

COPD-X Summary of Changes V2 63

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Snapshot of the evidence review cycle for V2 63 February 2021

The latest update of The COPD-X Plan has been provided by Lung Foundation Australia following the February 2021 meeting of the COPD-X Guidelines Committee. 10 changes are outlined in this summary.



Studies resulting from literature searches
n = 340



Studies included for second screening by topic expert
n = 35



Studies included for full text review by topic expert
n = 25



Recommendations for studies reviewed and discussed at Q1 2021 Committee meeting
n = 25



Implications for Clinical Practice

All changes made to the document are outlined below and those highlighted in yellow are differentiated as the most significant and likely to have an impact on clinical practice.

O. Optimise Function

Change #	Section	Type of change	Relevant key recommendation	Page number
O2. Oral bronchodilators > O2.1 Methylxanthines				
1	<p>Theophylline is rarely used for COPD in Australia. An RCT of low dose theophylline vs placebo in 1,567 patients with COPD were on 'triple-therapy' in the UK found no difference in exacerbation rates at 12 months (Devereux et al 2018) [evidence level III]. An RCT of low dose theophylline plus low dose oral prednisone, theophylline or placebo in 1,670 patients with COPD in China found no statistically significant differences in exacerbation rates, hospitalisations, FEV1, SGRQ and CAT scores at 48 weeks (Jenkins et al 2020) [evidence level II].</p> <p>Based on the available evidence, theophylline cannot be recommended for patients with COPD in the Australasian context.</p>	Existing wording amended and new RCT described.	N/A	P44
07.2 Cardiac disease				
2	Li et al 2020	Citation added to Paragraph 7	N/A	P76
07.2.2 Safety of beta-blockers				
3	<p>Despite a paucity of evidence to suggest harm, beta-blockers are still under-utilised in COPD for guideline-based indications such as heart failure with reduced ejection fraction (HFrEF) (Lipworth et al 2016) [evidence level III-2]. Australian data from a COPD cohort hospitalised for a COPD exacerbation also reflects this (Neef et al 2016) [evidence level III-2] as does a similar New Zealand study (Parkin et al 2020) [both evidence level III-2]. In contrast, Parkin et al report much higher prescription rates for other medications used to reduce cardiovascular risk, such as aspirin and Hydroxymethylglutaryl-CoA reductase inhibitors (statins).</p>	Para 3 edited to include Parkin et al.	<p>Comorbid conditions are common in patients with COPD [evidence level III-2, strong recommendation]</p>	P79

O10 Palliative and supportive care

4	<p>A retrospective cohort study from Belgium demonstrated that receiving one or more home specialist palliative care (PHC) visits more than 30 days before death was associated with increased appropriate patient-centered medical resource use and lower inpatient and total costs in the last 30 days before death for COPD compared to no PHC (Scheerens et al 2019). Notably, very few patients with COPD accessed any PHC.</p>	<p>New citation and wording added to the end of existing section.</p>	<p>Palliative care - ideally from a multidisciplinary team which includes the primary care team - should be considered early, and should include symptom control and addressing psychosocial issues [evidence level II, weak recommendation]</p>	<p>P96</p>
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P: Prevent deterioration

Change #	Section	Type of change	Relevant key recommendation	Page number
<p>P1 Risk factor reduction > P1.1 Smoking cessation</p>				
5	<p>Heavy marijuana smoking (> 20 joint-years of exposure) increases the risk of COPD and accelerates FEV1 decline in concomitant tobacco smokers beyond that observed with tobacco alone (Tan et al 2019).</p>	<p>New citation and wording added to the end of existing section.</p>	<p>Smoking cessation is the most important intervention to prevent the worsening of COPD [evidence level II, strong recommendation]</p>	<p>P102</p>

D: Develop a plan of care

Change #	Section	Type of change	Relevant key recommendation	Page number
D1 Support team > D1.3 GP practice nurse/ nurse practitioner/ respiratory educator/ respiratory nurse				
6	Another nurse led RCT of an intensive self management intervention resulted in a reduction in hospitalizations (at 12 months) and in emergency department visits at 6 and 12 months. Additionally, exercise capacity improved as measured by the 6MWD, as did health related quality of life (Wang et al 2019). See self management section.	New citation and wording added to the end of existing section.	Clinical support teams working with the primary healthcare team can enhance quality of life and reduce disability for patients with COPD [evidence level III-2, weak recommendation]	P121
D5 Treating anxiety and depression				
7	Zhang et al 2020	Citation added to Paragraph 4 & 7	Patients may benefit from self-management support [evidence level I, strong recommendation]	P131, P132

X: Manage eXacerbations

Change #	Section	Type of change	Relevant key recommendation	Page number
X: Manage eXacerbations				
8	Other causes of exacerbations of COPD include left ventricular failure and pulmonary embolus (PE). A systematic review comprising seven studies with a total of 880 patients who were hospitalised with an exacerbation of COPD and underwent a CT pulmonary angiogram (CTPA) found that 16% had a PE (Aleva et al 2017). There was large variation in the prevalence of PE between studies (3% to 29%). One third of patients had only small, isolated, sub-segmental PE. A prospective study of 740 patients with COPD with an acute worsening of respiratory symptoms presenting to 7 French hospitals found a prevalence of 5.9% of PE on CTPA, based on a predefined diagnostic algorithm including clinical probability based on the Geneva score and D-dimer testing (Couturaud et al 2021). A diagnosis of PE should be considered in patients presenting with an exacerbation of COPD when signs of respiratory infection are absent, and chest pain or cardiac failure are present.	Existing wording amended and new prospective study described (blue text).	A COPD exacerbation is characterised by a change in the patient's baseline dyspnoea, cough, and/or sputum that is beyond normal day-to-day variations, is acute in onset and may warrant a change in regular medication or hospital admission [evidence level III-2, strong recommendation]	P136
X3.1 Controlled oxygen therapy				
9	In an observational study from the UK of 1027 patients admitted across 6 hospitals with an exacerbation of COPD and receiving supplemental oxygen, Echevarria et al reported that in-hospital mortality was lowest in those with admission oxygen saturations between 88 and 92%. This mortality effect was dose-responsive with mortality rates highest in the sub-group with oxygen saturations 97-100%. The effect was also present in patients with normocapnia. The authors recommend that all patients with COPD receiving supplemental oxygen should have an oxygen saturation target of 88-92% independent of the presence of hypercapnia (Echevarria et al 2020).	Existing wording amended (reference deleted) and new observational study described.	Controlled oxygen delivery (0.5–2.0 L/min) is indicated for hypoxaemia in patients with exacerbations (Beasley 2015) [evidence level II, strong recommendation]	P147
10	A retrospective Australian study examined oxygen use in 111 patients admitted with hypercapnia due to an exacerbation of COPD. Over-oxygenation was common and was significantly more likely to occur on non-respiratory ward admissions (76% vs 57%, p=0.03) (Anderson et al 2020).	New citation and wording added to existing section describing retrospective study.		