N431 Care Plan 1

Lakeview College of Nursing

Kelsey Bierman

Demographics (3 points)

Date of Admission 09/25/2022	**Client Initials** BG	**Age** 31 years old	**Gender** Female
Race/Ethnicity White	**Occupation** N/A: Disabled	**Marital Status** Married	**Allergies** Bactrim (Nausea/Vomiting), Barium Sulfate (Nausea/Vomiting), Haldol (Unknown), Sulfamethoxazole-trimethoprim (Unknown)
Code Status Full Code	**Height** 163 cm	**Weight** 93.4 kg	

Medical History (5 Points)

Past Medical History: Depression, urinary tract infections, STIs, seizures, epilepsy, bronchitis, cortical dysplasia, and acute paranoia.

Past Surgical History: Primary cesarean-section (02/22/2019), Brain (05/18/2004), Extraction of wisdom teeth (Unknown), and Temporal lobectomy (Unknown).

Family History:

Mother: UTI

Father: COPD, renal cancer, and skin cancer

Grandmother (Maternal): Arthritis, diabetes mellitus, hearing issues, hyperlipidemia, hypertension, osteoporosis, Parkinson's disease, rheumatoid arthritis, and vision disorder.

Grandfather (Maternal): Leukemia and vision disorder.

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

The patient admits to being a former cigarette smoker but has quit for over a month. The patient

admitted to smoking ½ a pack a day for 10 years. The patient admits to drinking on special occasions. The patient denies any drug use.

Assistive Devices: N/A

Living Situation: The patient lives at home with her husband, children, and mother-in-law

Education Level: Some college

Admission Assessment

Chief Complaint (2 points): Seizure Activity

History of Present Illness – OLD CARTS (10 points): The patient is a 31-year-old Caucasian female that was admitted to the emergency department by emergency medical services after having a seizure at home. After the seizures, the patient "punched her husband and almost passed out." The patient's husband gave her clonazepam at home before EMS's arrival. The patient has a history of seizures and reports compliance with her medications. Earlier on the morning of 09/26/2022, the patient had another seizure and was given lamotrigine at the hospital. The patient is now stable. During my shift, my patient complained of a "throbbing headache" she rated her pain a 6 out of 10 on a numeric pain scale. To relieve the patient's pain, a headache cocktail was given to the patient.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Breakthrough seizures

Secondary Diagnosis (if applicable): Epilepsy

Pathophysiology of the Disease, APA format (20 points): Seizures start with the excitation of susceptible neurons in the cerebellum (Huff & Murr, 2022). This excitation leads to synchronous discharges of more groups of connected neurons (Huff & Murr, 2022). Neurotransmitters are

also involved in seizure activity (Huff & Murr, 2022). Glutamate and gamma-aminobutyric acid (GABA) are essential neurotransmitters for excitability and inhibition (Huff & Murr, 2022). An imbalance of glutamate and GABA will initiate abnormal electrical activity (Huff & Murr, 2022). The increase in glutamate or decrease in GABA can result in seizures (Huff & Murr, 2022). The clinical signs and symptoms are often determined by the area of the brain affected (Huff & Murr, 2022). However, clinical manifestations may include temporary confusion, a staring spell, awkward jerking movements of the arms and legs, lack of consciousness, and cognitive or emotional symptoms (Huff & Murr, 2022). Generalized status epilepticus can cause many systemic changes to the body (Huff & Murr, 2022). These changes can include lactic acidosis, increased catecholamine levels, hyperthermia, and respiratory compromise (Huff & Murr, 2022). During most seizures, the sympathetic nervous system is activated, resulting in tachycardia, tachypnea, increased blood pressure, pupillary dilation, diaphoresis, and facial flushing (Devinsky, 2004). However, in some circumstances, the parasympathetic can predominate, resulting in increased salivation, gastric acid secretion, peristalsis, miosis, reduced heart and respiratory rate, and decreased blood pressure (Devinsky, 2004). Diagnostic tests that can be used to identify seizure activity include an electroencephalogram (EEG), magnetic resonance imaging (MRI), computerized tomography (CT), positron emission tomography (PET), a single-photon emission computerized tomography (SPECT) (Mayo Clinic, 2019). My patient received a complete blood cell count (CBC) and a complete metabolic panel (CMP). A CBC was drawn to help determine the patient's baseline, and a CMP was drawn to determine if the patient had an electrolyte imbalance, kidney or liver damage, or diabetes to help find a possible cause of the seizure (Melinosky, 2022). My patient's CBC was within normal limits, but her CMP showed hypokalemia and low bilirubin levels. Antiepileptic medications are often used

to treat seizure disorders (Mayo Clinic, 2019). My patient takes cenobamate, brivaracetam, clonazepam, lorazepam, and lamotrigine. High fat and low carbohydrate diet can also help to manage seizures (Mayo Clinic, 2019). Surgical options to help treat seizure disorders include a lobectomy, multiple subpial transections, corpus callosotomy, hemispherectomy, and thermal ablation (Mayo Clinic, 2019). My patient had a temporal lobectomy. Other procedures that can help manage seizure symptoms include vagus nerve stimulation, responsive neurostimulation, and deep brain stimulation (Mayo Clinic, 2019).

