

# COPD MANAGEMENT

## North of Tyne, Gateshead and North Cumbria \*

### Diagnosis: Get it Right First Time

#### 1. COPD diagnosis correct? Requires history and spirometry

Age 35+ years, 10+ pack year smoking history.

Symptoms: progressive breathlessness, cough, sputum production.

Obstructive Spirometry: FEV1/FVC < 0.70 or FEV1/VC < 0.70.

Airflow obstruction can be missed if the patient does not blow out completely. Compare FEV1 to both forced and relaxed VC.

#### 2. Evidence of primary or co-existent asthma?

Smoking history < 10 pack years, onset before age 35 years, atopy, night-time waking with cough or wheeze, pronounced wheeze and symptom variability.

Substantial variation in FEV1 over time, large response to bronchodilators or oral prednisolone 30mg for 14 days (400+ ml), high FeNO.

#### 3. Evidence of primary or co-existent bronchiectasis?

Frequent infective exacerbations, regular mucopurulent sputum, high sputum volume, pseudomonas in sputum culture.

#### When to repeat spirometry:

- After optimising treatment: is it asthma? Suspect if FEV1 increases by 400 ml+.
- Following withdrawal of ICS.
- If symptoms substantially worse: COPD or something else (e.g. heart disease)?

**Record (Extended) MRC Dyspnoea score, BMI, exacerbation frequency.**

### Key management: COPD Jewels

#### 1. Stop smoking

Smoking causes further permanent damage, more frequent flare-ups and reduces the benefit of many treatments.

#### 2. Pneumococcal, COVID and annual flu vaccination

Flu vaccination saves lives. The vaccine is dead - it cannot give patients flu.

#### 3. Pulmonary rehabilitation MRCD 3+ Physical activity promotion in all

**4. Nutrition** BMI < 21: advise 3 meals and 3 snacks daily. BMI < 18.5: dietician referral. BMI > 30: advice and referral to local services.

#### 5. Check Inhaler technique and adherence

#### 6. Infection control: see <https://tinyurl.com/reducecopdflareups>

#### Don't forget:

- Patients can complete the [BLF COPD Passport](#) BEFORE their annual review.
- Check **oxygen saturations**: referral for LTOT if < 92% on 2 occasions (stable for 6 weeks and sitting at rest for 10 minutes).
- Check **full blood count** when well to assess **eosinophils**
- Assess and treat **comorbidities**: anxiety (talking therapies, CBT), IHD and AF (ECG), heart failure (BNP/ ECHO), bronchiectasis (HRCT), osteoporosis.
- Chest x-ray and consider **2WW referral if Red flag symptoms**: (including haemoptysis, weight loss, change in cough, hoarse voice, finger clubbing).

### COPD flare-ups: Reduce risk by annual flu vaccine, stop smoking, pulmonary rehab, avoid colds and flu contacts.

**Overuse of antibiotics causes resistance:** consider **antibiotic if substantial** increase in sputum volume/ purulence for 2 consecutive days. First line amoxicillin or doxycycline, second line co-trimoxazole or co-amoxiclav. 5 days usually sufficient (14 days if bronchiectasis). Fail to respond: sputum culture, alternative antibiotic.

