N311 Care Plan 3

Lakeview College of Nursing

Happy Kalavadia

Demographics (5 points)

Date of Admission 10/26/2020	Patient Initials BK	Age 90	Gender Female
Race/Ethnicity White	Occupation Unable to obtain	Marital Status Married	Allergies Hydromorphine Eggs or egg derived products Tetanus toxoid
Code Status No CPR	Height 5 feet	Weight 101 lb	

Medical History (5 Points)

Past Medical History: Acute Metabolic Encephalopathy, Iron Deficiency Anemia, Left Colitis, Essential HTN, Hypothyroidism, Late onset Alzheimer Disease , Osteoarthritis, Osteoporosis, Fragility Syndrome in geriatric patient , Acute Kidney injury, DVT in left leg.

Past Surgical History: None

Family History: No family history on file.

Social History (tobacco/alcohol/drugs): No tobacco/alcohol/drugs.

Admission Assessment

Chief Complaint (2 points): Pain in left hip as patient had an history of fall in nursing home.

History of present Illness (10 points): Patient is 90 years old and living in nursing home. On October 26 2020, she fell from nursing home bed while to get up as she was experiencing syncope, dizziness and bradycardia. So, she came to OSF ER and she had CT abdomen which revealed no traumatic injury of internal organs. She also had urinary hesitancy when she came to OSF ER and was diagnosed with urinary tract infection. Her Son Dorothy was the decision maker as the patient also had ongoing metabolic encephalopathy

and as a result, she did not have the capacity to make clinical decision. She also had a black tarry stools but no evidence of upper or lower GI bleeding. The onset of pain was about twenty minutes after the patient had fall from bed in nursing home. Location of the pain was mostly in left hip region, but patient was not alert and oriented and unable to distinguish the pain. The duration of pain was constant, but it was dull in nature. The patient was not able to distinguish between constant and dull, it was estimated from the patient making facial grimaces. The patient did not rate her pain on a scale of 10 but kept on saying that the pain is just too much. Patient was not able to answer any characteristic symptom as well as associated manifestations related to the pain. The nursing home staff told on behalf of patient that due to her age and history of osteoporosis, she had knee and hip pain but it was not that severe. Patient answered questions like yes or no sometimes but not always. She was given ensure and potassium chloride water to drink due to history of protein calorie malnutrition. Patient appeared weak, malnourished and fragile. The patient was also given vitamin B1 (thiamine) as it treats brain dysfunction due to possible metabolic syndrome. In addition, diagnostic tests like CT chest , abdomen and 2d echo were performed to rule out any abnormalities in lung, possible GI bleed as well as abnormalities in heart respectively.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Fall , Syncope and UTI.

Secondary Diagnosis (if applicable): Patient had history of fragility syndrome in a geriatric patient . Fall due to secondary acute metabolic encephalopathy.

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

Acute metabolic encephalopathy can be defined as metabolic encephalopathy which is not caused by any structural abnormalities on the body but due to secondary diseases like diabetes, chronic kidney disease. Due to this secondary disease, brain cannot function normally and there is an accumulation of ammonia which is toxic to brain. There are many causes of encephalopathy including infections, trauma, physiologic changes and toxins(Hale and Marshall, 2017). The major symptom of encephalopathy is altered mental state. There are many types of encephalopathy which are metabolic, anoxic and hepatic encephalopathy(Hale and Marshall, 2017). The sign and symptom of metabolic encephalopathy is altered sensorium or in other word brain malfunction which is a result of various chronic systemic disease like acute kidney injury, chronic diabetes mellitus type 2 and other endocrine disease (Capriotti and Frizzell, 2016). The patient had chronic type 2 DM , hypothyroidism and imbalance in vitamins and minerals, acute kidney injury which resulted in metabolic encephalopathy. There is not a specific test to diagnose metabolic encephalopathy but there is combination of various test like CT chest, abdomen and electrolyte levels like sodium and potassium to diagnose acute metabolic encephalopathy (Hale and Marshall, 2017). The treatment of metabolic encephalopathy includes treating the cause . For example, patient was given antibiotics and levothyroxine to treat UTI and hypothyroidism . Fall is the major risk factor of physical or internal injury in older population. Fall are a great threat for older adults 65 or older because one out of five cases of Fall causes serious injury such as broken bone or head injury. Patient fell from bed in nursing home and then came to OSF ER with a history of left hip pain. In addition, three million people are admitted in ER due to fall. Patient was also experiencing syncope due to acute metabolic encephalopathy and protein calorie malnutrition. Syncope can be defined

