminergic and serotonergic pathway activity in the brain decreasing mood disorders	Treat patients with non-small cell lung cancer that is cause by abnormal anaplastic lymphoma kinase gene and that has spread to other parts of your body.	Suppresses inflammatory response and immune responses
Reason Client Taking	Pt is at risk for blood clots and stroke	Pt has history of depression	Pt has history of depression	Pt has cancer	Reduce inflammation that is caused by cancer

Contraindications (2)	Active bleeding, severe hypersensitivity	Hypersensitivity to medicine and its components Pimozide therapy	Hypersensitivity to risperidon Hypersensitivity to paliperidone	Patients taking strong CYP3A inducers Risk for hepatotoxicity	Systemic fungal infections Administration of live vaccine to patient or family member
Side Effects/ Adverse Reactions (2)	GI bleeding Elevated bilirubin and liver enzymes	Weight gain and seizures	Vertigo and fatigue	Increase in cholesterol and triglycerides levels in blood High blood sugar	Increased intracranial pressure and leukopenia
Nursing Considerations (2)	Place patient on bleeding precautions to reduce injury. Educate any other care givers that they are on this medication to prevent bleeding.	Effective antidepressant therapy may convert depression into mania. Monitor patient for serotonin syndrome when dosage increases.	Monitor for orthostatic hypotension. Monitor pts glucose and lipid levels.	Check patients medications they are on to reduce risk for live problems. Monitor for CNS side effects and notify provider if they occur.	Give oral drug with food to reduce GI distress. Expect to taper the drug vs abruptly stoping

Hospital Medications (5 required)

Brand/Generic	Eliquis/ apixaban	Ondansetron/ Zofran	Lamotrigine/ Lamictal	Cyanocobalamin/ Vitamin B-12	Pantoprazole/ Protonix
Dose	2.5 mg	4mg	400 mg	1,000 mcg	40 mg
Frequency	2 x daily	PRN	Daily	Daily	Daily
Route	Oral	Port	Oral	IM	Oral
Classification	Pharm: Factor Xa inhibitor Therapeutic: anticoagulant	Selective seretonin receptor antagonist	Pharm: phenyltriazine Therapeutic: anticonvulsant	Pharm and therapeutic; Vitamin	Pharm: proton pump inhibitor Therapeutic: anti ulcer
Mechanism of Action	Blood thinner that reduces blood clotting.	Block serotonin receptors to prevent nausea and vomiting	Stabilize neuron membranes by blocking sodium channels to reduce seizure	Attaches to plasma proteins helping with low RBC counts	Decreases the amount of acid produced in the stomach
Reason Client Taking	Pt is at risk for blood clots and stroke	Nausea	Possible seizures due to brain cancer	Vitamin B-12 deficiency caused by low RBC count	Reduce acid reflux such as GERD
Contraindications (2)	Active bleeding, severe hypersensitivity	Concomitant use of apomorphine and hypersensitivity to medication	Hypersensitivity to medication and low blood counts	Hypersensitivity to medication and cobalt	Hypersensitivity to any component of medication and benzimidazole

Side Effects/ Adverse Reactions (2)	GI bleeding Elevated bilirubin and liver enzymes	Pulmonary embolism and intestinal obstruction	Anemia and suicidal ideation	Abdominal stomach pain and bleeding from gums or nose	C-diff and elevated serum creatine levels
Nursing Considerations (2)	Place patient on bleeding precautions to reduce injury. Educate any other care givers that they are on this medication to prevent bleeding.	Place disintegrating tablet on pt tongue after opening. Monitor pt for decreased bowel sounds due to bowel obstruction.	Assess the patients mental status. Do not stop abruptly.	Assess pt for B-12 deficiency throughout the therapy. Monitor blood work closely.	Don give medication within 4 week of testing for h-pylori may cause false negative. Administer 30 mins before meal.

Medications Reference (1) (APA):

Bartlett, J. (2021). *2021 Nurse's Drug Handbook*. Jones & Bartlett Learning, LLC**.**

Inc, P. (2021). *For caregivers: Lorbrena® (lorlatinib) patient site: Safety Info*. Home Page. Retrieved January 31, 2022, from https://www.lorbrena.com/caregivers-info

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Appears alert and oriented to person, place and time, well groomed, morbidly obese, no accused distress
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y□ N □** **Type:**	Skin color is white and pale. Skin warm and dry upon palpation. No rashes, lesions, or bruising. Normal quantity, distribution and texture of hair. Nails are without clubbing and cyanosis. Skin turgor is normal mobility. Capillary refit less than 3 seconds fingers and toes bilaterally. Braden score of 17. No drains present.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical, trachea midline without deviation, thyroid non palpable, no noted nodules. Bilateral carotid pulses palpable and 2+. No lymphadenopathy in head or neck is noted. Bilateral auricles no visible or palpable deformities, lumps, or lesions. Bilateral canals clear with pearly grey tympanic membranes. Bilateral sclera white, bilateral cornea clear, bilateral conductive pink, no visible drainage from eyes. Bilateral lids are moist and pink without lesions or discharge noted. PERRLA bilaterally, red like reflex present bilaterally, Rosemburg 20/20, EOMs intact bilaterally. Septum is midline, turbinates pink and moist bilaterally and no visible bleeding or polyps. Bilateral frontal sinuses are non tender to palpation. Posterior pharynx and tonsils are moist and pink without exudate. Tonsil size is normal. Uvula midline, soft palate rises and falls symmetrically. Hard palate intact. Detention is good, oral mucosa overall is moist and pink without lesions.

CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y □ N □** **Edema Y □ N □** **Location of Edema:**	Clear S1 and S2 without murmurs, gallops or rubs. PMI palpable at 5th intercostal space at MCL Normal rate and rhythm. Pulses 2+ bilaterally throughout. Capillary refill less than 3 seconds fingers and toes bilaterally. No neck vein distention. No edema inspected or palpated in all extremities.
RESPIRATORY: **Accessory muscle use: Y□ N □** **Breath Sounds: Location, character**	Normal rate and pattern of respirations, respirations symmetrical and non labored, lung sounds clear throughout anterior and posterior bilaterally, no wheezes, crackles or rhonchi noted
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y □ N □** **Nasogastric: Y □ N □** **Size:** **Feeding tubes/PEG tube Y □ N □** **Type:**	Normal diet at home and normal current diet. Height 5'4" and weight 233 lbs. Abdomen is soft, nontender, no organomegaly or masses noted upon palpation of all four quadrants. Bowel sounds are normoreactive in all four quadrants. No CVA tenderness noted bilaterally. Last BM: 01/26/2022 evening No distention, incisions, scars, drains or wounds present upon inspection. No ostomy, nasogastric or feeding tube present.

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y □ N □** **Dialysis: Y □ N □** **Inspection of genitals:** **Catheter: Y □ N □** **Type:** **Size:**	Urine was yellow with no particles visible. Voided 350 mL through indwelling catheter, size 16. Pt has no dialysis.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y□ N □** **Fall Risk: Y □ N□** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** **Needs assistance with equipment** **Needs support to stand and walk**	All extremities have full ROM. Handgrips and pedal pushes and pulls demonstrate normal and equal strength. Balances and smooth gait. No supportive devices used. No assistance with ADL. Fall risk score 7. Patient is independent at home but upon arrival need support to stand and walk.
NEUROLOGICAL: **MAEW: Y □ N□** **PERLA: Y □ N□** **Strength Equal: Y □ N □ if no -** **Legs □ Arms □ Both □** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	All extremities have full ROM. Handgrips and pedal pushes and pulls demonstrate normal and equal strength. Balances and smooth gait. Patient alert and oriented to person, place and time. Cranial nerves I-IV intact. Negative rhombergs. Deep tendon reflex all location 2+ bilaterally. Mental status is good. Patient has some slurred speech but is not uncommon. No LOC.
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):**	Pt stated that enjoy talking to family and friends as a copping mechanism. Developmental level is normal for age. Religion is christian. Pt lives alone but stated she has very supportive step children and friends to help her through the hard times since her husband has passed away.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
9:00 am	84 bpm	139/72	17 resp	97.4 F	97% nasal canula
11:00 am	97 bpm	124/58	17 resp	97.8 F	94% nasal canula

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
9:00	0-10	None	None	None	None
11:00 am	0-10	None	None	None	None

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:**	No IV present. Patient has a port on right side No size was noted. Date of insertion was 01/26/2022. No signs of erythema, drainage from port. Port dressing is clean, dry and intact.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
Fluids: 240 mL Food: 100%	Urine: 350 mL

Nursing Care

Summary of Care (2 points)

Overview of care: Patient care given today was very good. Patient was very alert and cooperative throughout the day with all the visits she received.

Procedures/testing done: Patient did not leave the floor for any procedures today.

Complaints/Issues: Patient did not express any complaints or issue thought the shift.

Vital signs (stable/unstable): Vital signs were stable throughout shift.

Tolerating diet, activity, etc.: Patient ate very well today. Patient did not leave bed today on my shift but was scheduled to walk later in the evening with therapy.

Physician notifications: Patient will be discharged to home. Physician saw patient today was and content with her condition.

Future plans for client: Patient will return home once medically stable. She will follow up with oncology.

Discharge Planning (2 points)

Discharge location: Home alone

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: Patient will follow up with oncology and labs

Education needs: Diet and physical activity

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

Nursing Diagnosis	**Rationale**	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation**
• 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	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.

1. Risk for infection related to chronic illness as evidence by cancer diagnosis	Lung cancer metastasized to brain cancer	**1.** Perform measures to break the chain of infection and prevent infection **2.** Teach the importance of avoiding contact with individuals who have infections or colds.	**1.** Patient will stay free form infection.	**1.** Patient's respiratory secretions will remain clear and odorless. **2.** Patient will not experience signs and symptoms of infection.
2. Risk for acute pain related to disease process as evidence by restlessness	Patient reported no pain at the time of assessment but had periodical pain.	**1.** Evaluate pain relief and control at regular interval. Adjust medication as needed **2.** Be aware of barriers to cancer pain management related to patient	**1.** Patient will stay free of pain but if pain is experienced she will express her pain so we can control.	**1.** Patient expressed when they were and pain in detail **2.** Patients pain was controlled
3. Risk for death anxiety related to uncertainty of prognosis as evidence deep sadness	Patient has been diagnosed with depression and is on medication to help.	**1.** Help patient cope by listening actively and communicating acceptance of their feelings. **2**. Assess how much help the patient wants and respect independence.	**1.** Patient will not feel alone throughout her stay in the hospital.	**1.** Patient will express satisfaction with private time and time spent with others. **2.** Patient engages in conversation and activities with caregivers and other support people.

Other References (APA):

Dnp Rn, P. L. (2020). *Sparks & Taylor's Nursing Diagnosis Reference Manual* (11th ed.). LWW.