N321 Care Plan 3

Lakeview College of Nursing

Janet Song

Demographics (3 points)

Date of Admission 3/11/21	Patient Initials RG	Age 89 years old	Gender Male
Race/Ethnicity Caucasian	Occupation Not employed	Marital Status Married	Allergies NKDA
Code Status DNR	Height 5'10''	Weight 147 lbs	

Medical History (5 Points)

Past Medical History: Abdomen aortic aneurysm (2004)

Past Surgical History: None recorded

Family History: None recorded

Social History (tobacco/alcohol/drugs): No alcohol intake & no drug use. Former smoker

(could not get information about duration)

Assistive Devices: Walker

Living Situation: Living with wife and son

Education Level: Pt was unable to answer

Admission Assessment

Chief Complaint (2 points): Bilateral muscle weakness

History of present Illness (10 points):.

RG is an 89-year-old male who presented to the emergency room on 3/11/2021 in the morning

with his son. He falls out of bed this morning and complains of right hip pain and muscle

weakness. He had a history of fall and hip pain and came to the emergency room on 3/6/2021.

Since then, he became weaker. RG has weak lower extremities, dementia, and difficulty

explaining his situation. However, the patient's nonverbal expression shows that he had pain in

the hip when he is moving. RG seems comfortable when lying down on the bed, but he was hard

to understand and respond to the health care workers. He came to the emergency room for further evaluation.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Hyperkalemia, Muscle weakness,

Secondary Diagnosis (if applicable): Dementia, Atrial Fibrillation

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

RG has been experiencing muscle weakness since 3/6/2021. Based on today's lab analysis, his potassium level was higher than the normal range. One of the significant functions of the kidney is regulating potassium by excreting K+. When the blood K+ level is greater than 5.2 mEq/L, we called it hyperkalemia. Electrocardiogram changes can indicate hyperkalemia by tall peaked T wave. Moreover, his blood K+ level shows 5.7 mEq/L. It means RG's kidney ability is diminished to remove potassium.

According to Capriotti (2020), the causes of hyperkalemia are renal failure, extreme exercise, hemolysis of red blood cells, metabolic acidosis, burns, Addison's disease, medications, and trauma. RG's creatinine level indicates the normal range, so it is hard to say he has renal failure. However, he has urinary retention. Hemolysis of red blood cells could cause RG's hyperkalemia. RG's red blood cell range is lower than the normal range. Hemolysis is the destruction of RBCs, and ineffective renal perfusion can be related to hemolysis (Hinkle, 2018).

The signs and symptoms of hyperkalemia include numbness or tingling of the extremities, muscle cramping, diarrhea, and mental confusion (Capriotti, 2020). Capriotti (2020) says, "Potassium is released rapidly from muscle cells so that hyperkalemia can occur in major muscle trauma". Indeed, the patient is having muscle weakness and has a risk of falls. He does

not have numbness or tingling of the extremities because he shows that he has pain. However, RG seems confused when talking. It could be the cause of both hyperkalemia and dementia.

Treatment of hyperkalemia is varying on its severity and cause. If it is severe when the K+ level is greater than 7.0 mEq/L, rapid treatment is required to remove potassium quickly. Capriotti (2020) informed that 50% dextrose, regular insulin, and sodium bicarbonate could be given to the patient with severe hyperkalemia. When the patient has the normal renal function, medication such as diuretics such as furosemide, calcium chloride, calcium gluconate, albuterol, and sodium polystyrene sulfonate can be administrated (Capriotti, 2020). To treat RG's hyperkalemia, sodium polystyrene sulfonate (Kayecalate) was administered when he was in the ER. This medication captures K+ and excrete it via feces. Because of this medication, RG had watery brown feces in the morning.

Pathophysiology References (2) (APA):

Capriotti, T. M. (2020). *Pathophysiology: introductory concepts and clinical perspectives*. F A DAVIS.