as temporary loss of consciousness due to imbalance in blood pressure regulation by baroreceptors. Normally the baroreceptors cause vasoconstriction when there is low blood pressure but in older people body does not cause vasoconstriction but causes vasodilation which results in low blood volume and hence syncope(Hale and Marshall, 2017). Another reason for fall could be due to acute metabolic encephalopathy , protein calorie malnutrition and Alzheimer dementia. The patient also had a history of Alzheimer dementia which could be another reason for fall. The sign and symptoms of metabolic encephalopathy is generalized depression of cerebral function including consciousness. Another reason for fall could be severe protein calorie malnutrition which results in a hypoglycemic state and hence less glucose to the brain resulting in fall. Finally, patient has age onset Alzheimer dementia and the fall could be due to it as well. Patient had UTI and hence after doing urinalysis it showed E.coli greater than 100,000 CFU/ml. The reason for UTI could be due to type 2 Diabetes Mellitus or due to not proper hygiene in nursing home. Since the patient is unable to respond to majority of questions , the attending physician ordered CT abdomen because she showed guarding when he palpated LLQ and to evaluate that if the patient had traumatic injury. Patient also underwent x ray of left ankle due to history of fall which did not revealed any signs of fracture or trauma but there was loss of mineralization due to osteoporosis. Patient had bradycardia upon admission and hence attending physician ordered 12 lead EKG which showed normal sinus rhythm , inferior infarct but age was undetermined. The patient had an history of fall in nursing home and many diagnostic tests were to rule out the cause. The cause of fall is multifactorial and could be due to combination of factors such as old age, protein calorie malnutrition, Alzheimer dementia, syncope due to hypoglycemia caused by protein calorie malnutrition .

To rule out all possible cause and since the patient is not alert and oriented , attending physician ordered CT abdomen which revealed no traumatic injury and possible GI bleed . 12 lead EKG which showed normal sinus rhythm and urinalysis which showed E coli bacteria greater than 100,000 ul. X ray of left ankle which showed small soft tissue calcification medial to distant tibia but no fracture or dislocation. No bony erosion or destruction. Slight soft tissue prominence or swelling at lateral aspect of ankle. Patient diet consisted of ensure and potassium chloride solution to treat severe protein calorie malnutrition. In addition, RICE therapy was ordered as well . Treatment consisted of PRN pain meds; heparin and aspirin due to DVT risk as she is bedridden, levothyroxine due to history of her hypothyroidism and cefazolin plus ceftriaxone to treat her urinary tract infection.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). Pathophysiology: introductory concepts and clinical perspectives. Philadelphia: F.A. Davis Company.

Hale, D., & Marshall, K. (2017). Minimizing Fall Risk in Older Adults. Home Healthcare Now, 35(1), 48-49. doi:10.1097/nhh.0000000000000477

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	**4.0-4.9 10^6/ uL**	**NA**	**3.57**	**Patient had chronic Iron deficiency anemia . In addition, patient is malnourished and hence the formation of red blood cells is less (Capriotti and Frizzell, 2016).**
Hgb	**12.0-16.0 g/dL**	**NA**	**11.7**	**Patient had chronic Iron deficiency anemia which results in low hemoglobin levels due to less formation of red blood cells (Capriotti and Frizzell, 2016).**
Hct	**37.0-48.0%**	**NA**	**34.1**	**Hct is low due to low hemoglobin and inadequate red blood cells (Capriotti and Frizzell, 2016).**
Platelets	**150-400 10^3/uL**	**NA**	**110,000**	**Patient was taking aspirin and it is an antiplatelet which lowers the platelet count(Capriotti and Frizzell, 2016).**
WBC	**4.1-10.9 10^3/uL**	**NA**	**9.7**	**Within normal range.**
Neutrophils	**1.50-7.70 10^3/uL**	**NA**	**3.8**	**Within normal range.**
Lymphocytes	**1.00-4.90 10^3/uL**	**NA**	**5.6**	**Elevated due to urinary tract infection and acute kidney injury(Capriotti and Frizzell, 2016).**
Monocytes	**0.00-0.80 10^3/uL**	**NA**	**0.3**	**Within normal range.**
Eosinophils	**0.00-0.50 10^3/uL**	**NA**	**0.3**	**Within normal range.**
Bands				**NA**

