ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2024

Student Name: Emily Rudis

ATI Scenario: Chronic Kidney Disease

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 Tract: kidneys + ureters
Lower Urinary Tract: bladder + urethra

Kidneys: filter blood, remove waste and excretes through urine, monitors BP, secretes renin
-capsule: outer covering
-hilum: where the renal artery enters, & the renal vein & ureter leave the kidney
-medulla →renal pyramids → renal papillae → renal columns (portions of cortex extending between pyramids)
-medulla + cortex = **parenchyma**
-central region = renal pelvis (located in the renal sinus) → minor/major calyces
-parenchyma contains fx units = **nephrons** = urine passes from here to minor calyces

Ureters: carry urine from renal pelvis to urinary bladder, middle layer contains smooth muscle which aids in peristalsis to propel the urine

Bladder: temporary reservoir for urine in the pelvic cavity

Urethra: final passageway for flow of urine → opening to outside = external urethral orifice (much longer in males, transports both urine & semen)

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

-Progressive, irreversible loss of kidney fx →**presence of kidney damage or decreased GFR <60 mL/min for longer than 3 months**
-Risk Factors: aging, obesity, DM, HTN
-Causes: DM, HTN, glomerulonephritis, cystic diseases, urologic diseases
-kidneys = highly adaptive, disease often not recognized until considerable loss of nephrons & pts = often asymptomatic
Stage 1 = GFR >/= 90
Stage 2 = GFR 60-89
Stage 3a = GFR 45-59
Stage 3b = GFR 30-44
Stage 4 = GFR 15-29
Stage 5 = GFR < 15 or dialysis **[Kidney Failure] → End Stage Renal Disease (ESRD)** at this point dialysis or transplantation = required to maintain life
-prognosis & course of CKD highly variable, depending on cause, pt's condition/age, adequacy of health care follow up, some live normal active lives, others rapidly progress to ESRD
-As kidney fx deteriorates all body systems are affected, manifestations result from retained urea, creatinine, phenols, hormones, electrolytes & water
-Uremia: kidney fx declines to point that sx develop in multiple body systems
-common manifestations: anxiety, depression, HTN, HF, CAD, CVD, anorexia, n/v, GI bleed, thyroid abnormalities, amenorrhea, ED, metabolic disturbances, anemia, bleeding, infection, fatigue, HA, sleep disturbance, encephalopathy, pulm edema, uremic pleuritis, PNA, pruritus, dry/scaly skin, vascular/soft tissue calcifications, osteomalacia, osteitis fibrosa, paresthesia, restless leg syndrome
-DX: persistent proteinuria often 1st sx, dipstick evaluation for albuminuria → persistent proteinuria (+1 protein on testing 2+ times over 3-month pd) should have further dx work up, UA, renal US, kidney bx, GFR
-TX: correction of extracellular fluid volume overload or deficit, dialysis/transplant, protein restriction, fluid restriction, Na/K/Phosphate restriction, drugs: Ca supplements, Phosphate binders, AntiHTNs, ACE Inhibitors/ARBs, erythropoietin, lipid-lowering agents, *adjustment of drug dosages to degree of renal fx

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To Be Completed Before the Simulation

Anticipated Patient Problem: Excess Fluid Volume

Goal 1: ATI will be normovolemic as evidenced by urine output of 30 mL/hr or greater 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?
Vital signs q4h	Maintain strict sodium restriction 2500 mg/day
Lung sounds q8h	Administer diuretic therapy per MD order
Intake & output q1h	Educate on the importance of maintaining fluid restriction daily, provide rationale & indented effect q shift
Edema q8h	Elevate extremities above level of heart for 30 mins TID
Respiratory pattern (inc work of breathing, SOB, dyspnea) q4h	Position in semi/high fowler's position at all times
Daily weight	Maintain fluid restriction 2,000 mL/day

Goal 2: ATI will have clear lung sounds and absence of pulmonary crackles during my time of care.

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To Be Completed Before the Simulation

Anticipated Patient Problem: Risk for Electrolyte Imbalance

Goal 1: ATI will maintain electrolyte (K 3.5-5, Na 135-145, Ca 9-10.5, P 3-4.5) levels WNL 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?
Daily serum electrolyte levels	Administer electrolyte supplement or binder PRN (when ordered for electrolytes outside normal limits)
Continuous cardiac monitoring (telemetry)	Administer diuretic therapy per MD order
Vital signs q4h	Educate on s/sx electrolyte abnormalities q shift
Daily weight	Prepare for dialysis 3x/week
RR & depth q8h	Encourage deep breathing & coughing q8h
Level of consciousness & neuromuscular function (sensation, strength, movement) q4h	Provide safety & seizure precautions (padded side rails, bed in low position) at all times

Goal 2: ATI will maintain normal sinus rhythm during my time of care.

