N444 Concept Synthesis
Proctored ATI Remediation Template

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Assessment Name: **ATI Capstone Comprehensive Assessment Form A**
Semester: Spring 2025

Instructions:

1. Download the report from your ATI product for the assessment you are completing this remediation template for
2. Determine your three (3) ***weakest or lowest scoring*** main categories as these are the areas you will be remediating on in the chart below. These categories mimic the NCLEX-RN categories and include the following:
    a. Management of Care
    b. Safety and Infection Control
    c. Health Promotion and Maintenance
    d. Psychosocial Integrity
    e. Basic Care and Comfort
    f. Pharmacological and Parenteral Therapies
    g. Reduction of Risk Potential
    h. Physiological Adaptation
    i. Clinical Judgment
3. Complete the template on the following page by doing the following:
    a. Main Category #1, 2, and 3
        i. Subcategories for each main category
            1. Topics for each subcategory → these will be the content areas you will be remediating on
                a. Provide three (3) critical points to remember for each topic → these will come from the Focused Review module(s) within your ATI product
    b. NOTE: You must remediate on all subcategories and topics within the three (3) main categories you are completing the remediation for.
4. In the event you need additional space within the table, please add columns into the table to accommodate this
5. In the event, you need less space within the table than what is provided, you may delete those columns from the table to accommodate this OR put "N/A"
6. An example is provided below:

SAMPLE Main Category: Management of Care
SAMPLE Subcategory: Case Management
SAMPLE Topic: Anemias: Discharge Teaching for a Client Who is Recovering from Sickle Cell Crisis • SAMPLE Critical Point #1: Anemia is the abnormally low amount of circulation RB, Hgb concentration, or both. • SAMPLE Critical Point #2: When a patient is going through sickle crisis, the nurse should monitor oxygen saturation to determine a need for oxygen therapy. • SAMPLE Critical Point #3: A patient should have their hemoglobin checking in 4 to 6 weeks to determine efficacy.

7. Once the template is completed and at least the minimum remediation time has been completed within the Focused Review module(s) in ATI, upload the template using the instructions provided by the Course Coordinator (dropbox, discussion post, etc.)

Main Category #1: Safety and Infection Control

Subcategory: Medications affecting urinary output

Topic: High-ceiling loop diuretics

- High-ceiling loop diuretics work in the loop of Henle to block reabsorption of sodium and chloride and prevent reabsorption of water. They increase kidney excretion of water, potassium, sodium chloride, magnesium, and calcium.
- High ceiling loop diuretics are used when there is an emergent need for rapid mobilization of fluid in conditions such as pulmonary edema caused by heart failure, conditions not responsive to other diuretics, and hypertension.
- Some complications of high ceiling loop diuretics include dehydration, hypotension, ototoxicity, hypokalemia, other electrolyte imbalances, and other adverse effects.

Topic: Thiazide Diuretics

- Thiazide diuretics work in the early distal convoluted tubule by blocking the reabsorption of sodium and chloride to prevent the reabsorption of water at this site.
- These medications are used for edema of mild to moderate heart failure, liver and kidney disease, used to reduce urine production in clients who have diabetes insipidus, they promote reabsorption of calcium and can reduce the risk for postmenopausal osteoporosis, and they are often used in combination with antihypertensive agents for blood pressure control.
- Complications of thiazide diuretics include dehydration and hyponatremia, hypokalemia and hypochloremia, hyperglycemia, hyperuricemia, hypomagnesemia, increased lipids.

Topic: Potassium-sparing diuretics

- Potassium-sparing diuretics block the action of aldosterone, which retains sodium and water, which results in potassium retention and the excretion of sodium and water.
- Potassium sparing diuretics are combined with other diuretics to treat hypertension and edema, it is administered for heart failure, therapeutic effects can take 48 to 72 hours.
- Concurrent use of ACE inhibitors, angiotensin receptor blockers, direct renin inhibitors, potassium supplements, salt substitutes, and another potassium sparing diuretic increases the risk of hyperkalemia. Nurses should monitor the clients potassium levels and notify provider if greater than 5 mEq/L.