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 mmol/L**	**NA**	**139**	**Within normal range**
K+	**3.5-5.1 mmol/L**	**NA**	**3.3**	**Potassium is low due to protein calorie malnutrition (Capriotti and Frizzell, 2016).**
Cl-	**98-107 mmol/L**	**NA**	**108**	**Chloride is little more than normal because patient was given**

				electrolytes water containing potassium chloride to drink (Capriotti and Frizzell, 2016).
CO2	**21.0-32.0 mmol/L**	**NA**	**24**	**Within normal range**
Glucose	**60-99 mg/dL**	**NA**	**85**	**Within normal range**
BUN	**5-20 mg/dL**	**NA**	**16**	**Within normal range**
Creatinine	**0.5-1.5 mg/ dL**	**NA**	**NA**	
Albumin	**3.4-5.4 g/dL**	**NA**	**2.8**	**Albumin is less due to reduced kidney function as the patient had acute kidney injury (Capriotti and Frizzell, 2016).**
Calcium	**8.5-10.1 mg/dL**	**NA**	**8.5**	**Within normal range.**
Mag	**1.6-2.6 mg/ dL**	**NA**	**NA**	
Phosphate	**-**	**NA**	**NA**	
Bilirubin	**Less than 0.3**	**NA**	**0.5**	**Elevated due to acute kidney injury as in chronic kidney disease bilirubin levels are not excreted normally (Capriotti and Frizzell, 2016).**
Alk Phos	**44-147 U/L**	**NA**	**98**	**Within normal range.**

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	**Light yellow**	**NA**	**Dark yellow**	**Urine is dark yellow because patient urinary tract infection and did not have the urge to urinate due to acute metabolic encephalopathy. That is another reason why the color is dark yellow color (Capriotti and Frizzell, 2016).**

pH	**5.0-7.0**	**NA**	**5.0**	**Within normal range.**
Specific Gravity	**1.003-1.030**	**NA**	**1.024**	**Within normal range.**
Glucose	**negative**	**NA**	**negative**	**Within normal range.**
Protein	**negative**	**NA**	**negative**	**Within normal range.**
Ketones	**negative**	**NA**	**negative**	**Within normal range.**
WBC	**0-25/uL**	**NA**	**5**	**Within normal range.**
RBC	**0-25/uL**	**NA**	**5**	**Within normal range.**
Leukoesterase	**negative**	**NA**	**negative**	**Within normal range.**

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	**NA**	**NA**	**NA**	**NA**
Blood Culture	**NA**	**NA**	**NA**	**NA**
Sputum Culture	**NA**	**NA**	**NA**	**NA**
Stool Culture	**NA**	**NA**	**NA**	**NA**

Lab Correlations Reference (APA):

Capriotti, T., & Frizzell, J. P. (2016). Pathophysiology: introductory concepts and clinical perspectives. Philadelphia: F.A. Davis Company.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

12 lead EKG showed normal sinus rhythm. Inferior infarct but age undetermined . Could not rule out anterior infarct.

CT abdomen showed no traumatic rupture, possible GI bleed and elevated liver enzymes which could be due to ongoing metabolic encephalopathy .

X ray of left ankle showed small soft tissue calcification in medial to distant tibia . There were surgical clips in medial aspect of ankle. It appears demineralized due to osteoporosis . No bony erosion or destruction noted. Slight soft tissue prominence or swelling at lateral aspect of the ankle.