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To Be Completed During the Simulation:

Actual Patient Problem: Excess Fluid Volume Clinical Reasoning: Weight gain 13.2 kg, +2 pitting edema bilat LE, bilat pulmonary venous congestion with infiltrates
Goal: ATI will be normovolemic as evidenced by urine output of 30 mL/hr or greater during my time of care. Met: ☐ Unmet:☐
Goal: ATI will have clear lung sounds and absence of pulmonary crackles during my time of care. Met: ☐ Unmet:☐
Actual Patient Problem: **Risk for Electrolyte Imbalance** Clinical Reasoning: K 6.0, P 7.5, Sinus tach with peaked T waves
Goal: ATI will achieve Potassium level between 3.5-5 after furosemide therapy is initiated. Met: ☐ Unmet:☐
Goal: ATI will achieve normal sinus rhythm prior to discharge. Met: ☐ Unmet:☐

Additional Patient Problems: 3. Impaired Gas Exchange 4. Readiness for Enhanced Health Literacy 5. Risk for Unstable Blood Pressure 6. Anxiety 7. Readiness for Enhanced Self Care

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
1, 2, 3	2/10 1800	States "moving around by myself is difficult… my legs feel so tight", bilat LE +2 pitting edema, breathing labored with activity	1815	Assisted to bed x1, elevated HOB 35 degrees, Administered Furosemide 20 mg PO	1830	T 37.2, HR 118, BP 174/94, RR 24, SpO2 94% on RA, weight 72.1 kg
1, 3	1830	AV Fistula L wrist bruit & thrill noted, Scattered rhonchi to all lung fields bilaterally, tachypneic	1845	Applied limb alert bracelet to L wrist, applied 2L O2 NC	1850	SpO2 96%, Intake 122 mL, UO 150 mL
2	1910	Tachycardia (HR 118), K 6.0	1920	Educated on rationale for cardiac monitoring, applied continuous cardiac monitoring, inserted PIV 20g R Forearm	1920	PIV flushes without difficulty, "Thanks Chris, I'm okay for now." Resting in bed, HOB elevated 35 degrees
4	2000	Concerned about switching from peritoneal dialysis to hemodialysis, Intake 12 mL	2010	Contacted physician, educated on hemodialysis process, provided written information on hemodialysis	2015	"I see, thank you for explaining this to me"
1, 4	2015	"Can you tell me more about the complications of	2020	Educated on complications of hemodialysis	2040	Verbalizes understanding that hypotension may

		hemodialysis?"				occur as a complication of hemodialysis, Intake, 30 mL, UO 100 mL
1, 2, 3	2100	Sinus Tachycardia with Peaked T Waves on EKG, HR 114, Intake 40 mL, UO 60 mL	2100	Administered Furosemide 80 mg IV bolus	2125	T 36.8 HR 110, RR 20, BP 178/86 SpO2 96% on 2L NC, reports improvement in breathing, +2 pitting edema bilat LE, Intake 100 mL
1, 5	2240	BP 182/90, HR 112, Intake 200 mL	2250	Contacted physician about blood pressure, new order for labetalol 20 mg IV bolus	2330	Intake 60 mL, UO 120 mL, Dr. Lanzo performing assessment
1, 3, 5	2/11 0100	Resting in bed, 1L O2 NC, BP 164/80	0600	Medications held for dialysis	0715	Scattered rhonchi anterior & posterior fields bilat, RR 18, respirations slightly labored, AP 94, +2 pitting edema bilat LE, weakness with gait, BP 154/84, SpO2 96% on 1L NC, Weight 72.6 kg, UO 100 mL, denies needs at this time
1, 2, 3	1200	Returned from dialysis "the nurses were really nice there" c/o being cold, denies breakfast, states "I just want to rest"	1230	Provided rest period, call light within reach	1230	SpO2 97% on RA, pain 2/10, weight 71.5 kg, UO 30 mL, emesis 5mL
2, 6	1300	Na 132, K 5.9, Phosphorus 7.5	1300	Administered Furosemide 20 mg PO, Sevelamer Carbonate PO	1330	Crying, states "this is all so overwhelming… I don't have any control over anything anymore"
6	1340	"If you can find any solution, I'll be happy to hear it, I don't see any light at the end of the tunnel"	1345	Contacted case manager & provided information on management of dialysis, offered to	1345	"yes, thank you."

