Student Name: Breona Browner

N201: Nursing Diagnosis Form

List the two Nursing Diagnoses along with rationale, at least 2 goals, assessments, and nursing interventions for each patient.

Patient Problem # 1 Impaired gas exchange
Rationale for selecting: Cystic fibrosis is a condition where thick tenacious mucus obstrucs airflow to the bronchioles and bronchi, resulting in air trapping.

Goals: 1. Will maintain an SpO2 of 90% or greater during my time of care.
2. Will display relaxed breathing, a baseline HR, and show no signs of respiratory distress during my time of care.

Ongoing Assessments: Auscultate lung sounds, continuous pulse ox readings, skin color (checking for cyanosis)

NI: 1. Monitor respiratory rate and HR for any changes q hour durinh my time of care, an increase in RR and HR can be an early sign of hypoxia due to impaired oxygenation.

2. Continuosly monitor Sp02 during my time of care, a decrease in Sp02 in a CF patient can be indicative of respiratory failure.

3. Administer supplemental O2 prn, during my time of care. This allows for a decrease in the work of breathing and relieves dyspnea.

4. Place the patient in semi- fowlers position q2 hours, during my time of care. This position promotes lung expansion, decreases dyspnea, and the work of breathing.

5. Provide adequate rest periods during activities prn, during my time of care. This allows decreases oxygen needs and prevents fatigue.

6. Educate on coughing and deep breathing exercises q2 hour to promote gas exchange and help maintain Sp02 level.

Patient Problem # 2 Ineffective airway clearance
Rationale for selecting: The thick mucus production in CF and how stagnant it is, doesnt allow for clearance which can lead to infection which can further inhibit the ability to productively clear the airway. Also the lungs become damage due to the secretions.

Goals: 1. Will display compentence in airway clearance exercises such as Incentive spirometry and cough and deep breathing during my time of care.
2. Will maintain clear, open airways and maintain depth and rate of breathing 16-20 bpm, and display an effective cough during my time of care.

Ongoing Assessments: Depth and rate of breathing, lung sounds, pulse Ox monitoring, assessing sputum output, assessing cough effectiveness.

NI: 1. Encourage frequent and effective coughing and deep breathing qhr during my time of care, this will allow for the secretions to be coughed up and expelled to promote effective breathing.

2. Provide proper pulmonary toileting (cupping) qhr during my time of care, this will allow for the secretions to be broken up and excreted.

3. Educate on the importance of exercise during my time of care, exercise allows for loosening of the mucus and promotes effective coughing.

4. Provide intermittent suctioning prn during my time of care, this will allow for any secretions that may be stuck to be removed, allowing for remaining sputum to be coughed up.

5. Administer mucolytics prn during my time of care, to decrease the viscosity of sputum allowing for it to be expelled.

6. Administer bronchodialators prn during my time of care, preventing bronchospasms allowing for a decrease int he work of breathing which can be increased due to the blockages caused by the mucus build up.

Directions: Initials/ Signature _BB/B. BrownerSN_____

Chart any and all nursing interventions done for your patient during your time of care (if nursing interventions performed by others, write as an "E" note). After each intervention, document your patient's response to the intervention (evaluation note).

Time	*I or E* (NI or Eval)	Notes	Specify NDx #
1555	E	"She had a cough that wasn't going away, every night when she laid down it got worst it lasted quite some time, we figured we should do something about it."	1,2,3
1600	E	Auscultate lung sounds, crackles on inspiration.	1,2
1605	I	Further inquired about cough and physical activity	1,2,
1607	E	I play softball, "Sometimes I find it hard to breathe when I have to run a lot"	1,2,5
1610	E	Family and patient Inquiring further information about Cystic Fibrosis	3,4
1615	I	Provided an overview of CF including physical effects and informed of who should know about her conditon and care. Provided pamphlets for further explanation of disease process and effects on the body.	3,4
1620	E	Family and patient very appreciative of education, invested in healthcare of child.	3,4
1630	E	"That creon I take with meals is so hard to swallow"	
1635	I	Educated on alternative method to take meducation, sprinkle contents of pill on applesauce.	3,4
1640	E	" I don't know what to do about her diet, she is just so skinny"	3,6
1645	I	Educated mom on the dietary requirements for CF. She should consume 150% of the recommended daily food requirements for her age and size. Also educated pt. on importance of eating balanced meals and frequecy of when she should be eating. Informed she needs more calories for growth.	3
1650	I	Educated on respiratory medications and their actions in regards to CF.	1,2,3
1655	E	Expressed understanding of medication. " I think I'm coughing more, the sputum is kind of yellowish"	1,2
1700	I	Educated on percussion, vibration, and postural drainage during an increase in coughing.	1,2,3
1710	E	Concluded on education provided, family and pt expressed and understanding of the teaching to prevent further respiratory problems.	3

