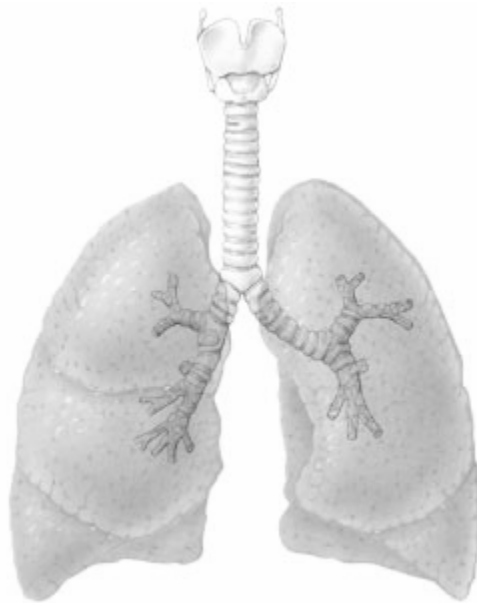




BRIDGEPORT HOSPITAL  
YALE NEW HAVEN HEALTH

Department of Medicine  
Internal Medicine Residency Program



Workbook  
for the  
Pulmonary Disease  
Elective Rotation

Updated: July 2007

## **PULMONARY FUNCTION LABORATORY WORKSHEET**

### Expectations:

1. Spend two days in the PFT lab. Coordinate with Joe Horne to set this up.
2. Get PFTs done on yourself.
3. Learn to perform basic spirometry, lung volumes, and diffusing capacity.
4. Perform three spirometry tests with supervision.
5. Attend physiology sessions with Joe Horne.
6. Learn to read pulmonary function tests.
7. Formally interpret 10 pulmonary function tests.
8. Learn the physiological basis for and/or how to conduct the following tests:
  - Spirometry
  - Bedside Spirometry
  - Spirometry with Bronchodilators
  - Lung Volumes (FRC, TLC, RV)
  - Diffusion Capacity
  - 6 Minute Walk Test
  - Desaturation Studies
  - Cardiopulmonary Exercise Studies
  - Maximum Inspiratory/Expiratory Pressures
  - Airway Conductance/Resistance (Body Plethysmography)
  - Exercise Challenge Studies
  - Methacholine Challenge Studies
  - Cold Air Challenge Studies
  - Bronchoscopy Assist
9. Learn about the Better Breathers Club and the Quit Smart Smoking Cessation Program from Joe Horne.
10. Attend sessions (one each) if they occur during your rotation.

**PULMONARY FUNCTION LABORATORY WORKSHEET**

Pulmonary function tests interpreted (attach copies):

	<u>Last Name</u>	<u>First Name</u>	<u>MR Number</u>	<u>Date</u>
01.	_____	_____	_____	_____
02.	_____	_____	_____	_____
03.	_____	_____	_____	_____
04.	_____	_____	_____	_____
05.	_____	_____	_____	_____
06.	_____	_____	_____	_____
07.	_____	_____	_____	_____
08.	_____	_____	_____	_____
09.	_____	_____	_____	_____
10.	_____	_____	_____	_____

I interpreted these tests myself and reviewed them with the fellow and the attending physician.

\_\_\_\_\_  
Signed                      Medicine Resident

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signed                      Pulmonary Attending

\_\_\_\_\_  
Date

**PULMONARY FUNCTION LABORATORY WORKSHEET**

PFT Testing Checklist:

Dr. \_\_\_\_\_ had pulmonary function tests performed on him/herself today.

