

Northwest Iowa Community College
Nursing Program
ADN Simulation Design Template

Course ADN 1B

Subcompetencies:

1. Correlate client's signs and symptoms to pathophysiology of oxygenation disorders.
2. Assess the results of diagnostic tests for a client with oxygenation disorders.
3. Summarize actions, side effects and nursing implications of pharmaceutical agents commonly administered to a client with oxygenation disorders.
4. Describe collaborative care for a client with oxygenation disorders.
5. Implement appropriate nursing management for the client with oxygenation disorders.
6. Evaluate expected outcomes and discharge care for the client with oxygenation disorders.

Primary Health Condition Exacerbation of COPD

Simulation Learning Objectives

Students participating in the Simulated Clinical Experience will:

1. Recognize abnormal assessment findings **(GLO #1)**
2. Implement appropriate interventions using a set of routine orders **(GLO #2)**
3. Notify physician using the SBAR format **(GLO #4)**
4. Administer IV medications for the client with a respiratory condition **(GLO #2)**
5. Recognize the need to call for additional assistance **(GLO #4)**

Client Information:

Age: 58 Date of Birth: July 19 1959 Gender: Female Setting: Med/Surg unit

Name: Melinda Thompson Race/Ethnicity: Caucasian

Weight: 174 lbs Height: 66 inches

Allergies: NKDA

Past Medical History:

History of hypertension, COPD, and smoking

Surgeries/Procedures & Dates:

NONE

Social History (Religion, Support System):

Religion: Not reported

Major Support: Daughter

Widowed 1 year ago.

Other:

Admission Date 15 minutes ago

Rural Clinic SBAR Report**Situation:**

Ms. Thompson is a 58 year old female who came to the clinic today with reports of feeling progressively worse the last few days. She complains of feeling very tired and having increased shortness-of-breath with activity. Ms. Thompson says her takes a couple of inhalers at home but they did not help.

Background:

Ms. Thompson lives at home alone. She has a history of hypertension, COPD, and smoking

Assessment:

Patient is short of breath. Lung sounds are course. Last vital signs: PO 90%, Resp 28, Temp 37.2 (98.6), BP 138/84, HR 100. Shortness of breath noted with activity.

Recommendation:

She is being direct admitted to the hospital for observation. She stopped by x-ray on the way the unit and labs were drawn when she got to the floor. A saline lock was started when she was admitted to her room. The clinic nurse is turning care of Melinda over to you. Orders were written and on the chart but not carried out.

Healthcare Provider Orders:

1. Direct admit to medical surgical unit
2. CXR, ABGs, BMP upon admission (done)
3. Place Saline lock (done)
4. Give albuterol nebs 2.5mg now and repeat every 4 hours as needed
5. Place on remote tele
6. O₂ to keep pulse ox greater than 88%
7. Hold home meds for now
8. Solumedrol 100mg IV push now and every 12 hours
9. PRN medications
 - a. Zofran 4mg IVP every 4 hours prn nausea
 - b. Tylenol 500 mg po every 4 hours prn pain
 - c. Lorazepam 0.5mg IVP every 4 hours as needed for anxiety
10. Call me for any problems

Psychomotor Skills Required Prior to Simulation

All Term 2 Skills

Orientation to Sim Lab and manikin

IV Medication Administration

IV Dosage Calculations

Simulation Room Set- up:

Setting Acute Care Type of Manikin Used Adult

Props: (available for all simulations – BP cuff, pulse ox, thermometer, glucometer, O2 set-up)

Additional Props: Tele box, Primary IV tubing, secondary, IV tubing, IV pump.

Initial Manikin Settings (sitting with Head of Bed elevated):

Vitals	Lungs	Heart	Abdomen	Other
HR: 102 R: 34 BP: 148/88 PO 84%	Course L Wheezy R	Regular	BS + x 4	PRN: IV arm
Additional Moulage: Saline lock in place ~ double lumen O2 at 3LPM/NC ~ turn on compressor				

Mock Medications Required:

Theophylline 800mg in 500mL 5% Dextrose

Lorazepam 2mg/mL for injection

Methylprednisolone 125mg/mL for injection

Albuterol nebs

Documents Required (indicate what information will need to be handwritten on forms):

✓Kardex

✓Med Sheets

Other documents:

