COLLEGEWIDE COURSE OUTLINE OF RECORD

RESP 101, ASSESSMENT AND CARING FOR A RESPIRATORY PATIENT

COURSE TITLE: Assessment and Caring for a Respiratory Patient
COURSE NUMBER: RESP 101
PREREQUISITES: Program Chair Approval
SCHOOL: Health Sciences
PROGRAM: Respiratory Therapy
CREDIT HOURS: 6
CONTACT HOURS: Lecture: 4   Lab: 4
DATE OF LAST REVISION: Fall, 2018
EFFECTIVE DATE OF THIS REVISION: Spring, 2020

CATALOG DESCRIPTION: Presents an introduction into respiratory care including evaluating data in a patient's record and recommending laboratory tests. Includes the process of interviewing and assessing the patient through inspection, palpation, percussion, and auscultation.   Covers performing and evaluating a patient non-invasively. Includes topics on oxygen therapy, oxygen analyzers, use of specialty gases, humidity therapy, bland aerosol, medicated aerosol delivery devices and environmental therapy. Basic lung expansion therapy, airway management, including a variety of airway clearance techniques will be covered. Students will be presented information regarding infection control, how to provide care during cardiopulmonary resuscitation and obstructed/lost airway. Assembly and troubleshooting respiratory equipment will be required.

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

1. Evaluate Data in the patient record:
    a. Patient history (admission data, orders, meds, DNR, social history)
    b. Physical exam and trends relative to the cardiopulmonary system and trends (e.g. vitals, physical)
    c. Lab data (CBC, electrolytes, C&S, Sputum)
    d. Summarize major legal and medical consideration in medical records documentation
    e. Trends in noninvasive monitoring (pulse oximetry, vital signs)
2. Perform clinical assessment by interviewing patient 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. Patient and family medical history (e.g. smoking history, environmental exposure)
    e. Activities of daily living
    f. Learning needs (e.g. literacy, learning style, culture)
3. Perform clinical assessment by inspection of patient to evaluate:
    a. General appearance
    b. Determine airway patency (HTCL, jaw thrust)
    c. Cough, sputum amount and characteristics

    d. Skin integrity (pressure ulcers, stoma site)
4. Perform clinical assessment by palpation of patient to evaluate:
    a. Pulse, rhythm, force
    b. Accessory muscle activity
    c. Asymmetrical chest movements, tactile fremitus, crepitus, tenderness, secretions in the airway and tracheal deviation
5. Perform clinical assessment by diagnostic chest percussion of patient.
6. Perform clinical assessment by auscultation of patient to evaluate:
    a. breath sounds
    b. blood pressure
7. Obtain patient data by performing and evaluating procedures to gather and evaluate clinical information:
    a. Noninvasive monitoring
    b. Peak flow
    c. Sputum induction
8. Obtain patient data by recommending diagnostic procedures:
    a. Lab procedures (e.g. blood tests for electrolytes, CBC, Sputum gram stain, Sputum culture and Sensitivity)
    b. Noninvasive monitoring, pulse oximetry
9. Assemble/Troubleshoot Equipment:
    a. Noninvasive monitoring devices (e.g., pulse oximeter)
    b. Oxygen devices
    c. Gas delivery (e.g., concentrator, liquid, cylinder, flowmeter, regulators, blenders, air compressor)
    d. Humidifiers
    e. Nebulizers
    f. Gas analyzers
    g. Artificial airways
    h. Suctioning equipment (e.g., regulator, canister, tubing, catheter)
    i. Manual resuscitation devices
    j. Lung expansion equipment for IS
    k. Aerosolized medication devices (e.g., MDI, spacers, holding chambers, DPI, soft mist inhalers)
10. Ensure infection control by demonstrating knowledge of:
    a. Using disinfection and high level sterilization techniques by selecting appropriate agents
        i) Critical versus non-critical (e.g., EKG machine, ventilators, laryngoscope blade, endoscopy scope, temperature probe, etc…)
    b. Ensure infection control by monitoring effectiveness (surveillance) of disinfection or sterilization procedures
    c. Ensure infection control by proper handling of biohazard materials
    d. Adhering to infection control policies and procedures (e.g., standard precautions, isolation)
11. Perform quality control procedures on flowmeters and gas analyzers.
12. Maintain a patient airway including the care of artificial airways:
    a. Positions patient to maintain a patent airway
    b. Establishes and manages a patient's airway (nasopharyngeal, oropharyngeal)

      i) Introduces ETT, tracheostomy tube, and speaking valves
   c. Performing tracheostomy care
   d. Maintaining adequate humidification
   e. Demonstrates proper use of BVM by monitoring and modifying resuscitation based on patient's response (e.g., V_T, rate, flow)

13. Performing airway clearance and lung expansion techniques to include consideration of indications, hazards, and contraindications:
   a. Incentive Spirometry
   b. Assisted cough (e.g., huff, abdominal thrust)
   c. Suctioning (e.g., nasotracheal, oropharyngeal)

14. Support oxygenation and ventilation in acute, long-term and home care settings:
   a. Indications, hazards, and contraindications of oxygen and humidification therapy and bland aerosols
   b. Initiate and modify oxygen therapy devices (e.g., high and low flow)
   c. Performs oxygen calibration and analysis

15. Administer medications and specialty gases to include consideration of indications, hazards and contraindications:
   a. Heliox
   b. NO
   c. Bronchodilators
   d. Mucolytics

16. Ensure modifications are made to modalities (e.g., oxygen, humidification, medial gas, bland and medicated aerosol therapies, lung expansion, 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

17. Make recommendations for change based on patient assessment:
   a. Patient positioning
   b. Oxygen therapy
   c. Humidification
   d. Airway clearance
   e. Hyperinflation

18. 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

19. Provide Respiratory Care Techniques in High risk situations for cardiopulmonary emergencies (e.g., rapid response team, transport inside hospital, and obstructed/lost airway)

20. Discusses and performs appropriate interprofessional communication

COURSE CONTENT: Topical areas of study include –

Laboratory data	Oxygen Transport
Patient Assessment	Oxygen Therapy

Regulating devices
Compressed gas storage
Oxygen Analyzers
Specialty gas therapy
Humidity therapy
Bland nebulizer therapy
Environmental therapy
Airway management (naso, oro and tracheostomy care)
Manual resuscitators

Airway clearance (suctioning, directed cough)
Bland nebulizer therapy
Lung expansion techniques (IS)
Infection Control
Cardiopulmonary emergencies
Evaluations
Patient Education
Effective interprofessional communication
Pharmacology overview (devices and medications)

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 and 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. Peak Flow
14. Incentive Spirometry
15. Directed Cough Techniques
16. Airways (Oro and Nasopharyngeal Airways)
17. Manual Resuscitation
18. Tracheostomy Care
19. Suctioning
    TOTAL PROCEDURES: 19

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.

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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.