# Respiratory Health
(03/18/2013-04/12/2013)
Sean Garcia MD and Kristin Fiebelkorn MD

## Description

The Respiratory Health module integrates basic science and clinical concepts related to respiratory health and disease. A comprehensive study is conducted of the normal structure and function, pathophysiology/pathology, clinical manifestations, and interpretation of diagnostic tests for respiratory diseases. Through innovative learning methods, the student is immersed in a multidisciplinary study of pharmacotherapeutic approaches to treatment, interventional therapies, the use of evidence-based medicine and research, epidemiology, and prevention in the field of respiratory health.

## Module Goals

At the completion of this module, students will have an understanding of normal respiratory structure and function, pathophysiology and pathology, diagnostic strategies and management of respiratory disease. Students will apply the principles of evidence based medicine, epidemiology, and public health to the management and prevention of respiratory disease.

## Major Competencies

- Demonstrate knowledge of normal structure and function, epidemiology, pathophysiology, and clinical manifestations of common conditions and diseases of the respiratory system.
- Recognize the typical physical exam manifestations of respiratory diseases, and perform basic interpretation of commonly used diagnostic tests.
- Demonstrate skills in clinical reasoning and problem solving to diagnose and construct appropriate management strategies for common conditions and disorders of the respiratory system.
- Demonstrate appropriate patient advocacy and provide compassionate care for patients with respiratory disorders, and apply principles of relieving total pain.

## Module Pedagogy

| Lecture: | 17 hours |
| Team Based Learning: | 9 hours |
| Cases: | 16 hours |
| Lab: | 6 hours |
| Interactive panel discussion: | 4 hours |
| Small group discussion: | 4 hours |
| Online tutorial/cases: | 1 hour |

## Weekly Themes

**Week 1:** How your lungs work
- Oxygenation disorders (INTERACTIVE) (Team-based Learning)
- Normal structure and function, ARDS (Histo/Path Lab)

**Week 2:** Obstructive and restrictive disorders
- Hypercapneic disorders (INTERACTIVE) (Team-based Learning)
- Developmental & neonatal respiration, ARDS (Lecture)
- Normal structure and function, ARDS (Histo/Path Lab)

**Week 3:** Vascular disorders, infection, and neoplasia
- Ventilation & perfusion (INTERACTIVE) (Team-based Learning)
- Normal structure and function, ARDS (Histo/Path Lab)
- Neonatal respiration & ARDS (Team-based Learning)
- Multidisciplinary Rounds

## Case-Based Synthesis Topics

**Week 1:** Obesity hypoventilation/obstructive sleep apnea

**Week 2:** Asthma in a pediatric patient

**Week 3:** Small cell carcinoma of the lung