

Primary Care Medicines Management of Stable COPD

Prescribing and Disease Management Information

Diagnosing COPD

There is no single diagnostic test for COPD. Making a diagnosis relies on clinical judgement based on a combination of history, physical examination and confirmation of the presence of airflow obstruction using spirometry.

Clinical features that increase probability of COPD

- Over 35 years, current or ex smoker **and**
- have any of the following symptoms:
 - exertional breathlessness
 - chronic cough
 - regular sputum production
 - frequent winter 'bronchitis'
 - wheeze

Clinical Features that lower probability of COPD

- chronic unproductive cough
- significant variable breathlessness
- night-time waking with breathlessness and/or wheeze
- significant diurnal or day-to-day variable symptoms

Spirometry

- Confirm COPD diagnosis by post bronchodilator spirometry using calibrated equipment.
- Spirometry should be carried out by a healthcare professional competent in its performance.
If this service is not available at your practice, refer to an accredited service easily accessible for the patient

Possible Reasons for Referral (referral for advice, specialist investigations or treatment may be appropriate at any stage of the disease)

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| <ul style="list-style-type: none"> • diagnostic uncertainty • onset of symptoms <40 years • suspected severe COPD • onset of cor pulmonale • frequent infections • family history of alpha-1 antitrypsin deficiency • rapid decline of FEV₁ | <ul style="list-style-type: none"> • bullous lung disease • haemoptysis • assessment for pulmonary rehabilitation • symptoms disproportionate to lung function deficit • assessment for oxygen therapy, long term nebuliser therapy or oral corticosteroid • assessment for lung volume reduction surgery or lung transplant |
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Vaccination Offer pneumococcal vaccination and annual influenza vaccination as recommended by NICE

Stop Smoking Therapy

Encourage all patients with COPD who still smoke, regardless of age, to stop and offer help to do so at every opportunity.

Useful contact: Surrey Stop Smoking: 08456023068 stop.smoking@surreyccg.gov.uk

Pulmonary Rehabilitation (PR)

Offer Pulmonary Rehabilitation to all appropriate people with COPD, including those who have had a recent hospitalisation for an acute exacerbation and those who consider themselves functionally disabled by COPD (usually MRC grade 3 or above). PR is highly cost effective in the management of COPD. PR also reduces admissions to hospital and is one of three interventions that prolong life in COPD; the other two are long term oxygen therapy in hypoxic patients and smoking cessation.

At Medication Review

- Review patients with mild/moderate COPD annually and review those with severe COPD at least twice per year.
- Regularly re-check inhaler technique and retrain patients often, inhaler technique deteriorates over time.
- With the patient, decide the best device for them – can they use it, is it suitable?
- Use a spacer device with MDI, this improves co-ordination and increases lung deposition.
- Review symptom control, activities of daily living, exercise capacity and number of COPD exacerbations in last 12 months using the MRC dyspnoea scale <https://www.blf.org.uk/Page/Breathlessness-lung-health> or <http://www.catestonline.org>
- Note the role of triple therapy has not been established in patients with milder disease and infrequent/no exacerbations.
- Be aware of potential side effects (including non-fatal pneumonia) in COPD treated with ICS and be prepared to discuss this with patients.
- Review steroid therapy in patients who have developed pneumonia on ICS, to reduce risk of further episodes.
- Give self-management advice that encourages patient's to respond promptly to the symptoms of an exacerbation. A Rescue Pack containing antibiotics and steroid tablets can be provided for appropriate patients (see box below).

Managing Exacerbations of COPD

A COPD exacerbation is a sustained worsening of a patient's symptoms beyond normal day to day variation. It can be associated with increased breathlessness, increased sputum volume, purulent sputum, increased cough and/or increased wheeze. Most exacerbations are caused by respiratory viral infection, some are caused by bacterial infection and some are related to ambient air pollution. *Early treatment of exacerbations reduces their impact and speeds recovery.*

- Give all patients with COPD written information about their lung condition, its treatment, what exacerbations are and how to keep themselves well ([access to BLF COPD leaflet](#)). People at risk of exacerbations (usually those who have had one before) should be given written self management plan ([access BLF self management tools](#)) on how to respond to quickly to symptoms of exacerbations by:
 - **stepping up bronchodilator therapy** to control symptoms.
 - **starting antibiotic therapy** if sputum is purulent.
 - **starting oral corticosteroid therapy** (unless contraindicated) if increased breathlessness or wheeze interferes with activities of daily living.
 - letting a healthcare professional know if they are unwell and being seen as soon as possible.
- Ensure that people at risk of exacerbations have a **good understanding** of these episodes and how to manage them. **In appropriate** patients, prescribe a course of antibiotics and corticosteroid tablets for patient to keep at home.
- **Rescue Pack** - Prescribe prednisolone 5mg tablets - Take SIX tablets in the morning for 7-14 days AND Amoxycillin 500mg capsules (unless allergic) – Take one capsule three times daily for 5 days. See local "Management of Infection" guidance for alternatives if allergic to amoxicillin.
- Monitor the use of these drugs and advise people to contact a healthcare professional if they need to use them or if their symptoms do not improve within 24 hours of starting the treatment. All patients should be reviewed in the practice after an exacerbation so as to log and read code the episode and discuss next steps e.g. PR referral, review of medication and specialist review.

