

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

Student Name: Morgan

ATI Scenario: 2

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

Anatomy: Lower Respiratory Tract: Larynx, trachea, bronchi, bronchioles, alveoli, lungs, pleura, diaphragm.
 Trachea: The trachea is also known as the windpipe. The trachea is a hollow tube made of c- shaped cartilage. Trachea carries air from the larynx to the bronchi. Tracheal cartilage keeps the trachea from collapsing and provides support. The trachea is lined with ciliated cells which help to remove mucus trapped in the airway. Bronchi and bronchioles: Bronchi is the lower part of the trachea when it divides into two primary bronchi, one into each lung. As the two bronchi go deeper into the lungs they branch off into many smaller bronchioles within the lungs. Alveoli: Alveoli are little air sacs located in the bottom of the lungs. This is where gas exchange occurs. Oxygen moves from the alveoli into the bloodstream, and in return carbon dioxide goes into the alveoli, so that it can be released from the body during exhalation. Respiratory epithelium: Complex tissue that lines most of the respiratory tract other than the larynx and pharynx. This provides protection against pathogens and foreign particles.
 Lungs: There are two lungs, which are the main organ in the respiratory system. The right lung consists of three lobes (upper, middle, lower) while the left lung consists of two lobes (upper and lower). The lungs are surrounded by pleura, which reduces friction and allows the lungs to expand and contract smoothly during respirations. Pleural cavity: Space between the chest wall and the lungs. This is protective, supportive, and lubrication. There is visceral and parietal pleura. Visceral pleura covers the surfaces of the lungs, parietal lines the inner part of the chest wall. There is about 15mL of pleural fluid. The respiratory system functions normally to complete the body's oxygenation. Normally, the trachea, bronchi, and bronchioles will have enough circumference to transport gases, while the alveoli are expanded enough to do gas exchange. The pleural space serves as a protective cavity around the lungs. This helps with lubrication to reduce friction when breathing, keeping the negative pressure for gas exchange to occur, and assists with expansion of the lungs during breathing.
 Ventilation: inspiration and exhalation, gas exchange, regulation of breathing, acid – base balance. GI System: Pancreas: the pancreas is an endocrine and exocrine gland. It serves to assist enzymes and bicarbs to breakdown foods into the small intestines and GI tract while the endocrine function of the pancreas is to covert glucagon and insulin to regulate blood sugars within the body.

NCLEX IV (7): Reduction of Risk

Pathophysiology of Disease

The disease process of cystic fibrosis is a hereditary genetic mutation on a gene of chromosome 7. CFTR gene causes thickened secretions, impairs the GI tract and electrolyte imbalances. Within the respiratory tract, ineffective airway clearance can be seen because of the thickened mucus. Within the pancreas, ducts become blocked from the thickened mucus causing potential for airway obstruction. Cystic fibrosis causes dry mouth, increased viscosity of mucus gland secretions, and changes in autonomic nervous system.

To Be Completed Before the Simulation

Anticipated Patient Problem: Ineffective airway clearance

Goal 1: Oxygen saturation will stay between 92-100% on room air during my time of care.

Goal 2: Cough and deep breathing techniques will be utilized 10x per hour to assist in clearing secretions.

Relevant Assessments	Multidisciplinary Team Intervention
(Prewrite) What assessments pertain to your patient's problem? Include timeframes	(Prewrite) What will you do if your assessment is abnormal?
Assess airway patency q2h	Chest physiotherapy q2h
Assess vitals per unit routine	Maintain HOB >30 degrees. Maintain supplemental o2 at >94%
Assess work of breathing q2h	Flutter mucus clearing device q2h
Assess lung sounds q2h	Reposition for postural drainage q2h
Assess response to activity tolerance BID	Apply supplemental oxygen as needed. Assist with ADLs
Inspect sputum for color, consistency, and odor PRN	Suction per order and as indicated to maintain a patent airway

To Be Completed Before the Simulation

Anticipated Patient Problem: Imbalanced nutrition: less than requirement

Goal 1: Client will have UO of at least 30mL/ hour during my time of care.