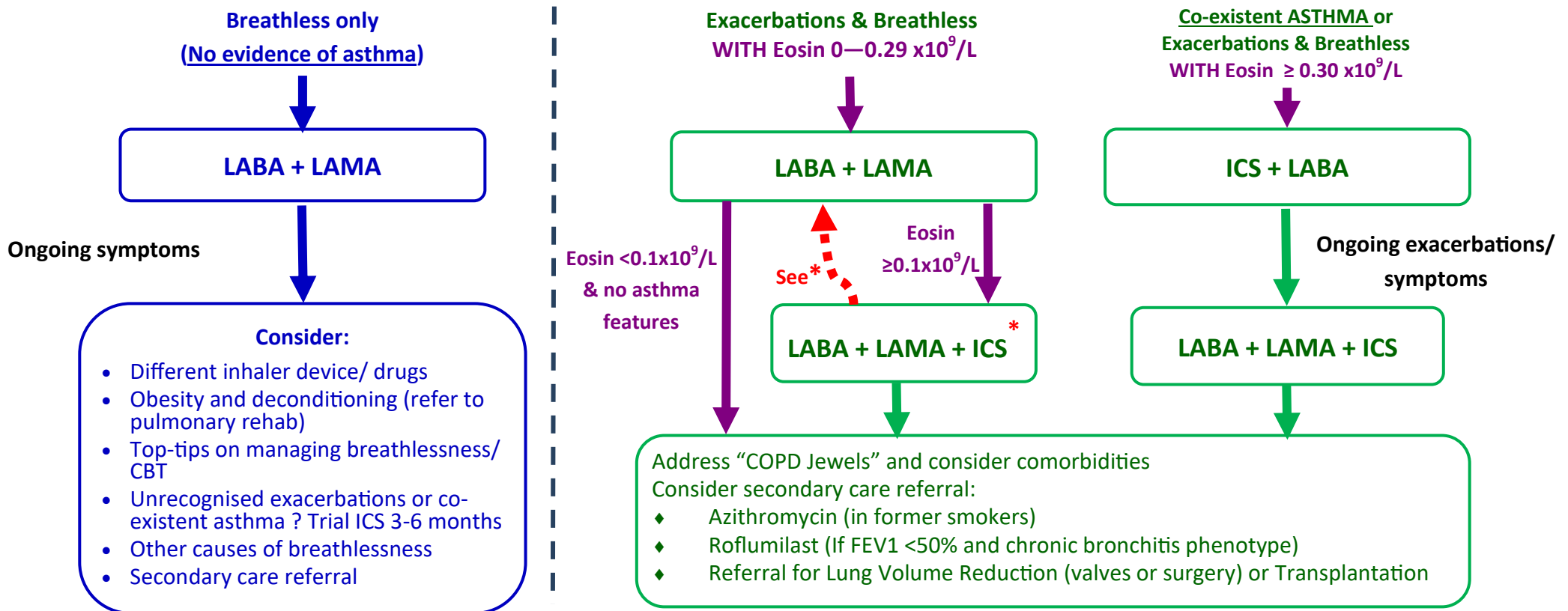
**Overuse of steroids causes direct harm to patients:** consider if substantial increase in breathlessness / wheeze for two consecutive days. Prednisolone 30mg \* 5days.

**Rescue packs:** provide written and verbal information on exacerbation recognition and management and ensure understood—IF NOT DO NOT ISSUE. Consider referral secondary care if 3+ rescue packs taken over 12 months.

## COPD Treatable Traits

- ◆ **Breathlessness:** address obesity and deconditioning; consider asthma or other comorbidities (especially cardiac).
- ◆ **Frequent exacerbations** = One hospital admission, or two exacerbations requiring prednisolone and/or antibiotics in the last 12 months.
- ◆ **Eosinophilic COPD:** measure **stable state blood Eosinophil** (Eosin) count (FBC when no acute illness or prednisolone for 4 weeks). If not possible, check OpenNet on ICE and use the **HIGHEST of at least 3** eosinophil counts within 24 months. **If Eosin < 0.1 x10<sup>9</sup>/L and no asthma avoid ICS.**

**COPD Jewels: pneumococcal, COVID and annual flu vaccination, smoking cessation, pulmonary rehab, nutrition, inhaler technique and adherence**  
**SALBUTAMOL Reliever: 1st choice DPI EASYHALER**



If co-existent asthma, a fixed triple may contain less ICS than the patient's current ICS + LABA. Check ICS dose.

\* **Withdrawal of inhaled corticosteroid (ICS):** Always ensure **NO EVIDENCE** of co-existent Asthma.

- ◆ Consider stopping ICS if: a) complications including recurrent Pneumonia arise, b) the criteria above are not met or c) poor response.
- ◆ It is safe to stop ICS abruptly if the blood Eosinophil count has never been 0.3 or higher in the last 12 months.

**PRESCRIBE all inhalers by BRAND name to avoid issue of an unfamiliar device. Co-existent asthma? CHECK ICS dose when changing to triple.**

**Dry Powder Inhaler (DPI) - lower carbon footprint**



**Pressurised Metered Dose Inhaler (pMDI)**

**SABA**

<p><b>Salbutamol Easyhaler</b></p> <p>200mcg/inhalation ONE inhalation PRN</p>	<p><b>Salbutamol Accuhaler</b></p> <p>1 inhalation PRN</p>
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**LABA + LAMA**

