ATI Real Life Student Packet
N201 Nursing Care of Special Populations
2025

Student Name: __Riley Taylor_____

ATI Scenario: ____Cystic Fibrosis Inpatient_____

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: ___Cystic Fibrosis_____

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

Anatomy and Physiology
Normal Structures

Respiratory:
The transport of oxygen from air to blood, removal of carbon dioxide from the blood

Upper respiratory:
Nose (moistens the air and traps foreign materials from entering), larynx, pharynx (throat), epiglottis (flap that separates food and air), trachea (leads to lower tract, c shaped rings of cartilage, carina)
Lower Respiratory:
Bronchi, lungs, bronchioles, alveoli (connections through pore of Kohn's), lobes (right has 3 and left has 2), diaphragm (muscle)

Inhalation is active, exhalation is passive
Pulmonary system has its own circulatory system to pump through the body

- -Air enters your body through your nose or mouth.
- Air then travels down the throat through the larynx and trachea.
- Air goes into the lungs through tubes called main-stem bronchi.

One main-stem bronchus leads to the right lung and one to the left lung:

- In the lungs, the main-stem bronchi divide into smaller bronchi.
- The smaller bronchi divide into even smaller tubes (bronchioles).
- Bronchioles end in tiny air sacs (alveoli) where the exchange of oxygen and carbon dioxide occurs.

-Pleura
-Surfactant (within the alveoli to prevent collapse)
-Diaphragm is a major muscle
-medulla is the respiratory center in the brain

GI:
Mouth (salivary glands) and teeth chew food mechanically, esophagus (tube that transports food), then down to stomach… The stomach stores food and produces enzymes and acids that work to break down food in order to pass to small intestine. The small intestine (duodenum, jejunum, and ileum) absorbs

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

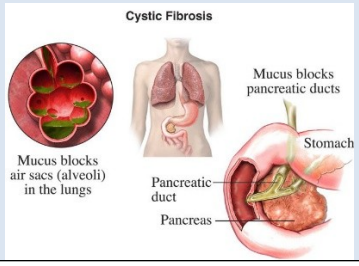
Autosomal Recessive
Genetic disease that causes thick mucus to build up in the organs which will block and damage them.
Classic- affects multiple organs and diagnosed early in life
Atypical- only affects one organ or can be intermittent
CFTR gene is affected, it usually makes a protein that is an ion channel on the cell that allows molecules to pass. The chloride usually moves out of the cell with water which thins the mucous but, in the mutation, this doesn't happen which creates thick mucus. This mostly affects the respiratory and digestive. The secretions that are usually thin, become very viscous and sticky which blocks everything up.

GI:
It causes cysts and scarring in the pancreas and blocks ducts that release digestive enzymes. The intestines are not able to fully absorb nutrients.

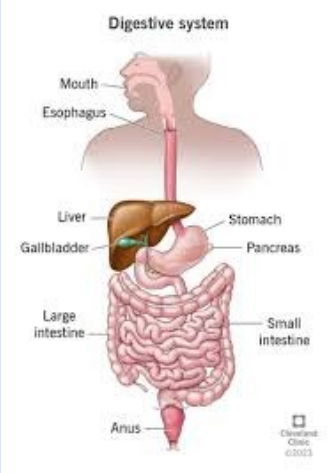
Reproductive:
Delayed puberty and infertility and thickened vaginal mucus in females and low sperm value in males also known as azoospermia.

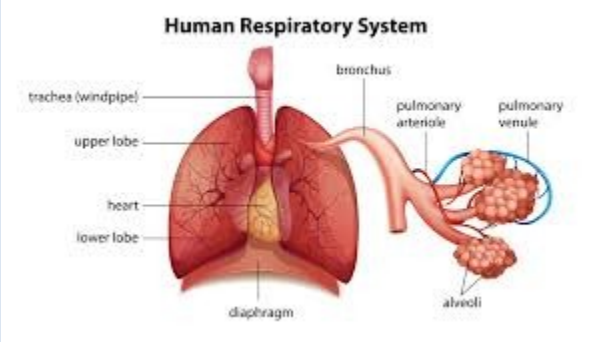
Skin:
Sweat glands produce salty sweat due to increased electrolytes like chloride and sodium.

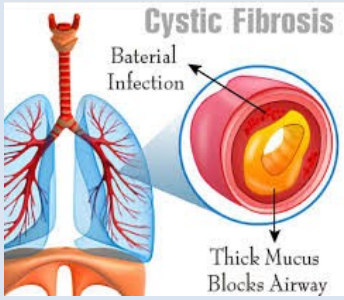
Respiratory:
The thick and sticky mucus builds up, widens and damages airways with mucus and causes recurrent bacterial infections. This makes it harder for O2 to pass through airways.

