Table 1 - Key Indicators for Considering a COPD Diagnosis

Consider COPD, and perform spirometry, if any of these indicators are present in an individual over age 40. These indicators are not diagnostic themselves, but the presence of multiple key indicators increases the probability of a diagnosis of COPD.

- **Dyspnea** that is:
  Progressive (worsens over time).
  Usually worse with exercise.
  Persistent (present every day).
  Described by the patient as an "increased effort to breathe," "heaviness," "air hunger," or "gasping."
- **Chronic cough:** May be intermittent and may be unproductive.
- **Chronic sputum production:**
  Any pattern of chronic sputum production may indicate COPD.
- **History of exposure to risk factors:**
  Tobacco smoke (including popular local preparations).
  Occupational dusts and chemicals.
  Smoke from home cooking and heating fuel.

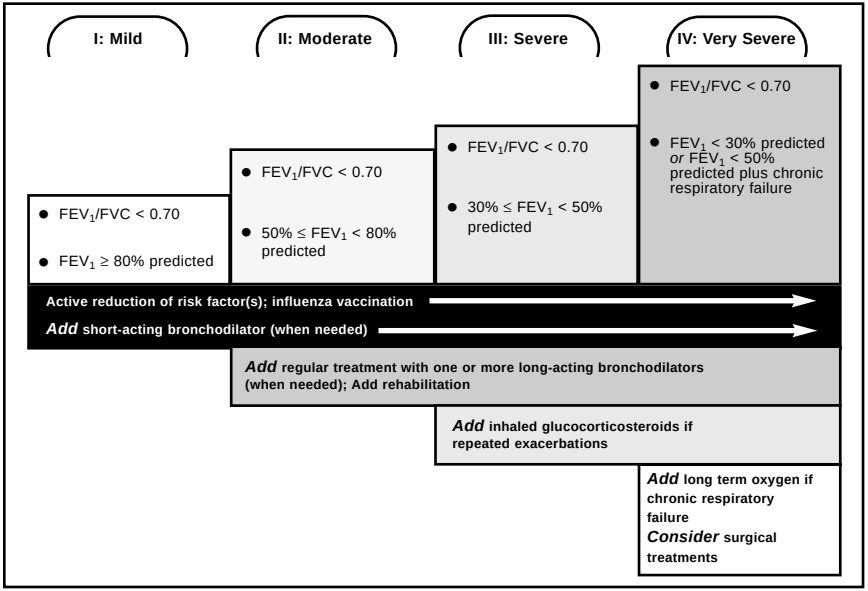
Consider COPD and perform spirometry if any of these indicators are present in an individual over age 40. These indicators are not diagnostic by themselves, but the presence of multiple key indicators increases the probability of a diagnosis of COPD. Spirometry is needed to establish a diagnosis of COPD.

Table 2 - Spirometric Classification of COPD Severity Based on Post-Bronchodilator FEV_1

Stage	Characteristics
I: Mild COPD	• $FEV_1/FVC < 70\%$ • $FEV_1 \geq 80\%$ predicted
II: Moderate COPD	• $FEV_1/FVC < 70\%$ • $50\% \leq FEV_1 < 80\%$ predicted
III: Severe COPD	• $FEV_1/FVC < 70\%$ • $30\% \leq FEV_1 < 50\%$ predicted
IV: Very Severe COPD	• $FEV_1/FVC < 70\%$ • $FEV_1 < 30\%$ predicted or $FEV_1 < 50\%$ predicted plus chronic respiratory failure

FEV_1: forced expiratory volume in one second; FVC: forced vital capacity; respiratory failure: arterial partial pressure of oxygen (PaO_2) less than 8.0 kPa (60 mm Hg) with or without arterial partial pressure of CO_2 ($PaCO_2$) greater than 6.7 kPa (50 mm Hg) while breathing air at sea level.

Table 3 - Therapy at Each Stage of COPD



Post-bronchodilator FEV_1 is recommended for the diagnosis and assessment of severity of COPD.

Table 4 - Management of Severe but Not Life-Threatening Exacerbations of COPD in the Emergency Department or the Hospital*

- Assess severity of symptoms, blood gases, chest X-ray.
- Administer controlled oxygen therapy and repeat arterial blood gas measurement after 30-60 minutes.
- Bronchodilators:
  - — Increase doses or frequency.
  - — Combine β_2-agonists and anticholinergics.
  - — Use spacers or air-driven nebulizers.
  - — Consider adding intravenous methylxanthine, if needed.
- Add glucocorticosteroids — Oral or intravenous.
- Consider antibiotics when signs of bacterial infection
  - — oral or occasionally intravenous.
- Consider noninvasive mechanical ventilation.
- At all times:
  - — Monitor fluid balance and nutrition.
  - — Consider subcutaneous heparin.
  - — Identify and treat associated conditions (e.g., heart failure, arrhythmias).
  - — Closely monitor condition of the patient.

**Local resources need to be considered.*