

\*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: Chronic kidney disease**

NCLEX IV (8): **Physiological Integrity/Physiological Adaptation**

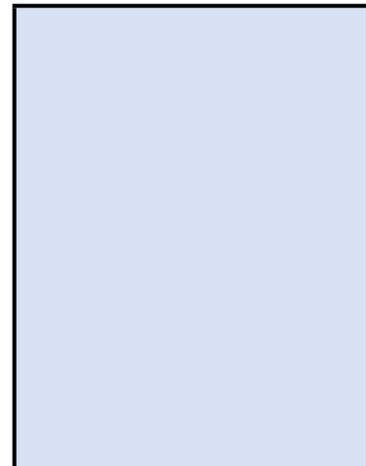
**Anatomy and Physiology**  
**Normal Structures**  
Kidneys have 3 layers: renal cortex, medulla, and pelvis.  
→ Blood enters the kidneys via the renal artery, nephrons enter through the pelvis layer of the kidney. Part of nephron consists of the glomerulus and bowman’s capsule. The main function here is the filtration of blood. This filtrate then goes the renal tubule which has 3 “sections”. First the filtrate reaches the proximal convoluted tubule and 80% of electrolytes and water are reabsorbed here. Next the filtrate reaches the loop pf Henley (the ascending limb is where Na and Cl are reabsorbed while in the descending limb water is reabsorbed). This process here prevents us from peeing out all the water therefore preventing dehydration. The last part of the renal tubule is the distal convoluted tubule. The reabsorption of water, the regulation of Na and K<sup>+</sup> and the secretion of ammonia occurs here. The filtrate enters the collecting duct for urea cycling along with tubular secretions. This

**Pathophysiology of Disease**  
Chronic kidney disease (can be caused by many things but the two main causes are hypertension and diabetes) is described as the progressive loss of kidney function (nephrons atrophy) which results in a decreased glomerular filtration rate, retention of urea and other nitrogenous waste products. It also disrupts the regulation of electrolytes and extracellular fluid.  
Chronic kidney disease is staged according to glomerular filtration rate (GFR) there are 5 stages.  
Stage 1= GFR >= 90 Stage 2= GFR 60-89 Stage 3= GFR 45-59, 30-44 Stage 4= GFR 15-29 and Stage 5= <15  
Many people will not realize their kidneys are failing until around stage 4 which is usually when signs and symptoms begin. Without treatment this disease is fatal.

NCLEX IV (7): **Reduction of Risk**

**Anticipated Diagnostics**  
**Labs**  
BUN, serum creatinine, serum electrolytes, lipid profile, hematocrit/hemoglobin  
Urinalysis  
**Additional Diagnostics**  
**H&P**  
Renal scan, CT scan, renal biopsy, CXR

waste enters the ureter then the bladder then goes down the urethra (long in men and short in females) and then is excreted out.



**NCLEX II (3): Health Promotion and Maintenance**

**Contributing Risk Factors**  
 Family history  
 pyelonephritis  
 systemic lupus  
 Nephrotoxic agents  
 endocarditis  
 Heart disease  
 Increased cholesterol levels  
 Obesity  
 Smoking  
 Renal artery stenosis  
 African Americans  
 Age (60+)  
 Hyperglycemia  
 Hypertension/diabetes (main causes)

**Signs and Symptoms**  
 Dry mouth  
 Fatigue  
 Nausea, vomiting  
 Decreased skin turgor  
 Pale/yellowish skin  
 Thin fingernails easily breakable  
 Dry/brittle hair  
 Anorexia  
 Muscle cramps/weakness  
 twitching  
 Infertility or decreased libido  
 Erectile dysfunction  
 Sleep problems  
 Increase or decrease in urine output

**NCLEX IV (7): Reduction of Risk**

**Possible Therapeutic Procedures**  
**Non-surgical**  
 Hemodialysis  
 Peritoneal dialysis  
**Surgical**  
 Dialysis access  
 Kidney transplant

**Prevention of Complications**  
 (What are some potential complications associated with this disease process)  
 Death  
 Malnutrition  
 Anemia  
 Electrolyte imbalances  
 Pulmonary edema  
 Infection  
 Heart failure  
 Depression  
 Sleep disturbances

**NCLEX IV (6): Pharmacological and Parenteral Therapies**

**Anticipated Medication Management**  
 Sodium polystyrene sulfonate (to lower Na levels in stage 4)

**NCLEX IV (5): Basic Care and Comfort**

**Non-Pharmacologic Care Measures**  
 Restricting potassium foods and drugs (for hyperkalemia)

**NCLEX III (4): Psychosocial/Holistic Care Needs**

**What stressors might a patient with this diagnosis be experiencing?**  
 Anxiety, depression, fear of death, financial

ACE inhibitors  
ARBs  
Iron for anemia  
Statins for hyperlipidemia  
Loop Diuretics  
Calcium carbonate

