

Student Name Abby Olshenske _____

ATI Real Life Scenario: CKD _____

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*Complete and submit to the corresponding dropbox by 1600 on the assigned clinical day.

To Be Completed Before the Simulation

** Blue boxes should be completed using textbook information. What do you expect to find? This information should be collected before you start the ATI simulation.

Medical Diagnosis/ Disease: CKD _____

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures

- Kidneys regulate electrolytes, acid-base balance, regulation of BP, natural filter of blood and removes waste, reabsorption of water, glucose, and amino acids, produce erythropoietin and renin
- Pair of bean shaped organs covered by renal capsule, retroperitoneal abdominal cavity
- Adrenal gland on top of both kidneys
- The kidneys remove urea from the blood through tiny filtering units called nephrons. Each nephron consists of a ball formed of small blood capillaries, called a glomerulus, and a small tube called a renal tubule. Urea, together with water and other waste products, forms urine as it passes through the nephrons and down the renal tubules of the kidneys
- Renal cortex is the space between the medulla and outer capsule. Renal medulla contains majority of nephrons
- The renal pelvis connects the kidneys with the circulatory and nervous system from the rest of the body
- Glomerulus and bowman's capsule: main function is filtration of blood

Pathophysiology of Disease

- CKD can be caused by many things but the two main causes are diabetes and hypertension. CKD is described as the progressive loss of kidney function in which the nephrons atrophy which results in a decreased GFR, retention of urea and other waste products, and disrupts the regulation of electrolytes and extracellular fluid.
- Staged according to the GFR
- Stage 1 = GFR \geq 90
- Stage 2 = GFR 60-89
- Stage 3 = GFR 45-59
- Stage 4 = GFR 15-29
- Stage 5 = GFR $<$ 15
- Many people do not realize they have CKD until their kidneys are failing around stage 4, which is when symptoms are evident.

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics
Labs

- BUN
- Creatinine
- Electrolytes
- Lipids
- CBC
- Urinalysis

Additional Diagnostics

- H+P
- Renal scan
- CT scan
- Renal biopsy
- CXR

<ul style="list-style-type: none">- Tubules and collecting ducts are responsible for reabsorption of essential materials and excretion of nonessential ones through reabsorption and secretion- Blood enters the kidneys via the renal artery, nephrons enter through the pelvis layer of the kidneys. The filtrate then goes to the renal tubule which has three sections. First the filtrate reaches the proximal convoluted tubule and a majority of electrolytes and water are reabsorbed. Next the filtrate goes to the loop of Henley (ascending limb is where Na and Cl are reabsorbed and the descending limb is where water is reabsorbed which prevents us from excreting all the water leading to dehydration. The last part is the distal convoluted tubule. The reabsorption of water, regulation of Na and K⁺ and the secretion of ammonia occur here. The filtrate enters the collecting duct for urea cycling along with tubular secretions, then the ureters, bladder and urethra.- Ureters: tubes that carry urine from the renal pelvis to the bladder- Bladder: serves as reservoir for urine and to eliminate waste products from body- Urethra: small tube that incorporates the smooth muscle of the bladder neck, controls voiding, serve as conduit for urine from bladder to outside of the body during voiding		
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NCLEX II (3): Health Promotion and Maintenance

NCLEX IV (7): Reduction of Risk

Contributing Risk

Signs and Symptoms

Possible Therapeutic

Prevention of

<u>Factors</u>	<u>Anxiety/depression</u> <u>Hypertension</u>	<u>Procedures</u>	<u>Complications</u>
Family history Pyelonephritis Systemic lupus Nephrotoxic agents Endocarditis Heart disease Increased cholesterol levels Obesity Smoking Renal artery stenosis African Americans and native Americans Age 60+ Hypertension Hyperglycemia	PAD Anorexia N/V Gastritis Gastrointestinal bleeding Erectile dysfunction Anemia Bleeding Fatigue Headache Sleep disturbances Pruritus Dry, scaly skin Paresthesia's Dry mouth Decreased skin turgor Pale/yellowish skin Thin fingernails Dry/brittle hair Increase or decrease in urine	<u>Non-surgical</u> Hemodialysis Peritoneal dialysis <u>Surgical</u> Dialysis access (fistula) Kidney transplant	(What are some potential complications associated with this disease process) Death Anemia Electrolyte imbalance Pulmonary edema Infection Heart failure Depression Sleep disturbances Malnutrition

