COPD Spirometry Interpretation Tip Sheet

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1. Check the report date and **demographic** information: date, name, age, height, sex, and self-reported ethnicity.

2. Look for a comment by the **technician** to confirm that the procedure was performed in accordance with the American Thoracic Society/European Respiratory Society (ATS/ERS) standards and that there was a good patient effort.

3. Review the **FEV_1, FVC and FEV_1/FVC ratio**.

   a. Compare your patient's values to the **lower limit of normal** (LLN) for the predicted values.

      i. **Normal** is defined as ≥ the LLN; **abnormal** is defined as < the LLN.

   b. Is the post-bronchodilator FEV_1/FVC ratio normal or abnormal?

      i. Patients with COPD have a post-bronchodilator FEV_1/FVC ratio that is less than the LLN.

   c. Is the FVC normal or abnormal?

   d. Is the FEV_1 normal or abnormal?

4. Determine if **obstruction** is present.

   a. Obstruction is defined as a post-bronchodilator FEV_1/FVC ratio < the LLN.

   b. **If obstruction is present, quantify the severity** of airflow obstruction by the reduction of the post-bronchodilator FEV_1 % predicted of normal. (See Table below.)

5. Check for **bronchodilator responsiveness** (previously described as 'reversibility').

   a. Bronchodilator responsiveness is defined as an increase in FEV_1 > 200 ml and a 12-15% change from pre- to post-bronchodilator.

6. **Synthesize** the report by articulating whether or not there is airflow obstruction and the severity of the obstruction. Note whether the values for FEV_1, FVC and the FEV_1/FVC ratio are normal or abnormal, and whether there is any bronchodilator responsiveness. **Compare with previous** spirometry, if available. Summarize implications diagnostically and for follow-up spirometry.

Obstruction Severity Classification Table*

Severity classification	Post-bronchodilator FEV_1 % predicted
Mild	≥ 80%
Moderate	50-79%
Severe	30-49%
Very severe	<30%

**Reference: GOLD Guideline, 2019*

v1.0 April 2021

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