Lancashire & South Cumbria Medicines Management Group

NHS

COPD Desktop Guideline Version 1.8

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VERSION CONTROL

Version Number	Date	Amendments made
1.0	March 14	
1.2	February 15	Updated to include Spiriva Respimat
1.3	March 2015	Link added to MHRA safety update re: tiotropium
1.4	October 2015	LABA, LAMA & LABA/LAMA inhalers updated
1.5	September 2017	GOLD principles included
1.6	Consultation Sept-Oct 2017	Non-inhaler section update and consolidation with long acting inhaler section v 1.5
1.6.1	March 2018	Addition of Trelegy Ellipta to device pathway
1.7	May 2018	Version number corrected
1.8	May 2019	Treatment algorithms updated to reflect NICE NIG115 (2018) and GOLD (2019)

Background Information and the Rationale for Guideline Development.

There have recently been developments in the treatment of COPD with the publication of new national / international guidelines, the licensing of new drugs and devices and requests by clinicians to use new inhalers. As the developments affect the current LMMG COPD guideline, the LMMG requested a review and update of the guideline.

NICE NG115

States the choice of drugs and inhalers should be based on:

- how much they improve symptoms
- the person's preferences and ability to use the inhalers
- the drugs' potential to reduce exacerbations
- their side effects
- their cost.

It recommends to:

- Minimise the number of inhalers and the number of different types of inhaler used by each person as far as possible.
- When prescribing long-acting drugs, ensure people receive inhalers they have been trained to use (for example, by specifying the brand and inhaler in prescriptions).

Blood eosinophil count (eos) – there are a number of recent studies which have demonstrated that blood eosinophil counts predict the magnitude of the effect of ICS (on top of maintenance bronchodilator treatment). An eos of >300cells/µl identifies the top of the continuous relationship between eosinophils and ICS and can be used to identify those patients most likely to benefit from treatment with ICS. The treatment effect of ICS containing regimens is higher in patients with a high exacerbation risk (≥ 2 exacerbations or ≥ 1 leading to hospital admission) and therefore the use of eos to predict ICS effects should always be combined with a clinical assessment of the exacerbation risk.

Initial diagnosis and classification

Diagnosis

Consider diagnosis of COPD in anyone > 40 and is a smoker / ex-smoker with any of the following symptoms:

- Chronic cough
- Breathlessness on exertion
- Regular sputum production
- Wheeze
- Frequent winter bronchitis

And no clinical features of asthma

Tests

Post-bronchodilator spirometry (absolute & % predicted)
Chest X-ray
Full blood count
BMI

Assess airflow limitation

In patients with post bronchodilator FEV_1/FVC <0.7 assess airflow limitation as per GOLD (2017)

GOLD Grade	FEV_1 (% predicted)
GOLD 1	≥ 80
GOLD 2	50-79
GOLD 3	30-49
GOLD 4	<30

Assess patient exacerbation history and symptoms (mMRC and CAT scores)

Exacerbations per year	CAT	mMRC	MRC (as on EMIS)	Patient Group
≤ 1 not leading to hospital admission	<10	0-1	1-2	A
≤ 1 not leading to hospital admission	≥10	≥2	≥3	B
≥ 2 or ≥ 1 leading to hospital admission	<10	0-1	1-2	C
≥ 2 or ≥ 1 leading to hospital admission	≥10	≥2	≥3	D

This will provide a GOLD patient classification of both Grade and Group

Short acting inhaled therapy

- Start on SABA prn (may continue at all stages) or SAMA MDI (with spacer) prn.
- Review symptoms after 4 -8 weeks.
- Remember to give patient a “Management Plan” and code patient records
- Ensure non-inhaler considerations are addressed (p4)

If symptoms continue or worsen, there are exacerbations or persistent breathlessness, consider using strategies according to GOLD classification (p5)

Non-inhaler considerations - NICE NG115 (2018) advises to start inhaled therapies only if the non - pharmacological interventions i.e. non inhaler considerations, have been offered (if appropriate).

