RESP - RESPIRATORY THERAPY (RESP)

RESP 1140. Respiratory Therapy Pharmacology
3 Credits (3)
Principles of pharmacology, drug dose calculations, and drug receptor theory as it relates to patients with cardiopulmonary disease. Includes specific emphasis on drugs used by respiratory care practitioners as well as discussion of other drugs used in the treatment of patients under their care.

Learning Outcomes

1. Have an introductory level of knowledge of the basic general principles of pharmacology that relate to all medications, drug actions, routes of administration etc.
2. Accurately calculate typical drug-dose calculations.
3. Demonstrate an in-depth knowledge of the mode of action, desired clinical effect and common and serious adverse effects of the medications commonly used in respiratory care.
4. Relate pharmacologic therapy to common pulmonary pathologies.
5. Effectively evaluate and educate patients regarding self-management of asthma and smoking cessation techniques.
6. Understand the underlying neurophysiology involved with each class of drugs studied in this course.

RESP 1150. Respiratory Therapy I
3 Credits (3)
Introduces respiratory therapy as a health sciences profession. Topics include cardiopulmonary assessment, medical gas administration, aerosol therapy, oxygen therapy, microbiology, infection control, equipment maintenance, incentive breathing exercises and chest physiotherapy.

Learning Outcomes

1. Accurately perform a complete cardiopulmonary assessment of any non-critically ill patient.
2. Apply knowledge of the basic anatomy and physiology of the cardiopulmonary system, especially as it relates to the transportation of oxygen in the human body.
3. Correctly set up equipment and assess effectiveness of bland aerosol equipment.
4. Relate how microbiology impacts respiratory therapy to include using the correct technique for the isolation of patients and utilizing standard precautions in the clinical setting.
5. Evaluate the procedures for cleaning and sterilization of respiratory therapy equipment.
6. Apply basic respiratory treatment to include chest physiotherapy, airway maintenance, and basic medication administration.

RESP 1150L. Respiratory Therapy I Laboratory
2 Credits (2)
Students practice cardiopulmonary assessment, medical gas administration, aerosol therapy, oxygen therapy, microbiology, infection control, equipment maintenance, incentive breathing exercises and chest physiotherapy using state of the art equipment in the learning Laboratory under simulated patient situations.

Learning Outcomes

1. Accurately perform a complete cardiopulmonary assessment of any non-critically ill patient.
2. Apply knowledge of the basic anatomy and physiology of the cardiopulmonary system, especially as it relates to the transportation of oxygen in the human body.
3. Correctly set up equipment and assess effectiveness of bland aerosol equipment.
4. Relate how microbiology impacts respiratory therapy to include using the correct technique for the isolation of patients and utilizing standard precautions in the clinical setting.
5. Evaluate the procedures for cleaning and sterilization of respiratory therapy equipment.
6. Apply basic respiratory treatment to include chest physiotherapy, airway maintenance, and basic medication administration.

RESP 1250. Respiratory Therapy II
4 Credits (4)
Advanced respiratory care techniques. Emphasis on airway management, aerosol treatment, chest physiotherapy, pharmacology, posture pressure breathing, and pulmonary rehabilitation.
Prerequisite: C or Better in RESP 1150 & RESP 1150 L.
Corequisite: RESP 1250 L.

Learning Outcomes

1. Demonstrate a comprehensive understanding of the anatomy and physiology of the arterial system.
2. Apply and explain the basic principles of pharmacology therapy as it relates to the cardiopulmonary system.
3. Analyze and differentiate the basic pulmonary physiology associated with restrictive and obstructive disease processes, analyze test results to identify abnormal findings.
4. Interpret and apply advanced airway management techniques including endotracheal intubation, tracheostomy, laryngeal mask airway, and supraglottic airway.
5. Describe and interpret radiographic images to assess respiratory and cardiopulmonary conditions.
6. Identify the anatomy, physiology and the electrical conduction of the heart.
7. Differentiate between invasive and non-invasive mechanical ventilation techniques, explaining their indications and contraindications.
8. Demonstrate knowledge of emergency life support related to respiratory therapy.

RESP 1250L. Respiratory Therapy II Laboratory
2 Credits (6P)
Students practice airway management, pulmonary function testing, arterial puncture and blood gas analysis and administering home care therapy procedures using state of the art equipment in the learning Laboratory under simulated patient situations. May be repeated up to 2 credits.
Prerequisite: C or Better in the following Courses: RESP 1150, RESP 1150L and RESP 1140.

Learning Outcomes

1. Demonstrate the correct setup, operation, and maintenance of various respiratory therapy equipment; to include oxygen delivery systems, medication delivery devices CPAP/BiPAP machines and ventilators.
2. Complete respiratory assessments including vital signs: arterial blood gas ECG, pulmonary function test and ECG interpretations.
3. Properly assess and ensure airway patency.

