



# HEALTH CARE

Georgia CTAE Resource Network  
PEACH STATE PATHWAYS



## UNIT: 26.4 BASIC NURSING SKILLS- OXYGEN THERAPY



### INTRODUCTION

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**Course:** 25.561 Nursing Essentials

#### Unit Development Template Annotation

In this unit students will learn about the role of the nursing assistant in caring for residents on oxygen therapy. Included is emphasis on observing and reporting to nurse changes in the resident's condition and safety precautions when oxygen is in use.

#### Grade(s)

- 11-Eleventh
- 12-Twelfth

**Time:** (Enter time in number of 50 minute periods)

- 1 period

#### Author

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#### Notes to the Teacher (optional)

Students should be shown actual oxygen devices in the clinical setting if none available in class.

Emphasize the importance of monitoring use and whether oxygen tank is empty. This unit may be taught in conjunction with Respiratory System disorders.

For homework: Students could also be assigned to research how much oxygen is commonly given to persons with COPD and write an explanation as the why that amount is given. The American lung association has an oxygen fact sheet available at the website

<http://www.lungusa.org/site/c.dvLUK9O0E/b.4061173/apps/s/content.asp?ct=3052557>

**Students with disabilities:** For students with disabilities, each instructor should refer to the student's IEP to be sure that the accommodations specified in the IEP are being provided within the classroom setting. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation within any given instructional activity or requirement.

## STANDARDS

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### **GPS Focus Standards:**

HS-NE-12: The student will perform basic nursing skills within the scope of practice for a nursing assistant while maintaining resident/patient/client rights. Beginning and ending procedures will be performed with all resident/patient/client care.

- j. Provide care for resident/patient/client receiving oxygen therapy

### **GPS Academic Standards:**

## UNDERSTANDING AND GOALS

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### **Unit Understandings, Themes, and Concepts:**

Enduring Understandings: The students will understand:

- techniques and equipment used for oxygen therapy
- Safety precautions for residents receiving oxygen.

**Primary Learning Goals:** Provide a list of the Essential Questions, Knowledge and Skills the student will know, understand, and be able to answer or demonstrate as a result of this Unit. All Primary Goals must be related to standards addressed in the Unit.

Essential Questions:

- What is the purpose of oxygen therapy?
- How do you provide care for someone receiving oxygen therapy?

Knowledge: The student will know:

- Techniques used to provide proper oxygen therapy
- Type of oxygen delivery systems
- Know what observations to report to the nurse
- How to check device for amount of oxygen resident receiving

- Identify major systems affected by changes in oxygen level

Skill: The student will be able to:

- Demonstrate correct techniques for maintain oxygen delivery
- Observe and report changes and complaints by resident



## BALANCED ASSESSMENT

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### Assessment Method/Type:

<input type="checkbox"/>	Constructed Response
<input checked="" type="checkbox"/>	Combined Methods
<input checked="" type="checkbox"/>	Informal Checks

<input type="checkbox"/>	Peer Assessment
<input type="checkbox"/>	Selected Response
<input type="checkbox"/>	Self Assessment

**Assessment Title:** Oxygen Therapy Quiz

**Description/Directions:** Provide detailed description & directions so it will provide accurate results for any teacher wishing to replicate it.  
Administer quiz at end of unit

**Attachment – Supplemental Resource Title:** (Optional) List the title of any attachment associated with the assessment.

**Web Resources:** (Optional) List the title of the web resource associated with this Unit Development Template Assessment.



## UNIT PERFORMANCE TASK(S)

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**Performance Task Title:**

**Description/Directions:** Provide detailed description & directions so it will provide accurate results for any teacher wishing to replicate it.

**Rubric for Performance Task:** Attach rubric used in the assessment of this Unit Performance Task or submit as separate file.



## SEQUENCE OF INSTRUCTION AND LEARNING

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**Sequence of Instruction and Learning:** List the sequence of instruction and learning for this Unit Development Template.

1. Introduce the lesson by asking student “what do you think would happen if all of a sudden the amount of oxygen in the atmosphere was cut half. What do you think could cause that? Perhaps if they recall from biology that plants use carbon dioxide and give off oxygen. Perhaps they would say most of the vegetation has been destroyed or life in the ocean.
2. Ask them how do they think we would feel if this happened? Discuss
3. Asked what body systems do they think would be affected-Should answer all but mainly, Respiratory, cardiovascular, nervous. These systems contain the vital organs that need oxygen to function.
4. There are people who live with reduced oxygen every day. Many times it is a disorder of the respiratory system or combination of the cardiovascular and respiratory system, or nervous system.
5. When people have conditions causing low concentrations of oxygen in their blood we treat them with oxygen therapy.
6. Ask, “Do you think we can give everyone the same amount of oxygen to fix their problem?”
7. Discuss their responses.
8. For oxygen needs to be met it is important that the respiratory system functions properly to bring in the oxygen, the cardiovascular system must function properly to transport oxygen, there must be enough RBC’s to carry the oxygen. The nervous system must sent messages about breathing to the respiratory system and messages about pumping to the cardiovascular system. If there is a problem with any of these systems functioning properly we have to find a way to fix the problem but also meet the oxygen needs of the resident.
9. Respiratory muscles weaken with age and the lung tissue is less elastic.
10. You may be taking care of residents who require oxygen therapy to function
11. Some facilities have oxygen pumped into the room and others rely on portable devices for providing oxygen to residents. Compressed oxygen comes in small portable cylinders, large cylinders, and do not require electricity. Other types of storage for oxygen include concentrators that remove oxygen from the air and stores in a more concentrated form. Some places have liquid oxygen that becomes gas when it is warmed.
12. How and what amount of oxygen a resident receives is decided by the doctor.
13. Oxygen may be delivered by nasal cannula which is a simple way of giving oxygen in which the tubing attaches to an oxygen source and has two prongs that fit in beginning passageway of the nose. For this to benefit the resident, the prongs must be kept in the nose. There are also different types of mask which can deliver a greater concentration of oxygen. The mask covers the mouth and nose.
14. Care for the resident receiving oxygen includes

