ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2025

Student Name: Ryan Clagett

ATI Scenario: CKD

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: CKD

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

Anatomy and Physiology

Normal Structures

-upper urinary system consists of two kidneys and two ureters
-lower urinary system consists of a urinary bladder and urethra
-urine formed in kidneys, drains through ureters, stored in the bladder, passes out of the body through the urethra
-kidneys regulate the volume and composition of extracellular fluid and excrete waste products
-kidneys control BP, make erythropoietin, activate VIT D, and regulate acid-base balance
-paired kidneys are bean-shaped organs located retroperitoneally on either side of the vertebral column at about T12 to L3
-each kidney is about 5 inches long
-R kidney is lower than the L kidney
-adrenal glands on top of kidneys
-capsule covers kidneys for protection
-parenchyma is actual kidney tissue
-the inner layer is the medulla
-minor and major calyces transport urine to the renal pelvis, draining into the bladder
-the nephron is the functional unit of the kidney; composed of the glomerulus, Bowman capsule, and a tubular system
-Functions: glomerulus (selective filtration), proximal tubule (reabsorption of 80% of electrolytes and water, glucose, amino acids, bicarbonate, and secretion of hydrogen ions and creatinine), Loop of Henle (concentration of filtrate, reabsorption of sodium and chlorine in ascending limb and water in descending loop), distal tubule (reabsorption of water [regulated by ADH] and bicarbonate, regulation of calcium and phosphate [parathyroid], regulation

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

-progressive, irreversible loss of kidney function
-often not recognized until considerable loss of nephrons
-leading cause is DM and HTN
-defined as presence of kidney damage or decreased GFR <60 mL/min/1.73 m2 for >3 months
-stages I-V (stage V is end-stage renal disease, GFR <15 mL/min, requiring dialysis and/or kidney transplant to maintain life)
-as kidney function deteriorates, all body systems become affected because of retained urea, creatinine, phenols, hormones, electrolytes, and water
-uremia is a syndrome in which kidney function declines to the point that symptoms may develop in multiple body systems (GFR <15 mL/min)
-pts generally tolerable to changes since they are gradual
-Nephron destruction and hypertrophy
-Initial compensatory increases in glomerular blood flow and filtration, which temporarily preserve renal function but damage remaining glomeruli
-Progressive nephron loss and decline in GRF
-Decreased ability to concentrate urine and eliminate phosphate, acid, and potassium, leading to hyperphosphatemia, metabolic acidosis, and hyperkalemia 6
-Reduced renal production of 1,25-dihydroxyvitamin D (most active form of vitamin D), which contributes to hypocalcemia
-Decreased erythropoietin production, which may lead to anemia

of sodium and potassium by aldosterone, and secretion of potassium, hydrogen ions, and ammonia), and the collecting duct (reabsorption of water [requires ADH]) -blood flow into the kidneys is 1200 mL/min, reaches the kidneys via the renal artery (glomerulus has a collection of up to 50 capillaries), and the renal vein empties into IVC -normal GFR is 125 mL/min -kidneys also have RBC production via erythropoietin, BP regulation via renin to angiotensin II -ureters carry urine from the renal pelvis to the bladder via peristalsis -the urinary bladder is a reservoir for urine, an elimination pathway for waste, and can stretch (capacity is 600-1000 mL) -normal urine output is 1500 mL/day -the urethra is a small tube that controls voiding and serves as a conduit for urine from the bladder to the outside world -the urethrovesical unit (urethra, bladder, pelvic floor muscles) is what controls continence; impulses sent to the brain either encourage or discourage voiding		

To Be Completed Before the Simulation

Anticipated Patient Problem: **Excess Fluid Volume**

Goal 1: The pt. will have a UO ≥30 mL/hr during my time of care.