				discuss ways to minimize disruption to normal routine		
7	2/12 1000	Discharge orders, reports need for transportation to dialysis 3x/week & home health care	1030	Coordinate with case management	1200	Discharged to home
7	2/13 1200	“I am afraid I will not be able to attend my weekly potluck at church because of my diet restrictions”	1230	Encouraged to continue attending church events, created plan to choose good food choices while at event	1245	Verbalized healthy food options to choose while at church potluck events

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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
Na 132/136
K 5.9/4.7
BUN 42/37
Creatinine 8.0/6.9
Glucose 166/126
Phosphorus 7.8/5.5
eGFR 8
Tele: Sinus Tach with peaked T waves
CXR: bilat pulm venous congestion w infiltrates

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

Signs and Symptoms
-SOB, Scattered rhonchi to all fields bilaterally, Breathing labored with activity
-Hypervolemic, +2 pitting edema bilat LE, recent weight gain (13.2 kg)
-General fatigue/malaise, decreased appetite
-HR 110, BP 170/92, RR 22
-K 6.0, BUN 42, Creatinine 8.0, Glucose 174, Phosphorus 7.5, Hgb A1C 7.4, eGFR 8

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

Contributing Risk Factors
62 years old
DM2 (& family hx)
HTN
Hx CKD (stage 5)

Therapeutic Procedures
Non-surgical

Surgical
AV Fistula
Peritoneal Dialysis Catheter

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)
-Risk for infection (peritoneal dialysis catheter site/insertion, hemodialysis site/insertion)
-Electrolyte disturbances
-Fluid imbalance
-Non-compliance with outpatient hemodialysis

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

Medication Management
-Glipizide, ASA, Losartan, Furosemide, Ferric Sulfate, Linagliptin, Sevelamer carbonate, Gabapentin, Atorvastatin, Docusate sodium, Tacrolimus ointment, Gentamicin ointment, Tramadol, Labetalol, Epoetin alfa
-Hemodialysis

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

Non-Pharmacologic Care Measures
Continuous cardiac monitoring
Education on hemodialysis
Therapeutic communication
Consult case management

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

Stressors the client experienced?
-Feeling out of control
-Overwhelmed with hemodialysis schedule & time consumption
-Planning for & maintaining appropriate diet
-Access to groceries, transportation

Client/Family Education

Document 3 teaching topics specific for this client.
• Nutrition (meal planning)
• Diabetes Management
• s/sx of kidney failure to report to MD

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

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
Nutrition, home health, case management, pharmacy, nursing, nephrology, dialysis

Patient Resources
Home health, outpatient nutrition, therapy/counseling, nephrology follow-up, endocrine follow-up, primary care physician routine labs/follow-up, transportation services, grocery delivery services

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 this experience was a reminder that our care sometimes needs to extend outside of the hospital setting. It's great that we have an opportunity to manage patients and provide education while they are under our care in the hospital, however, we must ensure the patient can continue what we have established outside of the acute care setting as well. For example, if the patient lacks resources like transportation, they may have a hard time with follow up care, or in this case, arriving to dialysis three times per week. Also, if they are experiencing food disparities, it may be much harder for them to adhere to the appropriate diet. As nurses, we must advocate for our patients and work with case management to ensure that resources are provided.

2. What was something that surprised you in the care of this patient?
   I was surprised when the patient began experiencing signs of anxiety. Up until that point, the patient had been very easy going, understanding, and laid back. This was a good reminder that a change in routine can really add stress to a patient's life. This scenario specifically helped remind me that lab values such as glucose or electrolytes can also have an impact on a patient's demeanor. It's important to keep that in mind for any time a patient begins showing a change in personality or mood.

3. What is something you would do differently with the care of this client?
   I think the care team in this scenario did a great job of collaborating and providing care for this patient. The only thing that I might suggest would be to offer therapy or chaplain services when the patient was experiencing signs of anxiety. The nurse did a great job of practicing therapeutic communication skills and referred case management to help with the stressors the patient was experiencing, but it may have also benefitted to have a professional therapist to talk to when feeling overwhelmed.

4. How will this simulation experience impact your nursing practice?
   Some things from this simulation experience that I will continue to think about and will impact my nursing practice are; to be aware of barriers to treatment that patients may experience once they leave the acute care setting, to be mindful of little changes in my patient like mood, or lab values, and to continuously advocate for my patient in order to have multiple disciplines collaborating on patient care together. I believe it's important for all members of the care team to collaborate and continue to provide updates on patient status in order to provide the best care possible.