Pathophysiology References (2) (APA):

Devinsky, O. (2004). Effects of seizures on autonomic and cardiovascular function. *Epilepsy Currents*, *4*(2), 43–46. https://doi.org/10.1111/j.1535-7597.2004.42001.x

Huff, J. S., & Murr, N. (2022). Seizure. In *www.ncbi.nlm.nih.gov*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK430765/#:~:text=Epilepsy%20occurs%20because%20of%20a

Mayo Clinic. (2019). *Seizures - Diagnosis and treatment - Mayo Clinic*. Mayoclinic.org. https://www.mayoclinic.org/diseases-conditions/seizure/diagnosis-treatment/drc-20365730

Mayo Clinic. (2021). *Seizures - Symptoms and causes*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/seizure/symptoms-causes/syc-20365711

Melinosky, C. (2022). *Epilepsy and blood testing*. WebMD. https://www.webmd.com/epilepsy/guide/epilepsy-blood-test

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	3.8-5.41	4.63	4.79	N/A
Hgb	11.3-15.2	13	13.2	N/A
Hct	33.2-45.3	38.8	40.5	N/A
Platelets	149-393	287	303	N/A
WBC	4-11.7	7.1	6.9	N/A
Neutrophils	45.3-79	56.5	60.1	N/A
Lymphocytes	11.8-45.9	33.1	29.1	N/A
Monocytes	4.4-12	6.7	7.6	N/A
Eosinophils	0-6.3	2.6	2.4	N/A
Bands	0.2-1.6	1.1	0.8	N/A

***All lab values from (Sarah Busch Lincoln Health System, n.d.)**

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	137	138	N/A
K+	3.5-5.1	3.3	4.1	Changes in extracellular potassium can result in neuronal excitability and promote seizures (de Curtis et al., 2018). Because the patient had low potassium levels on admission, this can be a possible cause of the patient's seizure (de Curtis et al., 2018).
Cl-	98-107	101	106	N/A
CO2	21-31	27	26	N/A
Glucose	74-109	81	90	N/A
BUN	7-25	9	8	N/A

Creatinine	0.6-1.2	0.77	0.65	N/A
Albumin	3.5-5.2	3.9	3.9	N/A
Calcium	8.6-10.3	9.1	8.7	N/A
Mag	1.8-2.6	N/A	N/A	N/A
Phosphate	2.7-4.6	N/A	N/A	N/A
Bilirubin	0.3-1	0.2	0.3	Low bilirubin levels could be due to side effects of certain medications (Gill, 2018). Medications that can cause low bilirubin include nonsteroidal anti-inflammatory drugs (NSAIDs) and barbiturates (Gill, 2018). Another potential cause of low bilirubin levels may be drinking caffeine before the blood was drawn (Gill, 2018).
Alk Phos	34-104	134	126	Increased levels of ALP have been associated with the use of anti-epileptic drugs (Gupta et al., 2019). My patient takes multiple anti-epileptic medications, which may be why she has elevated levels of ALP (Gupta et al., 2019).
AST	13-39	14	14	N/A
ALT	7-52	13	11	N/A
Amylase	0-90	N/A	N/A	N/A
Lipase	0-70	N/A	N/A	N/A
Lactic Acid	4.5-19.8	N/A	N/A	N/A
Troponin	0-0.04	N/A	N/A	N/A
CK-MB	3-5	N/A	N/A	N/A
Total CK	22-198	N/A	N/A	N/A

***All lab values from (Sarah Busch Lincoln Health System, n.d.).**

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	1-2	N/A	N/A	N/A
PT	10-12	N/A	N/A	N/A
PTT	30-45	N/A	N/A	N/A
D-Dimer	Less than 0.5	N/A	N/A	N/A
BNP	Less than 100	N/A	N/A	N/A
HDL	60 and greater	N/A	N/A	N/A
LDL	Less than 100	N/A	N/A	N/A
Cholesterol	Less than 200	N/A	N/A	N/A
Triglycerides	Less than 150	N/A	N/A	N/A
Hgb A1c	Less than 5.7%	N/A	N/A	N/A
TSH	0.5-5	N/A	N/A	N/A

***All values from (Sarah Busch Lincoln Health System, n.d.)**

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	Clear to yellow	Light yellow	N/A	N/A
pH	5-8	6	N/A	N/A
Specific Gravity	1.005-1.034	1.009	N/A	N/A
Glucose	Normal	Normal	N/A	N/A
Protein	Less than 150	Trace	N/A	N/A
Ketones	Negative	Negative	N/A	N/A

