

COLLEGEWIDE COURSE OUTLINE OF RECORD

RESP 107, CLINICAL APPLICATIONS OF ASSESSMENT AND CARING FOR A RESPIRATORY PATIENT

COURSE TITLE: Clinical Applications of Assessment and Caring for a Respiratory Patient

COURSE NUMBER: RESP 107

PREREQUISITES: RESP 103 Cardiopulmonary Anatomy and Physiology, Current CPR AHA-BLS for Healthcare Professionals or equivalent and RESP 101, Assessment and Caring for a Respiratory Patient, completed health forms, and required pre-clinical documents or Program Chair Approval

COREQUISITES: RESP 103 Cardiopulmonary Anatomy and Physiology

SCHOOL: Health Sciences

PROGRAM: Respiratory Therapy

CREDIT HOURS: 2

CONTACT HOURS: Clinical Applications: 10

DATE OF LAST REVISION: Fall, 2020

EFFECTIVE DATE OF THIS REVISION: Spring, 2021

CATALOG DESCRIPTION: Introduces the student to the hospital environment and exposes them to various hospitals, respiratory care departments, patient charts, patient identification and communication within the hospital. Provides supervised experience in patient assessment techniques. Students will be expected to perform oxygen therapy, basic lung expansion therapy, humidity/aerosol therapy, medicated aerosol, inspiratory muscle training/cough techniques, and charting in the hospital setting. Assembly and troubleshooting respiratory equipment is expected. Utilizes standard precautions and infectious disease protocols during patient care and handles biohazardous materials appropriately.

MAJOR COURSE LEARNING OBJECTIVES FROM 2020 NBRC MATRIX: Upon successful completion of this course the student will be expected to:

1. Complete all required hospital clinical orientation policies and procedures (OSHA Blood borne Pathogens, HIPPA, Fire Safety, Electrical)
2. Retain knowledge, skill and competencies from pre-requisite courses.
3. Demonstrate proper patient safety (body mechanics)
4. Review policies and procedures for the Respiratory Care Department
5. Explain the various methods of patient identification within the hospital setting
6. Evaluate data in the patient record
 - a. Patient history (admission data, orders, meds, DNR, social history)
 - b. Physical exam relative to the cardiopulmonary system (vitals, physical findings)
 - c. Lab data (CBC, electrolytes, C&S, Sputum)
 - d. Monitor trends (fluid balance, vital signs, and pulse oximeter)
 - e. Determination of patient's pathophysiological state
7. Perform clinical assessment by interviewing to evaluate:
 - a. Level of consciousness and orientation, emotional state and ability to cooperate
 - b. Level of pain

- c. Presence of dyspnea, sputum production and exercise tolerance
 - d. Learning needs (literacy, culture and preferred learning styles)
 - e. Patient and family medical history (e.g., smoking history, environmental exposure)
 - f. Activities of daily living
8. Perform clinical assessment by inspection of patient to evaluate:
 - a. General appearance
 - b. Characteristics of the airway (patency)
 - c. Cough, sputum amount, color and consistency
 - d. Skin integrity (pressure ulcer, stoma site)
 9. Perform clinical assessment by palpation of patient to evaluate
 - a. Heart rate, rhythm and force
 - b. Respiratory accessory muscle activity
 - c. Asymmetrical chest movements, tactile fremitus, crepitus, tenderness, secretions in the airway and tracheal deviation
 10. Perform clinical assessment by diagnostic chest percussion of patient.
 11. Perform clinical assessment by auscultation of patient to evaluate:
 - a. Heart rate, rhythm
 - b. Breath sounds
 - c. Blood pressure
 12. Obtain patient data by performing and evaluating procedures to gather and evaluate clinical information:
 - a. Noninvasive monitoring (pulse oximetry)
 - b. Peak flow
 - c. Sputum induction
 13. Obtain patient data by recommending diagnostic procedures
 - a. Blood tests (e.g. electrolytes, CBC)
 - b. Sputum for gram stain, culture and sensitivities
 - c. Non-invasive monitoring (pulse oximetry)
 14. Assemble and troubleshoot equipment:
 - a. Medical gas delivery interfaces (mask, cannula, heated high-flow nasal cannula)
 - b. Medical gas delivery, metering, and/or clinical analyzing devices (concentrator, liquid system, flowmeter, regulator, gas cylinder, blender, air compressor, gas analyzers)
 - c. Humidifiers
 - d. Nebulizers
 - e. Metered dose inhalers (MDI), spacers and valved holding chambers
 - f. Dry powdered devices
 - g. Resuscitation devices (self-inflating resuscitator, flow-inflating resuscitator, AED)
 - h. Suctioning equipment (regulator, canister, tubing catheter)
 - i. Gas delivery, metering and clinical analyzing devices (cylinder, flowmeter, regulators)
 - j. Hyperinflation devices
 - k. Non-invasive monitoring devices (pulse oximetry, capnometer)
 15. Ensures infection control
 - a. Adhering to infection prevention policies and procedures
 - b. Adhering to disinfection policies and procedures
 - c. Proper handling of biohazardous materials