- a. Check the skin around the prongs and masks often and give frequent skin care to the face or nose because the prongs and mask can cause skin irritation, report to nurse any signs of irritation.
- b. Put water soluble lubricant on sensitive skin areas
- c. Make sure a Oxygen in use sign is posted on the resident's door and on the wall over the resident's bed
- d. Promote breathing comfort by supporting resident with extra pillows
- e. Report changes in breathing, c/o chest discomfort or pain, cyanosis, changes in VS, dry or reddened areas on the skin of the nose, around the ears, mouth or chin to the nurse.
- f. Sometimes may be required to collect a sputum specimen. Sputum is secretions found in the throat or chest, usually thicker than the consistency of saliva. It may be thick and yellowish, whitish, blood tinged or bloody and frothy. Report any of these observations to the nurse.
- g. If collecting sputum is the role of the nursing assistant follow facility protocol under the supervision of the nurse. Sputum should be collected early in the morning after the resident has coughed deeply.
- h. Report any changes in the operation of oxygen equipment to the nurse.
- i. Observe resident to changes in skin color, if becomes grayish or bluish in color, report to nurse,
- j. If oxygen is humidified, report to nurse when bottle needs to be changed.
- k. Remove items that may cause a fire from the room such as some electrical equipment, flammable liquids should be removed as well.
- l. Sometimes residents may receive breathing treatments using special medicine and a liquid such as normal saline to be inhaled by the resident to help with breathing.
- m. Demonstrate how to read oxygen level. This is important because some residents can only tolerate small amounts of oxygen.

KEY TERMS:

APNEA

BRADYPNEA

DYSYPNEA

HEMOPTYSIS

HYPOXIA

HYPERVENTILATION

HYPOVENTILATION

ORTHOPNEA

OXYGEN CONCENTRATION

OXYGEN THERAPY

SUCTION

RESPIRATORY ARREST

TACHYPNEA



NAME \_\_\_\_\_ DATE \_\_\_\_\_

### OXYGEN THERAPY QUIZ

1. WHO DETERMINES WHEN A RESIDENT SHOULD RECEIVE OXYGEN?  
\_\_\_\_\_
2. THE \_\_\_\_\_ IS A WAY OF DELIVERING OXYGEN TO THE RESIDENT IN WHICH THE TUBING HAS TWO PRONGS THAT FIT INTO THE NOSE.
3. A PROBLEM THAT CAN OCCUR WITH RESIDENTS RECEIVING OXYGEN IS \_\_\_\_\_.
4. NAME 5 SIGNS AND SYMPTOMS THAT MUST BE REPORTED TO THE NURSE FOR RESIDENTS RECEIVING OXYGEN. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. IDENTIFY 3 PRECAUTION NEEDS TO BE TAKE FOR RESIDENTS ON OXYGEN? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. TRUE OR FALSE: ALL PERSONS NEEDING OXYGEN CAN RECEIVE THE SAME AMOUNT.
7. THREE SYSTEMS THAT CAN BE SIGNIFICANTLY AFFECTED BY REDUCED OXYGEN ARE \_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAME \_\_\_\_\_ ANSWER KEY \_\_\_\_\_ DATE \_\_\_\_\_

### OXYGEN THERAPY QUIZ

1. THE \_\_\_\_\_ NASAL CANNULA \_\_\_\_\_ IS A WAY OF DELIVERING OXYGEN TO THE RESIDENT IN WHICH THE TUBING HAS TWO PRONGS THAT FIT INTO THE NOSE.
2. A PROBLEM THAT CAN OCCUR WITH RESIDENTS RECEIVING OXYGEN IS \_\_\_\_ SKIN IRRITATION AND BREAKDOWN \_\_\_\_\_.
3. NAME 5 SIGNS AND SYMPTOMS THAT MUST BE REPORTED TO THE NURSE FOR RESIDENTS RECEIVING OXYGEN. CYANOSIS, C/O CHEST DISCOMFORT OR PAIN, SORES OR CRUSTS ON NASAL AREA, DRY OR REDDENED SKIN SHORTNESS OF BREATH HANGES IN VITAL SIGNES ESPECIALLY RESPIRATIONS, \_\_\_\_\_  
\_\_\_\_\_
4. IDENTIFY 3 SAFETY PRECAUTION NEEDS TO BE TAKE FOR RESIDENTS ON OXYGEN? PUT UP OXYGEN IN USE SIGN ON DOOR AND IN ROOM, REMOVE FLAMMABLES FROM ROOM, REMOVE ELECTRICAL EQUIPMENT FROM ROOM, \_\_\_\_\_  
\_\_\_\_\_
5. TRUE OR FALSE ALL PERSONS NEEDING OXYGEN CAN RECEIVE THE SAME AMOUNT.
6. THREE SYSTEMS THAT CAN BE SIGNIFICANTLY AFFECTED BY REDUCED OXYGEN ARE \_\_\_\_ CIRCULATORY, NERVOUS, RESPIRATORY \_\_\_\_\_  
\_\_\_\_\_