# Stepwise Management of Stable Chronic Obstructive Pulmonary Disease (COPD)

<table>
<thead>
<tr>
<th>MILD</th>
<th>MODERATE</th>
<th>SEVERE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>○ few symptoms</td>
<td>○ breathless walking on level ground</td>
<td>○ breathless on minimal exertion</td>
</tr>
<tr>
<td>○ breathless on moderate exertion</td>
<td>○ increasing limitation of daily activities</td>
<td>○ daily activities severely curtailed</td>
</tr>
<tr>
<td>○ recurrent chest infections</td>
<td>○ cough and sputum production</td>
<td>○ experiencing regular sputum production</td>
</tr>
<tr>
<td>○ little or no effect on daily activities</td>
<td>○ exacerbations requiring oral corticosteroids and/or antibiotics</td>
<td>○ chronic cough</td>
</tr>
<tr>
<td><strong>Typical lung function</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEV₁ ≈ 60-80% predicted</td>
<td>FEV₁ ≈ 40-59% predicted</td>
<td>FEV₁ &lt; 40% predicted</td>
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</tbody>
</table>

**Non-pharmacological interventions**

- **Risk Reduction**: Check smoking status, support smoking cessation, recommend annual influenza vaccine and pneumococcal vaccine according to immunisation handbook.
- **Optimise Function**: Encourage regular exercise and physical activity, review nutrition, provide education, develop GP management plan and written COPD action plan (and initiate regular review).
- **Consider Co-morbidities**: Especially cardiovascular disease, anxiety, depression, lung cancer and osteoporosis.
- **Refer**: Symptomatic patients to pulmonary rehabilitation.

**Stepwise pharmacological interventions (inhaled medicines)***

- **Start with short-acting relievers**: (used as needed)
  - **SABA** (short-acting beta₂-agonist) OR **SAMA** (short-acting muscarinic antagonist)

- **Add long-acting bronchodilators**: **LAMA** (long-acting muscarinic antagonist) OR **LABA** (long-acting beta₂-agonist)
  - Single inhaler dual therapy (LAMA/LABA) may be suitable

- **Consider adding ICS (inhaled corticosteroids)**
  - FEV₁ ≤ 50% predicted
  - AND ≥ two exacerbations in last 12 months
  - AND significant symptoms despite LAMA and LABA therapy*

- **ICS/LABA and LAMA**
  - Single inhaler triple therapy (ICS/LAMA/LABA) may be suitable

Assess and optimise inhaler device technique at each visit.

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**Refer Patients to Lung Foundation Australia for Information and Support - FreeCall 1800 654 301**

Lung Foundation Australia has a range of resources to promote understanding of COPD and assist with management.

*Refer to PBS criteria: www.pbs.gov.au

Register at www.copdx.org.au to receive an alert when the COPD-X Guidelines are updated.

Based on The COPD-X Plan: Australian and New Zealand Guidelines for the Management of COPD and COPD-X Concise Guide for Primary Care.
Green tick indicates therapies that can be used together

<table>
<thead>
<tr>
<th>SABA</th>
<th>SAMA</th>
<th>LAMA</th>
<th>LABA</th>
<th>ICS/ LAMA/LABA</th>
</tr>
</thead>
<tbody>
<tr>
<td>salbutamol (Ventolin\textsuperscript{™}, Aironi\textsuperscript{™}, Asmol\textsuperscript{™})</td>
<td>ipratropium (Atrovent\textsuperscript{™})</td>
<td>tiotropium (Spiriva\textsuperscript{™})</td>
<td>formoterol (Oxis\textsuperscript{™}, Foradil\textsuperscript{™})</td>
<td>indacaterol (Onbrez\textsuperscript{™})</td>
</tr>
<tr>
<td></td>
<td></td>
<td>glycopyronium (Seebri\textsuperscript{™})</td>
<td>umeclidinium/budesonide/formoterol (Anoro\textsuperscript{™})</td>
<td>fluticasone furoate/vilanterol (Brieniclo\textsuperscript{™})</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>tiotropium/olodaterol (Spiolto\textsuperscript{™})</td>
<td>budesonide/formoterol (Bromiclo\textsuperscript{™})</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>umeclidinium/indacaterol vilaanterollar (Ultibro\textsuperscript{™})</td>
<td>umeclidinium/vilanterol (Trelegy\textsuperscript{™})</td>
</tr>
</tbody>
</table>

### Relievers

**SABA: Short-acting beta\textsubscript{2}-agonists**

- Ventolin\textsuperscript{™}, MDI salbutamol
- Sama\textsuperscript{™}, MDI salbutamol
- Bricanyl\textsuperscript{™}, Turbuhaler\textsuperscript{™} terbutaline
- Aironi\textsuperscript{™}, Autohaler\textsuperscript{™} salbutamol
- Flixotide\textsuperscript{™}, MDI fluticasone propionate

**SAMA: Short-acting muscarinic antagonist**

- Atrovent\textsuperscript{™}, MDI ipratropium
- Bretaris\textsuperscript{™}, MDI tiotropium

### Maintenance

**LAMAs: Long-acting muscarinic antagonists**

- Incise\textsuperscript{™}, Ellipta\textsuperscript{™} umeclidinium
- Seebri\textsuperscript{™}, Breehaler\textsuperscript{™} glycopyronium
- Anoro\textsuperscript{™}, Ellipta\textsuperscript{™} umeclidinium/vilanterol
- Breo\textsuperscript{™}, Ellipta\textsuperscript{™} fluticasone furoate/vilanterol

**ICS/LABA combinations**

- Fluticasone propionate/salmeterol
- Budesonide/formoterol
- Fluticasone furoate/vilanterol
- Umeclidinium/vilanterol

### Flare Up Medicines

1. Antibiotics (Refer to Therapeutic Guidelines: Antibiotic: www.tg.org.au)
2. Oral steroids (prednisone, prednisolone)

**Notes**

- Handihaler, Breezhaler and Aerolizer devices require a capsule to be loaded into the device. All other devices are preloaded.
- Where possible, metered dose inhalers (MDI) should be used with a spacer
- ICS monotherapy is not indicated for COPD without co-existing asthma
- Shaded = PBS listed for asthma only

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4. Choose the inhaler device video.