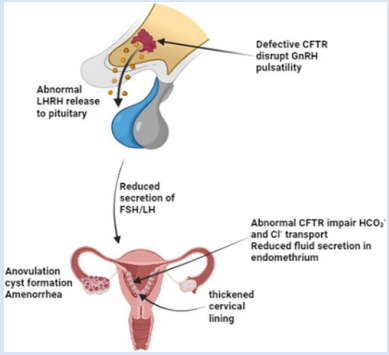


nutrients and water from the food and sends the waste to large intestine. Large intestine (cecum, ascending, transverse, descending, sigmoid) uses peristalsis to move waste down to rectum and anus to release waste.
The pancreas secretes enzymes through ducts that break down carbs, fats, and proteins. The liver creates bile to help digest fats and vitamins. They can be stored or released to small intestine by ducts to use. Gallbladder stores the bile between each meal.









To Be Completed Before the Simulation

Anticipated Patient Problem: Ineffective Airway Clearance

Goal 1: RR will remain between 30-60 during my 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 SpO2 q 4 hours or PRN	Ensure suction is at bedside q shift for if it is needed to clear mucous
Auscultate breath sounds q shift or PRN	Ensure head of bead is elevated for child as needed or when awake Administer any ordered PRN bronchodilators for wheezing
Assess work of breathing q 4hrs or PRN (retractions, grunting, nasal flaring)	Maintain cool mist humidifier to thin secretions q shift
Assess quality and quantity of sputum PRN (color, amount, consistency)	Ensure head of bead is elevated for child as needed or when awake
Assess RR and depth q 4 hrs or PRN	Administer any ordered PRN bronchodilators for wheezing
Evaluate the effectiveness of cough and if cough is productive PRN	Educate effective coughing measures q shift or PRN

Goal 2: SpO2 will remain above 94% during my care

To Be Completed Before the Simulation

Anticipated Patient Problem: Risk for Infection

Goal 1: Temp will stay between 36.5-37.5 during my 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 CBC each morning or PRN	Administer any prescribed antibiotics according to order
Assess HR q 4 hours or PRN	Initiate any contact precautions as ordered
Assess T q 4 hours or PRN	Educate the early warning signs of infection (increased temp and HR) q shift
Assess nutritional status q shift	Promote and educate a high calorie and high fat diet q shift or PRN
Assess mucus each time it is expectorated	Encourage adequate hydration or maintain IV fluids according to order
Assess knowledge of infection prevention (hand hygiene, vaccines, etc.) q shift or PRN	Encourage proper hand hygiene always

Goal 2: HR will remain between 60-100 bpm during my care

To Be Completed During the Simulation:

Actual Patient Problem #1: Infection
Goal: Temp will stay between 36.5-37.5 during my care_____ Met: ☐ Unmet:☐
Goal: HR will remain between 60-100 bpm during my care_____ Met: ☐ Unmet:☐

Actual Patient Problem #2: Impaired Nutrition
Goal: Will be able to consume at least one meal during my care Met: ☐ Unmet:☐
Goal: Will verbalize understanding of the importance of having a high calorie and high fat diet Met: ☐ Unmet:☐

Additional Patient Problems:
#3 Deficient Knowledge
#4 Ineffective Airway Clearance
#5
#6

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
Infection and Deficient Knowledge	1420	"If Gary did what he was told to do, we wouldn't be here", Contact precautions ordered	1430	Educated the new prescriptions ordered by the provider as well as the use of PPE during this stay	1445	"I'm going to be so bored"
Impaired Nutrition and Infection	1530	Wheezing auscultated in all lung fields, productive cough, newly inserted PICC line, HR-96, T-37.9, O2-95%RA, BP-106/67, RR-26, RT contacted to visit Zosyn ordered but client has allergy	1600	Admin D5 in 0.45% NS with 20mEq potassium chloride IV at 80ml/hr Contacted Provider about Zosyn order due to allergy to cephalosporins, Gentamicin 130mg IV bolus q 8hr administered, once gentamicin complete, Tobramycin 90mg IV bolus q 8hr administered	1610	Provider stopped Zosyn ordered and requested feeding bolus
Ineffective Airway Clearance and	1615	WBC-19,000 CXR- chronic inflammatory lung	1630	RT administered albuterol 0.83% via nebulizer ordered 4	1645	RT reported less wheezing, lots of mucus plugs

Infection		disease and R lower lobe PNA, wheezing auscultated in all lung fields, productive cough, HR-96, T-37.9, O2-95%RA, BP-106/67, RR-26, RT contacted to visit "I skip a lot of treatments at home"		times per day and chest physiotherapy		present and educated the importance of treatment adherence at home Urine output recorded 320ml
Impaired Nutrition	1720	95lbs Internal Feeding Bolus Ordered	1740	Aspirated gastric contents to ensure patency, educated that bolus is ordered, and administered Pancrelipase 6 capsules PO before feeds	1750	"Thanks"
Infection	1805	Sputum culture ordered	1815	Educated to take deep breaths and expectorate into the cup, educated the purpose of the sputum culture	1820	"Okay"
Impaired Nutrition	1825	Call light on, "I want real food"	1830	Food ordered from cafeteria (cheeseburger with tator tots and skim milk) Educated the importance of high fats, proteins and high calories. Administered Pancrelipase 3 capsules with snacks	1840	"Thank you" "Alright" T-37.9, HR-94, RR-24, BP-110/64, O2-95 RA
Deficient Knowledge	1850	Mother requested to speak privately. "What are the odds of us having a baby with cystic fibrosis?"	1900	Educated that both parents would need the gene in order for the baby to have cystic fibrosis	1905	"Oh okay, thank you"

