

## Guidelines for the Management of COPD

### Treatment goals of stable COPD

- Relieve symptoms
- Improve exercise tolerance
- Improve health status
- Prevent disease progression
- Prevent and treat exacerbations
- Reduce mortality

### Smoking cessation

Check smoking status, encourage patients to stop smoking and provide smoking cessation advice.

### Vaccinations

- Encourage annual influenza vaccination.
- Pneumococcal vaccinations are recommended for all patients  $\geq 65$  years of age, and recommended for younger patients with significant comorbid conditions.

### Managing exacerbations

Patients at risk of having an exacerbation should be given a written self-management plan on how to respond quickly to symptoms of exacerbations, including:

- when to increase as required bronchodilators, when to start oral corticosteroids and/or antibiotics, actions/healthcare professional to contact if symptoms do not improve.

Provide appropriate patients a home **Rescue Pack**:

- Antibiotics: doxycycline 100mg twice daily for 5 days. Second line if intolerant of doxycycline: clarithromycin 500mg twice daily for 5 days.
- Prednisolone 30mg once daily in the morning (plain tablets-not enteric coated) for 7 days.
- Monitor the use of rescue packs and advise patients to contact a healthcare professional if they need to use them or if their symptoms do not improve.

### Inhaled therapy

- Discuss and identify the most suitable inhaler device with the patient.
- Teach and assess inhaler technique. Ensure patient understands dose and importance of adherence.
- Use compatible spacer with MDI where appropriate.
- Discuss the benefits and risks of treatments, including potential side effects (including non-fatal pneumonia with inhaled corticosteroids).

### Monitoring and follow up

- Review patients with mild/moderate/severe COPD at least once a year, or more frequently if required. Review patients with very severe COPD at least twice per year.
- Review treatment and effectiveness, adherence, inhaler technique and side effects.
- Review symptom control, activities of daily living, exercise capacity and exacerbation frequency and severity.
- When changing or initiating treatment ensure two drugs from the same pharmacological group are not being taken simultaneously via different routes or forms.
- Provide written self-management advice that encourages patient's to respond promptly to the symptoms of an exacerbation.

### Pulmonary Rehabilitation

Offer to all appropriate patients on optimal therapy who consider themselves to be functionally disabled by COPD, including those who have had a recent hospitalisation for an acute exacerbation.

### Mucolytics

- Mucolytics (carbocysteine) may reduce exacerbations in patients with a chronic productive cough, but do not routinely use.
- Consider a four week trial in patients who have severe COPD with a history of hospitalisation and winter infective exacerbations (more than 2 per year) requiring antibiotics and who in stable state have a daily productive cough.
- Review treatment after 4 weeks and continue only if symptomatic improvement (decreased frequency of cough and sputum production).
- Mucolytics should not be used for acute exacerbations of COPD.

### Treatment choices: adapted from GOLD ABCD assessment (2017 Report)

-Initiation and escalation of treatment based on symptoms (mMRC and CAT) and risk of exacerbations. mMRC-Modified British Medical Research Council dyspnoea scale. CAT- COPD Assessment Tool.

**-Patients can start in any group, and change between groups, therefore regular assessment required.**

**SABA**-short acting  $\beta_2$  agonist. **SAMA**-short acting anti-muscarinic antagonist. **LABA**-long acting  $\beta_2$  agonist. **LAMA**-long acting muscarinic antagonist. **ICS**-inhaled corticosteroid. Continue SABA in each group.

Patient Group	Risk and symptoms	Symptoms		Exacerbation history (in last 12 months)	Initial treatment	Further treatment	Comments
		CAT score	mMRC				
A	Fewer symptoms Low risk	<10	0-1	0-1 (not leading to hospital admission)	SABA (or SAMA)	LAMA or LABA	
B	More symptoms Low risk	$\geq 10$	$\geq 2$	0-1 (not leading to hospital admission)	LAMA (or LABA)	Persistent symptoms: LAMA + LABA	
C	Fewer symptoms High risk	<10	0-1	$\geq 2$ or $\geq 1$ leading to hospital admission	LAMA (or LABA)	Further exacerbations: LAMA + LABA	Or LABA + ICS, but ICS increases risk of pneumonia
D	More symptoms High risk	$\geq 10$	$\geq 2$	$\geq 2$ or $\geq 1$ leading to hospital admission	LAMA + LABA	Further exacerbations: LABA + LAMA + ICS	Or switch to LABA + ICS, but no evidence of better prevention of exacerbations

GOLD Airflow limitation (spirometric grades, FEV<sub>1</sub> % predicted): GOLD 1:  $\geq 80\%$ , GOLD 2: 50-79%, GOLD 3: 30-49%, GOLD 4: <30%

	SABA	SAMA	LAMA	LABA	LAMA+LABA	LABA+ICS
<b>First choice inhaler</b>	<b>Salbutamol MDI 100 mcg</b> 1-2 puffs up to QDS PRN	<b>Ipratropium MDI 20 mcg</b> 1-2 puffs up to QDS PRN	<b>Acclidinium bromide (Eklira Genuair) 322mcg (DPI)</b> 1 puff BD	<b>Formoterol Easyhaler 12 mcg (DPI)</b> 1 puff BD	<b>Duaklir Genuair (formoterol/ acclidinium) 340/12mcg (DPI)</b> 1 puff BD	<b>Fostair 100/6 MDI or Fostair NEXThaler (beclometasone/ formoterol)</b> 2 puffs BD
<b>Second choice inhaler</b>	<b>Salbutamol 100mcg Easyhaler</b> 1-2 puffs up to QDS PRN		<b>Tiotropium (Spiriva) Respimat 2.5mcg</b> 2 puffs OD			<b>Relvar Ellipta 92/22mcg</b> 1 puff OD

Prescribe inhalers by brand name to ensure device continuity.

References: The Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2017. Available from: <http://goldcopd.org>. NICE-Chronic Obstructive Pulmonary Disease in over 16s, CG101, 2010.

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