WBC	Less than 5	1	N/A	N/A
RBC	0-3	3	N/A	N/A
Leukoesterase	Negative	Negative	N/A	N/A

***All values from (Sarah Busch Lincoln Health System, n.d.).**

Arterial Blood Gas 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
pH	7.35-7.45	N/A	N/A	N/A
PaO2	75-100	N/A	N/A	N/A
PaCO2	35-45	N/A	N/A	N/A
HCO3	22-26	N/A	N/A	N/A
SaO2	95-100	N/A	N/A	N/A

***All values from (Capriotti, 2020).**

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

***All values from (Capriotti, 2020).**

Lab Correlations Reference (1) (APA):

Capriotti, T. M. (2020). *Pathophysiology: Introductory concepts and clinical perspectives.* (2nd ed.). F A Davis.

de Curtis, M., Uva, L., Gnatkovsky, V., & Librizzi, L. (2018). Potassium dynamics and seizures: Why is potassium ictogenic? *Epilepsy Research, 143*, 50–59. https://doi.org/10.1016/j.eplepsyres.2018.04.005

Gill, K. (2018, August 30). *Low bilirubin levels: Symptoms, causes, and potential risks*. Healthline. https://www.healthline.com/health/low-bilirubin#outlook

Gupta, A., Mahajan, S., & Neki, N. S. (2019). To study the effect of antiepileptic drugs on serum alkaline phosphatase levels in the epileptic patients. *Pesquisa.bvsalud.org*. https://pesquisa.bvsalud.org/portal/resource/pt/sea-189298

Sarah Busch Lincoln Health System. (n.d.). *Tests and procedures: Sarah bush lincoln health system*. Library.sarahbush.org. https://library.sarahbush.org/Library/TestsProcedures/Encyclopedia.pg?page=2&pagesize=50&letter=A

Diagnostic Imaging

All Other Diagnostic Tests (5 points): An additional diagnostic test that my patient received was an electrocardiogram (ECG). An electrocardiogram records the electrical signals in the heart (Mayo Clinic, 2019). It is a standard and painless test used to detect heart problems and quickly monitor heart health (Mayo Clinic, 2019).

Diagnostic Test Correlation (5 points): Previous studies have found that analysis of the autonomic nervous system (ANS) may help to identify epileptic seizures and ANS can be

obtained through heart rate variability (HRV) analysis (Pavei et al., 2017). HRV can be assessed by the time interval between successful QRS complexes (Pavei et al., 2017). My patient's ECG showed a normal sinus rhythm with no abnormalities (Pavei et al., 2017).

Diagnostic Test Reference (1) (APA):

Mayo Clinic. (2019). *Electrocardiogram (ECG or EKG) - Mayo Clinic*. Mayoclinic.org. https://www.mayoclinic.org/tests-procedures/ekg/about/pac-20384983

Pavei, J., Heinzen, R. G., Novakova, B., Walz, R., Serra, A. J., Reuber, M., Ponnusamy, A., & Marques, J. L. B. (2017). Early seizure detection based on cardiac autonomic regulation dynamics. *Frontiers in Physiology*, *8*. https://doi.org/10.3389/fphys.2017.00765

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

Home Medications (5 required)

Brand/ Generic	Xcopri/ Cenobamate	Briviact/ Brivaracetam	Clonapam/ Clonazepam	Oxtellar XR/ Oxcarbazepine	Heather/ Norethindrone
Dose	150 mg	100 mg	1.5 mg	600 mg	0.35 mg
Frequency	BID	BID	HS	Once daily	Once daily
Route	P.O.	P.O.	P.O.	P.O.	P.O.
Classification	Pharmacologic class: Sodium channel	Pharmacologic class: Anticonvulsant	Pharmacologic class: Benzodiazepine	Pharmacologic class: Carboxamide derivative	Pharmacologic class: Progestins

	antagonist Therapeutic class: Anticonvulsant Controlled substance schedule: V	Therapeutic class: Anticonvulsant Controlled substance schedule: V	Therapeutic class: Anticonvulsant, antipanic Controlled substance schedule: IV	Therapeutic class: Anticonvulsant	
Mechanism of Action	May reduce repetitive neuronal firing by inhibiting voltage-gated sodium currents. It also is a positive allosteric modulator of the gamma-aminobutyric acid ion channel.	Displays a high and selective affinity for synaptic vesicle protein 2A (SV2A) in the brain, which may contribute to the anticonvulsant effect, although the exact mechanism is unknown.	Although unknown, drug is thought to prevent panic and seizures by potentiating the effects of gamma-aminobutyric acid, which is an inhibitory neurotransmitter. This action is also thought to suppress the spread of seizure activity caused by seizure-producing foci in the cortex, limbic, and thalamus structures.	May prevent or halt seizures by blocking or closing sodium channels in the neuronal cell membranes. By preventing sodium from entering the cell, oxcarbazepine may slow nerve impulse transmission, thus decreasing the rate at which neurons fire.	Norethindrone inhibits follicular development and prevents ovulation (Cooper & Mahdy, 2021). Progestogen negative feedback works at the hypothalamus to decrease the frequency of gonadotropin-releasing hormone (Cooper & Mahdy, 2021). A decrease in gonadotropin-releasing hormone reduces follicle-stimulation and luteinizing hormone secretion (LH) (Cooper & Mahdy, 2021). The

