**Corticosteroids**
- Maintenance use of oral corticosteroid therapy in COPD is not normally recommended.
- Some people with advanced COPD may need maintenance oral corticosteroids if treatment cannot be stopped after an exacerbation. Keep the dose as low as possible, monitor for osteoporosis and offer prophylaxis.

**Theophylline**
- Offer only after trials of short- and long-acting bronchodilators or to people who cannot use inhaled therapy.
- Prescribe by brand.
- Theophylline can be used in combination with beta2 agonists and muscarinic antagonists.
- Take care when prescribing to older people because of pharmacokinetics, comorbidities and interactions with other medications.
- Reduce Theophylline dose if macrolide or fluoroquinolone antibiotics (or other drugs known to interact) are prescribed to treat an exacerbation.

**Stepping Down Treatment for Patients with COPD on High Dose Inhaled Corticosteroids (ICS)**
Many patients with COPD are taking high dose ICS who may not require them.
See Dudley Step down Guidelines for guidance on which patients to consider stopping ICS and how to stop.

**ORAL THERAPY**

**Management of Acute Exacerbations**
- Increase frequency of short acting Bronchodilators use & consider giving via a nebuliser.
- Prednisolone 30mg once daily for 5-7 days.
- Administer antibiotics in accordance with local guidelines.

**Oxygen Therapy**
- Assess the need for oxygen therapy.
- Oxygen saturations less than 93% breathing air.
- Refer as per local guidelines.

**Mucolytic Therapy**
- Consider in people with a chronic productive cough and continue use if symptoms improve.
- Do not routinely use to prevent exacerbations.
- Carbochisteine capsules or oral liquid: 750mg three times a day for 4 weeks (capsules 375mg; Liquid 250mg/5mls) If no benefit stop treatment.
- If beneficial continue with 750mg twice a day.
- Steam inhalation can prove beneficial.

**Definition of COPD**
Chronic Obstructive Pulmonary Disease (COPD), a common preventable and treatable disease, is characterized by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response in the airways and the lung to noxious particles or gases. Exacerbations and comorbidities contribute to the overall severity in individual patients. It is the fourth leading cause of death in the world (GOLD 2017).

**A Full Clinical History is of Paramount Importance**
Diagnosis is confirmed using Post Bronchodilator Spirometry Ratio (FEV1/VC x 100) <70%

<table>
<thead>
<tr>
<th>FEV1 % Predicted</th>
<th>NICE 2010</th>
<th>GOLD 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥80% (+symptoms)</td>
<td>MILD</td>
<td>1</td>
</tr>
<tr>
<td>50-79%</td>
<td>MODERATE</td>
<td>2</td>
</tr>
<tr>
<td>30-49%</td>
<td>SEVERE</td>
<td>3</td>
</tr>
<tr>
<td>&lt;30%</td>
<td>VERY SEVERE</td>
<td>4</td>
</tr>
</tbody>
</table>

**NHS Dudley Respiratory Group**

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**CHRONIC OBSTRUCTIVE PULMONARY DISEASE TREATMENT GUIDELINES**

- This has been produced as a Quick Reference Guide, based on Dudley COPD Guidelines V9.0 September 2016.
- Professionals, who are managing patients with a Diagnosis of COPD, to select an appropriate inhaler device.
- There are many devices available, which has caused much confusion.
- These guidelines use an A B C D approach adapted from GOLD 2015.
- The cornerstone of treatment in COPD is inhaled bronchodilators.

**REMEMBER:** Bronchodilators are the cornerstone of treatment for patients with COPD.
**CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)**

## TREATMENT GUIDELINES

### SHORT ACTING BRONCHODILATORS

**SABA** - Short Acting Beta₂ Agonists

- **Salbutamol MDI** 100 micrograms
  - Two puffs as required
- **Salamol 100mcgs**
  - Two puffs as required
- **Ipratropium** 20 micrograms MDI
  - Two puffs four times a day

**SAMA** - Short Acting Muscarinic Antagonists

- **Ipratropium**
  - Two puffs four times a day

### LONG ACTING BRONCHODILATORS

- **LAMA** - Long Acting Muscarinic Antagonists

- **LABA** - Long Acting Beta₂ Agonists

### INHALED CORTICOSTEROIDS (ICS) in a combination Inhaler

- **ICS + LABA** in a combination inhaler

### INTERMITTENT BREATHELESSNESS AND/OR EXERCISE LIMITED

- **SABA OR SAMA**

### BREATHELESSNESS or 1 EXACERBATION

- **LAMA or LABA**
- **LAMA + LABA** in a combination inhaler

### BREATHELESSNESS with 2 or more EXACERBATIONS

- **ICS + LABA** in a combination inhaler plus LAMA

### SYMPTOMS

- **Low Risk**
  - Less Symptoms
  - CAT < 3
  - FEV₁ ≥ 70%

- **High Risk**
  - More Symptoms
  - CAT ≥ 10
  - FEV₁ < 50%

### KEY

- **SABA** - Short Acting Beta₂ Agonist
- **SAMA** - Short Acting muscarinic antagonist
- **LABA** - Long Acting Beta₂ Agonist
- **ICS** - Inhaled Corticosteroids
- **LAMA** - Long Acting Muscarinic Antagonist
- **MDI** - Metered Dose Inhaler

Adapted from GOLD 2017