

**Reading Hospital School of Health Sciences
Nursing Program
NRS 200 Acute Care/Complex Issues
Clinical Community Project Assignments
Fall 2019**

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Week 3 Assignment

Due 9/24/2020 at 0800

During week three, you will research the three priority health concerns identified by your individual. Complete the following questions in this document and submit to your clinical instructor's Dropbox on Edvance360. Please handwrite the concept map and submit a picture or scanned copy into your clinical instructor's Dropbox on Edvance360.

1. Identify the client's three priority health concerns that you noticed during your initial phone interview.
I noticed my patient was SOB, fatigue, gaining weight, excessive thirst, and her mood was changing dramatically. She has been trying to gain weight for two years but having Graves' Disease was causing her to lose weight.
2. Research the medical diagnoses related to each priority health concern in the Medical-Surgical or Pathophysiology textbooks to gain a better understanding of the disease process and how it can affect the client (signs and symptoms, client education needs, treatments, etc.).

S/S of Asthma= chest tighten, SOB, constricted bronchioles, fatigue

Client Education= encourage the client to drink plenty of fluids to promote hydration, take prednisone with food, avoid people who have respiratory infections,

Treatment= medications like short-acting beta2 agonists, Anticholinergic medications, methylxanthines, long-acting beta2 agonists, and albuterol.

S/S of Hyperthyroidism= nervousness, anxiety and irritability, difficulty sleeping, feeling tired all the time, sensitivity to heat, muscle weakness

Client Education= Instruct the client to cough and breathe deeply while stabilizing the neck, advise the client to notify the nurse of any tingling of the distal extremities, or muscle twitching, instruct the client to take all medications as directed.

Treatment= can be treated with antithyroid medications (methimazole and propylthiouracil), radioactive iodine ablation of the thyroid gland, or surgical thyroidectomy. Radioactive iodine ablation is the most widely used treatment in the United States.

S/S of Diabetes=fatigue, blurred vision, extreme thirst, Nausea, frequent bladder, vaginal, or skin infections, frequent urination, sugar in the urine.

Client Education= Controlling blood sugar through diet, oral medications, or insulin is the main treatment. Regular screening for complications is also required.

Treatment= Treatment for gestational diabetes aims to keep blood glucose levels equal to those of pregnant women who don't have gestational diabetes. The treatment always includes special meal plans and scheduled physical activity, and it may also include daily blood glucose testing and insulin injections.

3. Choose the top priority health concern and utilize the concept map below to summarize the client's priority medical diagnosis. Complete the concept map with all the topics you would expect to find for a client with this diagnosis, this would include common medications, labs, and diagnostic tests, and assessment findings.

My patient is a 35-year-old female with medical diagnosis of asthma, gestational diabetes and hyperthyroidism. Past medications History of asthma, and hyperthyroidism.

MEDICATIONS: are Methimaze 10mg once a day also known as tapazole, Propranolol 10mg twice a day also known as Inderal.

ASSESSMENT: Gestational age assessment means figuring out the number of weeks of your pregnancy. A full-term pregnancy is usually 40 weeks. It's important to assess if gestational age is uncertain or if your baby is smaller or larger than expected. The new Ballard score is commonly used to determine gestational age.

During the exam the physician may try to detect a slight tremor in your fingers when they're extended, overactive reflexes, eye changes and warm, moist skin. The doctor should will also examine your thyroid gland as you swallow to see if it's enlarged, bumpy or tender and check your pulse to see if it's rapid or irregular.

Examine their nose, throat and upper airways. Use a stethoscope to auscultate their breathing. Wheezing, high-pitched whistling sounds when you breathe out — is one of the main signs of asthma. Examine your skin for signs of allergic conditions such as eczema.

LABS: Asthma= ABG, CBC, allergy test.
Gestational diabetes= oral glucose tolerance test
Hyperthyroidism= TSH, T3, T4 test

RISK FACTORS: Family history. If you have a parent with asthma, you are three to six times more likely to develop asthma than someone who does not have a parent with asthma, Viral respiratory infections, Allergies, Occupational exposures, Smoking, Air Pollution, Obesity.
Overweight and obesity, A lack of physical activity, Previous gestational diabetes or prediabetes, Polycystic ovary syndrome, Diabetes in an immediate family member, Previously delivering a baby weighing more than 9 pounds.
A family history, particularly of Graves' disease, female sex, A personal history of certain chronic illnesses, such as type 1 diabetes, pernicious anemia and primary adrenal insufficiency.

COMPLICATIONS: Heart problems but serious complications of hyperthyroidism involve the heart, Brittle bones. Untreated hyperthyroidism can also lead to weak, brittle bones (osteoporosis), Eye problems, Red, swollen skin, Thyrotoxic crisis.
Gestational diabetes also can cause health complications for your baby after birth, including: Breathing problems, including respiratory distress syndrome (RDS), Jaundice, Low blood sugar (hypoglycemia) Obesity later in life.

Asthma patient will feel fatigue, underperformance or absence from work, inability to exercise, leading to other health problems such as high blood pressure or weight gain, permanent problems with your lungs, repeated visits to hospital, psychological problems including stress, anxiety and depression, learning problems in children.