Subcategory: Acute Neurologic Disorders

Topic: Seizure Precautions

- Make sure rescue equipment is at the bedside, including oxygen, an oral airway, suction equipment, and padding for the side rails.
- Inspect the patient’s environment for items that could cause injury during a seizure and remove items that are not necessary for treatment.
- Advise all caregivers and family not to put anything in the patient’s mouth or not to restrain the patient during a seizure.

Topic: Seclusion and Restraint

- Restraints can be either physical or chemical.
- Restraints can cause complications including pneumonia, incontinence, and pressure ulcers.
- Restraints should never interfere with treatment, restrict movement as little as necessary, fit properly and be as discreet as possible, and be easy to remove or change.

Topic: Fire Safety

- All staff must know the location or exits, alarms, extinguishers, and oxygen shut off valves.
- If a fire occurs you should rescue and protect clients first, activate the alarm, contain/confine the fire, and extinguish the fire is possible.
- To extinguish a fire you should pull the pin, aim at the base of the fire, squeeze the handle, and sweep the extinguisher from side to side.

Subcategory: Family and Community violence

Topic: Risk factors for violence

- Pregnancy tends to increase the likelihood of violence by a spouse or partner.

- Older adults or other adults who are vulnerable within a home can suffer abuse because they are in poor health, exhibit disruptive behavior, or are dependent on a caregiver.
- A female partner is the vulnerable person in the majority of family violence, but the male partner can also be a vulnerable person.

Topic: Family groups

- Violence is most common within family groups, and most is aimed at family and friends rather than strangers.
- Family violence occurs across all economic and educational backgrounds and racial and ethnic groups.
- Family violence can occur against children, spouses or partners, or vulnerable adult family members.

Topic: Types of violence

- Physical violence occurs when physical pain or harm is involved.
- Sexual violence occurs when sexual contact takes place without consent, whether the vulnerable person is able to give consent or not.
- Emotional violence includes behavior that minimizes an individuals feelings of self-worth or humiliates, threatens, or intimidates a family member.
- Neglect includes the failure to provide physical care, emotional care, education, and necessary health care.
- Economic abuse is failure to provide for the needs of a vulnerable person when adequate funds are available such as unpaid bills resulting in disconnection of gas, water, or electricity.

Subcategory: Facility Protocols

Topic: Incident reports

- Incident reports should be completed by the person who identifies that an unexpected event has occurred.
- Incident reports should be completed as soon as possible and within 24 hours of the incident.
- Incident reports are considered confidential and are not shared with the client or placed in the clients health care record.

Topic: What to include in an incident report

- An incident report should include the client's name and hospital number, along with the date, time, and location of the incident.
- An incident report should include factual description of the incident and injuries incurred, avoiding assumptions as to the incident's cause.
- An incident report should include names of witnesses to the incident and client or witness comments regarding the incident.

Topic: Emergency operating plan

- Each facility must have an emergency operating plan, An essential component of the plan is the provision of training all personnel regarding each component of the EOP, nurses should understand their responsibilities in the EOP.
- Facilities accredited by the Joint Commission must have an EOP and are mandated to test the plan at least twice a year.
- The EOP should interface with local, state, and federal resources.

Subcategory: Crisis and Anger Management

Topic: Restraints

- When a patient is in restraints they are not allowed to be left alone and continuous monitoring and documentation needs to be done by staff.
- Staff should monitor for breathing or other physical difficulties when a patient is in restraints.
- Assessment by RN hourly to include physiological and mental status, vital signs, review of circulatory status and skin integrity, and fluids should be offered.

Topic: Restraints/seclusion

- If restraints have been applied, range of motion exercises are executed every two hours.
- All interactions with the client should encourage behavior that will promote release from seclusion

or restraints.

- Intramuscular medication can need to be given if aggression is threatening and if no medications were previously administered.

Topic: Nursing care for aggressive patients

- Provide a safe environments and follow policies of the mental health setting with working with a patient who demonstrates aggression.
- Assess for triggers or preconditions that escalate the patient's emotions.
- When a patient is showing aggressive behavior remain calm, respond quickly, encourage the patient to express their feelings verbally, allow the patient as much person space as possible, maintain eye contact at the same level as the patient, communicate honestly with a nonaggressive stance, avoid accusatory or threatening statements, reassure the patient that staff members are present to help prevent the loss of control, sent limits with the patient.