\_\_\_\_\_  
Signed: Pulmonary Function Technologist

\_\_\_\_\_  
Date

Dr. \_\_\_\_\_ performed pulmonary function tests on the following patients under my supervision:

	<u>Last Name</u>	<u>First Name</u>	<u>MR Number</u>	<u>Date</u>
01.	_____	_____	_____	_____
02.	_____	_____	_____	_____
03.	_____	_____	_____	_____
04.	_____	_____	_____	_____
05.	_____	_____	_____	_____

\_\_\_\_\_  
Signed: Pulmonary Function Technologist

\_\_\_\_\_  
Date

## **PULMONARY FUNCTION LABORATORY WORKSHEET**

### **Checklist:**

Dr. \_\_\_\_\_ learned about the following

topics during his/her Pulmonary Rotation:

- Spirometry
- Spirometry with Bronchodilators
- Lung Volumes (FRC, TLC, RV)
- Diffusion Capacity
- 6 Minute Walk Test
- Desaturation Studies
- Cardiopulmonary Exercise Studies
- Maximum Inspiratory/Expiratory Pressures
- Airway Conductance/Resistance (Body Plethysmography)
- Exercise Challenge Studies
- Methacholine Challenge Studies
- Cold Air Challenge Studies
- Bronchoscopy Assist
- Quit Smart Smoking Cessation Program
- Better Breathers Club

### **Notes:**

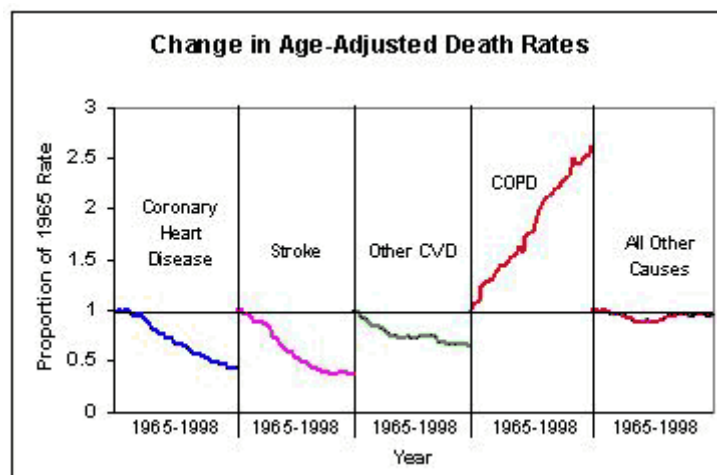

\_\_\_\_\_  
Signed: Joseph Horne, RPFT

\_\_\_\_\_  
Date

## **RESPIRATORY THERAPY WORKSHEET**

### Expectations:

1. Spend a day working with one of the respiratory therapists. Coordinate with Jeff Borges to set this up.
  - Learn how to set up and administer a nebulizer treatment.
  - Learn how to set up oxygen therapy.
  - Learn to do chest PT and IPPB.
  - Try to accomplish as many of the tasks on the checklist that you can.
2. Review non-invasive ventilation with Jeff Borges.
  - Learn the difference between BiPAP and CPAP.
  - Learn the indications and contraindications.
  - Learn to set up and use the machine
  - Learn to choose and fit a mask with Beth McCarthy
3. Review ventilator graphics presentation with Jeff Borges.
4. Learn to set up a ventilator with one of the respiratory therapists.
5. Read the NIV protocols and review them with Jeff Borges.
6. Be a patient on the ventilator.
7. Review mechanical ventilation with Jeff Borges.



**RESPIRATORY THERAPY WORKSHEET**

**Respiratory Therapist Shadowing Checklist:**

Dr. \_\_\_\_\_ spent the day with me

learning the following respiratory therapy techniques and procedures:

- Use of nebulizer and administration of nebulized medications.
- Set up and use of oxygen therapy.
- Set up and use of IPPB.
- Chest Physio-Therapy.
- Tracheostomy tube care.
- Arterial Blood Gas puncture.
- Non-Invasive Ventilation set up and use.
- Peak Flow Measurement.
- Sputum Induction.
- Pulse-Oximetry.
- Respiratory Assessment.

**Notes:**


\_\_\_\_\_  
Signed: Respiratory Therapist

\_\_\_\_\_  
Date

## RESPIRATORY THERAPY WORKSHEET

Dr. \_\_\_\_\_ accomplished the following  
during his/her Pulmonary rotation:

- Learned about the ventilator by trying it as a patient using a mouthpiece.
- Learned about indications, contraindications, and practical aspects of NIV.
- Demonstrated basic understanding of principles of mechanical ventilation and use of the ventilator.
- Viewed the graphics presentation and reviewed it with me.
- Spent a day with one of the respiratory therapists.

