N311 Care Plan # 5

Lakeview College of Nursing

Jayda Davis

Demographics (5 points)

Date of Admission 4/1/22	**Client Initials** R. L	**Age** 73	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired Teacher	**Marital Status** Widowed	**Allergies** Phenobarbital
Code Status DNR	**Height** 65 inches	**Weight** 55.4 Kg	

Medical History (5 Points)

Past Medical History: Weakness, Insomnia, Anxiety, Major depressive disorder, Constipation, Fibromyalgia, Raynaud's syndrome, Neuromuscular dysfunction of the bladder, Gastroesophageal reflux disease.

Past Surgical History: Cataract surgery in 2017, Super pubic catheter in 2021

Family History: Father- Cancer, Mother- Cirrhosis, diabetes, mental health issues

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Tobacco: cigarettes for 10 years, smoked every day, smoked a pack a week. Alcohol: Drank beer and wine, alcohol use was 3 days out of the week, drank alcohol for 10 years. No drug uses.

Admission Assessment

Chief Complaint (2 points): Weakness in legs

History of Present Illness – OLD CARTS (10 points): On April 1st, a 73-year-old female was admitted to Mattoon Rehabilitation and Health center for skilled care. The patient has weakness in her legs due to hereditary spastic paraplegia. The patient reports that she only has weakness in both her legs. The patient reports that laying down and sitting makes doing activities easier for her. The patient reports that doing activities of daily living and transferring is difficult for her. The patient is in physical therapy to help with strengthening her muscles.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Hereditary Spastic Paraplegia

Secondary Diagnosis (if applicable): Spinal Stenosis (cervical region)

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

Hereditary spastic paraplegia is a group of neurologic disorders that cause muscle weakness and muscle tightness in the legs. There are currently more than 80 different genetic types of hereditary spastic paraplegia (Fink, 2017). Hereditary spastic paraplegia affects men and women in all ethnic groups (Fink, 2017). There is a significant variation in the severity of leg weakness, the degree of spasticity, and the occurrence of other neurologic symptoms between different genetic types (Fink, 2017). Signs and symptoms of hereditary spastic paraplegia include difficulty walking, weakness in the legs, tightness in the legs, and paralysis (Capriotti, 2020). Depending on the severity of the disease, urinary urgency, muscle atrophy, seizures, and neuropathy can also occur (Capriotti, 2020).

Hereditary spastic paraplegia occurs due to a gene mutation and is generally inherited from one parent. The gene mutation causes the ends of the nerve axons to degenerate slowly in the spinal cord (Fink, 2017). The degeneration causes the muscles not to receive the correct messages from the spinal cord, which cause the muscles to be weak and creates spasticity in the legs (Fink, 2017). The abnormalities in hereditary spastic paraplegia cause it to be very selective and only affect specific nerve pathways, which, in this case, affects the axons (Fink, 2017). Disturbances in these functions can alter neuron development (Fink, 2017). Therefore, this disease is a developmental disturbance because the nerve pathways during intra-uterine development are abnormal (Fink, 2017).

This disease is diagnosed using laboratory tests, neurophysiologic tests, and neuroimaging tests (Capriotti, 2020). Magnetic resonance imaging (MRI) is crucial in diagnosing hereditary spastic paraplegia. This is because the MRI can help exclude disorders such as multiple sclerosis and show if there are any brain or spinal abnormalities (Capriotti, 2020). Genetic testing is also performed to confirm the diagnosis of hereditary spastic paraplegia (Fink, 2017). Genetic testing can show the causative gene mutations in patients with a family history of hereditary spastic paraplegia (Fink, 2017). There is no specific treatment for hereditary spastic paraplegia. Treatments only are there to manage the symptoms of hereditary spastic paraplegia. Physical therapy, muscle-relaxing medication, and orthotics can help manage this disease's symptoms (Fink, 2017).