Main Category #2: Reduction of Risk Potential

Subcategory: Brain Stimulation Therapies

Topic: Electroconvulsive therapy

- Electroconvulsive therapy uses electrical current to induce brief seizure activity while the client is anesthetized.
- The exact mechanism of ECT is still unknown, one theory suggests that the seizure activity produce by ECT can enhance the effects of neurotransmitters in the brain.
- ECT can be used for diagnoses of major depressive disorder, schizophrenia spectrum disorders, and acute manic episodes.

Topic: Contraindications for ECT

- Cardiovascular disorders such as recent MI, hypertension, heart failure, cardiac arrhythmias. ECT increases the stress on the heart due to seizure activity that occurs during treatment.
- Cerebrovascular disorders such as history of stroke, brain tumor, subdural hematoma. ECT increases intracranial pressure and blood flow through the brain during treatment.
- Mental health conditions for which ECT has not been found useful include substance use disorders, personality disorder, and dysphoric disorders.

Topic: Medication Management for ECT

- Thirty minutes begore the procedure, an IM injection of atropine sulfate or glycopyrrolate is administered to decrease secretions that could cause aspiration and to counteract any vagal stimulation effects.
- At the time of the procedure, an anesthesia provider administers a short-acting anesthetic via IV bolus.
- A muscle relaxant is then administered to paralyze the client's muscles during the seizure activity, which decreases the risk for injury. Succinylcholine paralyzes the respiratory muscles so the client will require assistance with breathing and oxygenation.

Subcategory: Diabetes Mellitus Management

Topic: Hypoglycemia

- Symptoms of hypoglycemia include mild shakiness, mental confusion, sweating, palpitations, headache, lack of coordination, blurred vision, seizures, and coma.

- To avoid hypoglycemia, avoid excess insulin, exercise, and consumption of alcohol on an empty stomach, and eat about the same amounts at the same time periods daily.
- If hypoglycemia occurs (below 70mg/dL), provide 15-20 grams of a readily absorbable carbohydrate, recheck the blood glucose 15 minutes later, and retreat the client is manifestations continue or glucose is not above 70 mg/dL. If blood glucose is within the expected range, have a snack containing a carbohydrate and a protein if the next meal is more than one hour away.

Topic: hyperglycemia

- Manifestations of hyperglycemia include hot, dry skin, and fruity breath.
- Encourage oral fluid intake of sugar-free fluids to prevent dehydration.
- Administer insulin as prescribed.

Topic: Diabetes Mellitus

- Diabetes mellitus is a metabolic disorder resulting form either an inadequate production of insulin or an inability of the body's cells to respond to the insulin that is present.
- Type 1 diabetes is an autoimmune dysfunction involving the destruction of beta cells, which produce insulin.
- Type 2 diabetes is a progressive condition due to increasing inability of cells to respond to insulin and decreased production of insulin by the beta cells. It is linked to obesity, sedentary lifestyle, and hereditary.

Subcategory: Diagnostic and Therapeutic Procedures for Female Reproductive Disorders

Topic: Pelvic and Bimanual exam client education

- Inform the patient to schedule their examination 6-10 days after their last menstrual cycle.
- Inform the patient to void prior to examination.
- During internal examination, inform the patient to take deep breaths and relax muscles and "bear down" while speculum is being inserted.

Topic: Testicular examination client education

- Perform the self-exam during or after a bath or shower.
- Hold the penis out of the way and examine each testicle separately. Gently roll each testicle by holding with you thumbs and fingers of both hands.
- Note any lumps or nodules, or changes in the size, shape, or consistency of the testicles.

Topic: Breast exam

- When performing a breast self exam, the patient should inspect the size, shape, and coloration of each breast, and palpate in a systematic manner for any lesions or masses.
- When a clinical breast exam is performed, the provider will inspect and palpate each breast; the client can be sitting and then asked to lie down and position their arms to their side or raise over their head.
- Inform the patient to become familiar with how their breasts look and feel and notify the provider immediately of any unexpected findings.

Subcategory: Disorders of the eye

Topic: Cataract Removal

- A small incision is made, and the lens is either removed in one piece or in several pieces, after being broken up using sound waved. The posterior capsule is retained.
- A replacement or intraocular lens is inserted. Replacement lenses can correct refractive errors, resulting in improved vision.
- Postoperative, the nurse should focus on preventing an increase in intraocular pressure, preventing infection, administering ophthalmic medications, providing pain relief, and teaching the patient about self care at home and fall prevention.