Give Lifestyle Advice

- Smoking brief intervention at every opportunity
- Refer to Quitsquad www.quitsquad.nhs.uk 0800 328 6297
- Dietary advice - If BMI < 18 or > 30 (For obesity grading I – III refer to dietician)
- Exercise – promote gentle exercise

Immunisation

Influenza, *annually*
Pneumococcal, *as per green book*

Pulmonary Rehabilitation

Refer patients with exercise limitation due to breathlessness for pulmonary rehabilitation (e.g. Community COPD Team, LCFT)

Theophylline

Theophylline should only be used after a trial of short-acting bronchodilators and long-acting bronchodilators, or in patients who are unable to use inhaled therapy, as there is a need to monitor plasma levels and interactions.

Advanced Disease

- If meet Gold Standard Framework criteria:
  - Ensure registered on EPACCS
  - Initiate advanced care planning
  - Identify preferred place of care
  - Discuss Community DNA-CPR if appropriate
  - Consider referral to Hospice for Respiratory Day Therapy

Chronic productive cough

Consider a 4-week trial of a mucolytic **Carbocisteine 375mg** - 2 capsules 3 times/ day reducing to 2 capsules twice daily if good response.
Continue **only** if symptomatic benefit. Do **not** use to prevent exacerbations.

Enhanced COPD Care Service

Address social and occupational therapy issues

Comorbidities

- Look for and treat common co-morbidities:
  - Heart failure
  - Osteoporosis
  - Anxiety/depression

Long term Oxygen

Refer patients with stable COPD and persistent oxygen saturation of <92% for oxygen assessment

Assess treatment

Ask the patient the following:

- Has the treatment made a difference?
- Is breathing easier in any way?
- Has sleep improved?
- Can do some things that you could not do before or do the same things faster?
- Are less breathless than before when doing things?

Update patient records with coded responses for MRC scale & CAT score

Exacerbations

- Severe breathlessness or Rapid onset of breathlessness
- Cyanosis
- Worsening level of consciousness
- Acute confusion
- Receiving Long term oxygen therapy
- Worsening peripheral oedema
- Poor / deteriorating general condition
- Unable to cope at home/ lives alone
- Significant co-morbidity e.g. CVD, diabetes
- O_2 sat < 90%

YES

Refer patients with >1 exacerbation/ year to community COPD team for:
•Admission avoidance
•Self-management plan

↑ Breathlessness

- Increase frequency of short acting bronchodilator MDI i.e. Salbutamol or Ipratropium via spacer
- Prednisolone tablets 30mg each morning for 7-14 days

Purulent sputum production

- Follow your local antibiotic guidelines
- **Prophylactic antibiotics are NOT recommended**

ACTION
- **Give safety netting advice**
- **Optimise treatment**
- **Review patient if needed**
- **If on ICS issue steroid card & advise pt of increased risk of non-fatal pneumonia**

PATIENTS at risk should always have COPD Rescue Pack available in the house for use as per their Clinical Management Plan

Refer to specialist when there is:

- Diagnostic uncertainty
- Uncontrolled severe COPD
- Onset of cor pulmonale
- Nebuliser assessment needed
- Assessment for surgery: bullous lung disease
- Symptoms don't match lung function tests
- Aged <40 or FH of alfa 1 antitrypsin deficiency
- Frequent infection
- Haemoptysis
- Rapid decline in FEV_1

Resources

NICE: www.nice.org.uk
Patient information leaflets: www.patient.co.uk
British Thoracic Society: www.brit-thoracic.org.uk
Green Book, can be found in Publications on www.dh.gov.uk
CAT Scores: http://www.catestonline.co.uk/
GOLD: www.goldcopd.com
GP airways group: www.gpiag.org
BNF 12-9-2017: September 2017 update: www.bnf.org

Acknowledgement: This summary guidance was originally based on the desktop guide developed by ELHE

Initial Pharmacological Treatment by GOLD grading (GOLD 2019)

Group C

LAMA

Group D

LAMA **or** LABA + LAMA
Consider if highly symptomatic e.g. CAT >20 **or** LABA + ICS
Consider if eos ≥ 300

eos = eosinophil count in cells/µl

Group A

A bronchodilator (short or long acting)

Group B

Long acting bronchodilator (LABA or LAMA)

If still symptomatic and severe:

- Refer for pulmonary rehabilitation
- Consider referral to respiratory physician
- Consider referral for O_2 assessment
- Consider nebuliser assessment
- Consider palliative care issues

For stable patients review:

- annually for mild to moderate;
- at least 6 monthly for severe and very severe

Reviews should include spirometry.

