ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2024

Student Name: _____

ATI Scenario: _____

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: _____

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

Anatomy and Physiology
Normal Structures

- **Nephron:** functional unit of the kidney
- **renal cortex:** where nephron begins and also creates EPO
- **glomerulus:** within the nephron and filter waste out of blood via selective ultrafiltration creating urine which is sent to the bladder
- **renal medulla:** filters out salts, water, and acids which further concentrates urine
- **renal papilla:** transfers urine to the ureters
- **renal pelvis:** collects urine as it is being produced
- **renal vein:** carry filtered blood from kidneys to SVC back into circulation
- **renal arteries:** carries unfiltered blood from aorta to the kidneys
- **adrenal glands:** small triangular glands that produce hormones that help regulate metabolism, immune system, blood pressure, response to stress and other essential functions.
  - adrenal glands are responsible for producing and releasing cortisol, aldosterone, DHEA and androgenic steroids, epinephrine/norepinephrine (fight-or-flight)
  - cortisol plays a role in controlling metabolism, reducing inflammation, regulating BP, increasing blood glucose levels

- kidneys clean toxins and waste out of our blood. They help remove waste products such as nitrogen waste (urea), muscle waste (creatinine), and acids.
- blood flows into the kidneys via renal artery > glomeruli begin to filter blood (glomerular filtration) > filtered substances are then passed to renal tubules > renal tubules reabsorb and return water, nutrients, and minerals the body needs (Na and K). The tubules then remove wastes via diffusion > body sends urine to the bladder via the ureters > urine exits body via urethra
- kidneys also control pH balance of blood, make renin that increases BP, produces the hormones calcitriol(helps form vitamin D) and erythropoietin (makes RBCs)

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

CKD: chronic progressive loss of kidney function. HTN and diabetes are two common causes of CKD.
Normal GFR = 90 to 120
Stage 1: GFR ≥ 90, kidneys are working well but show signs of mild kidney damage
Stage 2: GFR 60-89
Stage 3a: GFR 45-59
- affects all organ systems due to the retained urea, creatinine, phenols, hormones, electrolytes, and water.
- uremia: syndrome in which kidney function declines to a point that symptoms may develop and show in multiple organ systems, it occurs when GFR is <15

CV: HTN, HF, CAD, pericarditis, peripheral artery disease
GI: anorexia, n/v/d, diabetic gastroparesis, uremic fetor
Endocrine: hyperparathyroidism, amenorrhea, ED
Metabolic: HLD, carbohydrate intolerance
Neuro: peripheral neuropathy, fatigue, hypertensive encephalopathy
Musculoskeletal: CKD mineral and bone disorder
Ocular: hypertensive retinopathy
Pulmonary: fluid overload, pulmonary edema, uremic pleuritis, pleural effusion, respiratory infections
Integumentary: refractory pruritis

Potassium: hyperkalemia can cause fatal dysrhythmias
Sodium: retention occurs due to water retention thus causing edema, HTN, and HF
Metabolic Acidosis: kidneys inability to excrete excess acid and from defective reabsorption and regeneration of bicarb.
Magnesium: hypermagnesemia is not a problem unless client is digesting Mg regularly

To Be Completed Before the Simulation

Anticipated Patient Problem: excess fluid volume

Goal 1: client will maintain a cardiac/renal diet (2L fluid per day and <2g of sodium per day) 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?
Take daily weight q shift	Encourage adherence to cardiac/renal (2L FR and <2g of Na per day) diet and recommended protein intake (1.2g/kg) q shift
Monitor I&O's 1hr	Administer Lasix as ordered
Assess HR, BR, RR q4hr	Restrict high potassium and sodium foods q shift and prn
Assess for JVD, dyspnea, and lung sounds q4hr	Education on the need for dialysis q shift
Assess for presence of edema in extremities q4hr	Maintain elevation of extremities and perform q2h turns
Monitor serum GFR, BUN and Cr q shift	Educate on measures to reduce the risk/progression of CKD (glycemic control for DM, BP control for HTN) q shift

Goal 2: client will have a urine output of ≥30ml/hr during my time of care

To Be Completed Before the Simulation

Anticipated Patient Problem: risk for electrolyte imbalance

Goal 1: client will maintain a K WNL (3.5-5.5) 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?
Assess HR and rhythm qshift and prn	Maintain telemetry at all times
Assess I&Os q shift and prn	Administer Lasix as ordered
Monitor serum K q shift	If hyperkalemic, administer lactulose as ordered
Monitor serum Na q shift	Educate on the s/sx of hyponatremia (muscle cramps, nausea, disorientation, AMS) q shift
Assess LOC q 4hr and prn	Maintain seizure precautions at all times
Assess skin for pruritus q shift and prn	Educate on wearing loose-fitting clothing, avoid scratching, use lotions or emollients for dry shift 2 shift

Goal 2: client will maintain a Na WNL (135-145) during my time of care

To Be Completed During the Simulation:

Actual Patient Problem: excess fluid volume

Clinical Reasoning: admitted for fluid overload, +2 edema LE b/l, tachycardia
Goal: AS will have a UO of 30ml/hr during my time of care Met: x Unmet:☐
Goal: AS will have no worsening edema during my time of care Met: x Unmet:☐

Actual Patient Problem: risk for electrolyte imbalance

Clinical Reasoning: K 6, Na 132
Goal: AS will have a K value WNL (3.5-5) by the time of discharge Met: x Unmet:☐

Goal: AS will have a Na value WNL (135-145) by the time of discharge. Met: x Unmet:☐

