**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.

**Oxygen Therapy**

- Assess the need for oxygen therapy.

- Oxygen saturations less than 93% breathing air.

- Refer as per local guidelines.

**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.

**Mucolytic Therapy**

- Consider in people with a chronic productive cough and continue use if symptoms improve. Do not routinely use to prevent exacerbations.

- Carbocisteine 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

**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

**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 2016)

**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>

- Choose a drug based on the person’s symptomatic response and preference, the drug’s side effects, potential to reduce exacerbations and cost.

- Do not use oral corticosteroid reversibility tests to identify patients who will benefit from inhaled corticosteroids.

- Be aware of the potential risk of developing side effects (including non-fatal pneumonia) in people with COPD treated with inhaled corticosteroids and be prepared to discuss with the patients – consider osteoporosis risk – see local guidance including FRAX score

- Ensure all patients have a personal management plan.

- Smoking cessation is the only intervention that reduces the decline of lung function in COPD. Encourage all patients to stop smoking.

- Encourage all patients to exercise. If the MRC is ≥3, or the patient considers themselves functionally disabled, refer to Pulmonary Rehabilitation.

- Advise Flu and Pneumococcal immunisation

- Check inhaler technique and Compliance at every opportunity.

**REMEMBER**: Bronchodilators are the cornerstone of treatment for patients with COPD
**TREATMENT GUIDELINES**

**CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

**SHORT ACTING BRONCHODILATORS**

Prescribe by brand

**INTERMITTENT BREATHLESSNESS AND/OR EXERCISE LIMITED**

- Smoking cessation
- Pulmonary rehabilitation
- Anxiety & depression
- Dietary advice
- Compliance & inhaler technique

**SHORT ACTING BRONCHODILATORS**

SABA

- **B**reathelessness or 1 exacerbation

- LAMA or LABA

- **A**lbuterol
- **B**udeprine

SAMA

- **C**hronic obstructive pulmonary disease

**LONG ACTING BRONCHODILATORS**

LABA

- **D**iabetes

- **E**scort

**INHALED CORTICOSTEROIDS (ICS)**

- Symcyt Turbohaler
- Fostair MDI

**LONG ACTING MUSCARINIC ANTAGONISTS (LAMA)**

- **A**mbronex

- **B**udeprine

**KEY**

- SABA: Short Acting Beta 2 Agonist
- SAMA: Short Acting muscarinic antagonist
- FEV1: Forced Expiratory volume in 1st second
- LABA: Long Acting Beta 2 Agonist
- LAMA: Long Acting Muscarinic Antagonist
- ICS: Inhaled Corticosteroids
- MDI: Metered Dose Inhaler

**INTERMITTENT BREATHLESSNESS**

AND/OR EXERCISE LIMITED

- 2 or more exacerbations

- FEV1 ≥ 50%

- FEV1 < 50%

- Prevention by inhaler

**RISK**

- High Risk

- Low Risk

**SYMPTOMS**

- More Symptoms

- Less Symptoms

**WEB**

www.dudleyrespiratorygroup.org

Based on Dudley COPD Treatment Guidelines Sept 2016

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