					progestogen negative feedback and no positive estrogen feedback on LH secretion stop the cycle of LH surge (Cooper & Mahdy, 2021). Ovulation is thus prevented due to no follicle and no LH surge to release the follicle (Cooper & Mahdy, 2021).
Reason Client Taking	To treat partial-onset seizures	To treat partial-onset seizures	To treat akinetic and myoclonic seizures	To treat partial seizures	Birth Control
Contraindications (2)	1. Familial short QT interval 2. Hypersensitivity to cenobamate or its components	1. Hypersensitivity to brivaracetam or its components	1. Acute-narrow-angle glaucoma 2. Hepatic disease	1. Hypersensitivity to oxcarbazepine, eslicarbazepine acetate, or their components.	1. Women with suspected or known pregnancy (Cooper & Mahdy, 2021). 2. Patients with undiagnosed abnormal uterine bleedi

					ng (Cooper & Mahdy, 2021).
Side Effects/Adverse Reactions (2)	1. Suicidal Ideation 2. Gait disturbance	1. Suicidal Ideation 2. Angioedema	1. Suicidal Ideation 2. Respiratory depression	1. Seizures 2. Suicidal ideations	1. Irregular vaginal bleeding or spotting (MedlinePlus Drug Information, 2022). 2. Changes in menstrual flow (MedlinePlus Drug Information, 2022).
Nursing Considerations (2)	1. Patient should swallow the medication whole with water. The tablet should not	1. Be aware that brivaracetam oral solution may be administered via a gastro	1. Use cautiously in patients with a mixed seizure disorder, renal failur	1. Implement seizure precautions as needed. 2. Monitor the patient closely for	1. Monitor for signs and symptoms of thrombophlebitis. 2. Withhold medication and notify

	be crushed or chewed. 2. Maintain the titration schedule, as rapid titration may cause adverse effects.	stomy or nasogastric tube. 2. Take safety measures to prevent the patient from falling because brivaracetam may cause dizziness and disturbances in coordination and gait.	e, or troublesome secretions. 2. Monitor the patient closely for signs of loss of effectiveness of the anticonvulsant activity, especially within the first three months of the administration.	evidence of suicidal thinking or behavior, especially when therapy starts or dosage changes.	the provider if any of the following occur: sudden, complete, or partial loss of vision, proptosis, diplopia, or migraine headache.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	For patients with mild to moderate hepatic impairment, the maximum dosage is 200 mg once daily.	For adult and pediatric patients weighing more than 50 kg or more with hepatic impairment of any	Monitor blood drug level, CBC, and liver enzymes as ordered.	Monitor serum sodium level for signs of hyponatremia for the first three months. Monitor therapeutic	Perform a thorough physical assessment to establish baseline data (RNpedia, 2019).

		severity initial dosage is reduced to 25 mg BID with a maximum dosage not to exceed 75 mg BID.		oxcarbazepine levels during initiation and titration.	
Client Teaching Needs (2)	1. Tell the patient to take tablets whole with liquid and not chew or crush tablets. 2. Instruct the patient to notify the provider of persistent, severe, or unusual signs and symptoms such as a rash	1. Inform patients to swallow tablets whole with a beverage. Tell patients tablets should not be chewed or crushed. 2. Advise patient to avoid performing hazardous activities such as driving or	1. Tell the patient to take the drug exactly as prescribed. Explain that stopping abruptly can cause seizures and withdrawal symptoms. 2. Urge the patient to carry medical identification of	1. Instruct patient not to break, chew, or crush tablets but to swallow whole. 2. Inform patients that they might experience dizziness, double vision, and unsteady gait as well as other device CNS	1. Wait at least three months before getting pregnant stoping the medication to avoid birth defects 2. Promptly report prolonged vaginal bleeding or amenorrhea.

	or fever.	operating machinery until central nervous system effects of brivaracetam are known and have abated.	his seizure disorder and drug therapy.	signs and symptoms.	