Weight loss  
Stop smoking  
Exercise  
Protein restriction  
Fluid restriction if not on diuretic

worries, impaired body image, scheduling life around dialysis treatments

**Client/Family Education**

**List 3 potential teaching topics/areas**

- educate about weight loss and cessation of smoking to potentially treat an underlying cause to CKD
- if on a diuretic educate about how the patient should take this medication during the day and not at night
- educate about the importance of restricting protein and sodium in the diet along with 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)

MD	dialysis team
Laboratory	surgeon
Ultrasound tech	nutritionist
Radiology	
Pharmacy	

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

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

**Problem #1: Impaired urinary elimination**

Patient Goals:

1. The patient will participate in forming a urinary elimination schedule during my time of care.
2. The patient will void 30mL/hr or 360mL during my shift

Assessments:

- Assess voiding pattern (the amount, the consistency) during my care, asses characteristics of urine (odor, color, clear/cloudy) during my care, asses for incontinence during my care, palpate bladder for any sign of bladder distension during my care, assess bladder scan results if appropriate during my care, review their medications during my care, assess for urgency, frequency, hesitation, polyuria, anuria, oliguria during my time of care, review results of urinalysis during my care, monitor creatinine and BUN during my care.

Interventions (In priority order):

1. Administer a diuretic such as furosemide during my care.

2. Encourage sticking to bladder training schedule (urinating every 2-3 hours) throughout my care.
3. Encourage an increase of fluids if appropriate during my care.
4. Insert a foley catheter if appropriate during my time of care.
5. Obtain a bladder scan if indicated during my time of care.
6. Educate about the importance of monitoring output and how we do that during my care.

**Problem #2: Excess fluid volume**

Patient Goals:

1. Patient will maintain a balanced intake of 2000mL a day and 30mL/hr output during my care.
2. Patient will have decreased fluid volume evidenced by a decrease in edema in the lower extremities a +2 pulse in extremities, and a daily weight that has not increased by 3 pounds during my care.

Assessments:

- assess and palpate for peripheral edema (pitting/non-pitting, what level +2, +3...) during my care, listen to lung sounds and identify any crackles in the bases that would signify fluid in the lungs during my care. Assess VS (HR 60-100 BP sys >90, RR 12-20 Temp, SpO2 >95%) q 4 hours or PRN, monitor intake and output throughout my care, monitor the weight of the patient daily, monitor the sodium levels in the diet the patient is given throughout the day, assess for distend jugular veins during my care, review the patient's serum electrolytes during my care.

Interventions (In priority order):

1. Administer a diuretic such as furosemide during my time of care.
2. Limit the patient's fluid intake (PO or IVF) if ordered throughout my care.
3. Limit sodium intake as prescribed during my care.
4. Apply ted stocking to the lower extremities bilaterally if appropriate during my care.
5. Elevate lower extremities bilaterally using a pillow or raising the end of the bed during my care.
6. Weigh the patient daily.

**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 and 30mL/hr output during my care.

Met

Unmet

2. Patient will have decreased fluid volume evidenced by a decrease in edema in the lower extremities a +2 pulse in extremities, and a daily weight that has not increased by 3 pounds during my care.

Met

Unmet

**Problem #2: Deficient Knowledge**

Patient Goals:

1. Patient will verbalize understanding of hemodialysis during my time of care

Unmet

2. patient will follow diet prescribed evidenced by appropriate groceries bought/ meals made

Met

Unmet

**SOAP Notes Based on Priority Problems**

**Priority Patient Problem #1: Excess fluid volume**

<p><b><u>Subjective:</u></b></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><b>Chief Complaint:</b> reports difficulty completing peritoneal dialysis, has a recent weight gain of 6.6 pounds, reports shortness of breath and edema to lower extremities. <b>hypervolemia</b></p> <p><b>PMH:</b> chronic kidney disease, type 2 diabetes, HTN, AV fistula placement</p> <p><b>Allergies:</b> NKA</p> <p><b>Current Medications:</b> Glipizide, losartan, furosemide, linagliptin, atorvastatin.</p>
<p><b><u>Objective:</u></b></p> <p><i>This section is your clinical observations. Include, pertinent vital signs, pertinent labs and diagnostics related to priority problem.</i></p>	<p><b>Vital Signs:</b> T= 37.2, HR=118, RR= 24, BP= 174/94, SpO2= 94%, pain 2/10</p> <p><b>Labs:</b> Na=132, K= 6, BUN= 42, Creatinine= 8, glucose= 174, Ca= 8, phosphorus= 7.5. GFR=8</p> <p><b>Urinalysis:</b> urine is amber cloudy, specific gravity 0.998, PH 5.6 protein present, hyaline casts=13</p> <p><b>Peritoneal dialysis evaluation:</b> KT/V urea: on 2/5 = 1.4 on 1/5 = 1.7 on 10/5 = 2.0 on 6/5= 2.5</p> <p><b>Diagnostics:</b> CXR= bilateral pulmonary venous congestion with infiltrates, no cardiomegaly, EKG: sinus tachycardia with peaked Twaves, @114 beats/min</p>
<p><b><u>Assessment:</u></b></p> <p><i>Focused assessment on your priority problem.</i></p>	<p><b>Alert and oriented X4, lips dry, skin warm and dry, turgor without tenting, AV fistula to left forearm intact, bruit and thrill present, scattered rhonchi in all lobes bilaterally, RR 24/min, dyspnea with exertion, weakness noted when</b></p>

