

**HACKETTSTOWN REGIONAL MEDICAL CENTER
CARDIO PULMONARY POLICY MANUAL
PULMONARY FUNCTION TESTING**

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Effective Date: August 2009
Cross Referenced:
Reviewed Date: 02/16
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Policy No: 4B.001
Origin: Cardio Pulmonary
Authority: Cardio/Pulmonary Manager
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Purpose: It is the policy of the Respiratory Care Department to perform diagnostic testing to evaluate the patient's pulmonary status as ordered by the physician.

Procedure:

1. Press 'ON' button on back of computer, then press power button on the computer. Check that tanks are turned on. Make sure cylinder pressures are appropriate. Double click on the Compass icon. Check absorber chemicals and change as necessary.
2. Enter System Password. Enter the appropriate username and password and hit enter.
3. Calibrate the machine. Click on the calibration icon. Perform QC Spirometer, QC Pneumotach, and QC analyzers. Follow the directions on the screen.
4. After checking patient identification, Enter Patient Data: Include ID number (medical record number), Secondary ID number (FIN number), Patients name, D/O/B, gender, race, height, weight, smoking history, attending (reading) physicians name, referring physicians name and diagnosis.
5. Run tests: Click on the run test icon. Testing will include Forced Vital Capacity (FVC), Functional Residual Capacity by Helium Dilution (FRC), Slow Vital Capacity (SVC) and Single Breath Lung Diffusion Capacity (DLCO). Post bronchodilator study will be performed if pre spirometry values are below 80%. If applicable, administer bronchodilator according to Policy 2.

A. Forced Vital Capacity, FVC is the first test (pre-bronchodilator)

Put patient on mouthpiece/nose clips, hit START Pre Effort,

- Have patient do normal breathing
- Then have patient take a deep breath in and blow out hard and fast and keep blowing out (trying to get to 6 seconds)
- Have patient take a deep breath in
- Hit space bar to end test
- Need to have patient perform a couple of times to show reproducibility.

If test is ordered Pre/Post or it meets the Bronchodilator Administration Policy (Policy 2), give the treatment now. Click on the inhaler and fill out the information in Compass.

B. Functional Residual Capacity by Helium Dilution, FRC

Hit START Pre Effort for machine to prepare for test. Put patient on mouthpiece/nose clips,

- Have them breathe normally and steady for 2-5 minutes until it says stable
- Then hit the space bar
- Have patient take a deep breath in
- And slowly breathe out until they have completely emptied their lungs--
Keep their mouth on the mouthpiece!!
- Then breathe normally
- Hit space bar to end test.

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C. Slow Vital Capacity, SVC

Hit START Pre Effort for machine to prepare for test. Put patient on mouthpiece/nose clips,

- Have pt. do normal breathing
- Have pt. take a deep breath in
- Have pt. breathe out slowly
- Hit space bar to end test.

D. Single Breath Lung Diffusion Capacity, DLCO

Hit START Pre Effort for machine to prepare for test. Connect patient to mouthpiece/nose clips,

- Click ready for test
- Have pt. do normal breathing
- Then have pt. take a deep breath in and blow it all the way out comfortably till it plateau's out---end expiration after curve----then space bar
- Then take a deep breath in quickly and hold for 10 seconds
- Then blow out
- Test ends itself.

If a bronchodilator treatment was administered, repeat Forced Vital Capacity. Choose Post Bronchodilator in box and perform (FVC) test again.

6. Print Reports and place patient identification labels on paperwork.
7. Scan Raw Data in to the patient's EMR, under pulmonary function data.
8. Original PFT data, along with pharmacy form (if needed) sent to Medical records.
9. Assemble paperwork/notify interpreting physician.
10. Charge for appropriate Pulmonary Function Test in Cerner.
11. Follow-up on reports.