Hospital Medications (5 required)

Brand/ Generic	Ativan/ Lorazepam	Benadryl/ Diphenhydramine hydrochloride	Lamictal/ Lamotrigine	Lovenox/ Enoxaparin sodium	Colace/ Docusate sodium
Dose	1 mg in 0.5 mL	25 mg	300 mg	40 mg in 0.4 mL	100 mg
Frequency	Q1H PRN	Q6H PRN	BID	HS	Once daily
Route	I.V. Push	P.O.	P.O.	SQ	P.O.
Classification	Pharmacologic class: Benzodiazepine	Pharmacologic class: Antihistamine Therapeutic	Pharmacologic class: Phenyltriazine	Pharmacologic class: Low-molecular-weight	Pharmacologic class: Sulfonic acid Therapeutic

	Therapeutic class: Anxiolytic Controlled substance schedule: IV	class: Antianaphylaxis adjunct, antidyskinetic, antiemetic, antihistamine, antitussive, antivertigo, sedative-hypnotic.	Therapeutic class: Anticonvulsant	heparin Therapeutic class: Anticoagulant	class: Stool softener
Mechanism of Action	May potential the effects of gamma-aminobutyric acid (GABA) and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of CNS. GABA inhibits excitatory stimulation, which helps control emotional behavior.	Binds to central and peripheral H1 receptors, competing with histamine for these sites and preventing blocking histamine, diphenhydramine produces antihistamine effects, inhibiting GI, respiratory, and vascular smooth muscle contraction. Diphenhydramine also produces antidyskinetic effects by inhibiting acetylcholine in the CNS. It produces antitussive effects by suppressing the cough center in the medulla oblongata in the brain. The antiemetic and	May stabilize neuron membranes by bocking their sodium channels and inhibiting release of excitatory neurotransmitters, such as aspartate and glutamate through these channels. By blocking the release of neurotransmitters, lamotrigine inhibits the spread of seizure activity in the brain, reduces seizure frequency, and diminishes mood swings.	Potentiates the action of antithrombin III, a coagulation inhibitor. By binding with antithrombin III, enoxaparin rapidly binds with and inactivates clotting factors.. Without thrombin, fibrinogen can’t convert to fibrin and thrombus can’t form.	Colace is a surfactant laxative that reduces the tension of the oil-water interface of the stool (Medscape, 2022). Colace enhances the incorporation of water and fat into the stool, which causes the stool to soften (Medscape, 2022).

		antivertigo effects are related to the ability of diphenhydramine to bind to CNS muscarine receptors and depress vestibular stimulation and labyrinthine function. Diphenhydramine's sedative effects are related to its CNS depressant action.			
Reason Client Taking	To treat anxiety	To treat seasonal allergies	To treat seizures	To prevent DVT	To treat constipation
Contraindications (2)	1. Acute angle-closure glaucoma 2. Hypersensitivity to lorazepam, other benzodiazepines, or their components.	1. Breastfeeding 2. Hypersensitivity to diphenhydramine, similar antihistamines, or their components.	1. Hypersensitivity to lamotrigine or its components	1. Active major bleeding 2. History of immune-mediated heparin-induced thrombocytopenia within the past 100 days or	1. Hypersensitivity (Medscape, 2022) 2. Intestinal obstruction (Medscape, 2022)

				in the presence of circulating antibodies.	
Side Effects/Adverse Reactions (2)	1. Seizures 2. Suicidal ideation	1. Arrhythmias 2. Agranulocytosis	1. Increased seizure activity 2. Suicidal ideation	1. CVA 2. Hemorrhage	1. Abdominal cramping (Medscape, 2022) 2. Diarrhea (Medscape, 2022)
Nursing Considerations (2)	1. Before starting lorazepam therapy in a patient with depression, make sure they already take an antidepressant. 2. Know that stopping the	1. Expect to discontinue the drug at least 72 hours before skin tests for allergies because the drug may inhibit cutaneous histamine response, thus producing a	1. Use cautiously in patients with illnesses that could affect elimination or metabolism or lamotrigine, such as cardiac hepat	1. Use enoxaparin with extreme caution in patients with a history of heparin-induced thrombocytopenia. 2. Use cautiously in those with	1. Colace should be discontinued if cramping, rectal bleeding or if nausea or vomiting occur 2. Administer alone for the best absor

	drug abruptly increases the risk of withdrawal symptoms.	false-negative result. 2. Only give diphenhydramine parenterally when oral ingestion isn't possible.	ic or renal function impairment. 2. Monitor patient for adverse reactions, especially suicidal thoughts, at start of therapy and with each dosage increase.	bleeding diathesis, diabetic retinopathy, hepatic or renal impairment, recent GI hemorrhage or ulceration, or uncontrolled hypertension.	ption.
Key Nursing Assessment (s)/Lab(s) Prior to Administration	Dilute lorazepam with an equal amount of 0.9% sodium chloride injection, 5% dextrose injection, or sterile water for injection. Monitor the patient's respiratory	Give with food if diphenhydramine upsets the stomach.	Document the number, duration, and severity of seizures to be able to drug efficacy.	Document the number, duration, and severity of seizures to be able to drug efficacy.	Assess for abdominal distention, presence of bowel sounds, and normal patterns of bowel function.