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management
 Sodium polystyrene Sulfonate to lower Na levels in stage 4 CKD
 ACE inhibitors
 ARBS
 Iron
 Statins
 Loop diuretics
 Calcium carbonate

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
 Restricting foods in potassium and any drugs
 Weight loss
 Smoking cessation
 Exercise
 Protein restriction
 Fluid restriction

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?
 - Loss of freedom due to going to dialysis so often
 - Not being able to work
 - Anxiety and depression
 - Fear of death
 - Financial burdens

Client/Family Education

List 3 potential teaching topics/areas
 • importance of exercising and losing weight

 • smoking cessation

 • restricting protein and sodium in the diet and potassium foods

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
 (Which other disciplines do you expect to share in the care of this patient)
 Nurse, doctor, CNA, charge nurse, nephrologist, dialysis nurse, nutritionist, pharmacists, social worker, radiology

Anticipated Patient Problems, Goals, & Interventions Based on Medical Diagnosis

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** This worksheet should be completed before you begin the ATI simulation.

Problem #1: Excess fluid volume

Patient Goals:

1. patient will maintain a balanced intake of 2000 ml a day during my time of care.
2. patient will be free of lower extremity edema and maintain clear lung sounds during my time of care.

Assessments:

- Assess lung sounds q4 hours, assess intake and output q4 hours during my time of care, assess BUN and creatinine levels q shift during my time of care, assess for peripheral edema q 4 hours during my time of care, assess vital signs q 4 hours during my time of care, monitor weight daily during my time of care, assess for distended jugular veins q8 hours during my time of care.

Interventions (In priority order):

1. Administer diuretics as prescribed during my time of care.
2. Maintain fluid intake as ordered during my time of care.
3. Maintain TED stockings as ordered during my time of care.
4. Elevate lower extremities as ordered during my time of care.
5. Educate on importance of restricting sodium and protein in the diet during my time of care.
6. Maintain dialysis schedule during my time of care.

Problem #2: Risk for electrolyte imbalance

Patient Goals:

1. patient will have a serum potassium level between 3.5-5 and a serum sodium level of 135-145 during my time of care.
2. patient will be free of dysrhythmias during my time of care.

Assessments:

- Assess serum electrolyte levels q shift during my time of care, assess EKG q shift during my time of care, assess vital signs q4 hours during my time of care, auscultate heart sounds q 4 hours during my time of care, assess heart rhythm q4 hours during my

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time of care, assess mental status and LOC q4 hours during my time of care, monitor intake and output q4 hours during my time of care.

Interventions (In priority order):

1. Administer lactulose as ordered for hyperkalemia during my time of care.
2. Administer loop diuretics as ordered during my time of care.
3. Maintain potassium and sodium restrictions as ordered during my time of care.
4. Educate on signs and symptoms of hyperkalemia such as muscle weakness, restlessness, cramping and slow heart rate during my time of care.
5. Educate on signs and symptoms of hyponatremia such as muscle cramps, nausea, disorientation, and alteration in mental status during my time of care.
6. Maintain ECG monitoring during my time of care.

At this time, complete assigned ATI Real Life Simulation

Actual Patient Problems & Goals

** The following should be completed after the ATI simulation.

Problem #1: Excess fluid volume

Patient Goals:

1. patient will maintain a balanced intake of 2000ml a day during my time of care. **Met**
Unmet
2. Patient will be free of lower extremity edema during my time of care.
Met
Unmet

Problem #2: Deficient knowledge: care of CKD

Patient Goals:

1. Patient will verbalize understanding of good food choices to maintain prescribed diet during my time of care. **Met**
Unmet
2. Patient will verbalize understanding of hemodialysis and how it works during my time of care.
Met
Unmet