Notes:


Signed: Jeffrey Borges, RRT

Date

**SLEEP CENTER WORK SHEET**

Expectations:

1. Meet with Beth McCarthy and learn about:
2. Learn what masks are available and how to choose and fit a mask for CPAP/BiPAP.
3. Learn the indications for CPAP therapy.
4. Types of machines available and features they offer.
5. Learn what is necessary to qualify for CPAP/BiPAP for Medicare and insurance coverage.
6. Problems with compliance.
7. Review two sleep studies with Beth McCarthy and then with Dr. Lvovsky.

Dr. \_\_\_\_\_ learned about the following

topics during his/her Pulmonary Rotation:

- Choice and fitting of a mask for non-invasive ventilation
- Indications and qualifications for CPAP and BiPAP.
- CPAP education.
- CPAP and BiPAP equipment.
- Compliance issues.

\_\_\_\_\_  
Signed: Elizabeth McCarthy, RRT

\_\_\_\_\_  
Date

Dr. \_\_\_\_\_ reviewed sleep studies on

the following patients with me and has a basic understanding of polysomnography:

	<u>Last Name</u>	<u>First Name</u>	<u>MR Number</u>	<u>Date</u>
01.	_____	_____	_____	_____
02.	_____	_____	_____	_____
03.	_____	_____	_____	_____

\_\_\_\_\_  
Signed: Dmitry Lvovsky, MD

\_\_\_\_\_  
Date





**PULMONARY DISEASE ELECTIVE ROTATION CONFERENCE ATTENDANCE**

I attended the following Pulmonary conferences during my rotation:

Conference	Topic	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Verified on attendance lists:

Signed: Lucilina Gilkes \_\_\_\_\_

Date \_\_\_\_\_

**PULMONARY DISEASE ELECTIVE ROTATION TOPIC REVIEW WITH PROGRAM DIRECTOR**

Dr. \_\_\_\_\_ reviewed the following topics with me and demonstrated knowledge of the subject:

- NIH Asthma Guidelines and asthma education plan.
- Airway physiology and spirometry.
- GOLD criteria and COPD management.
- Interpretation of chest CT.
- Pulmonary Hypertension (made table).
- Evaluation and treatment of latent TB.
- Use of Advair and Spiriva and MDI's

\_\_\_\_\_  
Signed: Thomson C. Pancoast, MD

\_\_\_\_\_  
Date

**PULMONARY DISEASE ELECTIVE ROTATION FINAL PROJECT**

Dr. \_\_\_\_\_ prepared an end of the rotation lecture on the

topic: \_\_\_\_\_ and presented it to the section.

\_\_\_\_\_  
Signed: Thomson C. Pancoast, MD

\_\_\_\_\_  
Date

**PULMONARY KNOWLEDGE WORKSHEET:**

1. Define dynamic airway compression and collapse:

---

---

---

---

2. Outline what FRC is and what it represents physiologically:

---

---

---

---

3. Define the steps for asthma from the NIH guidelines, the associated symptoms and peak flows, and the treatment recommendations:

---

---

---

---

---

---

---

---

---

---

4. Define the stages of COPD using the GOLD and the ATS/ERS criteria. Note the differences.

---

---

---

---

---

---

---

---

---

---

5. List the Idiopathic Interstitial Pneumonias and their characteristic histopathology:

---

---

---

---

---

---

---

---

6. List the WHO classification for pulmonary hypertension:

---

---

---

---

---

---

7. Define empyema and parapneumonic pleural effusion:

---

---

---

---

8. Define a positive PPD based on risk factors:

---

---

---

---

---

---

9. Describe the utility of the D-dimer test in the evaluation of suspected pulmonary embolism:

---

---

---

---

10. List the symptoms associated with obstructive sleep apnea:

---

---

---

---