Goal 2: The pt. will not gain ≥1 kg during my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Auscultate lung sounds and assess respiratory rate, rhythm, depth, and quality q4h.	Enforce fluid restrictions as ordered at all times.
Assess BP and HR q4h.	Provide a renal diet as ordered and ensure sodium and protein restrictions are enforced as ordered at all times.
Assess UO q1h.	Maintain strict I&O and ensure a urine collection device is readily available PRN when the pt. voids.
Assess weight daily.	Administer prescribed diuretics as scheduled.
Assess for peripheral edema and JVD q4h.	Maintain BLE elevated on pillows and HOB ≥30° at all times.
Assess serum BUN, Cr, and GFR values q shift.	Prepare for and educate about dialysis PRN scheduled hemodialysis or peritoneal dialysis.

To Be Completed Before the Simulation

Anticipated Patient Problem: **Risk for Electrolyte Imbalance**

Goal 1: The pt. will maintain serum electrolyte values WNL (K 3.5-5, Na 135-145, Ca 9-10.5, Mg 1.3-2.1, etc.) during my time of care.

Goal 2: The pt. will verbalize understanding of following the prescribed dietary restrictions by the end of my care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess cardiac rate, rhythm, and quality on telemetry q1h.	Maintain cardiac monitoring at all times.
Assess serum electrolyte values (Na, K, Ca, Mg, etc.) q shift and PRN STAT labs.	Administer replacement electrolytes as prescribed and scheduled STAT.
Assess for muscle weakness, confusion, numbness/tingling, and LOC q1h and PRN acute changes.	Prepare for dialysis (hemodialysis or peritoneal dialysis) PRN severe manifestations or unresponsive to other interventions.
Assess for GI symptoms (n/v, diarrhea) q4h.	Administer antiemetics and antidiarrheals, if indicated, as prescribed and scheduled PRN n/v or diarrhea.
Assess current dietary habits upon admission.	Educate on the renal diet and dietary restrictions as prescribed PRN deficient knowledge.
Assess serum BUN, Cr, and GFR values q shift and PRN new medication orders.	Advocate for altered kidney function dosage changes for medications PRN no alteration or prior collaboration between the provider and pharmacist.

To Be Completed During the Simulation:

Actual Patient Problem: Excess Fluid Volume (1)

Clinical Reasoning: 3 kg weight gain; dx of CKD; BUN 42; Cr 8; BLE 2+ pitting edema; BP 174/94 on R arm; HR 118

Goal: AS will not gain >1 kg during my time of care. Met: ☐ Unmet: ☐

Goal: AS will have a UO ≥30 mL/hr during my time of care. Met: ☐ Unmet: ☐

Actual Patient Problem: **Electrolyte Imbalance (2)**

Clinical Reasoning: Admitted for hyperkalemia; K 6; Ca 8; Na 132; eGFR 8 mL/min; sinus tach w/ peaked T waves; receiving hemodialysis

Goal: AS will maintain serum electrolyte values WNL (K 3.5-5, Na 135-145, Ca 9-10.5, Mg 1.3-2.1, etc.) during my time of care. Met: ☐ Unmet: ☐

Goal: AS will verbalize understanding of the indications, mechanism, and complications associated w/ hemodialysis by the end of my care. Met: ☐ Unmet: ☐

Additional Patient Problems: **Deficient Knowledge: Hemodialysis (3), Ineffective Coping (4), Readiness for Enhanced Health Management (5)**

Below will be your notes, add more lines as needed. **Relevant Assessments:** Indicate pertinent assessment findings. **Multidisciplinary Team Intervention:** What interventions were done in response to your abnormal assessments? **Reassessment/Evaluation:** What was your patient's response to the intervention?

Patient Problem	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
2	Day 1 at 1830	Admitted for hyperkalemia; peritoneal dialysis catheter intact to abd and w/o drainage, redness, or edema; stage V kidney failure; Na 132; K 6; Ca 8; eGFR 8 mL/min; KT/V urea decreased from 2.5 to 1.4; AV fistula to L forearm w/	Day 1 at 1835	Maintained renal diet w/ 1.8 g sodium restriction; applied telemetry electrodes; applied a limb alert bracelet to the L wrist; placed a limb alert sign on the wall above the bed; initiated PIV access w/ a 20-gauge to the R forearm	Day 1 at 1845	Telemetry on and functioning appropriately; tele shows sinus tachycardia w/ peaked T waves at 114 bpm; PIV flushed w/o difficulty