Hinkle, J. L., & Cheever, K. H. (2018). Brunner & Suddarth's textbook of medical-surgical nursing (14th ed.). Wolters Kluwer.

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	**4.60-6.20**	**3.41**		**RG might have iron deficiency or anemia. For the elderly adults, poor diet and lack of stomach acid can cause iron deficiency (Capriotti,**

				2020). Also, because of RG's age, hematopoietic system influence RBCs production which lead to increased rates of anemia (Hinkle, 2018).
Hgb	14-18	<mark>10.5</mark>		It is lower than normal range because of low number of RBCs (Capriotti, 2020).
Hct	42-52	<mark>33.6</mark>		It means RG has low percentage of red blood cells. Hct represents the percentage of RBCs found in 100 mL of whole blood (Hinkle, 2018).
Platelets	150-400			
WBC	4.3-11.0	10.5		
Neutrophils	37-85			
Lymphocytes	8-59	41		
Monocytes	0.0-13.0	13.0		
Eosinophils	0.0-10.0	3.0		
Bands	0.0-3.0			

Chemistry <mark>Highlight All Abnormal Labs</mark>—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-	135-145	142		
K+	3.5-5.5	<mark>5.7</mark>		Hyperkalemia occurs with decreased renal excretion of potassium. Increased intake of potassium and adrenal insufficiency (Hinkle, 2018).
Cl-	95-110	107		
CO2	23-31	25		
Glucose	70-110	104		
BUN	8-25	<mark>32</mark>		RG has poor skin turgor. Dehydration can cause high blood urea nitrogen (BUN) (Capriotti,

				2020).
Creatinine	**0.70-1.50**	**1.07**		
Albumin	**3.5-5.0**	**3.5**		
Calcium	**8.4-10.3**	**9.1**		
Mag	**1.5-2.6**	**1.7**		
Phosphate	**2.5-4.5**	**3.1**		
Bilirubin	**0.2-1.2**			
Alk Phos	**40-150**	**110**		
AST	**16-40**	**40**		
ALT	**7-52**	**17**		
Amylase	**23-85**			
Lipase	**12-70**			
Lactic Acid	**0.5-1**			

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	**0.90-1.10**	==**2.87**==		**RG is taking warfarin; it takes longer for the patient's blood to clot. The therapeutic range for INR is 2-3.5, and the value is on the therapeutic range (Hinkle, 2018).**
PT	**12.2-14.3**	==**31.2**==		**Due to blood thinner, it takes longer for the patient's blood to clot (Hinkle, 2018).**

PTT	**24-34**			
D-Dimer	**100-399**			
BNP	**15-99.90**			
HDL	**>60**			
LDL	**<100**			
Cholesterol	**<200**			
Triglycerides	**<150**			
Hgb A1c	**0.90-1.10**			
TSH	**0.32-5.00**	**4.88**		

Urinalysis <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Yellow**	**Yellow**		
pH	**5.5-7.5**	**7.5**		
Specific Gravity	**1.015-1.025**	**1.020**		
Glucose	**Negative**	**Negative**		
Protein	**Negative**	**Negative**		
Ketones	**Negative**	**Negative**		
WBC	**0-4**			
RBC	**0-2**			
Leukoesterase	**Negative**	**Negative**		

Cultures <mark>Highlight All Abnormal Labs</mark>—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**			

Blood Culture	Negative			
Sputum Culture	Negative			
Stool Culture	Negative			

Lab Correlations Reference (1) (APA):

Capriotti, T. M. (2020). *Pathophysiology: introductory concepts and clinical perspectives*. F A

DAVIS.