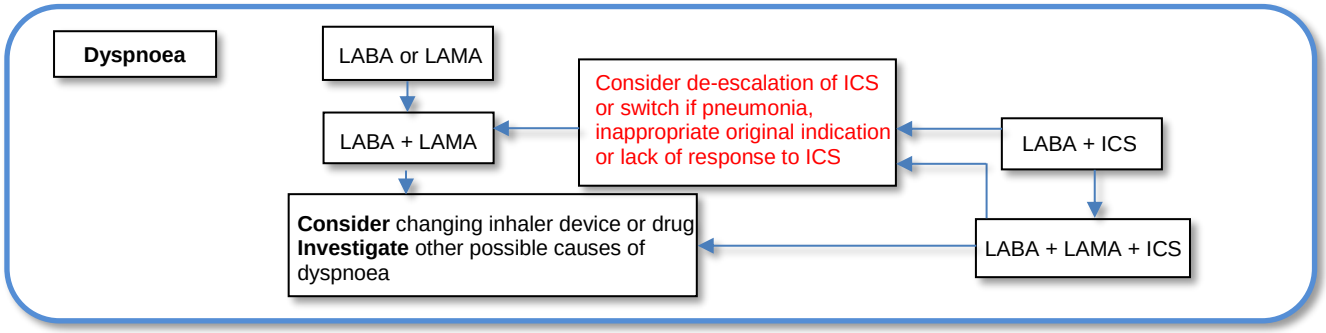
Ensure recall date is highlighted to patient and coded on system.

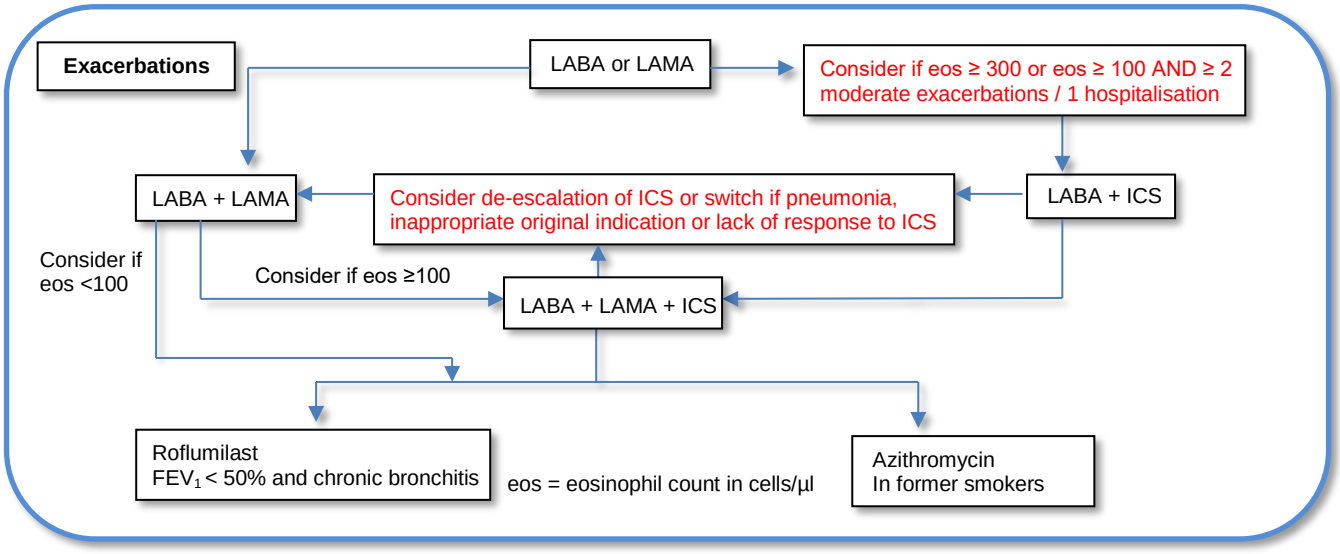
Follow Up Treatment Algorithm (GOLD 2019)

Management is based on symptoms and exacerbations but the recommendations made do not depend on the patients GOLD group (A, B, C, D) at initial diagnosis.