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
IRT, newborn screening
Sweat Test
Genetic Testing (CFTR)
Chest X Ray: chronic inflammatory lung disease and R lower lobe PNA
Pulmonary Function Testing
Sputum Culture
Pancreatic Biopsy
NPD
ICM
Prenatal Testing
CBC: WBC-19000, Neutrophils-76, Lymphocytes-24
BMP- Cr-1.1
PT/PTT
Urinalysis- negative

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

Signs and Symptoms
Frequent lung infections
Foul and greasy stool
SOB
Wheezing
Frequent sinus infections
Cough
Slow growth and development
FTT
Clubbing
Chronic GI problems
Jaundice
Salty Skin
Muscle and joint pain
Constipation

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

Contributing Risk Factors
Genetic Disorder caused by two parents having the gene.
Autosomal recessive
Hx of cystic fibrosis

Therapeutic Procedures
Non-surgical
High calorie, high proteins and fats diet
Increase salt intake
Percussion
CPT
Pulmonary Rehab
Ventilation

Surgical
Transplant (Liver and Lung)
Bowel resections
Nose and/or sinus surgery

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)
Infections
CBVAD
Diabetes
Malnutrition
Osteoporosis
Infertility

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

Medication Management
Pancrelipase 6 capsules
Pulmozyme 2.5mg twice daily
Tobramycin 90mg IV bolus
Budesonide two inhales daily
Albuterol 0.83% unit four times daily
Gentamicin 130mg IV bolus

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

Non-Pharmacologic Care Measures
Humidifiers
Bicycle for 30min twice a day
Physio chest therapy 4 times a day
Elevate HOB
Coughing and deep breathing
PEP
Airway clearance vests

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

Stressors the client experienced?
Financial
Family/Friends
Anxiety
Depression
Recurrent Sicknesses

Acetaminophen 650mg PRN IV Fluids Enteral Feedings Stool Softeners CFTR modulators	Postural drainage percussion	

Client/Family Education

Document 3 teaching topics specific for this client.

- High calorie, proteins, and fat diet
- Medication adherence
- Effective coughing and airway clearance strategies

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

Multidisciplinary Team Involvement

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

RT, Genetic counselors, PT, OT, Psychology, Nutrition, Social Workers, Transplant Team, Fertility Doctors, GI, Endocrinologist

Patient Resources

Cystic Fibrosis Foundation, Johns Hopkins CF Center, Filotimo Foundation, Christiana Care, Claire's Place

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 would probably be taking care of an older pediatric patient inpatient and someone who has a chronic condition. I feel that compared to my other pediatric clinicals; the nurse could communicate on a higher level with this patient compared to an infant while also ensuring good communication with the parents too.
   _____
   _____
   _____

2. What was something that surprised you in the care of this patient?
   _____I did not expect the client to be so non-adherent to his care. It seemed from many comments that the client didn’t do good with care at home which is causing the recurrent infections.
   _____
   _____
   _____
   _____
   _____

3. What is something you would do differently with the care of this client?
   ____I feel that during this simulation, there was a lot of med administration compared to being able to really communicate with the client, so if I could go back and be really in the simulation, I would’ve liked to be able to talk to the client and his family more just to get to know them also. I know clients like this are usually frequently in the hospital so having that trusting relationship is important.
   _____
   _____
   _____
   _____
   _____
   _____

4. How will this simulation experience impact your nursing practice?
   ____This simulation did well with educating me on how to provide care to an older pediatric client as well as someone with a chronic condition and how much work it is. I believe this will help me to better understand the feelings of a client and their family when dealing with the chronic condition and how to approach their care.
   _____
   _____
   _____
   _____
   _____
   _____

5. Discuss norms or deviations of growth and development that was experienced during the simulation, including developmental stage.

   ___A 15-year-old would be in the adolescent stage of growth and development. According to Erikson, the client would be in the identity vs confusion phase. This is where people start to create their own identity and find social aspects that match them as well as create relationships with people. Most adolescents play sports and hang out with friends a lot in the community, but in this case, the client might not be able to form those bonds and go out to many public places because of their decreased immune system and the increased ability to get infections. This may affect the individual's ability to really thrive in the world and create his own sense of self. Cystic fibrosis can also cause delays in puberty and even infertility later in life which would deviate that normal growth and development.