This patient was diagnosed with spastic hereditary paraplegia as she showed symptoms of this disease. The patient had MRI scans, lab tests, and genetic tests to confirm the diagnosis of hereditary spastic paraplegia. The patient's symptoms include weakness in her legs, tightness in her legs, and having no control of her bladder due to the severity of this disease. This patient is in skilled care as she can no longer take care of herself and because there are no treatments for this disease. The patient is utilizing physical therapy to help improve her symptoms.

Pathophysiology References (2) (APA):

Capriotti, T. M. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F. A. Davis Company. https://fadavisreader.vitalsource.com/books/9781719641470

Fink, J. K. (2017). *Hereditary spastic paraplegia*. National Organization for Rare Disorders. Retrieved from https://rarediseases.org/rare-diseases/hereditary-spastic-paraplegia/

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 (x10^6/µL)	4.28-5.56	N/A	4.30	N/A
Hgb (g/dL)	13.0-17.0	N/A	14.0	N/A
Hct (%)	38.1-48.9	N/A	42.7	N/A
Platelets (K/µL)	149-393	N/A	289	N/A
WBC (K/µL)	4.0-11.7	N/A	5.3	N/A
Neutrophils (%)	45.3-79.0	N/A	47.9	N/A
Lymphocytes (%)	11.8-45.9	N/A	34.0	N/A
Monocytes (%)	4.4-12.0	N/A	8.1	N/A
Eosinophils (%)	0.0-6.3	N/A	6.0	N/A
Bands (%)	1-5	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	N/A	140	N/A
K+ (mmol/L)	3.5-5.1	N/A	4.1	N/A
Cl- (mmol/L)	98-107	N/A	106	N/A
CO2 (mmol/L)	21-31	N/A	31	N/A
Glucose (mg/dL)	74-109	N/A	77	N/A
BUN (mg/dL)	7-25	N/A	9	N/A

Creatinine (mg/dL)	0.60-1.20	N/A	0.61	N/A
Albumin (g/dL)	3.5-5.2	N/A	N/A	N/A
Calcium (mg/dL)	8.6-10.3	N/A	8.8	N/A
Mag (mg/dL)	1.8-3.0	N/A	N/A	N/A
Phosphate (units/ L)	1.7-2.6	N/A	N/A	N/A
Bilirubin (mg/dL)	0.3-1.0	N/A	0.5	N/A
Alk Phos (units/L)	34-104	N/A	103	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	Light yellow and clear	N/A	N/A	N/A
pH	5.0-8.0	N/A	N/A	N/A
Specific Gravity	1.005-1.034	N/A	N/A	N/A
Glucose	Negative	N/A	N/A	N/A
Protein	Negative	N/A	N/A	N/A
Ketones	Negative	N/A	N/A	N/A
WBC	0-5	N/A	N/A	N/A
RBC	0-5	N/A	N/A	N/A
Leukoesterase	Negative	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	Negative	N/A	N/A	N/A
Blood Culture	Negative	N/A	N/A	N/A
Sputum Culture	Negative	N/A	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Capriotti, T. M. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F. A. Davis Company. https://fadavisreader.vitalsource.com/books/9781719641470

Sarah Bush Lincoln Hospital. (2022). *Lab Values.* Sarah Bush Lincoln Hospital.

Diagnostic Imaging

All Other Diagnostic Tests (10 points): Abdominal X-Ray- An abdominal x-ray was given to this patient to look at the intestines. Abdominal X-rays can be used to see images of internal tissues, organs, and bones (Capriotti, 2020). The abdominal x-ray can be used to show masses or blockages in the organs in the abdomen (Capriotti, 2020). This patient got an abdominal x-ray to visualize if she had any obstructions in her intestines. This scan showed that the patient was free from obstructions in her intestines and that there were no calcifications noted.