4. Respond and react to airway emergencies and initiate proper treatment as indicated.

RESP 1330. Respiratory Therapy II Clinical
3 Credits (9P)
Supervised practice and application in a hospital setting. May be repeated up to 3 credits.
Prerequisite: C or Better in the following courses: RESP 1150 & RESP 1150 L.
Learning Outcomes
1. Maintain Patient confidentiality/privacy as defined by HIPAA.
2. Use critical thinking, problem solving and ethical decision-making in the assessment, diagnosis, planning, evaluation, and implementation of respiratory procedures.
3. Recognize emergency situations and respond appropriately.
4. Compose a patient assessment Compose a patient SOAP/Patient Assessment document.
5. Demonstrate and perform cardiopulmonary diagnostic procedures.
6. Demonstrate how to set up and maintain a mechanical ventilator.
7. Demonstrate appropriate patient/physician interactions in the clinical setting.

RESP 2110. Respiratory Therapy Cardiopulmonary
2 Credits (2)
This course delves into the study of commonly encountered respiratory disorders in adult patients. It encompasses an in-depth examination of the etiology, pathology, pathogenesis, clinical manifestations, and treatment of a variety of common adult pulmonary diseases.
Prerequisite: C or better in the following courses: RESP 2230 RESP 2230L.
Learning Outcomes
1. Identify and describe common adult respiratory disorders, explaining their etiology, pathology, and clinical manifestations, they will be able to formulate appropriate treatment plans for patients with pulmonary diseases, evaluating diagnostic data and applying evidence-based practices.
2. Recognize preventative strategies for respiratory diseases and demonstrate an understanding of COPD, asthma, and pulmonary infections.
3. Apply patient safety and infection control principles while demonstrating effective communication and interprofessional collaboration.

RESP 2120. Respiratory Therapy III
2 Credits (2)
Presents basic concepts of adult care medicine including adult intensive care and pathophysiology of diseases, introduction to concepts of positive pressure ventilation and advanced airway care. Introduction to positive pressure mechanical ventilation equipment and procedures related to basic critical care medicine for adults using state of the art equipment and computer simulations in the learning Laboratory.
Prerequisite: C or better in the following courses: RESP 1250, RESP 1250L, and RESP 1330.
Corequisite: RESP 2120L.
Learning Outcomes
1. Classify foundational concepts and core knowledge of mechanical ventilation.
2. Monitor mechanical ventilation and assessment of patients receiving mechanical ventilation and in the intensive care units.
3. Evaluate when and how to discontinue a patient from ventilation and long-term ventilation.
4. Successfully initiate ventilation.

RESP 2120L. Respiratory Therapy III Laboratory
2 Credits (2)
Introduction to positive pressure mechanical ventilation equipment and procedures related to basic critical care medicine for adults using state of the art equipment and computer simulations in the learning Laboratory.
Prerequisite: C or better in the following courses: RESP 1250, RESP 1250L, and RESP 1330.
Learning Outcomes
1. Apply didactic skills to hands-on, scenario based learning.
2. Compare and contrast the components and settings of mechanical ventilation, IPPB, BiPAP, airway care parameters, components, and settings.
3. Analyze blood gases and advanced pharmacology.
4. Practice airway care and extubation techniques.
5. Explain ACLS protocols and their relevance in emergency situations and interpret hemodynamic monitoring data to assess patient status and guide treatment decisions.

RESP 2150. Neonatal and Pediatric Respiratory Theory
3 Credits (3)
Presents cardiopulmonary assessment and diagnosis in advanced neonatal and pediatric critical care including correlation of cardiopulmonary anatomy, physiology and pathophysiology with evaluation of cardiopulmonary function. Presents concepts of rehabilitative practice for patients with chronic cardiopulmonary diseases. Introduces strategies for successful completion of national board exams. Presents mechanical ventilation procedures related to critical care medicine for children and infants using state of the art equipment and computer simulation in the learning Laboratory.
Prerequisite: C or better in the following courses: RESP 2230, RESP 2230L, RESP 2110 and RESP 2330.
Corequisite: RESP 2150L.
Learning Outcomes
1. Accurately identify and perform a complete cardiopulmonary assessment of a critically ill pediatric patient.
2. Identify and perform a complete cardiopulmonary assessment of a critically ill neonatal patient.
3. Summarize review-content and complete mock CRT and RRT examinations.
4. Compare and contrast the components of pediatric and neonatal ventilators.
5. Correctly perform and assess effectiveness of respiratory therapy on neonatal/pediatric patients.

RESP 2150L. Neonatal and Pediatric Respiratory Laboratory
2 Credits (6P)
Presents mechanical ventilation procedures related to critical care medicine for neonatal and pediatric, children and infants using state of the art equipment and computer simulation in the learning Laboratory. Students will focus on cardiopulmonary assessment and diagnosis with correlation of cardiopulmonary anatomy, physiology and pathophysiology and evaluation of cardiopulmonary function.
Prerequisite: C or better in the following courses: RESP 2230, RESP 2230L, RESP 2110 and RESP 2330.
Corequisite: RESP 2150.