Additional Patient Problems: 3. Hopelessness, 4. Readiness for enhanced nutrition, 5. Activity intolerance, 6. Readiness for enhanced learning

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	1830	37.2C, HR 118, RR 24, 174/94, SpO2 94%, has AV fistula in L forearm	1840	Placed limb alert bracelet on left wrist. Applied NC 2L/min	1845	SpO2 96% 2L/min NC
2,5	1920	K 6, Na 132, SOB with non-productive cough	1930	Applied telemetry	1935	Sinus Tach with peaked T waves
1	1940	T 37C, HR 116, RR 22, 170/90, SpO2 96% on 2L/min NC, pain 2/10, CXR bilat venous congestion with infiltrates	2000	Administered Lasix furosemide 30mg PO. Educated about hemodialysis process	2100	UO 100ml Verbalized understanding
1,5	2125	UO 60ml, intake 40ml, 36.8C, HR 110, RR20, 178/86, SpO2 96% 2L/min NC	2130	Administered labetalol 20mg IV bolus	2200	164/80, HR 108
	0715 Day 2	AV fistula intact to left forearm with	1000	Hemodialysis Administered	1210	134/76, HR 88, RR18, SpO2 97%

		palpable thrill and audible bruit noted. Scattered rhonchi anterior and posterior bilaterally. RR 18 slightly labored, AP 94, +2 pitting edema LE b/l.		furosemide 20mg PO, losartan 50mg		RA, pain 2/10, glucose 84, UO 30ml, 5ml emesis
2	0715	K 4.7, Na 136, BUN 37, creatinine 6.9, glucose 126, Mg 2	1000	Administered glipizide xl 20mg, ferric citrate 1g, linagliptin 5mg, sevelamer carbonate,	1400	T 37.1C, HR 80, RR20, 140/80, 96% on RA, pain 1/10, BG 68, UO 60ml Discharged from hospital
3	1230	Stated “I just feel so sorry for myself” expressed hopelessness about dialysis treatments	1230	Utilized therapeutic communication and discussed options to allow more control of life	1240	Verbalized understanding on hemodialysis treatment and options to incorporate it into life
3	1300	SDHQ demonstrated signs of depression, no mode of transportation for hemodialysis tx, unable to afford medicine and healthy food	1300	Referred to case management	1530	Case manager provided van for transportation
4,5	1530	Stated “I’m having trouble selecting the food that I can and can’t have.. I hate the thought of giving these foods up because they are a part of my family tradition”	1540	Educated and discussed alternative food options. Recommended to eat fresh vegetables instead of canned vegetables	1545	Verbalized understanding and stated “ I will give it a try”

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
RBC 3.1
Hgb 10.2%, 10%
Hct 32%, 30%
WBC 14, 13.5
Plt 175,000, 177,000
Na 132, 136
K 6, 4.7
BUN 42, 37
Creatinine 8, 6.9
Total protein 6.1
Albumin 3.2
Glucose 175
Calcium 8, 9
Phosphorus 7.5, 5.5
SG 0.998
Protein 80 (+1)
A1C 7.4%
eGFR 8ml/min

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

Signs and Symptoms
SOB
+2 edema b/l
Pain and tightness in legs
Fluid overload
Blurred vision
Decreased appetite
Malaise

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

Contributing Risk Factors
Type 2 DM
HTN
Obese

NCLEX IV *(7)*: Reduction of Risk

Therapeutic Procedures
Non-surgical
Hemodialysis
Surgical
n/a - Possible kidney transplant

Prevention of Complications
(Any complications associated with the client's disease process? If not what are some complications you anticipate)
Depression
Anxiety
HF
Disequilibrium syndrome
Amenia
Dysrhythmias

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

Medication Management
Losartan
Aspirin
Lasix
Ferric citrate
Tramadol
Gabapentin
Atorvastatin
Labetalol
Epoetin
Glipizide
Linagliptin
Fentamicin ointment,

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

Non-Pharmacologic Care Measures
Elevate HOB
O2
Renal/cardiac diet
Maintain ECG
I&O's
Monitor blood glucose
Therapeutic communication

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

Stressors the client experienced?
Inability to pay for healthcare/medicine
No transportation
Unfamiliar with new dialysis

tacrolimus ointment		

Client/Family Education

Document 3 teaching topics specific for this client.

• compliance with renal/cardiac diet
•report any dizziness, lightheadedness (hypoglycemia or decreased BP)
•AV site clean and infection free

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

Multidisciplinary Team Involvement

(Which other disciplines were involved in caring for this client?)

Endocrinologist
Dialysis nurses
Nephrology
Case management
Home health

Patient Resources

Transportation services
CKD support groups
Home health

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 take away from this scenario was that CKD impacts physical and mental wellbeing. Your kidneys have multiple roles and functions throughout your body and poor functioning kidneys can impact other body systems. Also there is a lot of education being taught which can easily overwhelm the client.
2. What was something that surprised you in the care of this patient?
   Something that surprised me was how much case management can help a client out. Case management was able to set up transportation for dialysis treatments and have follow up care with home health.

3. What is something you would do differently with the care of this client?
   I think I would’ve tried more nonpharmacologic measures such as EPCs, TED socks, ambulation, and cough and deep breath
4. How will this simulation experience impact your nursing practice?
   This simulation helped me understand how to treat someone with CKD with pharmacologic and nonpharmacologic care measures. It will help me be ready and prepared to treat someone with CKD and understanding how their comorbidities and financial status impact their treatment