Diagnostic Imaging Reference (1) (APA):

Capriotti, T. M. (2020). *Davis advantage for pathophysiology: Introductory concepts and*

clinical perspectives (2nd ed.). F. A. Davis Company.

https://fadavisreader.vitalsource.com/books/9781719641470

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

Medications (5 required)

Brand/Generic	Senna/ Docusate sodium	Lioresal/ Baclofen	Tylenol/ Acetaminophen	Clonapam/ Clonazepam	Protonix/ Pantoprazole sodium
Dose	8.6 mg	20 mg	500 mg	1 mg	40 mg
Frequency	BID	QID	TID	TID	QD
Route	PO	PO	PO	PO	PO
Classification	Sulfonic acid & stool softener	Skeletal muscle relaxant & antispasticity	Nonsalicylate, Para-aminophenol derivative & Antipyretic, nonopioid analgesic	Benzodiazepine & Antipanic, Anticonvulsant	Proton pump inhibitor & Antiulcer
Mechanism of Action	"Irritates the luminal sensory nerve endings which stimulate colonic motility and reduce colonic water absorption." (Jones, 2022)	"Inhibits nerve impulses in the spine and stimulates inhibitory neuronal signals in the post-synaptic neurons which relaxes and relieves muscle contractions." (Jones, 2022)	"Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system." (Jones, 2022)	"Prevents panic and seizures by potentiating the effects of gamma-aminobutyric acid, which is an inhibitory neurotransmitter." (Jones, 2022)	"Interferes with gastric secretions and inhibits the proton pump in the gastric parietal cells. Inhibits the final step in gastric acid production by preventing H+ from entering the stomach and from additional HCL

					from forming." (Jones, 2022)
Reason Client Taking	To treat constipation	To treat muscle spasms	To manage pain	To help manage anxiety	To treat gastroesophageal reflux disease
Contraindications (2)	Nausea or vomiting Intestinal obstruction (Jones, 2022)	Hypersensitivity to baclofen Seizure (Jones, 2022)	Severe hepatic impairment Severe active liver disease (Jones, 2022)	Acute-narrow-angle glaucoma Hepatic disease (Jones, 2022)	Concurrent therapy with rilpivirine-containing products Urticaria (Jones, 2022)
Side Effects/Adverse Reactions (2)	Cramping Diarrhea (Jones, 2022)	Constipation Weakness (Jones, 2022)	Fatigue Diarrhea (Jones, 2022)	Insomnia Increased appetite (Jones, 2022)	Tremors Muscle weakness (Jones, 2022)

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2022). *2022 nurse's drug handbook* (21st ed.). Jones & Bartlett Learning.

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	A/O x4. Patient was alert and oriented. Patient was in no acute distress. Patient was well groomed.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** 18 **Drains present: Y☐ N ☒** **Type:**	Patient's skin color was tan. Skin was cool, dry, and soft. The patient was free of rashes, lesions, and bruises. Skin turgor was loose and less than 3 seconds. Braden score is 18.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Patients head and neck are symmetrical. Thyroid is non palpable. Trachea is midline with no deviation. Bilateral carotid pulses are palpable and 2+. Bilateral sclera white, bilateral conjunctiva is pink, and bilateral cornea is clear. Bilateral lids are pink and moist without any lesions or discharge. PERRLA is bilaterally and EOM's intact bilaterally. The nose is midline, and the septum is midline. Turbinate's are moist and pink bilaterally with no visible drainage or polyps. Bilateral frontal sinuses are nontender to palpation. Tongue and buccal mucosa were pink, and moist, with no lesions. The patient was missing 4 teeth.
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:**	S1 and S2 heart sounds were clear and audible without murmurs or gallops. Cardiac rhythm is steady and regular. Carotid and radial pulses were palpable and are 2+. Capillary refill was <3 seconds in fingers bilaterally. No jugular vein distention was seen.

RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	No abnormal lung sounds during auscultation. Lung sounds were clear anterior/posterior bilaterally. No accessory muscles were used for respiration. No wheezes, crackles, or rhonchi were noted.
GASTROINTESTINAL: **Diet at home:** N/A **Current Diet:** Regular diet **Height:** 65 inches **Weight:** 55.4 Kg **Auscultation Bowel sounds:** Active in all 4 quadrants. **Last BM:** 11/2/22 **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	The patient is on a regular diet. The patient's height is 65 inches and weight are 55.4 Kg. Active bowel sounds in all 4 quadrants. The last bowel movement was on 11/2/22. The abdomen was free of scars, drains, incisions, and wounds. The patient has no ostomy, nasogastric, or feeding tubes.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** 500 mL **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** Suprapubic catheter **Size:** N/A	The patient had dark yellow and cloudy urine. The patient has a suprapubic catheter. The patient doesn't have any pain with the suprapubic catheter. There was 500 mL of urine in the foley bag.
MUSCULOSKELETAL: **Neurovascular status:** A/O x4 **ROM:** Active range of motion in both arms. Passive range of motion in both legs. **Supportive devices:** Wheelchair Strength: Both arms 5/5 & Both legs 2/5 **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** 35 **Activity/Mobility Status:**	The patient is A/O x4. The patient has active range of motion in both arms. The patient has passive range of motion in both legs and feet. The patient uses a wheelchair. Both arms are a 5/5 with strength. Both legs are 2/5 with strength. The patient is a fall risk. The fall score is 35. The patient needs assistance in ADLs and transferring.

Independent (up ad lib) ☐ **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:** Awake and oriented to surroundings **Mental Status:** Awake and answers questions appropriately. **Speech:** Clear **Sensory:** No sensory impairments **LOC:** Alert + Oriented	The patient's strength is not equal. The patient has weakness in both legs. The patient is awake and oriented to her surroundings. The patient has clear speech and can answer questions appropriately. The patient has no sensory impairments. The patient is alert and oriented.
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):**	The patient watches tv, listens to podcasts, and talks with friends to cope. The patient has a Bachelor's in education degree. The patient is Christian and attends church online. The patient has friends to support and visit her.

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1000	78 bpm	128/74 LA	18 resp/min	36.7 ˚C Oral	98% RA

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1010	Numeric pain scale	Right buttocks	7/10	Aching and pulling	Laid the patient down in bed and give pain medication.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)

75% breakfast 75% lunch 200 mL of coffee 250 mL of water 200 mL of cranberry juice	Voided 500 mL of urine