Hinkle, J. L., & Cheever, K. H. (2018). Brunner & Suddarth's textbook of medical-surgical

nursing (14th ed.). Wolters Kluwer.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): CT scan

Diagnostic Test Correlation (5 points):

RG complains of right hip pain due to a fall. CT scan has been done to examine the pelvis

region. CT scans, which are computed tomography, are usually obtained to assess underlying

problems (Hinkle, 2018). Hinkle (2018) states that "CT scanning of the pelvis helps determine

the extent of injury by demonstrating sacroiliac joint disruption, soft tissue trauma, pelvic

hematoma, and fractures". The result shows no fractures, but evidence for mild anterolisthesis

and degenerative changes of the disc spaces was found.

Diagnostic Test Reference (1) (APA):

Hinkle, J. L., & Cheever, K. H. (2018). Brunner & Suddarth's textbook of medical-surgical

nursing (14th ed.). Wolters Kluwer.

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

Home Medications (5 required)

Brand / Generic	Cardoxin / Digoxin	Coumadin / Warfarin sodium	Calciferol / Vitamin D, cholecalciferol (Vitamin D, 2017)	Ocuvite Eye Health / VIT C-VIT E-LUTEIN-MIN-OM-3 (Ocuvite, 2021)	Anoro Ellipta / Umeclidinium
Dose	62.5 mcg (0.5 tablet, 1 tablet = 125 mcg)	6 mg (Sun, Tue, Thus), 3mg (Mon, Wed, Fri, Sat)	No information	No information	62.5 mcg
Frequency	1x daily	1x daily	No information	No information	1x daily
Route	Oral	Oral	No information but I assume it's oral	No information but I assume it's oral	Inhalation
Classification	Antiarrhythmic	Anticoagulant	Vitamins, fat soluble	Vitamins/ minerals	Bronchodilator
Mechanism of Action	By decreasing the conduction rate and increasing the effective refractory period of the AV node	By depleting vitamin K-dependent clotting factors, it prevents coagulation	Increased Vitamin D3 level that may be lacking in the diet	Increase the level of vitamin and mineral that helps the eye health	Relaxes the muscle to cause bronchodilation
Reason Client Taking	To control atrial fibrillation	To prevent thromboembolic complications from atrial fibrillation	As a nutritional supplement	RG has an age-related macular degeneration	To help the patient breathe well
Contr	Ventricular	Bleeding or	Hypercalce	Avoid taking	Hypersensitivity,

aindications (2)	fibrillation, history or presence of digitalis toxicity	bleeding tendencies, mental state or condition that leads to lack of patient cooperation	mia, Hypersensitivity	this meds with other multivitamin that contains iron, Untreated vitamin B12 deficiency	Severe hypersensitivity to milk proteins
Side Effects/Adverse Reactions (2)	Heart block, Electrolyte imbalances	Coma, Hypotension, Hepatitis	Arrhythmias, confusion	Constipation, diarrhea	Atrial fibrillation, paradoxical bronchospasm
Nursing Considerations (2)	Take the apical pulse for 1min before administering the meds, Monitoring ECG continuously	Monitor hepatic impairment closely for bleeding, Monitor INR and assess for therapeutic effects	If overdose, get medical help, Discontinue if patient become hypercalcemia	Assess for the allergic reaction, Check the medical history such as alcohol abuse, liver problems	Use caution in patient with urinary retention, it may worsen the therapy, Monitor patient's respiratory status

Hospital Medications (5 required)

Brand/ Generic	Tylenol / Acetaminophen	Lipitor / Atorvastatin calcium	Flomax / Tamsulosin hydrochloride	Lidoderm / Lidocaine hydrochloride (lignocaine hydrochloride)	Kayexalate / Sodium polystyrene sulfonate
Dose	325 mg	20 mg	0.4 mg	1 patch (5% lidocaine)	15 g
Frequency	2 tablets every 8hours, PRN	1x daily, bedtime	1x daily, bedtime	Every 12 hours, PRN	Once