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/ Generic	**Aspirin**	**Heparin**	**Synthroid/ Levothyroxine**	**Rocephalin/ ceftriaxone**	**Keflex/ Cephalexin**
Dose	**81 mg**	**5000 units**	**62.5 mg**	**500 mg**	**500 mg**
Frequency	**Three times daily**	**one**	**one**	**one**	**one**
Route	**oral**	**Subcutaneous**	**oral**	**oral**	**oral**
Classification	**NSAIDs / Antiplatelet**	**Anticoagulants**	**Synthetic thyroid hormone**	**Cephalosporin class**	**Cephalosporin Class**
Mechanism of Action	**It blocks prostaglandin synthesis. It is classified in group of NSAIDS. These agents reduce sign and symptom of inflammation and exhibits**	**Binds to the enzyme antithrombin 3 in the clotting cascade system to prevents the clot formation.**	**It works by replacing thyroid hormone in the body.**	**It selectively and irreversibly inhibits bacterial cell wall synthesis by binding to transpeptidases, also called transamidases, which are penicillin-binding proteins (PBPs) that catalyze the cross-linking of the peptidoglycan polymers**	**Cephalexin is a beta-lactam, first-generation cephalosporin antibiotic with bactericidal activity. Cephalexin binds to and inactivates penicillin-binding proteins (PBP) located on the inner membrane of**

	properties like antipyretic, analgesic and antiplatelet properties.			**forming the bacterial cell wall.**	**the bacterial cell wall.**
Reason Client Taking	**Due to antiplatelet effects.**	**To prevent clot formation.**	**To treat hypothyroidism.**	**To treat UTI.**	**To treat UTI.**
Contraindications (2)	**GI bleeding Ulcer**	**Heparin induced thrombocytopenia Active Bleeding.**	**Acute myocardial infarction Thyrotoxicosis.**	**Allergy Anaphylactic reaction**	**Allergy Anaphylactic reaction**
Side Effects/ Adverse Reactions (2)	**Urticaria Hives**	**Chills, Bruises**	**Urticaria Diarrhea**	**Nausea Vomiting**	**Diarrhea Stomach upset**

Medications Reference (APA):

Jones & Bartless Learning. (2020). 2020 Nurse's drug handbook (19th ed.). Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness: Not Alert** **Orientation: Not oriented** **Distress: mental distress** **Overall appearance:**	**Patient is not alert , oriented to person , place and time.** **Patient is in mental distress** **She is not well groomed and appears weak and malnourished. She sleeps most of the time and drinks as well eats very minimally.**
INTEGUMENTARY: **Skin color:** **Character: dry** **Temperature: warm** **Turgor: normal** **Rashes: mild rash on stomach** **Bruises: Ecchymosis on both upper arms** **Wounds: No** **Braden Score: 12** **Drains present: Y☐ N ☒** **Type: NA**	**Skin is dry and scaly and not pink. Skin is warm to touch . Skin turgor is normal. Skin is thin and there are some mild rash on stomach which is nonblanchable. Pale with ecchymosis on both upper arms.**
HEENT: **Head/Neck:** **Ears: Pinna of left and right ear appears symmetrical and it is nontender.** **Tympanic membrane white and pearly.** **Cerumen present in both ears. Slight loss of hearing in both ears.** **Eyes:** **Nose:** **Teeth:**	• **Head and neck symmetrical, trachea midline no deviation, thyroid palpable, no noted nodules. Bilateral carotid pulses palpable.** • **Eyes bilateral sclera white, bilateral cornea foggy, conjunctive pink, slight drainage in left eye.** • **Nose septum midline turbinate's moist and pink.** • **Mouth pharynx moist and pink, dentition not good teeth has many cavities, mucosa pink and moist with lesion on upper right side.**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses: Palpable** **Capillary refill: 2 seconds** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☒ N ☐** **Location of Edema:** **Left lower leg**	.**Clear S1 and S2 heard without gallops or rubs. Pt in normal sinus rhythm with PVC'S, Peripheral pulses palpable. Capillary refill less then 3sec. Edema noted in left leg.**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒**	**Respiration irregular . Anterior lung sound is irregular when auscultated in right lower lobe.**

