ATI Real Life Student Packet
N201 Nursing Care of Special Populations
2024

Student Name: __Courtney David__

ATI Scenario: _ATI-2 CF_

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 system is made up of lungs, airways (trachea, bronchi and bronchioles), diaphragm, voice box, throat, nose and mouth. Its main function is to breathe in oxygen and breathe out carbon dioxide. It can also help protect from harmful particles and germs.
The respiratory system also warms and adds moisture to the aur you breathe in to make the body's temperature, allows you to talk that air vibrates the vocal cords that produce sound. Helps you smell and also balances level of acidity in your body but removing carbon dioxide since that lowers you blood PH, making it acidic.
Upper Respiratory tract- which brings air into the body and helps to move it towards your lungs, it consists of your mouth, nose, nasal cavity, sinuses, and larynx.
Lower Respiratory Tract- consist of you trachea, bronchi and lungs. The trachea, bronchi and bronchioles make you your tracheobronchial tree which are smaller tubes that help transport air from the upper respiratory tract to the small air sacs in your lungs called the alveoli.
The respiratory system works closely with the circulatory system to perform its job of bringing in oxygen for your lungs and removing carbon dioxide.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

CF is causes by a defect in the cystic fibrosis transmembrane conductance regulator CFTR gene. The mutation changes a protein that regulated the movement in salt in and out of cells. CF is an inherited disorder that causes severe damage to lungs, digestive system and other organs, it affects the cells that produce mucus, sweat and digestive juices. Normally those fluids that are secreted are thing and slipper but with CF clients, these secretions are thick and sticky. Normally, the secretions act as lubricants but instead the clog the tubes, ducts and passageways especially in the lungs and pancreas. The abnormal mucus can lead to blockages and damage to the lungs, digestive system, this results in frequent infections.

To Be Completed Before the Simulation

Anticipated Patient Problem: Impaired Gas Exchange

Goal 1: Client RR will stay within normal limits of 12-20 with a pulse ox greater than 90 and no clubbing of fingers 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?
VS-RR, HR, Temp, O2 q4hr or PRN	Notify RN and provider of VS during my time of care
Assess cough for effectiveness PRN	Encourage frequent and effective coughing- promote airway clearance
Assess skin appearance q4hr PRN	Administer Bronchodilator's per respiratory orders during my time of care or PRN
Assess lung sounds daily	Place bed in a semi-fowlers position or elevate head of bed to promote lung expansion during my time of care.
Assess LOC daily/ PRN	Reorient to location, time and place as needed during my time of care.
Assess cap refill (check if clubbing is present due to lack of oxygen)	Adminsiter supplemental oxygen PRN (if pulse ox is less than 85)

Goal 2: Client will have a productive cough during my time of care.

To Be Completed Before the Simulation

Anticipated Patient Problem: Deficient Knowledge

Goal 1: Client will provide teach back method to determine understanding of medication regimen for CF 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 willingness to learn during my time of care.	Educate on medication regimen and dx studies needed for diagnoses and treatment during my time of care.
Assess knowledge of s/sx of infections during my time of care.	Educated on s/sx of infection such as fever, chills, green/yellow mucus etc. during my time of care.
Assess WBC daily	Educate on importance of avoiding crowded spaces and crowds of people to prevent getting illness during my time of care.
Assess personal hygiene routines daily	Educate on strict handwashing, having hand sanitizer with you when going out in public during my time of care.
Assess support system of client during my time of care.	Encourage family or support person to engage in education to learn to help with care during my time of care.
Assess electrolytes, hydration levels and sodium levels daily.	Educate on importance of increase hydration, fiber and increased salt intake during exercise or activities during my time of care.

Goal 2: Client will list three signs and symptoms of infection during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem #1: Impaired Gas Exchange
Goal: Client will have a productive cough during my time of care. Met: ☐ Unmet:☐
Goal: Client RR will stay within normal limits of 12-20 with a pulse ox greater than 90 and no clubbing of fingers during my time of care. Met: ☐ Unmet:☐

Actual Patient Problem #2: Imbalance Nutrition- Less than body requirements
Goal: Client will provide verbalize understanding of balanced diet containing a food item from each group of the food pyramid. Met: ☐ Unmet:☐
Goal: Client will eat at least 50% of meal tray during my time of care. Met: ☐ Unmet:☐

Additional Patient Problems:
#3- Deficient Knowledge
#4- Deficient Fluid Volume

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
Deficient Knowledge	1200	Clinic called, Gary 15 y/o admitted, history of cystic fibrosis with acute pulmonary exacerbation, positive for Burkholderia cepacian.	1230	Donned gloves and gown, educated Gary on contact precautions and inability to visit common areas such as game room in hospital.	1235	"I understand, I'll just use the games you bring in the room"
Deficient Fluid Volume	1400	BP 106/67	1430	Administer dextrose 5% in 0.45% sodium chloride with 20 mEq potassium chloride. IV 80ml/hr	1600	BP 110/64 Urine output 320ml total
Impaired Gas Exchange	1405	T 37.9 C, HR 96, RLL opacity suggestive of pneumonia, WBC 19, Neutrophils 76, lymphocytes 24	1445	Administered IV bolus Tobramycin 90mg Administered Gentamicin 130mg IV bolus	1600	T 37.9 C, HR 94
Impaired Gas Exhange	1425	Wheezing present in all lobes anterior and posterior bilaterally, Productive cough	1435-1500	Notified RT of findings, PT performed chest physiotherapy and Albuterol nebulizer	1530	Decreased wheezing bilaterally, anterior and posteriorly in all lobes,