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INITIATE OR REVIEW STOP SMOKING TREATMENT IN CURRENT SMOKERS
Refer to: Surrey Stop Smoking: 08456023068 stop.smoking@surreycc.gov.uk
Recommend physical activity

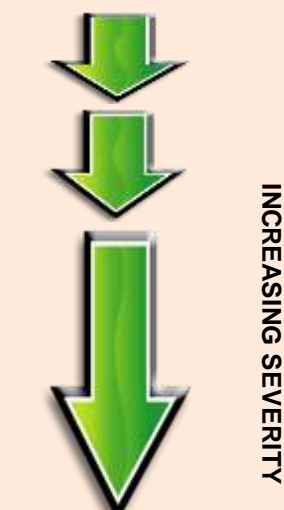
SABA-Short-acting beta 2 agonist **SAMA**-Short-acting anti-muscarinic antagonist **LABA**-Long-acting beta 2 agonist
LAMA-Long acting muscarinic antagonist **ICS**- Inhaled Corticosteroid

MILD

Breathlessness and exercise limitation.
Mild air flow limitation
≤ 1 exacerbations per year
FEV₁ ≥80% predicted
(Based on post bronchodilator FEV₁ with FEV₁/FVC <0.70)

MODERATE

Moderate air flow limitation
≤ 1 exacerbation per year
FEV₁ 50-79% predicted.



SEVERE

High risk of exacerbation
≥2 exacerbations per year
FEV₁ <30-49 % predicted

VERY SEVERE

High risk of exacerbation
≥2 exacerbations per year
FEV₁ <30 % predicted

Prolonged high dose ICS >1000 mcg BDP per day can result in systemic side effects such as adrenal suppression, osteoporosis, increased risk of pneumonia and diabetes. Be aware of potential for developing side effects and be prepared to discuss with patients.
Patients who have developed pneumonia on ICS should have steroid therapy reviewed to reduce risk of further episodes.

Offer SABA or SAMA as required

Inhaler choice—Metered Dose Inhaler (MDI) is preferred device.
Salbutamol MDI 100 micrograms - One or two puffs when required up to QID or
Ipratropium MDI 20 micrograms- One or two puffs when required up to QID
If patient does not demonstrate satisfactory technique add spacer device.
Alternative Device: Easyhaler® Salbutamol 100mcg one or two puffs up to QID

Initiate or review stop smoking treatment. Recommend physical activity.

Before changing therapy check inhaler technique, assess symptoms, MRC, CAT and exacerbation rate (see Medication Review information overleaf). If there is no benefit from a new treatment it should be stopped

Continue SABA or SAMA as required if symptoms have not changed

Still symptomatic

Offer regular LAMA or LABA. Continue SABA as required (stop SAMA)
(LAMA preferred if exacerbations)
Prescribe the most cost effective inhaler providing the patient has demonstrated satisfactory technique. (See Appendix 1 for inhaler choices)

Still symptomatic

Offer LAMA + LABA (combination inhaler) Continue SABA as required
(See Appendix 1 for inhaler choices)

Still symptomatic

More than 2 exacerbations in previous year – Continue LAMA+LABA or consider switching to LABA+ ICS

Patient still has persistent exacerbations - consider LABA+ICS+LAMA

ICS+LABA is NOT an automatic step up for the treatment of COPD, frequency and risk of exacerbations must be assessed.
High dose ICS safety cards and accompanying guidance by health care professionals are recommended for use and available from your medicines management team. Details on the Prescribing Advisory Database (PAD).

If there is no benefit from a new treatment it should be stopped
(symptomatic benefit is expected in 4 weeks, reduction in exacerbations may take longer to assess)

Still symptomatic: consider Theophylline.
Caution in elderly patients and smokers due to pharmacokinetic differences. Prescribe by brand name. Monitor plasma levels and drug interactions.

Chronic cough/sputum production: consider a trial of carbocysteine 750mg tds for 6-8 weeks then 750mg bd if there is an improvement in sputum production. **STOP** if no improvement.

OFFER PULMONARY REHABILITATION if appropriate

Nebulisers should not be seen as an easy alternative for those patients unable to acquire and/or retain adequate inhaler technique. Patients who may require nebulised therapy should be referred to local Respiratory Care Team for formal assessment.

Long Term Oxygen Therapy (LTOT) assess patients with severe airflow obstruction, cyanosis, polycythaemia, peripheral oedema, raised jugular venous pressure, oxygen sats ≤ 92%. Refer patients to local Respiratory Care Team for formal assessment