16. Perform quality control procedures on flowmeters and gas analyzers
17. Maintain a patent airway by providing adequate humidification
18. Performing airway clearance and lung expansion techniques to include consideration of indications, hazards, and contraindications:
 - a. Suctioning for example nasotracheal, oropharyngeal, artificial airways
 - b. Assisted cough (huff, quad)
 - c. Hyperinflation (IS)
19. Supports oxygenation by initiating and adjusting oxygen therapy (low flow and high flow, membrane)
20. Administer aerosolized medications to include consideration of indications, hazards, and contraindications
21. Ensure modifications are made to modalities (e.g., oxygen, humidification, bland and medicated aerosol therapies, hyperinflation, suctioning, artificial airways, and BVM) that are included in the respiratory care plan by:
 - a. Treatment termination for life threatening adverse events
 - b. Recommending initiation of treatment based on patient response
 - c. Discontinuing treatment based on patient response
22. Recommends pharmacologic interventions by using classifications, indications, hazards, contraindications and dosages for various agents (e.g., bronchodilators, anti-inflammatory drugs, mucolytics and proteolytics)
23. Utilizes evidence based medicine principles
 - a. Classification of disease severity
 - b. Recommendations for changes in a therapeutic plan when indicated
24. Provides respiratory care in cardiopulmonary emergencies (cardiac arrest, obstructed airway)
 - a. Medical emergency team (MET)/rapid response team
25. Maintain records specifying therapy administered, date, time, frequency of therapy, medication, and vital signs (paper or electronic charting)
26. Identify the appropriate way to communicate with hospital personnel (i.e., physicians, nurses, respiratory care practitioners, and other allied health professionals)
27. Conduct patient and family education
 - a. Safety and infection control
 - b. Home care and related equipment
 - c. Lifestyle changes (e.g., smoking cessation, exercise)
 - d. Disease management

COURSE CONTENT: Topical areas of study include –

Hospital policies and procedures orientation, hospital orientation
 Standard Precautions and Infectious Disease Protocols
 Health Insurance Portability and Accountability Act
 Respiratory care department policies and procedures
 Documentation in a patient's medical record
 Patient identification, observation and interaction
 Interprofessional personnel communication
 Patient assessment
 Cleaning and disinfection

Oxygen therapy
Hyperinflation therapy
Humidity therapy
Bland aerosol
Medicated aerosol (SVN, MDI, DPI, Slow Mist Inhaler)
Manual Resuscitation
Evaluations

PROCEDURES:

1. Hand Washing
 2. Patient Interview and History/Communication
 3. Medical Records (Review of and Charting)
 4. Physical Exam of the Chest (Inspection, Palpation, Percussion, Auscultation)
 5. Vital Signs Including Pulse Oximetry
 6. Cylinders, Regulators and Flowmeters
 7. Oxygen Therapy Devices (NC, SM, Partial and NRB Masks, VM, Membrane Cartridge)
 8. Standard Precautions/Isolation Techniques
 9. Humidification
 10. Oxygen Analysis
 11. Large Volume Nebulizers (Bland)
 12. Medicated Aerosols (SVN, MDI, DPI and Slow Mist)
 13. Incentive Spirometry
 14. Airways (Oro and Nasopharyngeal Airways)
 15. Tracheostomy Care
 16. Suctioning
 17. Peak Flow
 18. Manual Resuscitation
- Total Procedures: 18

HOW TO ACCESS THE IVY TECH COMMUNITY COLLEGE LIBRARY:

The Ivy Tech Library is available to students' on- and off-campus, offering full text journals and books and other resources essential for course assignments. Go to <http://www.ivytech.edu/library/> and choose the link for your campus.

ACADEMIC HONESTY STATEMENT:

The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement.

Cheating on papers, tests or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

ATTENDANCE:

Students are expected to attend and participate regularly in class meetings, online learning activities and other activities assigned as a part of a course of instruction. Faculty are required to report student participation in compliance with institutional policies and federal financial aid guidelines. Faculty and staff shall be sensitive to students' religious beliefs and observances, including an expectation that instructors make reasonable arrangements when a student must miss an exam or other academic exercise due to their religious observance. When notified in advance, and when possible, faculty will make allowances for students to make up missed work.

COPYRIGHT STATEMENT:

Students shall adhere to the laws governing the use of copyrighted materials. They must ensure that their activities comply with fair use and in no way infringe on the copyright or other proprietary rights of others and that the materials used and developed at Ivy Tech Community College contain nothing unlawful, unethical, or libelous and do not constitute any violation of any right of privacy.

ADA STATEMENT:

Ivy Tech Community College seeks to provide reasonable accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services.

If you will require assistance during an emergency evacuation, notify your instructor immediately. Look for evacuation procedures posted in your classroom.

TITLE IX STATEMENT:

Ivy Tech Community College is committed to providing all members of the College community with a learning and work environment free from sexual harassment and assault. Ivy Tech students have options for getting help if they have experienced sexual assault, relationship violence, sexual harassment or stalking. This information can be found at <https://www.ivytech.edu/prevent-sexual-violence/index.html>.

If students write or speak about having survived sexual violence, including rape, sexual assault, dating violence, domestic violence, or stalking, federal law and Ivy Tech policies require that instructors share this information with the Campus Title IX Coordinator. The Campus Title IX Coordinator will contact students to let them know about accommodations and support services at the College and in the community as well as options for holding accountable the person who harmed them. When contacted, students are not required to speak with the Campus Title IX Coordinator.

If students do not want the Title IX Coordinator notified, instead of disclosing this information to their instructor, students can speak confidentially with certain individuals at the College or in the

community. A list of these individuals can be found at <https://www.ivytech.edu/prevent-sexual-violence/index.html> under Confidential Employees and/or Community Resources.