		with green sputum, barrel chest, clubbing of fingers and toes, RR 26, O2 94%, no use of accessory muscle use for breathing pattern.		treatment and RN gathered sputum specimen		movement of mucus plugs, productive cough, RR 2, O2 96%
Imbalanced Nutrition- less than body requirements	1545	Peg tube placed over a year ago due to weight maintenance, 43.11kh, below 25th percentile for BMI, below 5th percentile for height and weight. Received new order for bolus feeding of 300ml over 1 hour	1600-1615	Administered Pancrelipse PO Administered 300ml bolus of enteral formula over one hour	1710	"Can I have some real food, can you order my food from dietary"
Imbalanced Nutrition- less than body requirements	1710	"Can I have some real food, can you order my food from dietary"	1730	Ordered dinner plate- chicken, corn on the cob, chocolate whole milk, and candy bar. Adminsitered Pancrelipse PO before meal	1845	100% dinner eaten, resting in bed, eyes open, chest rising and falling, RR22

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

Chest Xray- mild R lower lobe opacity suggestive of pneumonia, slightly increased hilar shadowing, bilateral peri bronchial thickening.
WBC 19
Neutrophils 76%
lymphocytes 24%

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

Signs and Symptoms

Productive cough, harsh
Wheezing and crackles in all lobes posterior and anterior
RR 24, O2 93, Temp 38.6

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

NCLEX IV *(7)*: **Reduction of Risk**

Contributing Risk Factors	Therapeutic Procedures	Prevention of Complications
Gene- passed from both mom and dad Attending School- germs Not doing home treatments on a regular base.	Non-surgical Chest Physiotherapy Surgical	(Any complications associated with the client's disease process? If not what are some complications you anticipate) B. Cepacia *Any infection or virus would be a complication for CF patient

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

Medication Management
Tobramycin Gentamicin Zosyn (held) Pancrelipase

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

Non-Pharmacologic Care Measures
Chest physiotherapy Dietary changes- enteral then regular

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

Stressors the client experienced?
Hospital stay, contact precautions- not being able to go into game room

Client/Family Education

Document 3 teaching topics specific for this client.
• Importance of home treatments from respiratory. • Contact precautions- gown and gloves by staff • Educated on deep breathing through nose and out through mouth.

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

Multidisciplinary Team Involvement (Which other disciplines were involved in caring for this client?)
RN, Respiratory Therapist, Charge nurse, Dietary, MD

Patient Resources
CF support groups, Pamphlets, case manager, respiratory therapy

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 participating in the care of this client, is someone with CF has to spend a lot of their time in the hospital, normally its children since its diagnoses at an early age, but they unfortunately have to miss out on a lot of events and social gatherings due to the CF. Making sure to make the hospital stays fun and memorable would be extremely beneficial for the patients.

2. What was something that surprised you in the care of this patient?
   One thing that surprised me in the care of this patient is how quickly the provider can order medications that the patient has an allergy too and how important the nurses job is to do that one final check before administering the medication. If the nurse did not know Gary's history or even check his allergies, we could have created a bigger problem on our hands with giving him a medication that he is allergic too.

3. What is something you would do differently with the care of this client?

One thing I would do differently with the care of this patient is find time to sit down and talk to Gary and parent's to determine what he does as far as treatment for CF at home. One thing the stepdad said in the beginning made it seem like he wasn't doing what he was supposed to be doing and never got the full story of why he ended up in the hospital in the first place. I would like to know his baseline of knowledge of his CF and treatment regimen and gather a plan that everyone can obtain and help out when needed.

4. How will this simulation experience impact your nursing practice?

   This simulation experience will impact my nursing practice because I will make sure to make any patient with CF (especially children) have a fun experience in the hospital just like Gary did and how he loved the game room, but since he was on contact precautions he couldn't go, the nurse made sure to bring games in his room for him so that he still could experience having fun while being in the hospital. I also will incorporate all family on educating and creating plans for home treatment for CF since it can be demanding and lot of support is needed.

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

   Gary was 15 years old, which falls under the middle adolescence, when his stepfather and mother were talking about what brought him into the hospital it seemed like there was some tension or maybe frustration from the stepdad and Gary's relationship which is normal for this age group, this is when it's a low point in parent-child relationships. With Gary already having imbalance nutrition, this age group has rapid growth and high metabolism so consuming quality nutrients is very important. Gary should emphasize physical activity but in moderation due to his CF. During this age there also is greater push for independence and and difficulty asking for help, which might explain why Gary hasn't been doing good with his at home treatments because he doesn't want his parents to have to remind him, but he also is struggling to do them on his own.