		bruit and thrill noted				
1	Day 1 at 1830	Recent weight gain of 3 kg (now 72.1 kg); reports SOB w/ nonproductive cough; BLE 2+ pitting edema; RR 24; BP 174/94 on R arm; HR 118; SpO2 94% on RA; scattered rhonchi to all fields anteriorly, posteriorly, and bilaterally; BUN 42; Cr 8; urine amber and cloudy; urine specific gravity 0.998; protein in urine 80 mg/dL; CXR revealed bilateral pulmonary venous congestion w/ infiltrates	Day 1 at 1835	Raised HOB >30°; maintained fluid restriction of 1 L/day; applied NC at 2 L/min; maintained urine collection device in room	Day 1 at 1845	SpO2 96% on NC at 2 L/min; 150 mL UO; RR 22
1	“”	“”	Day 1 at 1940	Administered furosemide 80 mg IVP	Day 1 at 2100	UO 160 mL; 1 BM count; BP 178/84 on R arm; HR 114; PO intake 190 mL; BLE 2+ pitting edema
1	“”	“”	“”	“”	Day 1 at 2330	UO 120 mL; PO intake 360 mL
1	“”	“”	“”	“”	Day 2 at 1210	UO 130 mL; 5 mL of emesis; PO intake 180 mL
3	Day 1 at 2000	Expressed concern about hemodialysis	Day 1 at 2005	Provided an illustration of hemodialysis and educated about hemodialysis	Day 1 at 2010	Verbalized understanding of the purpose, mechanism, and complications of hemodialysis; taught back that, “My blood pressure may decrease during hemodialysis”

2	Day 1 at 2015	Admitted for hyperkalemia; K 5.9; Ca 7.8; blood glucose 166; sinus tachycardia w/ peaked T waves	Day 1 at 2020	Maintained continuous cardiac monitoring; researched and anticipated the use of calcium gluconate, regular insulin, and dextrose 50%	Day 1 at 2025	Tele shows sinus tachycardia w/ peaked T waves; negative for Chvostek's sign; pending AM lab draw
1, 2	Day 1 at 2025	""; pending AM lab draw	Day 2 at 0400	Lab performed testing on blood samples	Day 2 at 0400	Na 136; K 4.7; Cl 98; BUN 37; Cr 6.9; Ca 9; Mg 2
1	Day 1 at 2240	BP 182/90 on R arm; HR 114	Day 1 at 2300	Administered labetalol 20 mg IVP	Day 1 at 2330	BP 164/80 on R arm; HR 108
----------	--------	Preparation for hemodialysis	0715	Held AM mediations	0745	Transported down to dialysis
1	Day 2 at 1200	Arrived back from dialysis; A&Ox4; AV fistula intact to L forearm w/ palpable thrill and audible bruit noted; RR 18; 5/5 muscle strength in BUE and BLE; BLE 2+ pitting edema; pedal pulses +3 bilaterally; weight 72.6 kg standing; T 37.1 C; SpO2 97% on NC at 2 L/min; diffuse rhonchi still auscultated over all lung fields anteriorly, posteriorly, and bilaterally	Day 2 at 1205	D/c NC; provided a warm blanket; obtained weight on a standing scale	Day 2 at 1210	SpO2 96% on NC at 1 L/min; T 37.3 C; SpO2 97% on RA; weight 71.5 kg standing
4	Day 2 at 1300	Expressed frustration and lack of control over the hemodialysis schedule; "I don't see any light at the end of this tunnel"; hypoglycemic	Day 2 at 1310	Contacted case manager regarding hemodialysis management; discussed ways to minimize disruptions to routine; informed case management of food insecurity, possible impact of	Day 2 at 1320	Verbalized understanding that there are ways to incorporate changes into the current routine; case management aware of areas of concern from the social determinants