Route	**Oral**	**Oral**	**Oral**	**Transdermal**	**Oral**
Classification	**Nonopioid analgesic, antipyretic**	**Antihyperlipidemic**	**Benign prostatic hyperplasia agent**	**Local anesthetic, Class IB antiarrhythmic**	**Antihyperkalemic**
Mechanism of Action	**Inhibits the enzyme which blocks prostaglandin production and interfering with pain impulse generation in peripheral nervous system**	**Reduces plasma cholesterol and lipoprotein levels by increasing LDL uptake and breakdown**	**Inhibits smooth muscle contraction in the bladder neck and prostate to improve the urine flow and reduce symptoms of BPH**	**Blocks nerve impulses to produce local anesthesia**	**In the intestine, potassium ions bound resin and leaves the body in feces**
Reason Client Taking	**To relieve right hip pain**	**To prevent risk of heart attack, MI and angina**	**To treat BPH, RG has urinary retention**	**To relieve right hip pain**	**To reduce potassium level**
Contraindications (2)	**Hypersensitivity, Severe hepatic impairment, Severe active liver disease**	**Active hepatic disease, hypersensitivity,**	**Hypersensitivity to Tamsulosin, quinazolines, or their components, (Only 1 contraindication listed on the book)**	**Hypersensitivity, severe heart block**	**Hypersensitivity, hypokalemia, obstructive bowel disease**
Side Effects/ Adverse Reactions (2)	**Hypotension, hepatotoxicity, stridor**	**Arrhythmias, pancreatitis**	**Atrial fibrillation, respiratory impairment**	**Malignant hyperthermia, seizures**	**Colonic necrosis, GI bleeding, hypernatremia**
Nursing Considerations (2)	**Use cautiously in patients with hepatic impairment, alcoholism,**	**Expect liver function tests to be performe**	**Blood pressure should be monitored when**	**Apply lidocaine jelly or ointment to gauze or bandage before**	**Use cautiously in patient with HF, HTN, or marked edema, Patient may**

| | chronic malnutrition, Monitor renal function in patient on long term therapy | d before the med given, Should not be used in Pt taking cyclosporine, gemfibrozil because of high risk of renal failure and rhabdomyolysis | patient takes drug on an empty stomach, Be aware that prostate cancer should be ruled out before Tamsulosin therapy begins | applying to skin, Monitor for malignant hyperthermia, if present, stop immediately and notify prescriber | experience abdominal cramps, diarrhea, nausea, and vomiting |

Medications Reference (1) (APA):

Loebl, S. (2020). *2020 Nurse's drug handbook*. Burlington, MA: Jones & Bartlett Learning

Ocuvite oral. (2021). Retrieved March 16, 2021, from https://www.webmd.com/drugs/2/drug-

13464/ocuvite-oral/details

Vitamin D. (2017, February 16). Retrieved March 16, 2021, from

https://www.rxlist.com/consumer_vitamin-d/drugs-condition.htm

Assessment

Physical Exam (18 points)

GENERAL (1 point): Alertness: alert Orientation: Not oriented to person, place, time, situation Distress: stressed Overall appearance: well-groomed,	

INTEGUMENTARY (2 points): **Skin color: pink, appropriate color for race** **Character: dry** **Temperature: warm** **Turgor: poor** **Rashes: No rashes** **Bruises: Left antecubital, right forearm** **Wounds: Right forearm, redness and scabbed** **Braden Score: 23** **Drains present: Y☐ N ☒** **Type:**	
HEENT (1 point): **Head/Neck: No deviation, no lumps** **Ears: No lesions, redness, no drainage, hearing decreased** **Eyes: Eyelids intact, sclera white, PERRLA,** **Nose: Septum is midline, symmetrical, no lesions** **Teeth: Teeth are intact, Oral mucosa pink and no lesions**	.
CARDIOVASCULAR (2 points): **Heart sounds: S1, S2 noted, No gallops, murmurs, rubs, No S3, S4 noted** **Cardiac rhythm (if applicable): Irregular** **Peripheral Pulses: palpable 2_ bilaterally** **Capillary refill: Less than 3 seconds** **Neck Vein Distention: Y ☐ N ☒ Edema Y ☒ N ☐** **Location of Edema: Lower extremities**	.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **: Clear, nonlabored breathing, chest expand equally**	.

