Jointly approved by Ipswich and East Suffolk CCG, North East Essex CCG and East Suffolk and North Essex NHS Foundation Trust

NHS

Adult COPD Quick Reference Guide

Key points:

- Advise all patients with COPD to **stop smoking** – refer to One Life Suffolk/Provide for advice and support.
- Provide **pulmonary rehabilitation** for all who need it (see overleaf for criteria and referral route).
- Refer patients for dietetic advice if they have an abnormal BMI (high or low) or changing over time[1] and encourage exercise/activity
- Be aware of the risk of developing side effects (including non-fatal pneumonia) in people with COPD treated with ICS.
- Offer a one-off pneumococcal vaccination and an annual influenza vaccination to all patients with COPD[1].
- Review people with mild or moderate COPD at least once a year and those with very severe COPD at least twice a year[1].
- Ensure patients have a self-management plan detailing how to recognise and respond to the early signs of an exacerbation[2].
- Maintain patient's preferred choice of device where clinically appropriate and cost effective.

Initial Treatment

The Modified Medical Research Council (mMRC) Dyspnoea Scale

Grade of dyspnoea	Description
0	Not troubled by breathlessness except on strenuous exercise
1	Shortness of breath when hurrying on the level or walking up a slight hill
2	Walks slower than people of the same age on the level because of breathlessness or has to stop for breath when walking at own pace on the level
3	Stops for breath after walking about 100m or after a few minutes on the level
4	Too breathless to leave the house or breathlessness when dressing or undressing

CAT Test

Available at www.catestonline.org. Should be repeated every 2-3 months in order to score how a patient views their current disease severity, scoring each of the sections from 1-5. It can also help to measure any improvement of symptoms or progression of disease.

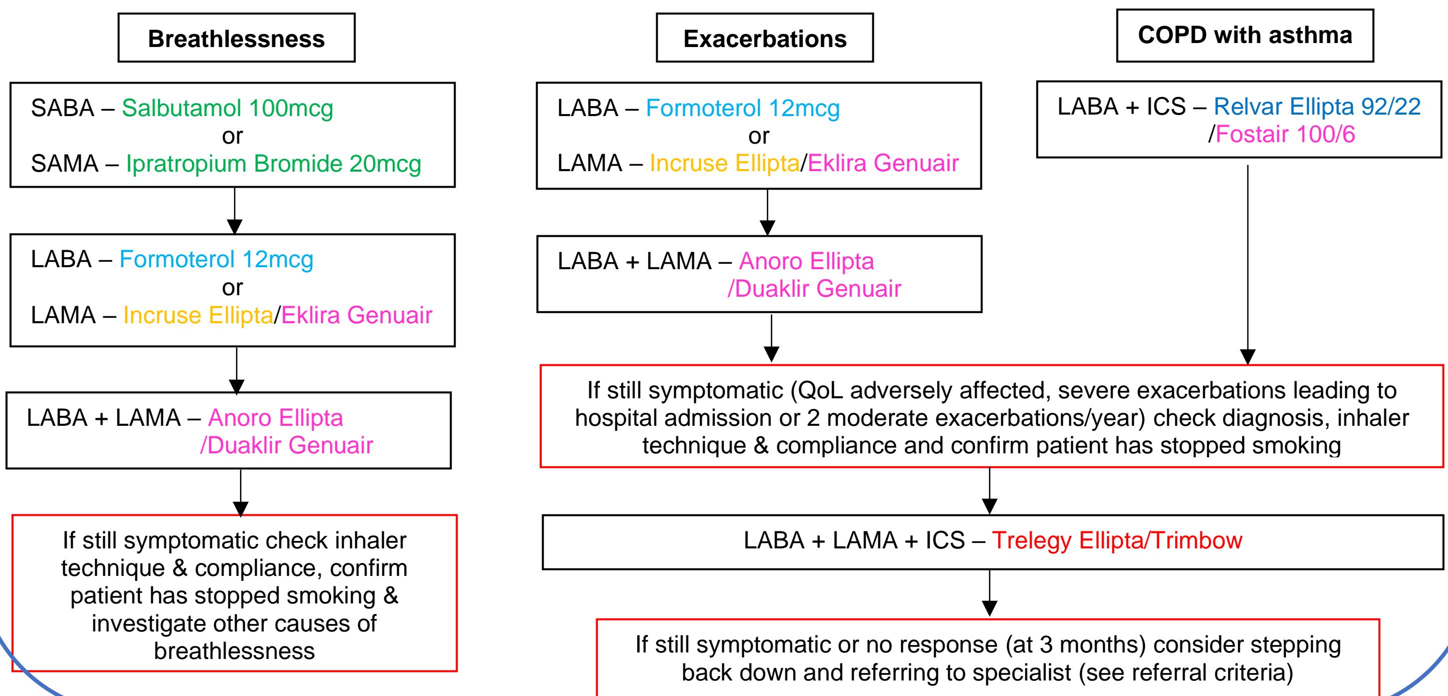
All patients should have a SABA inhaler e.g. Salbutamol 100 mcg

