

RESP-2330: RESPIRATORY HOME CARE/REHABILITATION

Cuyahoga Community College

Viewing: RESP-2330 : Respiratory Home Care/Rehabilitation

Board of Trustees:

May 2020

Academic Term:

Fall 2020

Subject Code

RESP - Respiratory Care

Course Number:

2330

Title:

Respiratory Home Care/Rehabilitation

Catalog Description:

Identification of therapists role in home care and pulmonary rehabilitation. Presentation of oxygen therapy and delivery systems in private home. Procedure for institution and maintenance of home mechanical ventilation. Outline of new trends in homecare and pulmonary rehabilitation. Guidelines on setting up hospital-based pulmonary rehabilitation programs along with patient management and follow-up strategies.

Credit Hour(s):

1

Lecture Hour(s):

1

Lab Hour(s):

0

Other Hour(s):

0

Requisites

Prerequisite and Corequisite

RESP-2950 Respiratory Care Field Experience II

Outcomes

Course Outcome(s):

Examine the roles of a home care therapist as it relates to being a member of the discharge planning team, and home care staff member.

Objective(s):

1. Describe the therapist's role as discharge planner for the patient who has been ordered home oxygen therapy, concentrating on patient introduction to long term oxygen therapy, patient and family orientation to equipment, and instructions to home care supplier.
2. Discuss responsibilities including: keeping abreast of changing government reimbursement guidelines, maintaining high standards of care and providing instruction to patient and family; communicate regularly with company, client, and/or physician.
3. Describe and discuss the role of the home care therapist as clinical coordinator.
4. Detail the therapist's role as home care staff member; identify relationships relevant to delivery personnel, clerical staff, equipment purchasing, and warehousing.
5. Identify the guidelines required to choose the proper home oxygen delivery system for patients.
6. List the advantages and disadvantages associated with each oxygen delivery system placed in the home.
7. Describe the role of the therapist as a home care supplier and employee.

8. Initiate and maintain clinical patient care standards.
9. Discuss on-call duties, patient and family instruction and reinforcement, company, physician and referral liaison.
10. Describe the position and function of the education coordinator for company and staff.

Course Outcome(s):

Appraise the changing reimbursements form Medicare and Medicaid as they relate to home respiratory therapy, and medical equipment.

Objective(s):

1. Discuss responsibilities including: keeping abreast of changing government reimbursement guidelines, maintaining high standards of care and providing instruction to patient and family; communicate regularly with company, client, and/or physician.
2. Detail the therapist's role as home care staff member; identify relationships relevant to delivery personnel, clerical staff, equipment purchasing, and warehousing.
3. Define Medicare's function as an insurance company, listing guidelines required for medical equipment and oxygen reimbursement in the home.
4. Identify the guidelines required to choose the proper home oxygen delivery system for patients.

Course Outcome(s):

Illustrate a care plan for the home respiratory patient.

Objective(s):

1. Suggest and implement improved care standards and techniques.
2. Identify the guidelines required to choose the proper home oxygen delivery system for patients.
3. Initiate and maintain clinical patient care standards.

Course Outcome(s):

Inventory the skills required for a respiratory therapist's role in pulmonary rehabilitation.

Objective(s):

1. State the purpose and objectives of a pulmonary rehabilitation program.
2. Identify components and purpose of a multidisciplinary team approach.
3. State the necessary importance of program follow-up and a home care visit.

Course Outcome(s):

Explain methods of evaluating the pulmonary rehabilitation patient related to nutritional goals, and exercise conditioning.

Objective(s):

1. State the purpose and objectives of a pulmonary rehabilitation program.
2. Describe methods of evaluation for entry into a Pulmonary Rehabilitation Program.
3. Explain the significance of appropriate nutritional intake for the Chronic Obstructive Pulmonary Disease patient and recognize potential nutrition related problems.
4. Identify and assess the effectiveness of various methods in exercise conditioning.

Course Outcome(s):

Employ age-specific educational techniques required for pulmonary rehabilitation patients of all age groups.

Objective(s):

1. Discuss techniques or methods that facilitate age-specific education.
 2. Discuss on-call duties, patient and family instruction and reinforcement, company, physician and referral liaison.
 3. Describe the position and function of the education coordinator for company and staff.
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Methods of Evaluation:

1. Quizzes
2. Examinations
3. Group participation/case study

Course Content Outline:

1. Insurance reimbursement
 - a. Define supplier vs. provider
 - b. Identifying Medicare reimbursement procedures
 - c. Billing of patients on an assigned vs. non-assigned basis
 - d. Influence of government regulations on reimbursement to the home care industry
2. Home oxygen therapy
 - a. Identifying the proper candidate
 - b. Discharge planning
 - c. Proper physician's prescription
 - d. Determining the most appropriate home oxygen system
 - i. compressed gas cylinder
 - ii. oxygen concentrators
 - iii. liquid oxygen reservoirs
 - e. Travel with oxygen
3. Follow up
 - a. Assessing social status
 - b. Equipment maintenance
 - c. Plan of care and treatment
4. Home oxygen therapy delivery systems
 - a. Compressed gas cylinders
 - i. advantages
 - ii. disadvantages
 - iii. hazards
 - b. Oxygen concentrators
 - i. advantages
 - ii. disadvantages
 - iii. hazards
 - c. Liquid oxygen reservoirs
 - i. advantages
 - ii. disadvantages
 - iii. hazards
 - d. Basic functions of each oxygen delivery system
5. Home ventilator care
 - a. Choosing the appropriate candidate
 - b. Assessment of the private home
 - c. Cost differentials (home vs. hospitals)
 - d. Instruction for the patient and care givers
 - e. Maintaining professional care standards
6. Home ventilator care and discharge planning
 - a. Role of the family as primary caregivers
 - b. Role of the patient as family member
 - c. Role of the primary nurse
 - d. Role of the physician
 - e. Role of the respiratory therapist
 - f. Role of the social service coordinator
 - g. Role of the home care supply company
7. Trends in respiratory home care
 - a. Oxygen conserving devices
 - b. Miscellaneous new techniques in home care
 - c. Roles for the respiratory therapist in home care
 - d. Transtracheal oxygen therapy
8. Overview of pediatric applications I home care

- a. Oxygen delivery
- b. Apnea monitoring
- 9. Introduction to pulmonary rehabilitation
 - a. Definition and goals
 - i. functional deterioration of the pulmonary patient
 - b. Admission criteria/referral
 - c. Program objectives
 - d. Program components
 - i. pre-admission testing/collection of baseline data
 - 1. pulmonary function data
 - 2. pulmonary stress test protocols
 - 3. 12 minute walk
 - 4. oximetry
 - 5. exercise prescription
 - a. Range of Motion (ROM)
 - b. treadmill
 - c. ergometry
 - d. chair/floor exercise
 - e. swimming
 - f. weight bearing activity
 - 6. patient self assessment evaluation
 - ii. exercise testing
 - 1. selecting appropriate testing devices
 - 2. testing methods
 - 3. testing protocols
 - 4. normal subjects
 - 5. pulmonary patients
 - 6. data obtained/interpretation
 - 7. preparing an exercise prescription
 - iii. patient education
 - 1. ages specific considerations for patient education
 - 2. methods to evaluate effectiveness
 - a. return demonstration
 - b. interview
 - c. testing
 - iv. respiratory muscle function
 - 1. muscle structure
 - 2. muscle training
 - v. inspiratory muscle training
 - vi. breathing retraining techniques
 - 1. pursed-lip breathing
 - 2. diaphragmatic breathing
 - vii. staffing - a multi-disciplinary approach
 - 1. respiratory therapist's role
 - 2. medical director
 - 3. nursing
 - 4. physical therapy - ROM exercise
 - 5. occupational therapy - energy conservation/stress management
 - 6. dietary - nutrition
 - a. effects of malnutrition of the COPD patient
 - b. nutrition related problems
 - i. shortness of breath
 - ii. loss of appetite
 - iii. bloating
 - c. therapeutic goal of the COPD patient
 - d. dietary modification in COPD
 - i. fat
 - ii. carbohydrates

- iii. protein
 - iv. dietary effects on respiratory quotient
 - e. hydration
 - f. nutritional supplements
- 7. social service
 - viii. psychological component of chronic dyspnea
- 10. Follow up and evaluation
 - a. Developing a home maintenance program
 - b. Benefits and limitations of pulmonary rehabilitation
 - c. Post testing
 - i. pulmonary function testing
 - ii. pulmonary stress testing
 - iii. 12 minute walk
 - iv. patient"s evaluation of program
 - d. Follow up evacuation
 - i. physical assessment
 - ii. re-education
 - 1. medications
 - 2. breathing retraining techniques
 - iii. compliance of home exercise program
 - e. Reimbursement issues.

Resources

Kacmarek, R.M., et al. (2020) *Egan's Fundamentals of Respiratory Care*, St. Louis: Elsevier.

Hess, D.R., et al. (2019) *Respiratory Care Principles and Practice*, Burlington, MA Jones and Bartlett Learning.

Cairo, J.M. (2017) *Mosby's Respiratory Care Equipment*, St. Louis: Elsevier.

Robertson, L.D., ed. (2011) *Guidelines For Pulmonary Rehabilitation Programs*, Champaign: American Association of Cardiovascular and Pulmonary Rehabilitation.

Dana Oakes. (2006) *Respiratory Home Care*, Old Town, ME: Health Educator Publications.

Laura M Sterni and John L Carrolls. (2016) *Caring for the ventilator dependent child*, New York: Respiratory Medicine.

Resources Other

<https://www.nhlbi.nih.gov/health-topics/oxygen-therapy>

<https://www.medicare.gov/coverage/home-health-services>

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