Breath Sounds: Location, character	**There is mild wheezing present when patient inspires. No Accessory muscle use.**
GASTROINTESTINAL: **Diet at home: normal** **Current Diet- diet rich in potassium chloride and protein** **Height: 5 feet** **Weight:106 lb** **Auscultation Bowel sounds:** **Last BM: Patient not able to tell.** **Palpation: Pain in LLQ Mass** **Inspection: stomach appears flat and less adipose tissue.** **Distention: Yes, patient grimaces when LLQ is palpated** **Incisions:NA** **Scars:NA** **Drains: NA** **Wounds:NA** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:NA** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	**Patient made facial grimace when LLQ was palpated. Bowel sounds are normal . Abdomen shows distension. Pain and tenderness in LLQ. Diet at home is normal in nursing home. Diet is rich in protein and potassium chloride in the hospital to treat potassium calorie malnutrition.**
GENITOURINARY: **Color: Dark yellow** **Character: Cloudy** **Quantity of urine: 20 ml** **Pain with urination: Y ☒ N ☐** **Dialysis: Y ☐ N ☒** **Inspection of genitals: Red/ pink** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Patient had pain with urination. Urine is dark yellow color . Urine is frothy and foul smelling. Urinalysis shows E coli greater than 100,000 ul.**
MUSCULOSKELETAL: **Neurovascular status: Not stable** **ROM: Unable to do** **Supportive devices: Yes, patient is high fall risk.** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score:12** **Activity/Mobility Status: Patient unable to ambulate** **Independent (up ad lib)** ☐	**Patient cannot perform ROM and ADL. Patient is not independent and cannot stand and walk as her mental status is disoriented and she was unaware of the surroundings.**

Needs assistance with equipment ☐ **Needs support to stand and walk☐**	
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☐ N☒** **Strength Equal: Y ☐ N ☒ if no -** **Legs ☐ Arms ☒ Both ☐** **Orientation: Disoriented** **Mental Status: Not Alert to person , place and time** **Speech: Not understandable** **Sensory: Unable to feel sensation** **LOC: Not alert**	**Patient is not alert, disoriented and did not speak clearly. Not able to feel any sensation and patient mostly stares at the surroundings .**
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):**	**Patient has family but currently not with her. Her son answered phone call and made medical decision as she is not competent to decide. After that nobody in the family contacted her and there were no visitors.**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
07: 41 am	**Radial 96**	**134/75** **LA**	**16 breaths** **per minute**	**97.6 F**	**96**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
9:30 am	**Unable to obtain due to patient is disoriented and less responsive to questions but was**	**Mostly left hip but it was not stated by patient (found from her records)**	**Severe.**	**Dull pain (found from her records.)**	**Treating the cause and pain meds like morphine administered.**

	stated 8 on a scale of 10 in her records.				

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
1735 ml iv fluids **Half cup ice-cream** **15 ml Ensure**	**350 ml urine output which is less due to** **acute kidney injury.**

