PRESCRIBING GUIDELINES for stable COPD & ACO

(Asthma-COPD Overlap)

Confirm diagnosis of COPD or ACO.

- Diagnosis relies on a combination of history, physical examination and confirmation of airflow obstruction using spirometry (post-bronchodilator FEV1/FVC <0.7). Requires the presence of ***irreversible*** airways obstruction.
- **Consider if patient also has features of asthma*** (***variable*** chest tightness, wheeze, cough & breathlessness, significant variation of symptoms and peak expiratory flow, symptoms related to work; normalisation of spirometry after inhaled β_2-agonist or a course of inhaled / oral corticosteroids)
- If uncertain or unable to perform effective spirometry reconsider diagnosis and / or consider referral to **AIRS** (Assessment & Investigation of Respiratory Symptoms) **Service.**

*Asthmatic features

Feature suggesting steroid responsiveness in this context include any previous secure diagnosis of asthma or atopy, a higher blood eosinophil count, substantial variation in FEV1 over time (at least 400ml) or substantial daily variation in peak expiratory flow (at least 20%)

MRC Breathlessness Scale

Grade	Degree of breathlessness related to activities
1	Not troubled by breathlessness except on strenuous exercise
2	Short of breath when hurrying or walking up a slight hill.
3	Walk slower than contemporaries on level ground because of breathlessness, or has to stop for breath when walking at own pace.
4	Stop for breath after walking about 100 meters or after a few minutes on level ground.
5	Too breathless to leave the house, or breathless when dressing or undressing.

Check patient compliance and inhaler technique at every opportunity and before changing therapy. (Use In-check dial to teach correct inspiratory flow for MDIs/DPIs)

ICS Safety

Be aware of the potential risk of developing side effects including non-fatal pneumonia and diabetes. Be prepared to discuss with patients

Give patient a STEROID card if on > 1000mcg Beclometasone propionate (BDP) daily or equivalent

Non-pharmacological management of COPD / ACO

Stop Smoking – Document smoking history (pack years); all patients still smoking should be offered help and encouraged to stop at every opportunity

Offer vaccinations – Encourage uptake of **Flu Vaccines** (Annual) / **Pneumococcal** (Once only)

Pulmonary Rehab / Keep Active-keep Well: - Record **MRC dyspnoea** score. Offer all patients suitable local education / fitness programmes according to MRC level (Pulmonary Rehab for all patients with **score >2**)

Dietary advice e.g. advice on nutrition and weight loss (record **MUST** score and offer **Food First** advice then consider ONS ifs appropriate)

Check adherence & Teach Correct Inhaler Technique – ask patients to **"show you"** how they use their inhalers at every opportunity (bad habits are easily formed)

Rescue Packs (for Flare-ups) – educate patients of appropriate use and ensure self-management plans are in place and up to date before issuing rescue packs. Monitor for inappropriate/overuse – **Please do NOT put on Repeat!**

These treatments and plans should be revisited at every review (& after each exacerbation / flare-up)

Fan therapy – consider use of hand held fans or bigger fans (pass air over trigeminal nerves which then slows respiratory rate down)

Consider Chest X-Ray to rule out other pathology if appropriate

Optimise treatment of comorbidities

Exacerbations (Flare-ups) are defined as either / or:

- Change in sputum colour / consistency
- Increased quantity of sputum
- Increased breathlessness (Persistent symptoms for >48hours)

Frequent exacerbations – what to do?

- Consider alternative diagnosis e.g. bronchiectasis (a fifth of all people on COPD registers do not have a diagnosis of COPD).
- Check for other co-existing conditions e.g. cardiac failure, ischaemic heart disease, bronchiectasis, cor pulmonale, anxiety and depression - give advice on how to identify and manage appropriately e.g. relaxation techniques, refer to CBT

Medicines Management of COPD / ACO care

This chart shows First line options – see MK Formulary for full list of inhalers available.

Review quality of life using CAT score (www.catestonline.org)

Confirmed diagnosis of COPD/ACO

Start Inhaled therapies only if:

- All the non-pharmacological interventions have been offered (if appropriate), and
- Inhaled therapies are needed to relieve breathlessness or exercise limitation

Inhaled therapies

A spacer device should be used if an MDI device is prescribed.

