# Guidelines for the Management of COPD in Primary Care

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East Lancashire Health Economy Medicines Management Board
www.elmmb.nhs.uk NHS

## Treatment goals of stable COPD

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

Before prescribing a medicine for COPD, consider the value the medicine will add relative to other proven interventions.

## Vaccinations

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

## Smoking cessation

Check smoking status, encourage patients to stop smoking and provide smoking cessation advice.*(NNT 5 – to prevent death at age 70 )*
*note patient's who continue to smoke will not be eligible for Oxygen Therapy.*

## 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.
(NNT 2 - to improve exercise tolerance by a clinically useful amount, NNT 4 to stop readmission over 6/12 if given early after an exacerbation)

## Inhaled therapy

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

## Mucolytics (carbocisteine)

-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. (750mg orally three times daily)

-Review treatment after 4 weeks and continue only if symptomatic improvement (ie decreased frequency of cough and sputum production). Coninue therapy if patient reports reduction in cough/ sputum or expectoration with no adverse effects (maintenance dose-750mg twice daily). Discontinue if no improvement in symptoms.

Useful Resources- NICE: www.nice.org.uk, GOLD: www.goldcopd.com Patient information leaflets: www.patient.co.uk GP airways group: www.gpiag.org CAT Scores: http://www.catestonline.co.uk/ Intensive Home Support Service - https://elht.nhs.uk/services/intensive-home-support-service

References: The Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2019. Available from: http://goldcopd.org.
NICE-Chronic Obstructive Pulmonary Disease in over 16s, CG101, 2010.

## Monitoring and Follow up

Review patients with COPD at least once a year, or more frequently if required.
Review patients with very severe COPD at least twice per year. Review treatment effectiveness, adherence, inhaler technique and side effects.
Videos for inhaler technique available *here*
Review symptom control, effect of COPD on activities of daily living, exercise capacity,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 an individualised written self-management plan
Screen for depression and anxiety using QOF screening tool and offer treatment if required.

## Managing Exacerbations

Exacerbations without more purulent sputum do not need antibiotic therapy unless there is consolidation on a chest radiograph or there are clinical signs of pneumonia. Consider using a delayed antibiotic prescription until bacterial infection confirmed. If sputum sample sent for testing, when results available:
• review antibiotic choice

• only change antibiotic if bacteria resistant and symptoms not improving.

**Prednisolone:30mg once daily in the morning for 5 days. (6x5mg tablets once daily.** 30 plain tablets-not enteric coated)

**Antibiotics only if indicated:** Amoxicillin 500mg one three times daily for 5 days. (15 capsules)
**Second line if penicillin allergy:** Doxycycline 100mg- 2 tablets on day one then one daily for a further 4 days. (6 tablets)

Patient's requiring 2 courses of medication for an exacerbation in 12 months should be reviewed as a priority. Refer East Lancs patients with high exacebation rates or regular use of rescue packs to the **Intensive Home Support Service via ICAT on 01282 805989 or for BwD patients contact 01772 777042, option 2- 7 day service 08:00 - 20:00**

## Rescue Packs

Should only be issued to patients who have a written self-management plan that covers how to respond quickly to symptoms of exacerbations. It should include :
-when to increase as required bronchodilators,
-when to start oral corticosteroids (and if necessary antibiotics,)
-who to contact if symptoms do not improve.

Examples of self-management plans **are available here**

| | | |
|---|---|---|
| **≥2 moderate exacerbations or ≥1 leading to hospitalisation** | **Group C**<br>LAMA | **Group D**<br>LAMA or<br>LAMA + LABA* or<br>ICS + LABA**<br>* Consider if highly symptomatic (e.g. CAT >20)<br>** Consider if eos ≥300 |
| **0 or 1 moderate exacerbations (not leading to hospital admission)** | **Group A**<br>A bronchodilator<br>(SABA or SAMA) | **Group B**<br>A long-acting bronchodilator<br>(LABA or LAMA) |
| | mMRC 0–1 CAT <10 | mMRC ≥2 CAT ≥10 |

LAMA=long-acting muscarinic receptor antagonists; LABA=long-acting beta$_2$ agonist; ICS=inhaled corticosteroids; CAT=COPD assessment test; COPD=chronic obstructive pulmonary disease; eos=blood eosinophil count in cells per microliter; mMRC=modified Medical Research Council dyspnoea questionnaire.