GASTROINTESTINAL (2 points):
Diet at home: Regular
Current Diet: Heart healthy diet
Height: 5'10''
Weight: 147 lbs
Auscultation Bowel sounds: Active
Last BM: 3/11 at 1430
Palpation: Pain, Mass etc.: Lower abdomen pain
Inspection:
   Distention: distended stomach (lower abdomen)
   Incisions: No incisions
   Scars: No scars
   Drains: No drains
   Wounds: No wounds
	.

Ostomy: Y ☐ **   N** ☒
Nasogastric: Y ☐ **   N** ☒
   Size:
Feeding tubes/PEG tube   Y ☐ **   N** ☒
   Type:	

GENITOURINARY (2 Points):
Color: Yellow
Character: Clear
Quantity of urine: 500 mL
Pain with urination: Y ☒ **   N** ☐
Dialysis: Y ☐ **   N** ☒
Inspection of genitals: Normal appearing
Catheter: Y ☒ **   N** ☐
   Type: straight catheter
   Size: 14 fr	

MUSCULOSKELETAL (2 points): **Neurovascular status: Not alert and oriented** **ROM: Impaired ROM, especially lower extremities** **Supportive devices: Walkers** **Strength: Equal bilaterally in upper extremities, weak in lower extremities** **ADL Assistance: Y** ☒ ** N** ☐ **Fall Risk: Y** ☒ ** N** ☐ **Fall Score: 95** **Activity/Mobility Status: Unsteady gait, need assistant** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☒ **Needs support to stand and walk** ☒	.
NEUROLOGICAL (2 points): **MAEW: Y** ☒ ** N** ☐ **PERLA: Y** ☒ ** N** ☐ **Strength Equal: Y** ☐ ** N** ☒ ** if no - Legs** ☒ ** Arms** ☐ ** Both** ☐ **Orientation: Not oriented** **Mental Status: Confused and stressed** **Speech: delayed answer, using short words** **Sensory: intact** **LOC: Alert, responsive to a pain stimulus**	.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s): Pt lives with wife and son** **Developmental level: No deficit noted** **Religion & what it means to pt.: Pt unable to answer** **Personal/Family Data (Think about home environment, family structure, and available family support): Pt is living with his family. Moreover, his son is taking care of him. However, Pt's son has to take**	.

care of both his parents; he did not stay in the hospital for a long time.	

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1345	76	150/57	25	97.7	96%
1700	70	135/79	23	96.1	92%

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1400	1-10	abdomen	5	Bloated, full bladder	Bladder scan, straight catheter to remove urine
1605	1-10	Back, lumbar area	4	Pain when move, Pt says "Ouch!!"	Tylenol was given

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 24 gauge Location of IV: Left forearm Date on IV: 3/11/21 at 1600 Patency of IV: Patent Signs of erythema, drainage, etc.: No erythema, no tenderness, no drainage IV dressing assessment: clean, dry, intact	Normal saline, 50mL/hr

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Intake was not measured at this time. But I	500 mL (from straight catheter)

assume that patient might have at least 150 mL through IV between 1400 and 1700. Since first IV start at 1400, the flow was 50mL/hr.	

Nursing Care

Summary of Care (2 points)

Overview of care: Heart healthy diet, K restrict dietEmpty the bladder, maintain comfortable

Procedures/testing done: CT scan, Labs (CBC, Prothrombin time, chemical)

Complaints/Issues: Urinary retention, Atrial fibrillation, weak muscle

Vital signs (stable/unstable): Unstable heart rhythm

Tolerating diet, activity, etc.: Heart healthy diet, Need assistance for activities

Physician notifications: straight catheter but no Foley catheter to avoid infection, SPS one time to reduce K^+, Encourage drinking more fluids.