If response to initial treatment is appropriate - CONTINUE.
If not:

- Consider the major treatable trait i.e. dyspnoea or exacerbations (if both needed use the exacerbation pathway),
- Assess Response, Adjust and Review





Choose devices the patient can and will use effectively; train the patient to use the device; check CCG web site for video; check the patient's inhaler technique regularly at each visit; try to use same delivery device for each inhaled drug

ELIPTA strategy (for LAMA, LABA+LAMA and LAMA plus LABA+ICS)

Inspiratory Flow Rate Required: Ellipta – MEDIUM/HIGH

INCRUSE ELLIPTA (LAMA) (Umeclidinium)

ANORO ELLIPTA (**LABA+LAMA**) (Umeclidinium + Vilanterol)

INCRUSE ELLIPTA (**LAMA**) (Umeclidinium)

PLUS

RELVAR ELLIPTA 92/22 (**ICS+LABA**) (Fluticasone + Vilanterol)

OR

TRELEGY ELLIPTA (**LAMA/LABA/ICS**) (Umeclidinium + Vilanterol + Fluticasone)

Choose devices the patient can and will use effectively; train the patient to use the device; check CCG web site for video; check the patient's inhaler technique regularly at each visit; try to use same delivery device for each inhaled drug

RESPIMAT strategy (for LABA, LAMA, LABA+LAMA) plus **FOSTAIR MDI** for (ICS +LABA)

Inspiratory Flow Rate Required: Respimat – LOW, MDI - LOW

SPIRIVA Respimat (**LAMA**) (Tiotropium)

OR

STRIVERDI Respimat(**LABA**) (Olodaterol)

SPIOLTO Respimat (**LABA+LAMA**) (Tiotropium + Olodaterol)

SPIRIVA Respimat (**LAMA**) (Tiotropium)

PLUS

FOSTAIR MDI (**ICS+LABA**) (Beclometasone + Formoterol)

OR

TRIMBOW (**LABA/LAMA/ICS**) (Formoterol, Glycopyrronium, Beclometasone)

Choose devices the patient can and will use effectively; train the patient to use the device; check CCG web site for video; check the patient's inhaler technique regularly at each visit; try to use same delivery device for each inhaled drug

GENUAIR strategy (for LAMA and LABA+LAMA) ,**OXIS Turbohaler** (for LABA), and **SYMBICORT Turbohaler** or **FOSTAIR Nexthaler** (for ICS+LABA)

Inspiratory Flow Rate Required: Genuair and Turbohaler MEDIUM / HIGH, Nexthaler – MEDIUM

EKLIRA Genuair (**LAMA**)
(Aclidinium)

OR

OXIS Turbohaler (LABA)
(Formoterol)

DUAKLIR Genuair (**LABA+LAMA**)
(Aclidinium + Formoterol)

EKLIRA Genuair (**LAMA**)
(Aclidinium)

PLUS

SYMBICORT Turbohaler (**ICS+LABA**)
(Budesonide + Formoterol)

OR

FOSTAIR Nexthaler (**ICS+LABA**)
(Beclometasone + Formoterol)

Notes

The Medicines Management Team at MLCSU would like to thank all clinicians and commissioners in the Lancashire and South Cumbria Health Economy who provided valuable insight which was essential in the development of this guideline.

This guidance does not override the individual responsibility of health professionals to make decisions in exercising their clinical judgement in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer. For full prescribing information please refer to the BNF and SPC.

Bibliography

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Leads for this guidance: Medicines management, Midlands and Lancashire CSU	
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