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

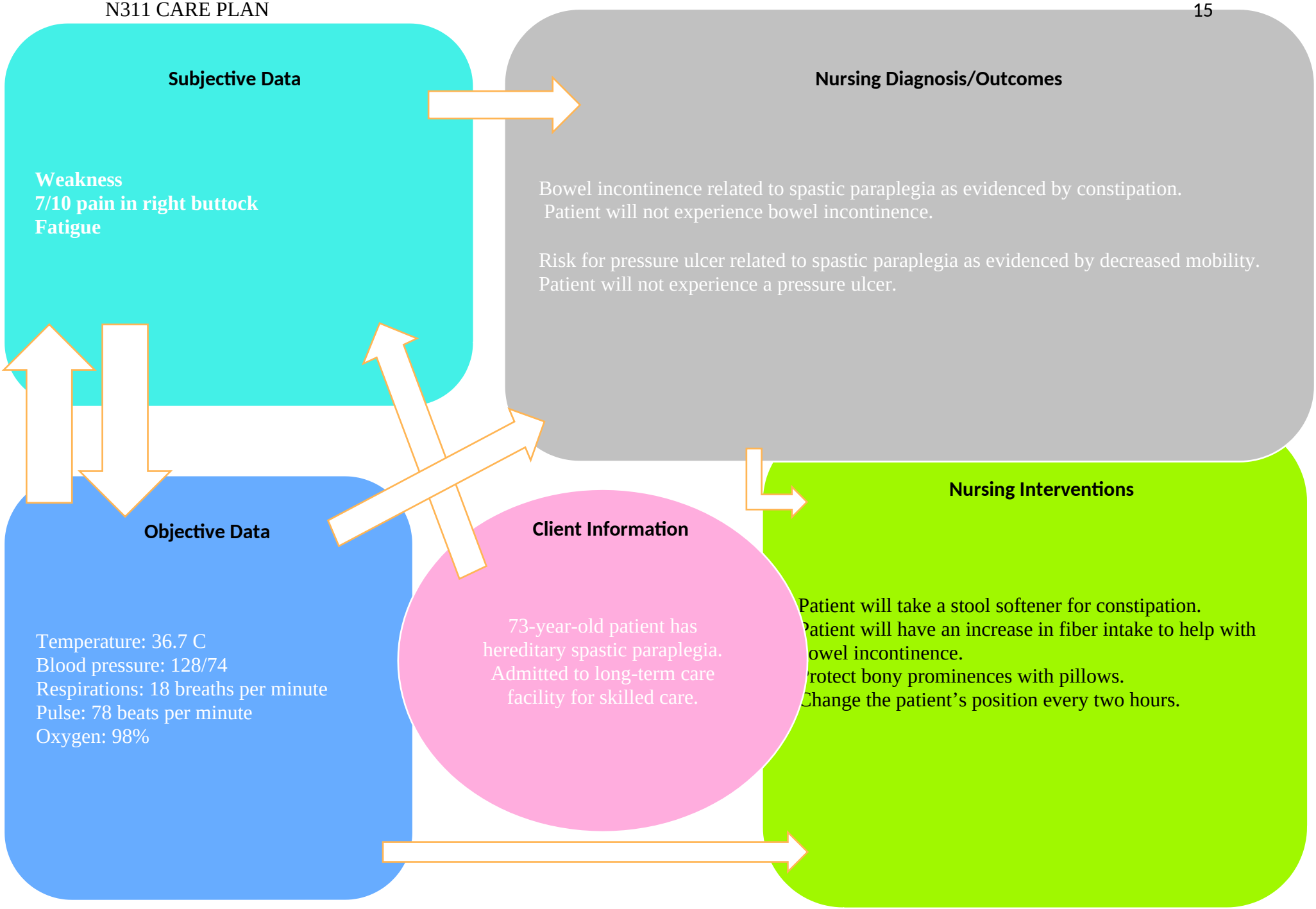
Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 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. Bowel incontinence related to spastic paraplegia as evidenced by constipation.	This diagnosis was given because the patient often has constipation due to bowel incontinence related to her spastic paraplegia.	**1.**Patient will take a stool softener for constipation. **2.** Patient will have an increase in fiber intake to help with bowel incontinence.	**1.** Patient will not experience bowel incontinence.	The patient is compliant with instructions. The patient is going to reach out to friends to bring her snacks high in fiber so that it can help with her bowel incontinence.
2. Risk for pressure	This diagnosis was	**1.** Change the patient's	**1.** Patient will not experience a	The patient is compliant with

ulcer related to spastic paraplegia as evidenced by decreased mobility.	given to the patient because the patient has decreased mobility and has a higher risk of getting a pressure ulcer.	position every two hours. 2.Protect bony prominences with pillows.	pressure ulcer.	instructions. The patient asked to have more pillows to protect her bony prominences. The patient is okay and wants to be turned every two hours to protect herself from getting a pressure ulcer.

Other References (APA):

Phelps, L. L. (2020). *Sparks and Taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Concept Map (20 Points):


Subjective Data
Weakness
7/10 pain in right buttock
Fatigue
Nursing Diagnosis/Outcomes
Bowel incontinence related to spastic paraplegia as evidenced by constipation.
Patient will not experience bowel incontinence.
Risk for pressure ulcer related to spastic paraplegia as evidenced by decreased mobility.
Patient will not experience a pressure ulcer.
Objective Data
Temperature: 36.7 C
Blood pressure: 128/74
Respirations: 18 breaths per minute
Pulse: 78 beats per minute
Oxygen: 98%
Client Information
73-year-old patient has hereditary spastic paraplegia. Admitted to long-term care facility for skilled care.
Nursing Interventions
Patient will take a stool softener for constipation.
Patient will have an increase in fiber intake to help with bowel incontinence.
Protect bony prominences with pillows.
Change the patient's position every two hours.