Lincolnshire Prescribing and Clinical Effectiveness Bulletin – **Chronic Obstructive Pulmonary Disease**

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Introduction

In December 2018, NICE published two guidelines on chronic obstructive pulmonary disease (COPD):

- Guideline NG115 is an update to the previous 2010 NICE guidance on the diagnosis and management of COPD.
- Guideline NG114 covers antimicrobial prescribing for acute COPD exacerbations.

In November 2018 the Global Initiative for Chronic Obstructive Lung Disease (GOLD) produced an updated report on COPD providing two models addressing:

- The initiation of treatment for COPD i.e. the assessment of individual symptoms and exacerbation risk following the ABCD assessment scheme.

- Ongoing follow-up treatment for stable COPD.

Key Changes

- Following consultation with respiratory specialists, PACEF recommends following the 'ABCD assessment tool' developed by GOLD to guide initial treatment of COPD. Patients are stratified according to the limitations of activities of daily living and future exacerbation risk – see 'Initial Management of COPD' section of this bulletin.

- NICE has strengthened the warnings about inhaled corticosteroids (ICS) and advises that it is important to be aware of, and be prepared to discuss with the patient, the risk of side effects (including pneumonia).

- A continuous relationship between blood eosinophil counts and inhaled corticosteroid (ICS) effects is reported by both NICE and GOLD; patients with lower counts experience either no improvement/response or one that is very limited when ICS are used, but incrementally increasing effects are seen in those with higher blood eosinophil counts.

- GOLD states that patients with a blood eosinophil count >300 cells/µL are considered those that are likely to see the greatest response from ICS.

- NICE and GOLD suggest clinicians should consider adding an ICS to the treatment plan for those patients who have features suggesting responsiveness to steroids such as a blood eosinophil count >300 cells/µL. Conversely, it is no longer recommended that ICS be included in the treatment regime for patients with no/limited response to ICS.

- In the event that a patient presents with variable levels of eosinophils, the most likely causes will be atopy including asthma and/or eczema, parasitic infection (consider if patient has recently travelled abroad), haematological disease or allergic response or conditions e.g. atopic eczema. In these cases it is advisable to recheck levels within 1-2 weeks to assess consistency of eosinophil levels and investigate a possible cause as appropriate

- The evidence base suggests that despite individual variation in blood eosinophil levels, patient specific levels are generally consistent i.e. it is rare that a patients eosinophil level will significantly change, and possible causes (see above) should be considered

- With the above information in mind, the Lincolnshire 'Managing Stable COPD' prescribing flowchart incorporates elements from both the NICE Guidance and the GOLD report – see 'Managing stable COPD' section of this bulletin.

- These are substantial changes that are likely to result in the long-acting beta agonist (LABA) + ICS combination inhalers being used less for COPD.

Initial Management of COPD

PACEF recommends following the 'ABCD assessment tool' developed by GOLD to guide initial treatment. Patients are stratified according to the limitations of activities of daily living and also future exacerbation risk.

The following interventions should be offered to all diagnosed patients:

1. Smoking cessation – refer to local stop smoking programme
2. Pneumococcal vaccination and annual flu vaccination

Patient Stratification

1. **Undertake spirometry, confirm diagnosis and stage COPD in accordance with NG115**
2. **Check exacerbation/hospital admission history in previous 12 months**
3. **Ascertain mMRC score via** https://www.mdcalc.com/mmrc-modified-medical-research-council-dyspnea-scale

OR

4. **Ascertain CAT (COPD assessment test) score -** https://www.catestonline.org
5. **Use results from 2 plus either 3 or 4 to categorise the patient as Group A, B, C or D (see below table)**