Topic: Cataract client education

- Inform the patient to wear sunglasses while outside or in brightly lit areas.
- Inform the patient to report manifestations of infection, such as yellow or green drainage.
- Inform the patient to avoid activities that increase intraocular pressure including bending over at the waist, sneezing, blowing nose, coughing, straining, head hyperflexion, wearing restrictive

clothing, and having sexual intercourse.

Topic: Glaucoma

- Glaucoma is a disturbance of the functional or structural integrity of the optic nerve. Decreased fluid drainage or increased fluid secretion increases IOP and can cause atrophic changes of the optic nerve and visual defects.
- Primary open-angle glaucoma is the more common form of glaucoma. The angle refers to the angle between the iris and the sclera. The aqueous humor outflow is decreased due to blockages in the eye's drainage system, causing a gradual rise in IOP.
- In primary angle-closure glaucoma, IOP rises suddenly. The angle between the iris and the sclera closes suddenly, causing a corresponding increase in IOP. The onset is sudden and requires immediate treatment.

Main Category #3: Pharmacological and Parenteral Therapies

Subcategory: Psychotic Disorders

Topic: Antipsychotics: second and third generation

- These medications work by blocking setotonin and dopamine receptors. They also block receptors for norepinephrine, histamine, and acetylcholine.
- These medications are used for negative and positive symptoms of schizophrenia spectrum disorders, psychosis induced by levodopa therapy, relief or psychotic manifestations in other disorders such as bipolar, and impulse control disorders.
- Monitor for complications of infections, metabolic syndrome, orthostatic hypotension, anticholinergic effects such as urinary hesitancy or retention and dry mouth, agitation, dizziness, sedation, sleep disruption, mild EPS such as tremors, sexual dysfunction, and elevated prolactin levels and report any finding to the provider.

Topic: Characteristic dimensions of psychotic disorders

- Positive symptoms are manifestations of things that are not normally present such as hallucinations, delusions, alterations in speech, and bizarre behavior.
- Negative symptoms are the absence of things that are normally present such as affect (blunt or flat expressions), alogia (lack of thought or speech), anergia (lack of energy), anhedonia (lack of pleasure or joy), and avolition (lack of motivation in activities and hygiene).
- Cognitive findings cause problems with thinking that make it very difficult for the client to live independently. These problems include disordered thinking, inability to make decisions, poor problem solving ability, difficulty concentrating to perform tasks, short term memory deficits, impaired abstract thinking.
- Affective findings are manifestations involving emotions including hopelessness, suicidal ideation, unstable or rapidly changing mood.

Topic: Nursing care for patients with psychotic disorders

- Provide a structured, safe environment for the patient in order to decrease anxiety and to distract the patient from constant thinking about hallucinations.
- Promote therapeutic communication to lower anxiety, decrease defensive patterns, and encourage participation.
- Establish a trusting relationship with the patient and use appropriate communication to address

hallucinations and delusions.

Subcategory: Endocrine Disorders

Topic: Levothyroxine patient education

- Take the medication daily on an empty stomach 30 to 60 minutes before breakfast.
- Lifelong replacement is important even after improvement. Do not discontinue the medication without checking with the provider.
- Check with the provider before switching to another brand of levothyroxine because different brands might have varied effects, and dosage adjustments can be necessary.

Topic: Complications of Levothyroxine

- Overmedication can result in manifestations of thyrotoxicosis.
- Signs of thyrotoxicosis include anxiety, tachycardia, chest pain, nervousness, tremors, palpitation, abdominal cramping, heat intolerance, fever, diaphoresis, weight loss.
- Chronis overtreatment can cause atrial fibrillation and an increased risk of fractures from accelerated bone loss, especially in older adults. TSH levels should be monitored at least once a year.

Topic: Endocrine disorders

- The endocrine system is made up of glands that secrete hormones, which act on specific receptor sites.
- Hormones target receptor sites to regulate response to stress, growth, metabolism, and homeostasis.
- An endocrine disorder usually involves the oversecretion or undersecretion of hormones, or an altered response by the target area or receptor.