1715	E	"Sports are not only fun, but theyre also important for pulmonary hygiene."	3
1720	E	"We understand CF puts her at risk for other health concerns, what are those?"	3,4
1725	I	Educated on the risks of delayed growth, delayed puberty, diabetes, gastroesophageal reflux, and osteoporosis.	3
1735	E	"Do I have to do my treatment? My friends don't have to bother with this"	
1740	I	Educated on the importance to adhere to medication regien for optimal health.	3
1745	E	Family expressed gratitude for education provided in regards to CF and medication, displays understanding of diagnosis.	3,4
1635	E	Late Entry: "I'm a picky eater, there a few foods that I like"	6
1637	I	Prompted to make a list of foods that are liked, so alternative meals can be made with those foods.	6

Reflective Thinking: 1) Read over your notes
2) Reflect on the patient problems you identified in your documentation
3) Determine appropriate nursing diagnoses for your patient based on the problems you identified
4) List your nursing diagnoses below, assigning each a number
5) Return to your notes and write the corresponding nursing diagnosis # beside each entry

	3	Readiness for enhanced knowledge	
	4	Readiness for enhanced family coping	
	5	Decreased activity tolerance	
	6	Imblanaced nutrition: less than body requirements	

***** Boxes that are blue should be completed using textbook information, what you expect to find. Boxes that are orange should be data collected from your patient's chart and from your assessment.

Medical Diagnosis: **Cystic Fibrosis**

NCLEX IV *(8)***: Physiological Integrity/Physiological Adaptation** **NCLEX IV** *(7)***: Reduction of Risk**

Anatomy and Physiology Normal Structures		Pathophysiology of Disease		Actual Labs/ Diagnostics
The respiratory system provides the mechanisms for transporting oxygen from the air into the blood and for removing carbon dioxide from the blood. The respiratory consists of two areas; upper and lower tract. The upper respiratory tract is made up of the passageways that conduct air between the atmosphere and the lungs. The lower respiratory tract consists of the trachia, bronchial tree, and the lungs, where gas exchange takes place. The pulmonary circulation, the muscles required for ventilation, and the nervous system which plays a role in controlling respiratory function, are integral to the function of the		Cystic fibrosis is a genetic disorder. Several mutations to the CFTR gene have been identified and relate to a protein involved in chloride ion transport in the cell membrane. This defect in the exocrine glands causes abnormally thick secretions, tenacious mucus. The primary effects of CF are seen in the lungs,digestive system and pancreas, where the mucus obsructs passageways. In the lungs the mucus obstructs airflow in the bronchioles and small bronchi, causing air trapping or atelectasis with permanent damage to the bronchial walls. Due to the stagnant mucus infections are common and add to the progressive destruction of lung tissue. In the digestive tract the first		- Positive Chloride test- only one performed during scenario -With CF these patients can have routine chest x-rays to monitor for any thickening or airway blockages within the lungs.