TREATMENT: gestational diabetes aims to keep blood glucose levels equal to those of pregnant women who don't have gestational diabetes. The treatment always includes special meal plans and scheduled physical activity, and it may also include daily blood glucose testing and insulin injections.
Hyperthyroidism: can be treated with antithyroid medications (methimazole and propylthiouracil), radioactive iodine ablation of the thyroid gland, or surgical thyroidectomy. Radioactive iodine ablation is the most widely used treatment in the United States.
Asthma: medications like short-acting beta2 agonists, Anticholinergic medications, methylxanthines, long-acting beta2 agonists, and albuterol.

4. Obtain one scholarly, nursing article for the medical diagnosis related to each priority health concern (3 articles total). Summarize the findings, complete an APA reference list, and submit findings and reference list.

Hyperthyroidism

Asthma

Diabetes

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Nursing 200

The thyroid is a small, butterfly-shaped gland in the front of your neck which makes hormones that control the way the body uses energy. These hormones affect nearly every organ in your body and control many of your body's most important functions. For example, they affect your breathing, heart rate, weight, digestion, and moods. If not treated, hyperthyroidism can cause serious problems with your heart, bones, muscles, menstrual cycle, and fertility. As the levels of thyroid rise, the risk are life threatening such as cardiac problems which becomes progressively worst.

Hyperthyroidism is a major stress to the heart because it increases in myocardial infarction, and heart failure due to oxygen requirement which can lead to serious cardiovascular complications such as systolic hypertension. As the goiter becomes enlarged it can put pressure on the neck and trachea which leads to respiratory distress. The most serious condition is thyrotoxic crisis known as the thyroid storm or thyrotoxicosis. The body can no longer tolerate the hypermetabolic state and can lead to medical emergency if left untreated. Thyrotoxicosis participates in physiological stressors such as infection, trauma, surgery, and diabetic ketoacidosis.

The most common hyperthyroidism is Graves' disease which is an autoimmune derivation caused by activation is an autoimmune disorder in which the thyroid is activated by antibodies to the thyrotropin receptor and mimic TSH by activating additional TSH to be released to the body. Hyperthyroidism is found more in woman than in man because the hormone cycles in woman affect the incidence of thyroid disease. It's diagnosed in all ages but more frequently in ages 20-40 years of age but it's rare in children, teenagers and older adults. The common symptoms are hypermetabolism such as palpitations, nervousness, anxiety and diaphoresis. They may experience fine hand tremors, bulging of the eyes, resting pulse, hypertension and salmon colored skin.

Majority of the patients are diagnosed and treated as an outpatient and the goal is to return the patient to hemostasis and prevent complications. Graves' disease is treated with pharmacological techniques or radioactive Iodine. Iodine is the most common method, but it has many risk complications. Some complications parathyroid damage and exacerbation of hyperthyroidism. Patients who cannot tolerate pharmacological techniques may have a thyroidectomy, but this method is not preferred.

Interventions should be to monitor patients from injury, reduced stress and initiate proper teaching for worsening sides and symptoms. Encourage patients to follow their medication regimen to prevent thyroid storm by assessing cardiovascular status, monitor weight and follow a healthy diet. Encourage the family in the teaching to monitor for mood swings, anxiety, nervousness which will diminish as treatment continues. If you recognize the patient is unable to maintain a physical attention span or cognitive decline than you should reapproach educating the patient.

Asthma is a condition in which a person's airway becomes inflamed or narrow and produces extra mucus in the lungs which causes it difficult to breathe. There has been a realization that asthma is a heterogeneous disease that has many types. The main type is the allergic asthma which has the presence of immunoglobulin E (IgE) antibodies. This type is inhaled or ingested by an allergen such as dust, animals, fungal spores, plant or tree pollen and peanuts. The nonallergic (intrinsic) asthma is often developed as an adult. This type of asthma has neither IgE reactivity to allergens nor any involvement of the adaptive immune system such as type 2 helper cells. This type of asthma is more common in woman and is associated with rhinosinusitis, nasal polyps, obesity and is very challenging to treat and often requires treatment with steroids. The results from different trails in clients with asthma has reflected the heterogeneity of this disease. There is no drugs effective for this condition, but there are some drugs effective enough to carefully identify the underlying immunological processes.

Gestational diabetes is a condition in which your blood sugar levels become high during pregnancy and is more commonly in the third trimester. This type of diabetes has an impaired glucose tolerance test that first detects the disease but has been associated with interfering with fetal growth. Medications involving steroids and progesterone has had an effect on insulin sensitivity and increases insulin resistance during gestation. As progesterone increases during pregnancy it has shown to affect the ability of insulin to suppress synthesis of glucose in the liver. Glucocorticoids reduces the insulin and decreases insulin receptor substrate-1 involving insulin signaling in the skeletal muscle. Gestational diabetes have high levels of insulin resistance differentiate to normal pregnancy control. Additionally, the development of gestational diabetes during pregnancy increases the risk for gestational diabetes mellitus in future pregnancy.

Infants of mothers with gestational diabetes showed lower mental, and psychomotor development compared to infants with mothers who didn't acquired diabetes. Furthermore, infants have gained harmful effects with the presence of diabetes during pregnancy was associated with impaired neurodevelopment. Children have scored low on the Pollack tapper test that detects learning disabilities. Studies shows that children showed lower expressive vocabulary words and grammar scores compared to children of non-diabetic mothers. These studies demonstrate the bad influence diabetes have on infants and their neurodevelopment.

References:

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Prasad P. Devarshi, R. W. (2019). Maternal Omega-3 Nutrition, Placental Transfer and Fetal Brain Development in Gestational Diabetes and Preeclampsia. *Nutrients*, 1-12.