- Group A: all Group A patients should be offered bronchodilator treatment based on its effect on breathlessness. This can be either a short- or a long-acting bronchodilator - this should be continued if symptomatic benefit is documented
- Group B: For patients with severe breathlessness initial therapy with two bronchodilators may be considered
- Group C: Initial therapy should consist of a single long-acting bronchodilator
- Group D: in general, therapy can be started with a LAMA as it has effects on both breathlessness and exacerbations.
  For patients with more severe symptoms (order of magnitude of CAT™ ≥20), especially driven by greater dyspnoea and/or exercise limitation, LAMA/LABA may be chosen as initial treatment

In some patients, initial therapy with LABA/ICS may be the first choice; this treatment has the greatest likelihood of reducing exacerbations in patients with blood eosinophil counts ≥300cells/µl. LABA/ICS may also be an appropriate first choice in COPD patients with asthmatic features suggesting steroid responsiveness.
(ICS may cause side-effects such as pneumonia, so should be used as initial therapy only after the possible clinical benefits versus risks have been considered)

In certain circumstances specialist clinicians may feel that a patient requires an alternative inhaler/device other than those listed in the table.
Agreed alternative formulary options can be **viewed here.**

| | SABA or SAMA | LAMA | LABA | LAMA+LABA | ICS +LABA (consider if asthmatic features) | ICS+LABA+LAMA |
|---|---|---|---|---|---|---|
| **MDI** | **Salbutamol 100 mcg**<br>1-2 puffs up to QDS PRN<br>Or<br>**Ipratropium 20 mcg**<br>1-2 puffs up to QDS PRN | **Spiriva Respimat 2.5mcg**<br>(Tiotropium)<br>2 puffs OD | **Serevent Evohaler**<br>(salmeterol 25mcg)<br>2 puffs BD | **Spiolto Respimat**<br>(Tiotropium + Olodaterol)<br>2 puffs OD | **Fostair 100/6**<br>(Beclometasone+Formoterol) 2 puffs BD | **'Trimbow' MDI**<br>(87 mcg beclometasone + 5 mcg formoterol + 9 mcg glycopyrronium)<br>2 puffs BD |
| **DPI** | **Easyhaler Salbutamol 100 mcg**<br>1-2 puffs up to QDS PRN | **Braltus Zonda**<br>10 mcg<br>(Tiotropium)<br>1 puff OD<br><br>Stop SAMA if starting a LAMA | **Formoterol Easyhaler** 12 mcg<br>1 puff BD | **Ultibro Breezhaler**<br>(Glycopyrronium + Indacterol)<br>1 puff OD | **Fostair NEXThaler 100/6**<br>(Beclometasone+Formoterol) 1-2 puffs BD<br><br>*Or* **Fobumix Easyhaler** 160/4.5<br>(Budesonide+Formoterol) 2 puffs BD<br><br>*Or* **DuoResp Spiromax** 160/4.5<br>(Budesonide + Formoterol equivalent to 200/6mcg) 2 puffs BD | **Trelegy Ellipta**<br>(Umeclidinium+Vilanterol+Fluticasone)<br>1 puff OD<br>**Or Fostair NEXThaler 100/6** 1-2 puffs BD<br>**Or Fobumix Easyhaler** 2 puffs BD<br>**Or DuoResp Spiromax** 2 puffs BD<br>**PLUS**<br>**Braltus Zonda** 10 mcg (Tiotropium) 1 puff OD |

**GOLD 2019 strategy document recommends inhaled triple therapy (ICS/LAMA/LABA) ONLY for patients with advanced COPD with persistent symptoms and risk of exacerbations. The current recommendation from the GOLD document for primary choice of a dual therapy, and their preferred route before escalation to triple therapy is a LABA /LAMA combination, citing that a LABA / LAMA combination was superior to a LABA / ICS combination in preventing exacerbations and other patient reported outcomes.**
**https://goldcopd.org/wp-content/uploads/2018/11/GOLD-2019-v1.7-FINAL-14Nov2018-WMS.pdf**