Learning Outcomes

1. Accurately identify and perform a complete cardiopulmonary assessment of a critically ill pediatric patient.
2. Identify and perform a complete cardiopulmonary assessment of a critically ill neonatal patient.
3. Summarize review-content and complete mock CRT and RRT examinations.
4. Compare and contrast the components of pediatric and neonatal ventilators.
5. Correctly perform and assess effectiveness of respiratory therapy on neonatal/pediatric patients.

RESP 2230. Respiratory Therapy V
3 Credits (3)
Emphasis on special modalities.
Prerequisite: C or Better in RESP 2120, 2120L & 2330.
Learning Outcomes

1. Demonstrate and perform cardiopulmonary diagnostic procedures.
2. Determine appropriate interventions in a critical medical situation.
3. Demonstrate how to setup and maintain a mechanical ventilator.
4. Formulate appropriate cardiopulmonary treatment plans.

RESP 2230L. Respiratory Therapy V Laboratory
2 Credits (2)
Advanced practice and procedures of respiratory care. Requires a C or better to remain in program.
Prerequisite: C or better in the Following: RESP 2120L & RESP 2120, RESP 2330.
Learning Outcomes

1. Demonstrate and perform cardiopulmonary diagnostic procedures.
2. Formulate appropriate cardiopulmonary treatment plans.
3. Determine appropriate interventions in a critical medical situation.
4. Demonstrate how to setup and maintain a mechanical ventilator.

RESP 2242. Pediatric Advanced Life Support (PALS)
1 Credit (1)
Etiology, diagnosis, clinical manifestations, and management of cardiopulmonary disorders related to respiratory care.
Prerequisite: C or Better in RESP 2230 & RESP 2230L.
Corequisite: RESP 2230.
Learning Outcomes

1. Accurately identify and perform a complete cardiopulmonary assessment of a critically ill pediatric patient.
2. Summarize review-content and complete mock CRT and RRT examinations.
3. Compare and contrast the components of pediatric and neonatal ventilators.
4. Correctly perform and assess effectiveness of respiratory therapy on neonatal/pediatric patients.

RESP 2243. Respiratory Therapy Neonatal Resuscitation
1 Credit (1)
Advanced practice of the neonatal resuscitation and certification. Students must be admitted into program to enroll in this course.
Prerequisite: C or better in the following courses: RESP 2230, RESP 2230L.
Learning Outcomes

1. Use critical thinking, problem solving and ethical decision-making in the assessment, diagnosis, planning, evaluation, and implementation of respiratory procedures.
2. Recognize emergency situations and respond appropriately.
3. Compose a patient assessment Compose a patient SOAP/Patient Assessment document.
4. Demonstrate and perform cardiopulmonary diagnostic procedures.

RESP 2330. Respiratory Therapy IV Clinical
3 Credits (9P)
Emphasis on mechanical ventilators.
Prerequisite: C or better in the following courses: RESP 1250, RESP 1250L, and RESP 1330.
Learning Outcomes

1. Maintain Patient confidentiality/privacy as defined by HIPAA.
2. Use critical thinking, problem solving and ethical decision-making in the assessment, diagnosis, planning, evaluation, and implementation of respiratory procedures.
3. Recognize emergency situations and respond appropriately.
4. Compose a patient assessment Compose a patient SOAP/Patient Assessment document.
5. Demonstrate and perform cardiopulmonary diagnostic procedures.
6. Demonstrate how to set up and maintain a mechanical ventilator.
7. Demonstrate appropriate patient/physician interactions in the clinical setting.

RESP 2332. Respiratory Therapy V Clinical
3 Credits (3)
Emphasis on special modalities.
Prerequisite: C or better in the following courses: RESP 2120 and RESP 2120L.
Learning Outcomes

1. Demonstrate and perform cardiopulmonary diagnostics procedures during mechanical ventilation.
2. Demonstrate appropriate patient/physician interactions needed in the clinical setting.
3. Demonstrate how to set up, maintain, and wean a patient from a mechanical ventilator.
4. Compose a patient assessment on a patient receiving mechanical ventilation.
5. Formulate appropriate cardiopulmonary treatment plans for mechanical ventilation.
6. Determine appropriate interventions in a critical medical situation.
7. Document ventilator parameters, alarm settings, and patent assessment.

RESP 2334. Respiratory Therapy VI Clinical
3 Credits (9P)
Advanced Clinical experience on special modalities.
Prerequisite: C or better in the following courses: RESP 2230, RESP 2230L, RESP 2110 and RESP 2330.
Learning Outcomes

1. Maintain Patient confidentiality/privacy as defined by HIPAA.
2. Use critical thinking, problem solving and ethical decision-making in the assessment, diagnosis, planning, evaluation, and implementation of respiratory procedures.
3. Recognize emergency situations and respond appropriately.
4. Compose a patient assessment Compose a patient SOAP/Patient Assessment document.
5. Demonstrate and perform cardiopulmonary diagnostic procedures.
6. Demonstrate how to set up and maintain a mechanical ventilator.

7. Demonstrate appropriate patient/physician interactions in the clinical setting.