Relevant Assessments	Multidisciplinary Team Intervention
(Prewrite) What assessments pertain to your patient's problem? Include timeframes	(Prewrite) What will you do if your assessment is abnormal?
Assess nutritional intake TID	Provide high protein/ high calorie diet. Consult nutrition
Assess stool PRN	Provide high caloric, high protein, low fat diet constant
Assess skin turgor, temperature, & color BID	Maintain IVF per order constant
Weight daily	Maintain healthy weight, supplement nutrition if significant decline in weight
Assess I & O strict - q2h	Maintain adequate hydration, 30mL/hour urine output
Assess blood glucose ACHS	Activate hypoglycemia protocol if hypoglycemic, provide soda (not diet), juice, administer dextrose if applicable

Goal 2: Client will not demonstrate hypoglycemic symptoms such as cool and clammy skin during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem #1: Ineffective Airway Clearance

Goal: CPT will be utilized for clearing secretions during my time of care. Met: X Unmet:

Goal: HOB will remain >45 degrees to promote airway clearance during my time of care. Met: X Unmet:

Actual Patient Problem #2: Imbalanced Nutrition: Less than Body Requirement

Goal: Client will eat one meal orally during my time of care. Met: X Unmet:

Goal: Client will not demonstrate hypoglycemic symptoms such as cool and clammy skin during my time of care. Met: X Unmet:

Additional Patient Problems:

#3 Infection

#4 Knowledge Deficit

#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
1 3	0800	Productive cough, WBC 19,000	0805	Isolation precautions initiated	0810	Head of bed is raised >45 degrees
1	0815	Lung sounds: wheeze	0820	Called Respiratory for treatments	0930	Lung sounds clear
3	0825	Radiology report shows PICC in place	0830	Medication administration IV Tobramycin & Gentamycin @ 220mL/hr	0830	Green sputum, productive cough
3	0845	Allergy to cephalosporins	0850	Contacted provider regarding Zosyn prescription	0850	Hold the Zosyn
2	0900	Mother relays Gary has not been eating well	1000	Administer enteral feeding bolus	1030	Ordered food from cafeteria – did not experience s/s of hypoglycemia
1	0920	Respiratory at bed side for CPT	0920	Hold enteral feeding until after CPT	0930	Lung sounds clear per RT
1	0945	Green sputum	0945	Obtain a sputum culture	1000	Maintain HOB >45 degrees
4	1030	Mother asking questions regarding future pregnancy	1030	Provided mother with education regarding CF genetics	1040	Mother verbalizes understanding of teaching

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

WBC: 19,000
 Neutrophils: 76%
 Lymphocytes: 24%
 Creatinine: 1.1

CXR: Chronic inflammatory lung disease (CF) with Right lower lobe PNA

NCLEX II (3): Health Promotion and Maintenance

Signs and Symptoms

Productive cough
 Green sputum
 Decreased appetite

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors

Cystic Fibrosis
 PNA

NCLEX IV (7): Reduction of Risk

Therapeutic Procedures

Non-surgical

CPT

Surgical

Prevention of Complications
 (Any complications associated with the client's disease process? If not what are some complications you anticipate)

Respiratory Failure
 Chronic lung infections
 Gallstones
 Liver disease
 Infertility
 FTT
 Electrolyte imbalances

NCLEX IV (6): Pharmacological and Parenteral Therapies

Medication Management

Tobramycin
 IVF
 Pancrelipase

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures

CPT
 HOB >45 degrees

NCLEX III (4): Psychosocial/Holistic Care Needs

Stressors the client experienced?

Missing school
 Anxiety
 Fear of being "different"

Client/Family Education

Document 3 teaching topics specific for this client.

- Education on keeping up with treatments at home for maintenance.
- Education on Pancrelipase prior to meals.
- Education for mother on future children and possible CF.

NCLEX I (1): Safe and Effective Care Environment

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

Respiratory, other RN peers, Physician, lab

Patient Resources

School nurse for treatments during the school days
 Case management

Reflection Questions

Directions: Write reflection including the following:

- 1. What was your biggest “take away” from participating in the care of this client?

- 2. What was something that surprised you in the care of this patient?

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

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

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