GOLD A	GOLD B	GOLD C	GOLD D	COPD with asthma
mMRC 0-1, CAT <10 with 0-1 exacerbations in last 12 months (none of which led to a hospital admission)	*mMRC ≥ 2, CAT ≥10 with 0-1 exacerbations in last 12 months (none of which led to a hospital admission)*	*mMRC 0-1, CAT <10 with 2 or more exacerbations in last 12 months (1 or more of these leading to a hospital admission)*	*mMRC ≥ 2, CAT ≥10 with 2 or more exacerbations in last 12 months (1 or more of these leading to a hospital admission)*	
SABA Salbutamol 100mcg or **SAMA** Ipratropium Bromide 20mcg	**LABA** Formoterol 12mcg or **LAMA** Incruse Ellipta/Eklira Genuair	**LAMA** Incruse Ellipta/ Eklira Genuair	**LAMA + LABA** Anoro Ellipta/ Duaklir Genuair	**LABA + ICS** Relvar Ellipta 92/22/ Fostair 100/6

Follow-up Treatment

If response to initial treatment is appropriate, **maintain it**.

If not:
- Consider the predominant symptom to treat (breathlessness or exacerbations), use exacerbation pathway if both exacerbations and breathlessness need to be targeted
- Find current treatment in flowchart corresponding to predominant symptom and follow treatment pathway. Assess response to new treatment, adjust if needed and review



	SABA	SAMA	LABA	LAMA	LABA + LAMA	LABA + ICS	LABA+LAMA +ICS
1st Choice	Easyhaler Salbutamol® 100mcg (DPI) 1-2 puffs prn ** CO_2e	Ipratropium Bromide 20mcg (MDI) 1-2 puffs prn CO_2e	Easyhaler Formoterol® 12mcg* (DPI) 1 puff BD CO_2e	Incruse Ellipta® (umeclidinium bromide)* (DPI) 1 puff OD CO_2e	Anoro Ellipta® * (DPI) 1 puff OD CO_2e	Relvar Ellipta® * (DPI) [BDP 1000mcg] 1 puff OD CO_2e	Trelegy Ellipta® * (DPI) 1 puff OD CO_2e
2nd Choice	Salbutamol 100mcg (MDI) 1-2 puffs prn ** CO_2e		Oxis Turbohaler® 12mcg* (formoterol) (DPI) 1 puff BD CO_2e	Eklira Genuair® (aclidinium bromide)* (DPI) 1 puff BD CO_2e	Duaklir Genuair® * (DPI) 1 puff BD CO_2e	Fostair® (MDI) or NEXThaler® 100/6*(DPI) [BDP 1000mcg] 2 puffs BD CO_2e MDI / CO_2e DPI	Trimbow® (MDI) or NEXThaler® (DPI) 2 puffs BD CO_2e MDI / CO_2e DPI

* Inhaler features a dose counter **unlicensed indication

Base inhaler device choice on patient's symptomatic response and preference, alongside consideration for inspiratory force

Colour coded costs

Cost brackets for one year of regular treatment at specified dose.