SOAP Notes Based on Priority Problems

Priority Patient Problem #1: Excess fluid volume

<p>Subjective:</p> <p><i>This section explains the client symptoms. Include a narrative of the patient's complaints/concerns and/or information obtained from secondary sources.</i></p>	<p>Chief Complaint: Two days ago, client reports difficulty completing peritoneal dialysis exchanges with recent weight gain of 13.2 kg (6.6 lbs.) over two days. Reports shortness of breath and edema to lower extremities</p> <p>PMH: CKD stage 4, type 2 diabetes, hypertension, uremic pruritus (controlled with tacrolimus ointment), peripheral neuropathy to lower extremities</p> <p>Allergies: no known allergies</p> <p>Current Medications: glipizide XL 20 mg PO daily, aspirin 81 mg PO daily, losartan 50 mg PO daily, furosemide 20 mg PO twice daily, ferric citrate 1 g PO three times daily with meals, Linagliptin 5 mg PO daily, tramadol 50 mg PO every 6 hours PRN pain or discomfort, Sevelamer carbonate 800 mg PO three times daily with meals, Docusate sodium 100 mg PO twice daily, Tacrolimus 0.1% ointment apply topically to affected areas twice daily, Gentamicin 0.1% ointment apply topically to peritoneal dialysis catheter site daily, Gabapentin 100 mg PO three times daily, Atorvastatin 20 mg PO daily.</p>
<p>Objective:</p> <p><i>This section is your clinical observations. Include, pertinent vital signs, pertinent labs and diagnostics related to priority problem.</i></p>	<p>Vital Signs: T 37.2 C, P 118/min, RR 24/min, BP 174/94 mm Hg, O2 94% on RA, weight 72.1 kg, pain 2/10</p> <p>Labs: Na =132, K =6, BUN=42, creatinine = 8, glucose = 174, Ca = 8, phosphorus = 7.5, GFR = 8, urinalysis: urine is amber, cloudy, specific</p>

	<p>gravity 0.998, pH 5.6, protein present, RBC casts present, hyaline casts = 13. Peritoneal dialysis evaluation: KT/V urea: on 2/5 = 1.4 on 1/5 = 1.7, on 10/5 = 2.0 on 6/5 = 2.5 Diagnostics:</p> <p>Diagnostics: CXR (PA/lateral) = bilateral pulmonary venous congestion with infiltrates; no cardiomegaly EKG 2/10 @ 2100: sinus tachycardia with peaked T waves @114 beats/min</p>
<p>Assessment:</p> <p><i>Focused assessment on your priority problem.</i></p>	<p>Skin warm and dry, AV fistula intact to left forearm with palpable thrill and audible bruit noted. Scattered rhonchi anterior and posterior fields bilaterally. Respirations regular @ 18/min slightly labored, weakness noted when ambulating, continues to require oxygen 1L/min via NC. Denies dysuria and reports being able to void, peritoneal catheter intact – site without drainage, redness or edema noted, +2 pitting edema lower extremities bilaterally, pedal pulses +3 bilaterally. Intake: @0600 = 62 ml, @0730 = 120 ml, @1400 = 100 ml Output: @0730 = 100 ml, @1210 = 35 ml, @1445 = 60 ml</p>
<p>Plan *Based on priority problem only</p> <p><i>Include what your plan is for the client. What treatments or medications are needed. You can include procedures, consults, labs/diagnostics, etc. What nursing interventions are being performed?</i></p>	<p>Plan: Monitor I/O, diuresis with medication/hemodialysis, discontinue peritoneal dialysis, begin hemodialysis, fluid restriction, monitor electrolytes including Na, K, Ca, cardiac monitoring, monitor labs such as BUN, creatinine, GFR</p> <p>Teaching/Resources: Educating about diet restriction such as limiting sodium and potassium, and the need for hemodialysis including how it works and complications Resources: nephrology follow up after D/C,</p>

	support group
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Priority Patient Problem #2: Deficient knowledge: care of CKD

