Important New Evidence Service

In Partnership with The Centre for Medicines Optimisation at Keele University

ScriptSwitch™ Rapid Update 3 – November 2016

COPD: Update to GOLD COPD guideline

The 2017 update to the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guideline on chronic obstructive pulmonary disease (COPD) has been published. NICE guidance on COPD was last updated in 2010, since which time new treatment options and evidence have emerged. Below we present a 'first look' at some of the changes in this latest update to the GOLD COPD guideline.

Reference: Global Strategy for Diagnosis, Management and Prevention of COPD. 2017 Update. Available from www.goldcopd.org/

GOLD COPD definition:

2016: a common, preventable and treatable disease, is characterized by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response in the airways and the lung to noxious particles or gases.

2017: common, preventable and treatable disease that is characterised by persistent respiratory symptoms and airflow limitation that is due to airway and/or alveolar abnormalities usually caused by significant exposure to noxious particles or gases.

Exacerbations definition:

2016: an acute event characterised by a worsening of the patient's respiratory symptoms that is beyond normal day-today variations and leads to a change in medication.

2017: an acute event characterised by a worsening of respiratory symptoms that result in additional therapy.

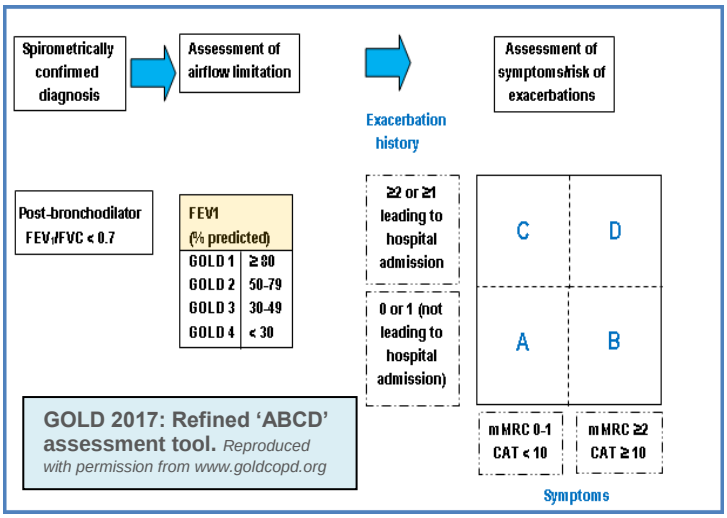
Revised definitions:

The definition of COPD has been refined. Previously, the definition focussed on airflow limitation, the progressive nature of the disease and the involvement of external noxious agents. The definition has now been refined to recognise that some patients may not have particularly marked airway obstruction, but may have other signs and symptoms of airway abnormalities. It also recognises that for some patients there may be no history of exposure to noxious agents.

The definition of an exacerbation has also been simplified. The 2017 update notes it is now recognised that many exacerbations are not reported to healthcare professionals for therapy, and yet these events, although often shorter in duration, also have a significant impact on health status. Thus, people with COPD should be educated about the importance of understanding exacerbation symptoms and when to seek professional help. Exacerbations are classified as: **Mild** (*treated with short-acting bronchodilators only [SABDs]*); **Moderate** (*treated with SABDs + antibiotics and/or oral corticosteroids*); **Severe** (*requires hospitalisation or visit to emergency room; may also be associated with respiratory failure*).

Refinement of the 'ABCD' assessment tool

In 2011, GOLD introduced the 'ABCD' assessment for patients. In a move away from earlier gradings based only on lung function, the ABCD grouping took into account symptoms and exacerbations, alongside spirometry. The 2017 update notes that this categorisation, however, did not perform any better than use of lung function for a number of major health outcomes, including mortality. For 2017, GOLD has refined the 'ABCD' assessment to **now only take into account a patient's symptoms** (*assessed using the modified Medical Research Council [mMRC] scale or COPD Assessment Test [CAT]*) **and their exacerbation history**. Importantly, the ABCD assessment is also used to guide pharmacological treatment (*see overleaf*). The role of spirometry is still, however, considered to be important in diagnosis, assessment of severity of airflow obstruction for prognostication, in follow-up to identify rapid decline or, in some situations, to help guide therapeutic decisions.



