**Canadian Family Medicine Clinical Card**

**COPD**

**Key Reference:**

The authors and reviewers have made every attempt to ensure the information in the Family Medicine Clinical Cards is correct – it is possible that errors may exist. Accordingly, the source references or other authorities should be consulted to aid in determining the assessment and management plan of patients. The Cards are not meant to replace customized patient assessment nor clinical judgment. They are meant to highlight key considerations in particular clinical scenarios, largely informed by relevant guidelines in effect at the time of publication. The authors cannot assume any liability for patient outcomes when these cards are used.

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**Diagnosis:**
- CONDUCT post bronchodilator spirometry if: Smokers >40yo with dyspnea, cough or frequent RTIs
- DIAGNOSIS confirmed if: FEV₁ <80% of the predicted normal value, and FEV₁/FVC <0.7

**Assess Severity:**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Dyspnea when walking quickly on level or slight hill</th>
<th>MRC 2</th>
<th>FEV₁ &lt;80% predicted, FEV₁/FVC &lt;0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Dyspnea after a few min on flat, or forced to stop~100 m</td>
<td>MRC 3-4</td>
<td>FEV₁ &lt;60% predicted, FEV₁/FVC &lt;0.7</td>
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<tr>
<td>Severe</td>
<td>Dyspnea with dressing, unable to leave house, or the presence of chronic resp failure or signs of right heart failure</td>
<td>MRC 5</td>
<td>30%&lt;FEV₁&lt;50% predicted, FEV₁/FVC &lt;0.7, FEV₁&lt;30% predicted classified as Very Severe</td>
</tr>
</tbody>
</table>

**Management of Stable COPD:**

1. smoking cessation
2. exercise & education
3. Influenza vaccine (annually)
4. Pneumococcal vaccine - repeat every 5-10 years
5. Bronchodilators
6. Pulmonary rehabilitation if dyspnic with limited exercise ability, despite good Rx.
7. Home O₂ if PaO₂ ≤ 55 mmHg, or PaO₂-60mmHg with bilateral ankle edema, cor pulmonale, or hematocrit of >56%
8. Surgical treatment in some patient populations

**Diagnosis of COPD:**

- Smokers >40yo with dyspnea, cough or frequent RTIs
- Diagnosis confirmed if:
  - FEV₁ <80% of the predicted normal value, and FEV₁/FVC <0.7

**Bronchodilator Pharmacotherapy**

**Upgrading of Drug Therapy**

- 1st Line: SABA prn or SABA prn + LAMA or LABA
- 2nd Line: SABA prn + LAMA + LABA
- 3rd Line: SABA prn + LAMA + ICS/LABA + theophylline
- SABA=short acting bronchodilators incl. beta agonists and muscarinic antagonists. LAAC = long acting anti-cholinergic (a.k.a. Long acting anti-muscarinic antagonist (LAMA). LABA= long acting beta agonist. ICS=inhaled corticosteroids

**Acute Exacerbations:**
- Definition: Sustained worsening of one or more of dyspnea, cough, or sputum production, leading to change in Rx.
- ≥50% of AECOPD are infectious. Other causes: CHF, allergies, irritants, PE.
- Indication for hospital admission: Severe symptoms/signs, considerable comorbidities, inadequate home support. May require ICU transfer & BiPAP or invasive ventilation. ‘Hard to wean off’.
- Principles of Management:
  1. Assess ABCs. Consider O₂ therapy if risk of hypoxia
  2. Give increased dose of SABA+SAMA
  3. Oral or parenteral corticosteroids
  4. Antibiotics for more severe purulent AECOPD

**When to engage in end-of-life discussions:**
- FEV₁ <30% predicted, inspiratory capacity <80% predicted
- MRC grades 4-5 (see severity box above)
- Poor nutritional status (BMI<19kg/m²)
- Presence of pulm htn
- Recurrent severe AECOPD requiring hospitalizations