- ABGs (prn or prework)

Scenario Progression Outline

Name: Melinda Thompson

Age: 58

Date of Birth: July 19

Timing (approximate)	Manikin Actions	Expected Interventions	Comments
Phase 1	<p><i>Patient is panicky during scenario</i></p> <p>"I am having trouble breathing"</p> <p>"I can't catch my breath".</p>	<p>Performs VS O2 = 84%</p> <p>Focused assessment of respiratory system-lung sounds and respiratory status. If requested – Glucose 120</p> <p>Initiates oxygen therapy Saline lock in place</p>	
Phase 2	<p>"Coughing small amounts of clear secretions," if prompted.</p> <p>"I need something to help me breathe"</p>	<p>Increases O2: Adjust based on O2 sat</p> <p>Administers albuterol nebs -Decrease wheezing with neb tx</p> <p>Administers solumedrol 100mg (1.6mL) -over 1 minute or more</p>	<p><i>(prn: Time jump (10 min) after meds given with slight improvement)</i></p>
Phase 3	<p>I am getting scared, I really can't catch my breath."</p> <p>If - O2 not at 8 liter or higher via mask "This oxygen is not helping"</p> <p>Keep O2 less than 88% so call physician</p>	<p>Administer lorazepam 0.5 mg (0.25mL) -dilute with equal amount D5W or NS; do not exceed 2mg/min</p> <p>Enc pursed lip breathing; tripod/orthopneic position</p>	<p><i>Time jump (30 minutes)</i> <i>-increase wheezing</i> <i>-decrease status and call MD</i></p>
Phase 4	<p>Continues to complain of difficulty breathing.</p>	<p>Physician notified (see script) Orders received: -Theophylline IV 2.0mg/kg loading dose over 30 minutes -Then Theophylline continuous infusion at 0.5mg/kg/hr</p>	
Phase 5 (If theo loading dose not started – sats will continue to drop)	<p>"What are you going to do to help me"</p> <p>After loading dose – "I think I am breather a little better now"</p>	<p>Administers Theophylline IV 2.0mg/kg loading dose (198 mL/hr)</p> <p>(prn): Set pump to administers Theophylline IV 0.5mg/kg/hr (24 or 25 mL/hr)</p>	<p>158.2mg = 98.9mL over 30 minutes = 198mL/hr</p>

regardless of amount of O2			
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“Healthcare Provider” Role

Students are expected to use the SBAR format when calling.

Sample:

(S) This is _____ calling from the ED. I have Melinda Thompson, a 58 year old female who was direct admitted from Todd Green’s office

(B) Ms. Thompson has been reports of feeling progressively worse the last few days. She complains of feeling very tired and having increased shortness-of-breath with activity. Ms. Thompson says her takes a couple of inhalers at home but they did not help. She has been given albuterol 2.5mg and solumedrol IV per admit orders. She was given 10 mg hydralazine for elevated BP

(A) Vital signs are as follows: Temp: 37.0 degrees C., heart rate 110, respirations 32, blood pressure 142/92 (if hydralazine not given – 184/112). Alert, oriented, in severe respiratory distress. Lungs sounds course throughout. O2 is on at _____ liters/min. Pulse ox is _____. Labs are _____. ABGs show that the patient is in respiratory acidosis (partially compensated)

(R) I think she needs to be seen right away. (or may request transfer to ICU)

(If student does not make a recommendation – ask them what they need for the client)

If students are missing some of the information, ask questions until you get all the information they should have included. If they are missing a large amount of information ask them to gather the correct information and call you back.

Once you have an acceptable report - Tell the student the following:

“I am tied up with another patient right now and I will be down as soon as I can”

Give the following orders:

1. Theophylline IV 2.0 mg/kg loading dose over 30 minutes
2. Then run a continues infusion of Theophylline IV at 0.5mg/kg/hr drip

Student should repeat orders back to you

Debriefing Discussion Points:

General

1. How did you feel about how things went?

2. Using the Nursing Process how did the team do with:
 - A. Data Collection/Assessment

 - B. Planning

 - C. Implementation

 - D. Interventions

3. Discuss maintenance of safety and infection control concepts

4. Discuss therapeutic communication

Scenario Specific:

1. Discuss action of aminophylline

2. Discuss reason for remote tele

- 3.

- 4.

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