	every 5-15 minutes and keep emergency resuscitation equipment readily available.				
Client Teaching Needs (2)	1. Instruct the patient to take lorazepam exactly as prescribed and not to stop without consulting the provider. 2. Advise patient to avoid hazardous activities until the drug's CNS effects are know	1. Instruct the patient to take diphenhydramine at least 30 minutes before exposure to situations that may cause motion sickness. 2. Advise patient to take drug with food to minimize GI distress.	1. Advise patients to take lamotrigine exactly as prescribed and not stop abruptly because seizure activity may increase. 2. Instruct patient to seek immediate emergency help or call local	1. Advise patient to notify provider about adverse reactions, especially bleeding. 2. Emphasize the importance of complying with follow-up visits with provider.	1. The onset of action is usually between 1-2 days. 2. Swallow tablet whole do not chew them.

	n.		poison control center if too much lamotrigine is taken.		

Medications Reference (1) (APA):

Contributor, N. T. (2004, December 18). *Docusate sodium*. Nursing Times. https://www.nursingtimes.net/clinical-archive/medicine-management/docusate-sodium-18-12-2004/#:~:text=Nursing%20considerations&text=%2D%20Drug%20should%20be%20discontinued%20if

Cooper, D. B., & Mahdy, H. (2021). *Oral Contraceptive Pills*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK430882/#:~:text=The%20main%20mechanism%20of%20action

Jones & Bartlett Learning. (2021). *2022 Nurse's Drug Handbook.* Jones & Bartlett Learning.

MedlinePlus Drug Information. (2022). *Norethindrone*. Medlineplus.gov. https://medlineplus.gov/druginfo/meds/a604034.html#:~:text=It%20works%20by%20stopping%20the

Medscape. (2022). *Colace, DSS (docusate) dosing, indications, interactions, adverse effects, and more*. Reference.medscape.com. https://reference.medscape.com/drug/colace-dss-docusate-342012#91

RNpedia. (2019, January 28). *Drugs for female reproductive system nursing considerations & management*. RNpedia. https://www.rnpedia.com/nursing-notes/pharmacology-drug-study-notes/drugs-for-female-reproductive-system/

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient was awake, alert and oriented to person, place, time, and situation (x4), no acute distress, well developed, hydrated, and nourished. Patient appears stated age.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	The patient's skin color was pink. The skin was warm and dry bilaterally throughout upon palpation. There were no rashes, bruising or lesions present. Good quantity, texture, and distribution of hair throughout the body. Skin turgor had good mobility; no tenting was present. Nails were without cyanosis and clubbing. Capillary refill was less than 3 seconds in fingers and toes bilaterally. The patient's Braden score was 20.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:**	The patient's Head and neck are symmetrical. The patient's carotid pulses were examined asynchronously. Carotid pulse 2+ bilaterally. The patient's sclera white bilaterally, cornea clear

Teeth:	bilaterally, conjunctiva pink and moist with no drainage bilaterally. Eyelids moist and dry with no lesions or discharge. PERRLA intact bilaterally. EOMs intact bilaterally. The patient's auricles have no lesions, deformities, or lumps bilaterally. The ear canals are clear and bilaterally. The patient's septum is midline with no deviation. The nares have no signs of bleeding. Bilaterally sinuses nontender upon palpation (frontal and maxillary sinuses assessed). The patient's posterior pharynx and tonsils are pink and moist with no exudate noted. Tonsil grades 2+ bilaterally. The uvula was midline, the soft palate rose and fell symmetrically. The hard palate was intact. Dentition good. Overall oral mucosa was pink and moist with no 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:**	The patient had a normal rate and rhythm for heart sounds. The patient's PMI at the 5th intercostal space at the MCL was palpable. The patient had clear S1 and S2 heart sounds with no murmurs, gallops, or rubs. No chest pain, palpitations, and no reports of syncope.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	The patient has a normal rate and pattern for respirations. The patient had symmetrical and nonlabored breathing. The patient had clear lungs sounds anteriorly/posteriorly throughout bilaterally with 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:**	The patient is on a regular diet at home and at the hospital. The abdomen is soft, nontender, no organomegaly, and no masses noted upon palpation in all four quadrants. Bowel sounds are normoactive in all 4 quadrants. No CVA tenderness noted bilaterally. No abdominal distention, incisions, scars, drains, nor wounds on the abdomen. No ostomy, nasogastric tube, nor PEG tube.