<p><b>Ultibro Breezhaler®</b></p> <p>ONE inhalation ONCE daily</p>	
<p><b>Anoro Ellipta®</b></p> <p>ONE inhalation ONCE daily</p>	
<p><b>Duaklir Genuair®</b></p> <p>ONE inhalation TWICE daily</p>	

**ICS + LABA**

<p><b>DuoResp Spiromax®</b></p> <p>(320/9)</p> <p>ONE inhalation TWICE a day</p>	
<p><b>Symbicort (400/12)</b></p> <p>ONE inhalation TWICE daily</p>	
<p><b>Relvar Ellipta (92/22)</b></p> <p>ONE inhalation ONCE daily</p>	


**Triple Therapy LABA+LAMA+ICS**

<p><b>Trelegy Ellipta®</b></p> <p>ONE inhalation ONCE daily</p>	
<p><b>Trimbow® NEXTHaler</b></p> <p>TWO inhalations TWICE daily</p>	

**SABA**

Salbutamol 100mcg  
TWO inhalations PRN

Use a spacer





**LABA + LAMA**

<p><b>Bevespi Aerosphere®</b></p> <p>TWO inhalations TWICE a day</p> <p><u>Use a spacer</u></p>	
<p><b>Spiolto Respimat®</b></p> <p>(Soft mist inhaler)</p> <p>TWO inhalations ONCE daily</p>	

**Triple Therapy LABA+LAMA+ICS**

<p><b>Trixeo Aerosphere®</b></p> <p>TWO inhalations Twice daily</p> <p>Use a spacer</p>	
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Encourage use of a spacer

<p><b>Aerochamber Plus</b></p>  <p>AEROCHAMBER PLUS FLOW VU WITHOUT MASK 5+ YEARS</p>	<p><b>Volumatic</b></p> 
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**ICS + LABA**

<p><b>Fostair® (100/6)</b></p> <p>TWO inhalations TWICE daily</p> <p><u>Use a spacer</u></p>	
<p><b>Luforbec (100/6)</b></p> <p>TWO inhalations TWICE daily</p> <p><u>Use a spacer</u></p>	

**Triple Therapy LABA+LAMA+ICS**

<p><b>Trimbow®</b></p> <p>TWO inhalations Twice daily</p> <p>Use a spacer</p>	
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# Useful resources

## Techniques to help breathlessness

### Relax:

- Visualise a positive picture or place
- Distraction – do something to occupy your mind
- Positive self talk – tell yourself this episode will pass

Practice these techniques and read the '**Top tips for managing breathlessness**' leaflet when you are well so they are familiar to you and you can apply them when you are unwell.

### Control your breathing rate:

- Slow down your breathing rate by focusing on long breaths out
- Use abdominal breathing
- Practice while playing the "**Breathing Control**" video:

<https://tinyurl.com/breathingcontrol>

## Sputum clearance

- Clear sputum using effective coughing and position yourself to help the sputum come up. (i.e. place head and arms on a pillow over a table to expand the chest)
- Practice while playing the "**Sputum (phlegm) clearance**" video:

<https://tinyurl.com/sputumclearance>

**Reduce COPD Flare Ups: Simple measures to prevent spread of respiratory viruses reduce COPD flare ups and hospital admissions. See:**

<https://tinyurl.com/reducecopdflareups>

## Knowing your patients normal....

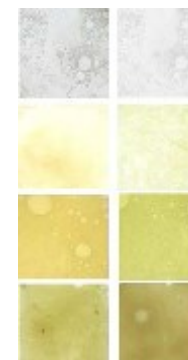
### MRC Dyspnoea Score

In the past 3 months, when you were **feeling at your best**, which of the following statements best describes your level of breathlessness?

1. Only breathless on strenuous exertion
2. Breathless hurrying or walking up a slight hill
3. Walks slower than contemporaries, or stops after walking on the level for 15minutes
4. Stops for breath after walking about 100 yards, or for a few minutes on the level
- 5a. Too breathless to leave the house unassisted but independent washing and / or dressing
- 5b. Too breathless to leave the house unassisted and requires help with washing and dressing

### The colour of sputum I usually cough up is:

- clear / white
- yellow / pale green
- green
- dark green / brown



### I normally cough up sputum

- Most days of the week
- A few days of the week
- Only with a chest infection
- Never

### British Lung Foundation (now Asthma and Lung UK):

COPD Passport: <https://passport.blf.org.uk>

Order free paper copies: <https://shop.blf.org.uk/products/copd-passport>