Future plans for patient: Monitor the level of potassium, Assess the orthostatic vitals

Discharge Planning (2 points)

Discharge location: Patient's family is discussing about discharge location. It can be home and get the home services or they also considering rehabilitation center.

Home health needs (if applicable): N/A

Equipment needs (if applicable): Walker, wheel chairs

Follow up plan: Follow up appointment with cardiologist. Need to make an appointment to decide discharge location.

Education needs: Pt has dementia, so it is important educate his son about the prevent fall, dementia, hyperkalemia, atrial fibrillation.

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	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. Risk for electrolyte imbalance related to decreased renal excretion as evidence by high potassium level.	Pt has high potassium level and it is more dangerous than hypokalemia because it can cause cardiac arrest.	1. Monitor heart rate and rhythm. Cardiac arrest can occur. 2. Administer medication such as SPS suspension.	Heart rhythm and rate is monitoring continuously. There was no lab result after given the meds. However, meds are effective because the high level of potassium will be secreted through feces. Moreover, the patient had a bowel movement after taking meds. We can expect a decreased potassium level.
2. Urinary retention related to enlarged prostate as evidence by inability to empty bladder.	Patient try to pee 4 times with nursing student into the urinal, but he couldn't.	1.Encourage patient to void when urge is noted. 2. Assess the amount of urine by bladder scan and start the straight catheter.	The patient could not void urine by himself even though he wants to do it. A bladder scan shows that he has about 450 mL of urine in the bladder. After getting rid of urine

			by a straight catheter, the patient looks comfortable.
3. Risk for falls related to impaired physical mobility as evidence by weakening lower extremities.	Patient could not stand up by himself and he came to emergency room due to fall.	1. Keep the patient's bed in the lowest position at all times and assist patient. 2. Use side rails on bed.	If we keep the bed close to the floor, it will prevent the patient's injury and falls risk. When a patient trying to get out of the bedside rails block the way and prevent falls.

Other References (APA):

NurseLab. (2021, March 13). Nursing Guides, Care Plans, NCLEX Practice Questions.
        Retrieved March 08, 2021, from https://nurseslabs.com/

Concept Map (20 Points):

Subjective Data

RG is 89-year-old male presented to the emergency room on 3/11/2021 due to fall. He has the history of abdomen aortic aneurysm, former smoker, but no alcohol or drug user. He lives with wife and son.

Nursing Diagnosis/Outcomes

1. Risk for electrolyte imbalance related to decreased renal excretion as evidence by high potassium level.
-> Heart rhythm and rate is monitoring continuously.
There was no lab result after given the meds. However, meds are effective because the high level of potassium will be secreted through feces. Moreover, the patient had a bowel movement after taking meds. We can expect a decreased potassium level.

2. Urinary retention related to enlarged prostate as evidence by inability to empty bladder.
-> The patient could not void urine by himself even though he wants to do it.
A bladder scan shows that he has about 450 mL of urine in the bladder. After getting rid of urine by a straight catheter, the patient looks comfortable.

3. Risk for falls related to impaired physical mobility as evidence by weakening lower extremities.
-> If we keep the bed close to the floor, it will prevent the patient's injury and falls risk.
When a patient trying to get out of the bedside rails block the way and prevent falls.

Objective Data

Height 5'10'', Weight 147 lbs.
Vital Signs (at1700)
BP 135/79
RR 23
Pulse 70
Temp 96.1 F
Oxygen 92%

Patient Information

89-year-old, male, Caucasian, not employed, married, No known allergy, Code status DNR, atrial fibrillation, dementia, hyperkalemia

Nursing Interventions

1. Monitor heart rate and rhythm. Cardiac arrest can occur.
2. Administer medication such as SPS suspension.

1. Encourage patient to void when urge is noted.
2. Assess the amount of urine by bladder scan and start the straight catheter.

1. Keep the patient's bed in the lowest position at all times and assist patient.
2. Use side rails on bed.