	<p><b>ambulating, apical HR 118/min, bladder nondistended, denies dysuria, states able to void, peritoneal catheter intact site clean dry and intact no erythema or edema noted, +2 pitting edema in lower extremities bilaterally, +3 pedal pulses bilaterally.</b>  <b>INTAKE: @1845 122mL, @ 1940 12mL, @2040 30mL @2100 40mL., @2125 100mL, @0600 62mL, @0730 120mL</b>  <b>OUTPUT: @1830 urine output 150mL, @2040 urine output 100mL, @2100 urine output 60mL, @0730 urine output 100mL, @1210 urine output 30mL</b></p>
<p><b>Plan</b>  <b>*Based on priority problem only</b></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><b>Plan:</b>  <b>Administer furosemide, monitor electrolyte status, BUN, and creatinine, monitor intake out output, apply a cardiac monitor and monitor rhythm due to elevated potassium, initiate hemodialysis, monitor for signs of hypocalcemia,</b></p> <p><b>Teaching/Resources: Educate about fluid management and diet control, resource would be dialysis, nephrologist.</b></p>

**Priority Patient Problem #2: Deficient Knowledge**

<p><b>Subjective:</b></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><b>Chief Complaint:</b>          "I have a question Dr. Lanzo has been discussing hemodialysis with me recently however I'm a little bit confused."          "I'm not sure I understand can you please explain this to me"          "can you explain to me the complications of hemodialysis"          "this is just so overwhelming"          "I feel like I have no control over anything anymore and that my life is changing."</p>
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	<p>“I’m having trouble selecting food that I can and can’t have.”</p>
<p><b><u>Objective:</u></b></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><b>Vital Signs: not applicable</b></p> <p><b>Labs: not applicable</b></p> <p><b>Diagnostics: SDHQ: often feels concerned about paying for food, has gone without medications due to costs in the past 12 months, does not drive, has missed medical appointments in the last 12 months due to lack of reliable transportation, does not have access to public transport.</b></p>
<p><b><u>Assessment:</u></b></p> <p><i>Focused assessment on your priority problem.</i></p>	<p><b>Missed a few peritoneal dialysis treatments due to difficulties.</b></p> <p><b>Does not have transportation to hemodialysis, unaware of transportation resources</b></p> <p><b>Seems to be confused about hemodialysis and differences compared to peritoneal dialysis.</b></p> <p><b>Upon walking into room, leaning over in chair crying, states feeling overwhelmed about hemodialysis and how life is changing</b></p> <p><b>Questioned types of foods that can be included in diet, worried about not being able to participate in potluck, worried about not being able to have favorite foods again.</b></p>
<p><b><u>Plan</u></b></p> <p><b><u>*Based on priority problem only</u></b></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><b>Plan: educate using an illustration about hemodialysis, educate about the importance of not missing hemodialysis, educate about foods that can be incorporated into diet, educate about being able to participate in social gatherings, set up transportation to and from hemodialysis.</b></p> <p><b>Teaching/Resources: Educate about diet and lifestyle, resources are hemodialysis nurse, nephrology, transportation.</b></p>

**Reflection:**

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 this scenario is that not all patients have the resources others have access to and this may contribute to why they are not consistent with their treatment. There may be more to the story rather than someone just choosing to not take their medicines or go to their treatments. This scenario showed what can happen to someone with chronic kidney disease if they do not stay on top of their treatments. In this case the patient was doing peritoneal dialysis at home but missed a few treatments due to some difficulties. This caused her to have many electrolyte imbalances which put her at risk for other complications such as dysrhythmias. It was determined hemodialysis would be best for her. This was very overwhelming to the patient and a lot of education about what hemodialysis is and education about diet and lifestyle was needed. In the end she ended up getting the resources she needed such as a dietitian and transportation to and from dialysis which should help solve the inconsistencies with her treatments that occurred in the past. The impact this has on my future nursing practice would be to make sure the patient has the resources they need that would be most beneficial to them so they can have the best outcomes possible.

Time Allocation: 8 hours
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