

Please contact Dr. Jon prior to starting the rotation.

<b>Faculty In Charge Of Course:</b>	Cindy Jon, MD (713) 500-5650 <i>Cindy.Jon@uth.tmc.edu</i>
<b>Participating Faculty:</b>	Cindy Jon MD, James Stark MD PHD, Ricardo Mosquera MD, Aravind Yadav, MD, Katrina McBeth, MD
<b>Location:</b>	Memorial Hermann Hospitals, LBJ, UT Professional Building
<b>Offered:</b>	Blocks 1-7, 10, 11, 13
<b>Max. # Students/Period:</b>	1

**Course Objective**

**Material Covered:**

This elective will expose students to a variety of pediatric respiratory diseases. Students will evaluate and manage a broad range of pediatric respiratory diseases, including but not limited to asthma, bronchopulmonary dysplasia, chronic respiratory failure and ventilator dependence, sleep apnea, and respiratory consequences of neuromuscular disease.

**Specific learning objectives for this elective are as follows:**

**Skills Acquired:**

Patient Care and Medical Knowledge

1. Obtain a comprehensive but concise history of respiratory complaints and associated symptoms

- Symptoms = Dyspnea, Cough, Wheezing, Stridor
- History components = Onset, Frequency, Duration, Relieving/Aggravating factors, Severity, Quality
- Past pulmonary history from birth to present
- Family history of pulmonary disease
- Exposures = Daycare, TB, tobacco smoke
- Associated symptoms/conditions = Allergic rhinitis, Dysphagia, GER, sinusitis

2. Perform a pulmonary physical examination appropriate for MS IV training level including:

- Patterns of breathing: Kussmaul, Cheyne-Stokes, abdominal-thoracic asynchrony, accessory muscle use
- Thoracic Cage Abnormalities = Kyphosis, scoliosis, pectus excavatum and carniatum
- Lung Exam
  - Inspection
  - Percussion
  - Palpation
  - Auscultation
  - Distinction between normal and abnormal breath sounds
- Cardiac exam findings with respiratory disease
- Extremity Exam (clubbing, cyanosis, edema)

3. Interpret the following diagnostic studies:

- Chest x-ray
- Chest CT
- Pulmonary function testing, including spirometry
- Blood gas analysis
- Sputum analysis (bacterial, mycotic, mycobacterial, PCP)
- Sweat Chloride

4. Describe the indication for airway endoscopy in children

5. Describe basic airway anatomy

6. Discuss the appropriate evaluation, management and diagnostic studies for respiratory disease commonly seen in children, such as chronic cough, recurrent wheezing, asthma, acute tracheitis, pneumonia, bronchiolitis, chronic lung disease of infancy, congenital lung and airway abnormalities, aspiration lung injury and dysphagia, cystic fibrosis, gastroesophageal reflux related breathing disorder, ventilator dependence, recurrent pneumonia, vocal cord dysfunction, sleep apnea, and respiratory illness in patients with neuromuscular disorder, immunodeficiency, and congenital heart disease.

Practice Based Learning and Improvement

- 7. Identify strengths, deficiencies, and limits in one's knowledge and skills
- 8. Search, appraise, and assimilate evidence from medical literature related to their patients' clinical case
- 9. Utilize information technology to enhance patient education and care.

Interpersonal and Communication Skills

- 10. Present the patient’s case on rounds in a systematic, clear, concise, and organized way
- 11. Complete all medical record documentation in a legible, timely and informative manner
- 12. Interact with patients and their families in a professional, compassionate, and considerate manner
- 13. Collaborate with other team members to provide the best patient care

**Professionalism**

- 14. Demonstrates reliability, responsibility, and respect for patients and families
- 15. Optimizes comfort and privacy of patients when performing history, physical exam and procedures
- 16. Perform duties in a timely manner
- 17. Responds to constructive feedback by improving behavior and/or skill

**Systems Based Practice**

- 18. Coordinate patient care within the health care system. Interact with and utilize nurses, respiratory therapists, social workers, case managers, dieticians, and medical assistants to optimize patient care.
- 19. Identify evidence-based, cost-effective strategies in patient care

**Activities Of Elective**

**Number Of New Patients/Student/Week:** 8-15

**Responsibilities Of Student For Assigned Patients:**

Does history/physical:	Yes
Who critiques:	Faculty supervising student
Follows patients, with appropriate notes as needed:	Yes
Who supervises:	Faculty
Does student see ambulatory patients:	Yes

Procedures	Observe	Perform
<b>Pulmonary function test</b>	<b>X</b>	
<b>Bronchoscopy</b>	<b>X</b>	
<b>Ventilator management</b>	<b>X</b>	
<b>Blood gas analysis</b>	<b>X</b>	

**Scheduled Duties of Student:**

Frequency of rounds on patients	Weekdays
Presents patients to preceptor or attending physician	Yes
Weekly schedule of required teaching sessions	<ul style="list-style-type: none"> <li>• Each Thursday, the Division of Pediatric Pulmonary Medicine has a didactic lecture series focused on the pathology and physiology of pediatric pulmonary disease.</li> <li>• During hospital rounds and in clinic, we review and discuss each patient’s case in detail regarding the pulmonary disease presentation, natural history, pathophysiology, diagnostic evaluation, clinical management and prognosis.</li> <li>• The student will meet with the Elective Director weekly to review pulmonary core topics:                             <ul style="list-style-type: none"> <li>○ History and Physical examination in pediatric patients with pulmonary disease</li> <li>○ Basic pulmonary function test interpretation</li> <li>○ Asthma</li> <li>○ Cystic fibrosis</li> <li>○ Bronchiolitis</li> <li>○ Tracheostomy tubes, Ventilators, and airway clearance</li> <li>○ Sleep apnea</li> </ul> </li> </ul>

**Describe Optional Rounds And Activities, If Any:**

N/A

**Other Required Activities:**

Reading/review of current literature	Yes
Writing or presenting a paper	No

**How Is Student Evaluated:**

Students will be evaluated based on their clinical performance and successful completion of the learning objectives. During the midpoint of the rotation, we will provide constructive feedback to improve the student's learning process and any deficiencies.

**Who Evaluates Students:**

Cindy Jon, MD

**Unique Features Of This Elective:**