				cost of medication, and the ability to attend dialysis sessions regularly		of health questionnaire
5	Day 3 at 1200	Case management arranged for transportation to and from dialysis appointments; adjusting to routine; cares for the peritoneal dialysis catheter site appropriately	Day 3 at 1205	Reinforced education of maintaining dialysis appointments, catheter and site care	Day 3 at 1210	PD catheter exit site score 2; slight discomfort when palpated; skin intact; epithelium was strong and covered the area fully
5	Day 3 at 1400	Discusses difficulty w/ selecting appropriate, healthy alternatives to enjoyed foods; verbalized enjoyed foods	Day 3 at 1405	Maintained and reinforced education on renal diet w/ 1800 mg sodium restriction, low potassium, low fat, and low protein per dietary consult; recommended a ½ cup of raw green peas	Day 3 at 1410	Verbalized understanding of renal diet and restrictions; verbalized understanding of recommended healthy food alternatives
5	Day 3 at 1420	Expressed concerns about not being able to attend the potluck due to dietary restrictions	Day 3 at 1425	Assisted w/ selecting appropriate food choices (steamed broccoli, roast chicken thighs, and sliced radishes)	Day 3 at 1430	Verbalized understanding of the food choices, and was relieved about being able to attend the potluck
5	Day 4 at 1200	Last home health visit	Day 4 at 1205	Reinforced education from previous visits	Day 4 at 1210	Expressed being comfortable w/ hemodialysis, establishing a new routine, making friends at the dialysis center, and improved lab work
1, 2	--------	----------	--------	----------	--------	During time of care: did not gain >1 kg; maintained UO ≥30 mL/hr; maintained serum electrolytes WNL; and verbalized understanding of the indications, mechanism, and

						complications associated w/ hemodialysis

To Be Completed After the Simulation

The orange boxes should be filled out with your simulation patient's actual results, assessments, medications, and recommendations

NCLEX IV *(7)*: Reduction of Risk

Actual Labs/ Diagnostics
-CBC (RBC 3.1, Hgb 10.2, Hct 32%, WBC 14)
-CMP (Na 132, K 6, BUN 42, Cr 8, Blood Glucose 174, Ca 8)
-Urinalysis (cloudy, amber urine, specific gravity 0.998, protein 80
-HgbA1C 7.4%
-eGFR 8 mL/min
-CXR (bilateral pulmonary venous congestion w/ infiltrates)
-Telemetry (sinus tachycardia w/ peaked T waves)

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

Signs and Symptoms
-Fatigue, SOB, weakness
-N/V
-Rapid weight gain over a couple of days (3 kg)
-Anxiety, depression
-Peripheral neuropathy of BLE
-BLE 2+ pitting edema
-Electrolyte imbalances
-Diffuse rhonchi auscultated in all lung fields anteriorly, posteriorly, and bilaterally

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

Contributing Risk Factors
-DM
-Ethnic minority
-HTN
-HLD
-Age >60 (62)
-Social determinants of health (food insecurity, inadequate access to healthcare)

NCLEX IV *(7)*: Reduction of Risk

Therapeutic Procedures
Non-surgical
-Hemodialysis
-[Peritoneal dialysis]

Surgical
-[Kidney transplantation]

NCLEX IV *(7)*: Reduction of Risk

Prevention of Complications
(Any complications associated with the client's disease process? If not what are some complications you anticipate)
-Electrolyte imbalance (hemodialysis and following diet)
-Fluid imbalance (daily fluid restriction and adhering to meds and hemodialysis schedule)
-Anemia (taking prescribed erythropoietin therapy)

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

Medication Management
-Antihypertensives (labetalol)
-Diuretics (furosemide)
-O2 via NC
-Phosphate binders
-Erythropoietin therapy
-[Calcium gluconate]
-[Regular insulin]
-[Dextrose 50%]

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

Non-Pharmacologic Care Measures
-HOB >30°
-TCDB
-Fluid restriction (<1 L/day)
-[Elevating BLE]
-Physical and emotional rest
-[q2h turns]
-[Oral care BID]

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

Stressors the client experienced?
-Transportation to and from hemodialysis appointments
-Following a new routine
-Following a renal diet w/ restriction on regularly eaten foods
-Starting hemodialysis when accustomed to peritoneal dialysis

Client/Family Education

Document 3 teaching topics specific for this client.
•Following the prescribed renal diet w/ restrictions of sodium, potassium, fat, and protein.
•Following a regular hemodialysis schedule of 3 times per week helps prevent complications.