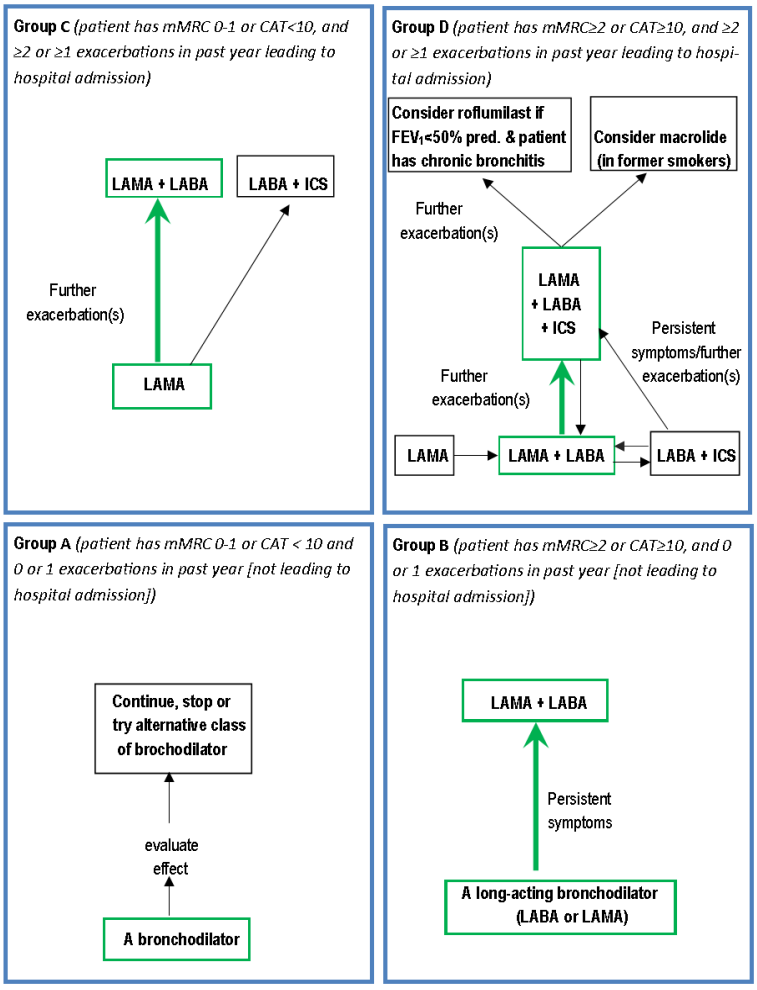
GOLD 2017: Refined 'ABCD' assessment tool. *Reproduced with permission from www.goldcopd.org*

Revised algorithms for pharmacological therapy, including a 'de-escalation' option

In GOLD 2017, pharmacological therapy is based on a patient's ABCD grouping, and hence exclusively on their symptoms and exacerbation history. This perhaps strengthens the aim of pharmacological treatment in reducing the patient's current symptoms and their future risk of exacerbations. Arguably, its simplicity may also be appealing within clinical practice.

Pharmacological treatment algorithms have been revised (*see figure*), and for each group, an initial treatment strategy, followed by an 'escalation' strategy is suggested. Notably, the update gives a high place to the dual long-acting bronchodilator therapies (i.e. long-acting beta agonist + long-acting muscarinic antagonist [LABA+LAMA]), which are the 'preferred' option ahead of LABA + inhaler corticosteroid (ICS) in several groups.

Pharmacological treatment algorithms by GOLD Grade
(green indicates preferred treatment pathways)



Preferred treatment =

mMRC: modified Medical Research Council Questionnaire (measures dyspnoea). **CAT**: COPD Assessment Test (CAT™) (measure health status impairment). Reproduced with permission from Goldcopd.org; adapted by author to include definitions of patients groups.

A comment on ICS 'de-escalation'

The option of '***de-escalating***' treatment is also addressed for the first time in GOLD, specifically in Group D patients on triple therapy (LAMA + LABA + ICS), stepping down to LAMA + LABA.

The benefits of ICS in COPD have been questioned in recent times, and several studies have looked at the consequences of withdrawing ICS. The largest study to date is WISDOM, the findings of which have informed the de-escalation option included in GOLD 2017. This 12-month randomised controlled trial examined the consequence of stepwise withdrawal of ICS from a triple therapy regimen (in this case fluticasone propionate + tiotropium + salmeterol) in patients with severe COPD (GOLD C or D). Following a 6-week run-in period of triple therapy, patients were randomised to continue or withdraw the ICS component, reducing dose by approximately half every 6 weeks, until after 12 weeks, ICS was completely withdrawn. There was no difference in the occurrence of moderate or severe exacerbations between the two groups. A small but statistically significant reduction in lung function was seen following ICS withdrawal; however, the clinical importance of this is unclear.

Other recent studies that have looked at the impact of withdrawing ICS are:

- OPTIMO – a real-life, prospective study that enrolled patients with symptomatic, moderate COPD (FEV_1>50%) at lower risk of exacerbations (<2/year). There was no deterioration in lung function, symptoms, or exacerbations over a 6-month observation period in either the ICS withdrawal or continuation groups.
- INSTEAD – a randomised trial of patients with moderate COPD (FEV_1 50%–80%), with no exacerbations in the previous year. Switching from ICS + LABA (fluticasone propionate + salmeterol) to a LABA (indacaterol) was not associated with any differences in lung function, symptoms, health status and exacerbations over 26 weeks.

There are likely to be many patients with mild/moderate COPD that have already been initiated on LABA+ICS. Could these patients have their ICS treatment safely stepped down? These results seem to suggest ICS could, with careful review and follow-up, be withdrawn from patients with moderate COPD at low risk of exacerbations. In both these studies, the 'step back' was to a LABA.

Some other changes in GOLD 2017

- **Regularly evaluate inhaler technique:** The assessment and regular evaluation of inhaler technique has been added to attempt to improve therapeutic outcomes.
- **Non-pharmacological therapy is as critical as pharmacological therapy:** The chapter on non-pharmacological therapy has been expanded.
- **Discharge and follow up criteria:** Around 1 in 3 people admitted to hospital with a COPD will be readmitted within 3 months (ref). GOLD 2017 presents detailed hospital discharge criteria and recommendations for follow up at both 1-4 weeks and 12-16 weeks following discharge.

There are other changes not noted in this quick 'KINES' update. The full guideline is available at www.goldcopd.org.