respiratory system. The digestive system, sometimes called the GI tract consists of a long hollow tube which extends through the trunk of the body, and its accessory structures; salivary glands, liver, gallbladder, and pancreas. The GI system is divided into two sections; upper and lower. The upper tract consists of the mouth esophagus, and stomach. The lower tract consists of the intestines. The female reproductive system consists of the uterus; a muscular sac within which fertilized ovum may be implanted and develop. The uterine wall is made up of three layers; the outer perimetrium or parietal peritoneum, the thick, middle layer of smooth muscle or myometrium, and the inner endometrium. The two fallopian tubes originate near the top of the uterus, just under the fundus. The ovaries produce the ova, one each month during the reproductive years between menarche and menopause. The breasts consist of 15 to 20 lobes supported by ligaments, mammary tissue develops under the influence of increased estrogen secretion. The male testes are suspended by the spermatic cord in the scrotum, a sac outside the abdominal cavity. The testes constantly produce sperm and testosterone. The spermatic cord contains arteries, veins and lymphatics for the testes.		indication of abnormality may be meconium ileus in newborns. This is when the small intestine of the neonate is blocked by mucus at birth, preventing the excretion of meconium shortly after birth. In the pancreas the ducts of exocrine glands become blocked, leading to a deficit of pancreatic digestive enzymes in the intestine. Malabsorption and malnutrition result. The bile ducts of the liver may be blocked by the mucus, preventing bile from reaching the duodenum and interfering with digestion and absorption of fats and fat soluble vitamins. This also contribute to malabsorption, malnutrition, and dehydration. In the reproductive system, the thick mucus may obstruct the vas deferens in males or the cervix in females, leading to sterility or infertility. In some males the testes and ducts do not develop normally.		

NCLEX II *(3)***: Health Promotion and Maintenance** **NCLEX IV** *(7)***: Reduction of Risk**

Contributing Risk Factors		Signs and Symptoms		Therapeutic Procedures		Prevention of Complications
- age -hx of frequent Colds, productive cough and weight loss - small for her age -Her race		- Productive cough that wasn't going away, wheezing heard throughout - Hyperactive bowel sounds, multiple loose frothy stools		Non-surgical- -Pulmonary physiotherapy -Replacement therapy for pancreatic enzymes - a well balanced diet		(Any complications associated with the client's disease process? If not what are some complications you anticipate) -malabsorption -SOB

				- vitamin supplements <u>Surgical-</u> none performed during scenario. But down the road these patients may have lung transplants.		-productive cough with sputum expelled - trouble with weight gain

NCLEX IV *(6)***: Pharmacological and Parenteral Therapies** **NCLEX IV** *(5)***: Basic Care and Comfort** **NCLEX III** *(4)***: Psychosocial/Holistic Care Needs**

<u>Medication Management</u>		<u>Non-Pharmacologic Care Measures</u>		<u>Stressors the client experienced?</u>
- pancrelipase (creon) -Azithromycin - Dornase Alfa (pulmozyme) -Levalbuterol (xopenex) -Vitamin E 400 -Multivitamin		- Respiratory chest physiotherapy - Mucus clearance device		- SOB during activity - Her peers did not have to experience this - Worried what her peers would say about her diagnosis

Client/Family Education Environment **NCLEX I** *(1)***: Safe and Effective Care**

<u>Document 3 teaching topics specific for this client.</u>		<u>Multidisciplinary Team Involvement</u> (Which other disciplines were involved in caring for this client?)
- Importance of diet adherance - Medication adhereance, along with chest physiotherapy - Appropriate times for rest during active periods.		- Dietary - School nurse -Pharmacy - home health

Reflection Paper

Directions: Write a 1-page reflection paper for each patient using Times New Roman, 12 pt. font and double-spaced. Include the following:

- Describe an “Aha” moment you experienced during this learning experience.
- What were the most important aspects of this simulation and what did you learn?
- How will this simulation experience impact your nursing practice?

An "Aha" moment that I experienced during this learning experience was how CF effects the diiferent body systems when listenening to the nurse further educate the family and patient about

the disease process. In my head I pictured a child with CF to be in respiratory distress when completing the pre work, but it was nice to see that she was still a happy active child, continuing to live her life despite her diagnosis. A diagnosis like this can be hard for the child, especially at her age as she was comparing herself to her peers. I was happy to see that her peers were eager to learn more about her treatments and turned it into something that was "cool", that helped her feel better about it. The most important aspects to me during this was all of the education provided to the parents and child so that they could fully understand the diagnosis. I also really liked how the nurse took her time explaining everything and ensured they understood everything and offered time for any further questions as they adjusted to this new diagnosis. I learned that the nurses can be a primary educator in regards to new diagnosis and that they may have more time than the doctors to fully explain the new changes they may experience. This simulation will impact me as a nurse, as I will take my time to educate the patient and their family as well so that they feel confident to go home and care for their loved one. I will also further educate myself on a disease process before educating the family so I can ensure I am providing them with factual evidence based information.