Module Objectives

The Respiratory Health module encompasses basic science and clinical concepts related to respiratory health and disease. Topics covered will include normal structure and function, pathophysiology/pathology, the clinical manifestations of respiratory diseases, and the interpretation of diagnostic tests. Also included are 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:
- Develop a clinical understanding of:
  - Basic anatomy, microanatomy, and physiology of the respiratory system
- Develop a systematic clinical approach to pathogenesis, diagnosis of:
  - Obstructive lung disease
  - Restrictive lung disease
  - Respiratory infections
  - Pulmonary vascular diseases
  - Lung cancer
  - Diseases of pleura and chest wall

- Develop an understanding of the therapeutics including general and targeted therapy of:
  - Respiratory infections
  - Obstructive lung disease
  - Respiratory infections

UTHSCSA Competencies and Module Objectives

1. Demonstrate an understanding of psychosocial factors that impact health
   a. obj 01 Discuss the psychosocial aspects of caring for a patient with a respiratory disorder.
2. Normal structure and function
   a. obj 02 Demonstrate knowledge of structure and function of the components of the respiratory system
3. Pathophysiology/pathology
   a. obj 03 Demonstrate knowledge of the pathogenesis and pathophysiology of respiratory disorders
4. Clinical manifestations of disorders
   a. obj 04 Demonstrate knowledge of clinical manifestations of the respiratory disorders
5. Pharmacotherapeutic modalities
   a. obj 05 Describe the mechanism of action and clinical uses and toxicities bronchodilators, respiratory treatments, and antibiotics.
6. Clinical and translational research
   a. obj 06 Appreciate the role of clinical and translational research with respect to molecular and genetic advances in respiratory disorders.
7. Epidemiology of common conditions
   a. obj 07 Review key disease demographics for the respiratory disorders.
8. Respiratory history
   a. obj 08 Describe content of each of the essential components of the respiratory history
9. Physical exam
   a. obj 09 Describe essential components of the respiratory physical exam
10. Interpretation of diagnostic tests
    a. obj 10 Interpret data including: ABG, CXR, PFTs, CBC, and metabolic profile.
11. Exam manifestations of disorders
    a. obj 11 Recognize the common exam findings of respiratory disorders and lung cancer.
12. Clinical reasoning and problem solving
    a. obj 12 Apply knowledge of symptoms, signs, and clinical data to diagnose patient cases with respect to respiratory disorders
13. Pain and suffering
    a. obj 13 Recognize that patients with respiratory disorders often have pain and suffering related to their illness; apply principles of relieving total pain to this population.

Instructional Method Summary

Week 1: How Your Lungs Work
- Intro to Case of the Week
- Intro to Module
- Intro to WIFE COPD Normal Microanatomy
- Transport of Oxygen and Carbon Dioxide
- Approach to Lung Disease, PFTs and CXRs
- Physiology Problem Set

Week 2: Obstructive and Restrictive Disorders
- COPD (Chronic Bronchitis and Emphysema)
- Pathology of Obstructive Respiratory Diseases
- Pathology Restrictive Respiratory Diseases
- Pulmonary Hypertension and Venous Thromboembolic Disease
- Management and Prognostic Factors in Patients with Chronic Lung Disease
- Adult Asthma
- Pharmacologic Management of Obstructive Diseases

Week 3: Vascular Disorders, Infection, and Neoplasia
- Respiratory Infections
- Pneumonia Cases
- Differential Diagnosis of Dyspnea
- Upper and Lower Respiratory Infections
- Chronic Respiratory Infections
- Pulmonary Hypertension and Pulmonary Vascular Disease, Venous Thromboembolic Disease
- Infection and Neoplasia and Vascular

Week 4: Exam Week