All breathless patients →

Salbutamol (SABA) MDI 100mcg 2 puffs PRN (Reliever)
Or Salbutamol (dry powder) Easyhaler or Salbutamol (breath-actuated) Easibreathe
(Use SABA as needed and may continue at all stages).
For exacerbations (flare-ups) consider use of **up to 10 puffs via spacer** (1 puff at a time using tidal breath technique). To let practice know when needing to use regularly as treatment should be reviewed.

Person still breathless (exercise limitation) or has exacerbations despite treatment?
Check adherence with medicines, teach inhaler technique, prescribe by brand & update management plan.

No asthmatic features*

Consider for patients with Mild symptoms

MRC 2 or below, CAT score 9 or below

Consider LAMA

Aerosol – Spiriva® Respimat
(Tiotropium) 2.5mcg
Two puffs OD
Or
DPI – Braltus® Zonda inhaler
(Tiotropium) 10mcg
One dose OD
Or
DPI – Eklira® Genuair
(Aclidinium) 322mcg
One dose BD
(Particularly suitable if eGFR <50mls/min)

(Alternative LABA if LAMA not tolerated)
DPI Formoterol Easyhaler®
Or
MDI Formoterol (Atimos®)

Review after 1 month and step up treatment if persistent breathlessness or exacerbations →

MRC 3 or above, CAT score 10 or above

Offer LAMA + LABA (Combo)
(Stop single LAMA or LABA if prescribed)

Aerosol – Spiolto® Respimat
(Tiotropium/Olodaterol)
2.5mcg/2.5mcg
Two puffs OD
Or
DPI – Duaklir® Genuair
(Aclidinium/Formoterol)
340mcg/12mcg
One dose BD

Review patient and check diagnosis, adherence with medicines, teach inhaler technique

If exacerbations / breathlessness continue consider referral to AIRS service for specialist review to explore further options.

Asthmatic features*

Consider LABA + ICS (Combo)

MDI - Fostair® ***Or***
DPI - Fostair® NEXThaler
(Formoterol/Beclometasone)
6mcg/100mcg (plus spacer)
Two puffs BD
Or
DPI - Relvar® Ellipta
(Vilanterol/Fluticasone Furoate)
22mcg/92mcg
One dose OD

Consider triple therapy if MRC >3 and >2 exacerbations in last 12 months

Offer triple therapy ICS/LABA/LAMA (combo)

MDI – Trimbow® (plus spacer)
(Beclometasone / Formoterol / Glycopyrronium)
Two puffs BD
Or
DPI – Trelegy® Ellipta
(Fluticasone Furoate / Vilanterol /Umeclidinium)
One dose OD

Prescribing information

- **"Triple therapy" (ICS/LABA/LAMA)** – It remains unclear whether there is benefit from using triple combination. NICE are to review later in 2019. Therefore until further guidance is issued it should be used only in patients with severe disease in the presence of persistent exacerbations despite other treatments. Patients should be reviewed first in line with guidance to ensure appropriate use. **AVOID treatment duplication** of LAMA and LABAs in combination products.
- **Mucolytics** – have limited value. Consider trial of **NACSYS®** (Acetylcysteine) effervescent tablets 600mg (1 tablet OD) **(please prescribe as NACSYS brand)** or Carbocisteine capsules / sachets (750mg TDS for 6-8 weeks then reduce to 750mg BD). **Monitor response and stop if no improvement** in sputum production and reduction in viscosity. **Consider referral for chest clearance techniques.**
- **Rescue Packs** – **Should only be given to patients with personalised management plan in place.** Remind patients they should contact the surgery to inform you that they are less well and have started the rescue pack. Highlight to patients that antibiotics are only needed if they are producing more phlegm that has changed colour (and have signs of infection e.g. raised temperature).
  Packs should normally contain **Doxycycline** (200mg 1st dose then 100mg daily for 4 more days (6 x 100mg capsules for 5 day course)) **or** Amoxicillin (500mg Three times day for 5 days) **and Prednisolone** 5mg tablets (6 tablets each morning for 7 days (42 tablets).
  https://www.formularymk.nhs.uk/includes/documents/Self-management-of-a-flare-up-COPD-v-4-Final-Jun17-29-08-19.pdf
  Rescue Packs should **NOT** be put on repeat and frequency of use should be monitored and discussed a t next opportunity.
- **Oral corticosteroids** – Consider a course of prednisolone 30mg 7 to 14 days for patients who have an exacerbation with significant increase in breathlessness that interferes with daily activities. **Prolonged use is generally NOT recommended and should NOT be started in primary care due to risk of adverse effects e.g. osteoporosis – refer to specialist for advice.**
- **Theophylline** – offer only after other inhaler therapy has been optimised or in those who are unable to use inhaled therapy. Monitor plasma levels and interactions carefully.
- **Prophylactic Antibiotics** – e.g. Azithromycin (usually 250mg 3 times a week) should be initiated and guided by specialist respiratory physician only, with the aim to reduce frequency of exacerbations.
- **Oxygen Saturations** – if <92% (when stable or 6 weeks after and exacerbation) refer for long term oxygen (LTOT) assessment.
- **Roflumilast:** (NICE TA 461) is **Amber 3** – medicines suitable for prescribing within its licensed indication in primary care **after specialist initiation and stabilisation** – hospital specialist to review benefits of continued use.