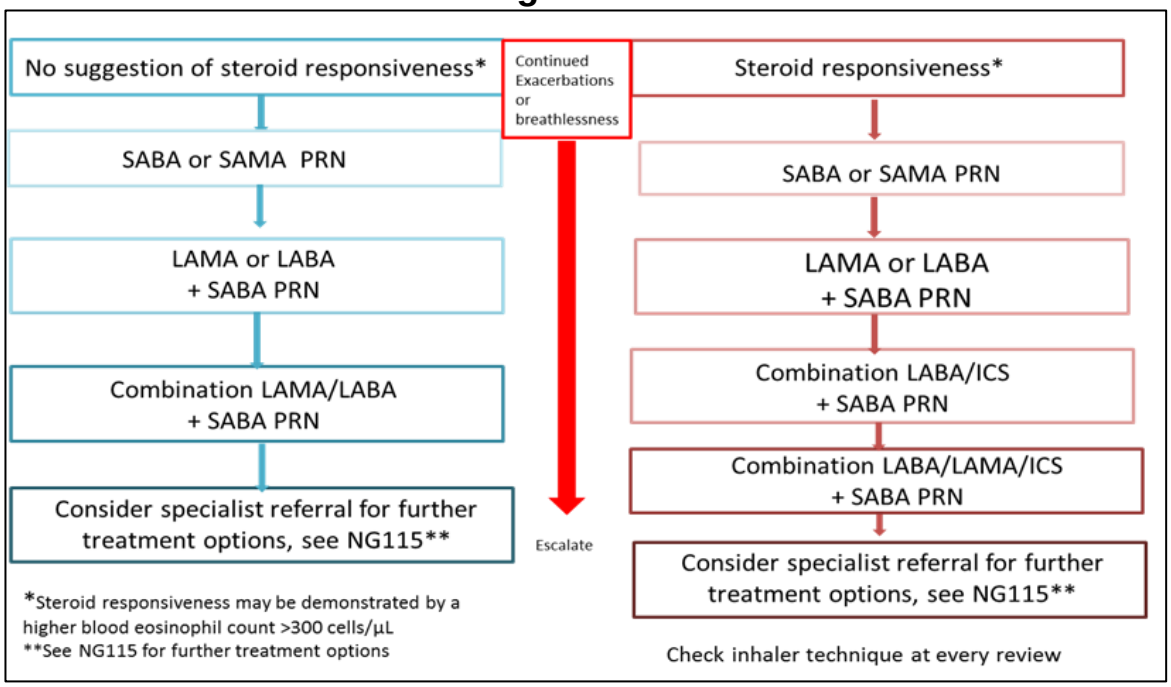
Group	mMRC or CAT	Exacerbations in previous 12 months	Treatment
A	0-1 or <10	0 or 1 exacerbations **not** leading to hospital admission	Short-acting beta agonist (SABA) monotherapy for relief of SOB
B	≥2 or ≥10	0 or 1 exacerbations **not** leading to hospital admission	Long-acting beta-agonist (LABA) or antimuscarinic (LAMA) monotherapy recommended
C	0-1 or <10	≥2 exacerbations or 1 exacerbation leading to hospital admission	Long-acting antimuscarinic (LAMA) monotherapy recommended
D	≥2 or ≥10	≥2 exacerbations or 1 exacerbation leading to hospital admission	LAMA & LABA combihaler recommended **Or** LABA & ICS combihaler if ICS indicated*

*NICE and GOLD suggest clinicians should consider adding an ICS to the treatment plan for those patients who have features suggesting responsiveness to steroids such as a blood eosinophil count >300 cells/µL.

For Guidance on the suitability of inhaler device please see 'Quick Guide for selecting Inhalers for COPD patients'.

Managing Stable COPD

Continued management for stable COPD



Actions for practices & clinicians

- A large proportion of people with COPD will already be on ICS-containing inhalers who do not now meet the new criteria. A decision will need to be made with the patient whether to continue, 'deprescribe' or change treatment. NICE advises that such patients may stay on their treatment, until both they and their NHS healthcare professional agree it is appropriate to change. Care will need to be taken when stopping ICS as this can lead to an aggravation of COPD symptoms.

- **The emphasis is now on using combination inhalers, possibly favouring once-daily dosing, to minimise the treatment burden.** The NICE guideline places these recommendations in the context of multimorbidity.

- PACEF recommends reviewing all COPD inhalers prescribing as soon as practicable (i.e. annual COPD review) and aligning with Lincolnshire formulary recommendations for first line inhalers in COPD – in particular using combination inhalers wherever appropriate.

Produced by
Medicines Management & Optimisation Service
Optum Health Systems Support
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T 020 7121 0560 l E info@optum.co.uk l **optum.co.uk**
10th Floor, 5 Merchant Square, Paddington, London, W2 1AS