<p>Subjective:</p> <p><i>This section explains the client symptoms. Include a narrative of the patient's complaints/concerns and/or information obtained from secondary sources.</i></p>	<p>Chief Complaint:</p> <p>“ Dr. Lanzo has been discussing hemodialysis with me recently. However, I’m a little bit confused.”</p> <p>“now hemodialysis is different. It goes through this fistula that is in my arm. I’m not sure that I understood. Can you please explain this to me?”</p> <p>“can you please explain some of the complications of hemodialysis to me?”</p> <p>“oh I just feel sorry for myself. I guess all of this is just so overwhelming”</p> <p>“its all about this dialysis, and Dr. Lanzo told me that I would have to take it three times a week. And sitting there for hours is just a waste of my time”</p> <p>“I feel that I don’t have any control over anything anymore, and that my life is changing”</p> <p>“if you can find any solution ill be happy to hear them. I don’t see any light at the end of this tunnel”</p> <p>“I am concerned about my peritoneal catheter. However, I spoke to Dr. Lanzo about this before leaving the hospital. She told me that the catheter will be taken out pretty soon and that she will give me some information after. I don’t want this to get infected though.</p> <p>“I’m having trouble selecting the food that I can and cant have”</p> <p>“I hate the thought of giving these food up</p>
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	<p>because they are part of my family tradition”</p> <p>“I am afraid that I’m not going to be able to attend because of my diet restrictions”</p>
<p>Objective:</p> <p><i>This section is your clinical observations. Include vital signs, pertinent labs and diagnostics <u>related to priority problem.</u></i></p>	<p>Vital Signs: N/A</p> <p>Labs: N/A</p> <p>Diagnostics: N/A</p>
<p>Assessment:</p> <p><i>Focused assessment on your priority problem.</i></p>	<p>Has missed a few peritoneal dialysis appointments, no access to transportation and unaware of resources for transportation, asks for more information regarding hemodialysis including how it works and complications, when walked into room, sitting in chair crying and states how she feels overwhelmed about the diagnosis and hemodialysis, and says that her life is changing, asked home health nurse about foods that she could and couldn’t eat, worried she would not be able to participate in potluck due to her dietary restrictions and missing out, and not having her favorite foods again.</p>
<p>Plan</p> <p>*Based on priority problem only</p> <p><i>Include what your plan is for the client. What treatments or medications are needed. You can include procedures, consults, labs/diagnostics, etc. What nursing interventions are being performed?</i></p>	<p>Plan: educate on hemodialysis and complications using illustration to show her how it works, educate on proper diet and foods that she can and cannot eat, educate on importance of going to hemodialysis appointments, arrange for transportation to and from appointments. Continue outpatient hemodialysis three times a week, maintain renal diet: 1800 mg sodium, low potassium, fat.</p> <p>Teaching/Resources: educate about hemodialysis and diet restrictions</p> <p>Resources: home health, follow up with nephrologist, nutritionist, transportation</p>

Reflection:

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1. Go back to your Preconference Template:
 - a. Indicate (circle, star, highlight, etc.) the components of your preconference template that you saw applied to the care of this virtual patient.

2. What was your biggest “take-away” from participating in the care of this patient? How did this impact your nursing practice?

My biggest “take-away” from participating in the care of this patient was the importance of educating and making sure the patient is aware of their disease or condition and the treatment measures that go along with it. The nurses in the scenario did a good job at educating the patient and using different tools such as pictures to help explain how hemodialysis works. Another takeaway was the importance of making sure the patient has access to all the resources they need to manage their condition. In this scenario, the patient needed access to transportation to get to and from hemodialysis appointments as well as help with choosing appropriate foods that aligned with her diet restrictions. The patient was very overwhelmed about their hemodialysis treatments and going so often, so the scenario also reinforced the importance of listening to your patient and any fears or concerns they have and helping them feel more comfortable. Making sure the patient has access to resources and is familiar with the care is important to ensure they feel comfortable when they go home. This impacted my nursing practice because it reinforced the importance of education and home resources outside of the hospital and overall taught me how to care for a patient with CKD better.

Time Allocation: 8 hours