<£100	£300 - £349
£100 - £199	£350 - £399
£200 - £299	£400 - £499
£500-599	

Key

MDI - Metered dose inhaler
DPI - Dry powder inhaler
SABA - Short acting ß2 agonist
LABA - Long acting ß2 agonist
LAMA - Long acting muscarinic antagonist
ICS - Inhaled corticosteroid
[BDP xxxmcg] - Equivalent dose of beclometasone dipropionate

Environmental impact of inhalers carbon footprint per puff

CO_2e Low (< 35g CO_2e)
CO_2e High (≥35g CO_2e)

More information on the carbon impact can be found here

Environmental Disposal of inhalers

More carbon emissions are released when inhalers, even empty ones, are disposed of in a landfill site compared to incineration. Patients should be encouraged to return inhalers to their pharmacy for incineration.

Spacer devices

(for MDI devices only)

- Replace device every 12 months
- Use either Space Chamber Plus compact (dishwasher safe) or Aerochamber Plus
- Flo-tone device (a mini spacer with training whistle) is available in primary care to encourage correct pMDI use

Oral Corticosteroids[1]

- Maintenance use of oral corticosteroids in COPD is **not** recommended.
- Some people with advanced COPD may need long term oral maintenance treatment if therapy cannot be stopped after an exacerbation – refer to secondary care.
- Keep dose as low as possible, monitor for osteoporosis and offer prophylaxis.

Theophylline[1]

If symptoms of COPD persist after a trial of short-acting and long-acting bronchodilators or if the patient is unable to use an inhaler, oral MR theophylline can be used.[3] Prescribe by brand.

Mucolytic therapy[1]

- Consider in people with a chronic productive cough.
- Only continue if there is symptomatic improvement
- **Step down to maintenance dose (1.5g daily) or stop once condition improves**
- Do not routinely use to prevent exacerbations.

Useful resources

- IESCCG COPD action plan
- NEECCG COPD action plan
- Primary Care Respiratory Society (PCRS-UK)

Criteria for specialist advice

Referral for advice, specialist investigations or treatment may be appropriate at any stage of disease, not just for people who are severely disabled.[1]

- Diagnostic uncertainty
- Suspected severe COPD
- Onset of cor pulmonale
- Dysfunctional breathing
- Bullous lung disease
- Rapid decline in FEV_1
- Haemoptysis
- Frequent infections
- The individual requests a second opinion
- Assessment for lung volume reduction surgery or lung transplantation
- Assessment for oxygen therapy, long-term nebuliser therapy or oral corticosteroid therapy
- Symptoms disproportionate to lung function deficit
- Onset of symptoms under 40 years or a family history of alpha-1 antitrypsin deficiency

Pulmonary rehabilitation

- Pulmonary rehabilitation should be offered to all patients who consider themselves functionally disabled by COPD (usually MRC grade 3 and above).
- Pulmonary rehabilitation is not suitable for patients who are unable to walk, have unstable angina or who have had a recent myocardial infarction.
- Refer patients who need pulmonary rehabilitation to:
    - Suffolk - Care Coordination Centre (CCC). Referral form is available on the IESCCG website (http://www.ipswichandeastsuffolkccg.nhs.uk).
    - North East Essex – North East Essex Community Service (Respiratory) (0300 0032 144)

Exacerbations[1]

- Give people who have had an exacerbation within the last year and remain at risk of exacerbations a short course of antibiotics and prednisolone tablets to keep at home.
- Monitor the use of these drugs and advise people to contact a healthcare professional if their symptoms do not improve.
- At all review appointments, check they still understand how to use them. For people who have used three or more courses in the last year, investigate possible reasons for this.
- Consider referral to the admission avoidance scheme:
    - Suffolk - Care Coordination Centre (CCC). Referral form is available on the IESCCG website (http://www.ipswichandeastsuffolkccg.nhs.uk).
    - North East Essex – North East Essex Community Service (Respiratory) (0300 0032 144) or direct to COPD service if patient already known

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References:
1. National Institute for Health and Clinical Excellence (NICE). Chronic Obstructive Pulmonary Disease (COPD) NG115. December 2018. Updated July 2019
2. National Institute for Health and Clinical Excellence (NICE). Clinical Knowledge Summaries (CKS) – COPD. Last updated July 2021. Accessed via http://www.cks.nhs.uk
3. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) Guidance 2022. Accessed via http://goldcopd.org/
4. PrescQIPP Bulletin 295: Inhaler Carbon Footprint. Attachment 1. Inhaler Carbon Footprint Data 2.4. Accessed 19/11/21