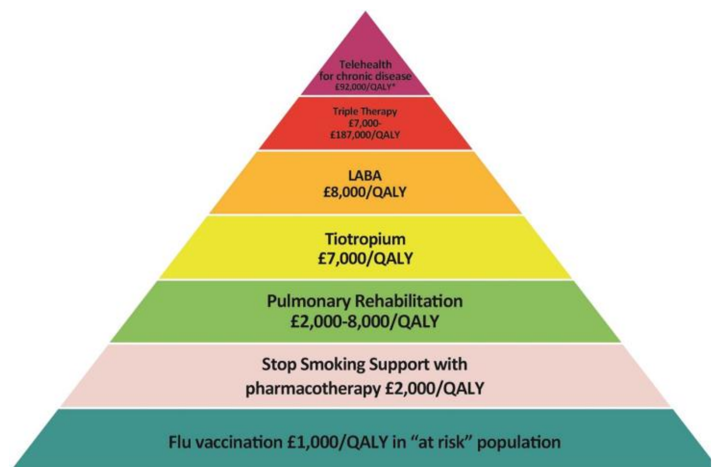
Questions to ask your patient along with MRC / CAT check lists to check if the treatment is working?

- Has your treatment made a difference to you and your everyday activities?
- Is your breathing easier?
- Can you do things now that you could not do at all before?
- Can you do the same things as before but are less breathless now?
- Has your sleep improved?

List of abbreviations

COPD – Chronic Obstructive Pulmonary Disease
SABA – Short-Acting Beta$_2$-Agonist (Bronchodilator)
LABA – Long-Acting Beta$_2$-Agonist (Bronchodilator)
SAMA – Short-Acting Muscarinic Antagonists (Bronchodilator)
LAMA – Long-Acting Muscarinic Antagonists (Bronchodilator)
ICS – Inhaled Corticosteroid
MDI – Metered Dose Inhaler / Aerosols ***(breathe in slow and steady)***
DPI – Dry Powdered Inhaler ***(breathe in forcefully)***
AIRS - Assessment & Investigation of Respiratory Symptoms – *NEW* service in Milton Keynes (Referral required – may be passed on to PCOC if more suitable)
PCOC - Primary Care Out-patient Clinic (Respiratory)
CBT – Cognitive Behavioural Therapy
CAT Score – *COPD Assessment Test to look at impact to quality of life (Can be accessed via www.catestonline.org)*
ACO – Asthma-COPD Overlap
MRC – Medical Research Council dyspnoea scale (a measure of disability in patients with COPD)

Care home residents – consider regular review of inhaler therapy, assess compliance and review management of COPD. If clinically appropriate and in conjunction with the GP and carers, consider SABA (Salbutamol) with spacer alone if patient is not breathless when required with regular review and optimising in accordance with symptoms. Carers should be assessed on their ability to administer inhalers to residents.



COPD Value Pyramid
(Cost/QALY)
London Respiratory Team

References & Acknowledgements:

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