Subcategory: Medications for Psychotic Disorders

Topic: Clozapine

- Clozapine is the first atypical antipsychotic developed, it is no longer considered a firt line medication for schizophrenia due to its adverse effects.
- This medication causes a risk for fatally low white blood cell counts, this will typically occur within the first 6 months with gradual onset.
- Baseline and regular monitoring of WBC is required weekly, bi-weekly, and then monthly. The provider needs to be notified if any indications of infection.

Topic: Third-generation antipsychotics

- Third generation antipsychotics are used to treat both positive and negative symptoms while improving cognitive function.
- Positive symptoms include manifestations of things that are not normally present. Negative symptoms include absence of things that are normally present.
- Third generation antipsychotics decrease the risk of EPSs such as involuntary movements, muscle stiffness, and tremors, or tardive dyskinesia and lower risk for weight gain and anticholinergic effects.

Topic: First generation antipsychotics

- First generation antipsychotics are used mainly to control positive symptoms of psychotic disorders.
- Due to adverse effects, first generation antipsychotics are reserved for patients who are using them successfully and can tolerate the adverse effects and patients concerned about the cost associated with second generation medications.
- First generation agents are classified as either low, medium, or high potency depending on their association with extrapyramidal symptoms, level of sedation, and anticholinergic adverse effects.

Subcategory: Diabetes Mellitus

Topic: Types of insulin

- Rapid acting: lispro insulin. The onset for the insulin is 15-30 minutes, it peaks at half an hour to three hours, the duration is 3-5 hours.
- Short acting regular insulin: onset is half an hour to one hour; peak is one hour to five hours, duration is six to ten hours.
- Intermediate acting NPH insulin: the onset is one to two hours, the peak is 4-14 hours, the duration is 14-24 hours.

- Long acting insulin glargine: the onset is 1-4 hours, there is no peak, and the duration is 24 hours.

Topic: Purpose of insulin

- Promotes cellular uptake of glucose.
- Converts glucose into glycogen and promotes energy storage.
- Moves potassium into the cells along with glucose.

Topic: Therapeutic uses

- Insulin is used for glycemic control of diabetes to prevent complications.
- Patients with type 2 diabetes can require insulin when oral antidiabetic medications, diet and exercise are unable to control glucose levels.
- Other reasons insulin may be required in patients with type 2 diabetes include when severe renal or liver disease is present, painful neuropathy is present, undergoing surgery or diagnostic tests, experiencing severe stress, undergoing emergency treatment of DKA, requiring treatment for hyperkalemia.

Subcategory: Cardiovascular Diagnostic and Therapeutic Procedures

Topic: Hemodynamic monitoring

- Hemodynamic monitoring involves special indwelling catheters, which provide information about blood volume and perfusion, fluid status, and how well the heart is pumping.
- Hemodynamic statis is assessed with several parameters including central venous pressure, pulmonary artery pressure, pulmonary artery wedge pressure, cardiac output, intra-arterial blood pressure.
- Mixed venous oxygen saturation indicates the balance between oxygen supply and demand, it is measured by a pulmonary artery catheter with fiber optics.

Topic: Arterial lines in Hemodynamic monitoring

- Arterial lines are placed in the radial, brachial, or femoral artery. Arterial lines provide continuous information about changes in blood pressure and permit the withdrawal of samples of arterial blood. Intra arterial pressure can differ from cuff pressures.
- The integrity of the arterial waveform should be assessed to verify the accuracy of blood pressure readings.
- Monitor circulation in the limb with the arterial lines and monitor for bleeding around the insertion site.

Topic: Pulmonary artery catheters

- The PA catheter is inserted into a large vein and threaded through the right atria and ventricle into a branch of the PA.
- PA catheters have multiple lumens, ports, and components that allow for various hemodynamic measurements, blood sampling, and infusion of IV fluids.
- The proximal lumen can be used to measure right atrial pressure, infuse IV fluids, and obtain venous blood samples.

References (1):

Althoff, A., Ball, B., Cawley, M., Davis, S., Falk, S., Fontenot, L., Grace, L., Henry, N.J., Holman, H., Johnson, J., Roland, P., Wheless, L., Williams, D. (2023). *RN Adult Medical Surgical Nursing* (12th ed.). Assessment Technologies Institute, LLC.