Wounds: **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	The patient reports no hematuria or an increase in the frequency of urinating. The color of her urine was a light yellow with no sediments. The patient urinated a moderate amount. No abnormalities were noted when inspecting genitals. The gentiials were clean and intact with no lesions present.
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: No** **Needs support to stand and walk: No**	All extremities have full range of motion except for the right ankle. Hand grips and pedal pulses are normal and equal in strength. No motor deficits noted, with muscle strength 5/5 bilaterally. Memory is normal and thought process is intact. PERRLA bilaterally. Deep tendon reflexes all locations 2+ bilaterally. The patient is a standby assist and her gait was overall smooth but her posture was not equally. The patient morse fall scale score was 60.
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	All extremities move well except the right ankle. PERRLA is intact bilaterally. The patient has equal strength in all extremities. The patient was awake, alert, and oriented to person, place, time, and situation (x4). Overall the patient has clear speech but sometimes struggles to find the right words. The patient felt sensation equally on both sides. The patient was completely conscious.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and**	The patient has an appropriate mood and aspect. She stated that her coping methods was to relax by listening to country music. The patient was in the Intimacy vs Isolation stage of Erikson's developmental stages. Patient expressed that she doesn't speak with her biologic family expect for

available family support):	her grandmother but expressed that she had a strong bond.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0805	85 bpm	107/68 mm Hg	17 breaths per minute	37.2 degrees Celcius	94% on room air
1040	93 bpm	116/73 mm Hg	16 breaths/minute	36.9 degrees Celcius	95% on room air

Vital Sign Trends: Throughout the day, my patient's vital signs were stable except for her oxygen saturation which was 94% on room air at 0805, but this improved to 95% on room air at 1040.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0805	Numeric	Head	6 out of 10	Throbbing headache	Headache cocktail
1040	Numeric	N/A	0 out of 10	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:	Dated 09/25
Patency of IV:	Patent
Signs of erythema, drainage, etc.:	No signs of erythema, drainage, phlebitis, or

IV dressing assessment:	infiltration. IV dressing was dry and intact.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
120 mL of cranberry juice 300 mL of Normal Saline Total: 312 mL during my shift	Urinated once during shift. It was a moderate amount. The patient did not urinate into a hat, so I couldn't measure the exact urine output.

Nursing Care

Summary of Care (2 points)

Overview of care: The client was admitted to the hospital after having two seizures at home. During my shift, the patient complained of a headache at 0805. To treat her headache, she was administered a headache cocktail. When I reassessed the patient's pain at 1040, she had no complaints of pain. The patient had left the bed once during my shift to use the bathroom. The patient's vital signs were stable throughout the shift. Although the client did not get out of bed, often she was able to change her position independently while I was performing a physical examination. The client had ordered breakfast and finished 90% of her food; therefore, she tolerates her regular diet well. The client hopes to be discharged today. She does not have any home health needs, but I think the patient should be educated on the importance of medication compliance.

Procedures/testing done: No procedures or testing was done on my patient during my shift.

Complaints/Issues: My patient complained of a headache at 0805; she rated her pain a 6 out of 10 on a numeric pain scale and requested medication to help relieve her pain. Medication was given to the patient at 0830, and by 1040 the patient was no longer in pain.

Vital signs (stable/unstable): Throughout my shift, the patient's vital signs were stable except for my patient's oxygen saturation. At 0805, my patient's oxygen saturation was 94% on room air but improved by 1040 to 95% on room air.

Tolerating diet, activity, etc.: My patient had ordered breakfast at 0800 and finished 90% of her meal; therefore, she tolerates her diet well. During my shift, the patient only got out of bed once to urinate; however, when I performed my physical exam patient's muscle strength was strong and equal bilaterally.

Physician notifications: No physicians were notified during my shift.

Future plans for client: My patient has a follow-up appointment with neurology on December 15th, 2022.

Discharge Planning (2 points)

Discharge location: The patient location where my patient will be discharged after the hospital is not known. The patient reported that she did not feel safe in her home and does not have anywhere else to go. Agencies and DCFS have been notified of the patient's situation.

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: My patient has an appointment with neurology on December 15, 2022.

Education needs: I believe that the patient needs to be reeducated on the importance of taking all of her medications as prescribed.

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. Risk for ineffective airway clearance related to seizure disorder as evidenced by neuromuscular impairment.	I chose this nursing diagnosis because my patient has had 3 seizures in 3 days. She is at risk of excessive mucus or retained secretions due to seizure activity.	1. Assess respiratory status every 4 hours (Linda Lee Phelps, 2020). 2. Turn patient every 2 hours. Positioning for maximal aeration of lung fields and mobilization of secretions (Linda Lee Phelps, 2020).	1. The patient's airway remains clear and allows for adequate ventilation until discharge.	Goal met: The patient's airways remain clear, as evidenced by no adventitious breath sounds upon auscultation of all lung fields.
2. Risk for trauma related to seizure disorder as evidenced by previous falls.	I chose this nursing diagnosis because the patient has a seizure disorder and is at high risk for falls.	1. Observe, record, and report falls, seizures, and unsafe practices (Linda Lee Phelps, 2020). 2.Assess and document risk factors and unsafe practices discovered	1. Patient remains free of injury throughout her stay at the hospital and can identify safety procedures.	Goal met: The patient does not sustain any injuries while at the hospital and is knowledgeable about safety precautions.