NCLEX I *(1)*: Safe and Effective Care Environment

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
-RN, hospitalist, dialysis tech, nutritionist, dietician, case manager, [nephrologist]

•Appropriate care for the dialysis access site to prevent infection and complications.	

Patient Resources

National Kidney Foundation, American Association of Kidney Patients, Kidney School, CDC Patient Center Pocket Guide, AAKP Nutrition Counter, NFK Peers Program

Reflection Questions

Directions: Write reflection including the following:

1. What was your biggest "take away" from participating in the care of this client?

   My biggest takeaway from participating in the care of this client was that client-centered care is an essential aspect of nursing care. This client verbalized feelings of frustration, guilt, and terror at the prospect of new treatments and restrictions that hindered her way of life. Although these hemodialysis appointments are an essential part of her care, so is her mental and social well-being. Throughout the scenario, I learned that the client had many fears about her plan of care, and the nurse could sit beside her, listen to her concerns, and therapeutically communicate with her regarding the next steps in the future. The nurses never denied or ignored the client's concerns. They incorporated her concerns into the plan of care. They worked accordingly following client-centered care options, such as working with case management to secure transportation to and from hemodialysis appointments, consulting with dieticians to obtain healthier alternatives that follow the prescribed renal diet with restrictions, and reinforcing education regarding adjusting to her new routine. This nurse-client relationship and maintaining client-centered care are my main takeaways from participating in this scenario.

2. What was something that surprised you in the care of this patient?

   What surprised me about this client's care was that the scenario followed both the hospitalization and home health visits. Many previous scenarios focused on the acute treatment and stabilization of clients from the point of entry into the hospital and ended right before discharge. However, this scenario spent a significant amount of time focusing on managing a client's care outside of the hospital, which I appreciated. I was able to obtain more insight into the role of the home health nurse when it comes to assessing and reinforcing education for a client with a chronic health condition, such as chronic kidney disease. There is a balance between the prescribed evidence-based care plan and what matters the most to the client. This is where the home health nurse can best utilize therapeutic communication and education to guide the client in the direction that serves their best interests at heart. I was also surprised at the time commitment in scheduling hemodialysis appointments that CKD clients must make to prevent complications—allowing the client to adjust to their new routine and understand the why behind the treatments is what can maintain the nurse-client relationship and ensure compliance with the prescribed treatment.

3. What is something you would do differently with the care of this client?

   Something I would do differently with this client's care is to provide more thorough nursing notes. Many nursing notes provided during the time of care were one-sentence remarks about either updating the care plan or noting how the client is currently feeling. Including these in the nursing notes is essential, but significant assessments, interventions, and reevaluations of those interventions must also be included. For example, before administering the IV boluses of furosemide or labetalol, no pertinent assessments and values were recorded in the nursing notes. There was no mention of when the medications were administered or any evaluation notes of how the client responded to the medications. Having current, thorough nursing notes prevents gaps in care, explains the rationale behind the thought and execution of nursing judgment, and serves as evidence that the nurse took appropriate due diligence into account.

4. How will this simulation experience impact your nursing practice?

This simulation experience will impact my nursing practice by helping me become more aware of clients' social determinants of health and wishes regarding their care. As a nursing student, I sometimes get caught up in all the nuances regarding diseases and their pathophysiology and anticipated plans of care, and I forget that the client is a person who has a life outside of the hospital. The nurse needs to establish rapport with the client, understand their limits and wishes regarding their care, and honor those limits and wishes when implementing the care plan. I could anticipate what is next all day long, but if the client wishes something that could throw a wrench in that established plan of care or anticipation, I have to respect the client and center care around them. Continuous education and reinforcing education are also some things that were in this scenario that will impact my nursing practice. Clients do not know what they do not know, so the nurse must provide excellent education at the client's level to ensure they are well-informed of all the decisions they can make regarding their care. Utilizing AIDET plus the promise and educating about every procedure and medication, whether insignificant or significant, will go a long way in establishing, maintaining, and flourishing the nurse-client relationship and ensuring that the client receives evidence-based, client-centered care.