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

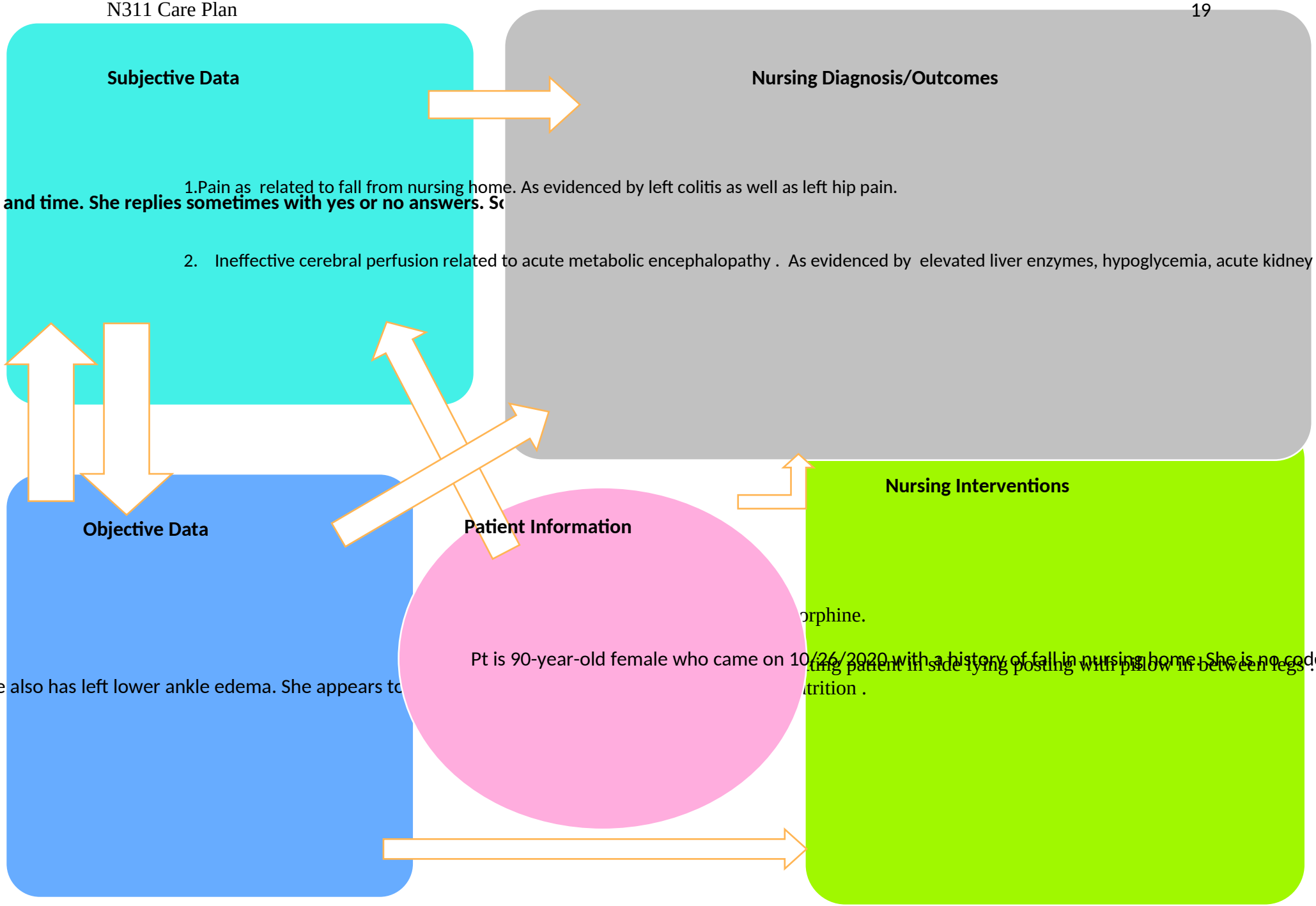
Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Pain as related to fall from nursing home. As evidenced by left colitis as well as left hip pain .	**Patient had pain in left hip due to history of fall from nursing home bed .**	**1.** Gave pain meds like ibuprofen and morphine. Pain meds were crushed and then given	**1. Patient pain improved after taking ibuprofen . She did not verbally mention it but when asked how the pain is, she replied it is less than before.**

		since patient was not able to swallow the medication. 2. To prevent fall, use of three side rails and putting patient in side lying posting with pillow in between legs .The head was low rest to prevent fall.	2. **By placing patient inside lying and using proper fall prevention risk like bed low rest patient was feeling secure.** **Hence goals were met.**
2. **Ineffective cerebral perfusion related to acute metabolic encephalopathy . As evidenced by elevated liver enzymes, hypoglycemia, acute kidney injury and protein calorie malnutrition**	**Patient is disoriented because she had combination of high liver enzymes, metabolic disease like DM type 2 ,UTI which results in acute metabolic encephalopathy . This causes inadequate oxygenation of brain .**	**1. Gave ensure and potassium to treat malnutrition .** **2.Gave ceftriaxone to patient to cure UTI.**	1. **Patient is not compliant with drinking the recommended fluids.** 2. **After giving antibiotics, patient output improved but not much.** **Goals are not met because patient is disoriented as well has severe metabolic diseases which causes slow brain response.**

Other References (APA):

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

Concept Map (20 Points):


Subjective Data
Nursing Diagnosis/Outcomes
1.Pain as related to fall from nursing home. As evidenced by left colitis as well as left hip pain.
ce and time. She replies sometimes with yes or no answers. Sc
2. Ineffective cerebral perfusion related to acute metabolic encephalopathy . As evidenced by elevated liver enzymes, hypoglycemia, acute kidney inj
Nursing Interventions
Objective Data
Patient Information
orphine.
Pt is 90-year-old female who came on 10/26/2020 with a history of fall in nursing home. She is no code
ting patient in side lying posting with pillow in between legs . M
he also has left lower ankle edema. She appears to
trition .