		through observation and discussions with the patient (Linda Lee Phelps, 2020).		
3. Ineffective therapeutic management related to seizure disorder as evidence by multiple breakthrough seizures	I chose this nursing diagnosis because my patient has had multiple breakthroug h seizures recently and, the current therapeutic management may not be the best regimen for my client.	1. Allow for patient participation in planning the treatment regimen (Wayne, 2018). 2. Tell the patient about the advantages of adhering to the prescribed regimen (Wayne, 2018). 2.	1. The patient will be more involved in her treatment plan and will verbalize her understandin g of what her medications do for her health by her discharge date.	Goal met: The patient is actively involved when it comes to decisions about her health care plan and can verbalize the effectiveness of the treatment plan and how it can reduce her risk for breakthrough seizures.
4. Risk for chronic low self-esteem related to isolation as evidenced by a limited support system	I chose this nursing diagnosis because the patient expressed that she was depressed and does not feel safe at home.	1. Provide a specific amount of uninterrupte d time each day to engage the patient in conversation (Linda Lee Phelps, 2020). 2. When appropriate, institute suicidal precautions according to	1. The patient will be able to open up about her feelings and express positive attributes about herself in 2 weeks.	Goal met: The patient will be able to identify 3 positive attributes about herself and will engage more in social interaction with others.

		protocol (Linda Lee Phelps, 2020).		

Other References (APA):

Linda Lee Phelps. (2020). *Sparks & taylor's nursing diagnosis reference manual*. Wolters Kluwer Medical.

Wayne, G. (2018, May 15). *Ineffective therapeutic regimen management – Nursing diagnosis & care plan*. Nurseslabs. https://nurseslabs.com/ineffective-therapeutic-regimen-management/

Concept Map (20 Points):

Subjective Data

The patient stated "I have a throbbing headache".
The patient states that her pain is a 6 out of 10.
The patient expressed that she hasn't been able to move her right ankle very well since she had broken it.

Nursing Diagnosis/Outcomes

Risk for ineffective airway clearance related to seizure disorder as evidenced by neuromuscular impairment.
Goal: The patient's airway remains clear and allows for adequate ventilation until discharge.
Risk for trauma related to seizure disorder as evidenced by previous falls.
Goal: Patient remains free of injury throughout her stay at the hospital and can identify safety procedures.
Ineffective therapeutic management related to seizure disorder as evidence by multiple breakthrough seizures.
Goal: The patient will be more involved in her treatment plan and will verbalize her understanding of what her medications do for her health by her discharge date.
Risk for chronic low self-esteem related to isolation as evidenced by a limited support system.
Goal: The patient will be able to open up about her feelings and express positive attributes about herself in 2 weeks.

Objective Data

Vital signs: 0805: Pulse: 85 bmp, BP: 107/68mmHg, RR: 17 breaths/minute, Oxygen: 94% on room air. At 1040: Pulse: 93 bpm, BP: 116/73 mmHg, RR: 16 breaths/minute, Oxygen 95% on room air.
Braden Score: 20
Morse Fall Score: 60
Diagnostic Tests: electrocardiogram, CBC with differential, CMP, Pregnancy test.

Client Information

The patient was a 31-year-old Caucasian female who has a past medical history of depression, urinary tract infections, STIs, seizures, epilepsy, bronchitis, cortical dysplasia, and acute paranoia. She has a past surgical history of Primary cesarean-section (02/22/2019), Brain (05/18/2004), Extraction of wisdom teeth (Unknown), and Temporal lobectomy (Unknown).

Nursing Interventions

Nursing Diagnosis 1:

1. Assess respiratory status every 4 hours (Linda Lee Phelps, 2020).
2. Turn patient every 2 hours. Positioning for maximal aeration of lung fields and mobilization of secretions (Linda Lee Phelps, 2020).

Nursing Diagnosis 2:

1. Assess respiratory status every 4 hours (Linda Lee Phelps, 2020).
2. Turn patient every 2 hours. Positioning for maximal aeration of lung fields and mobilization of secretions (Linda Lee Phelps, 2020).

Nursing Diagnosis 3:

1. Allow patient participation in planning the treatment regimen (Wayne, 2018).
2. Tell the patient about the advantages of adhering to the prescribed regimen (Wayne, 2018).

Nursing Diagnosis 4:

1. Provide a specific amount of uninterrupted time each day to engage the patient in conversation (Linda Lee Phelps, 2020).
2. When appropriate, institute suicidal precautions according to the protocol (Linda Lee Phelps, 2020).