COPD-X Summary of Changes V2 70

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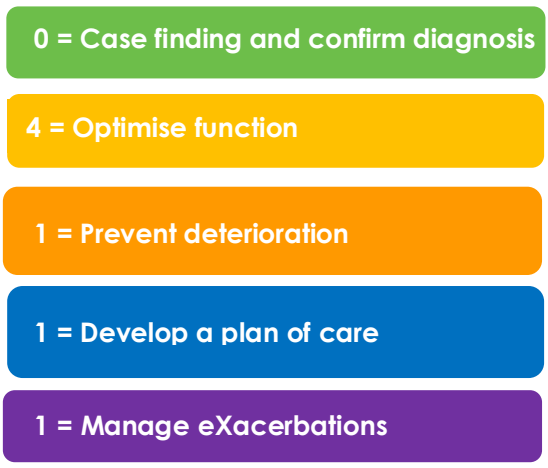
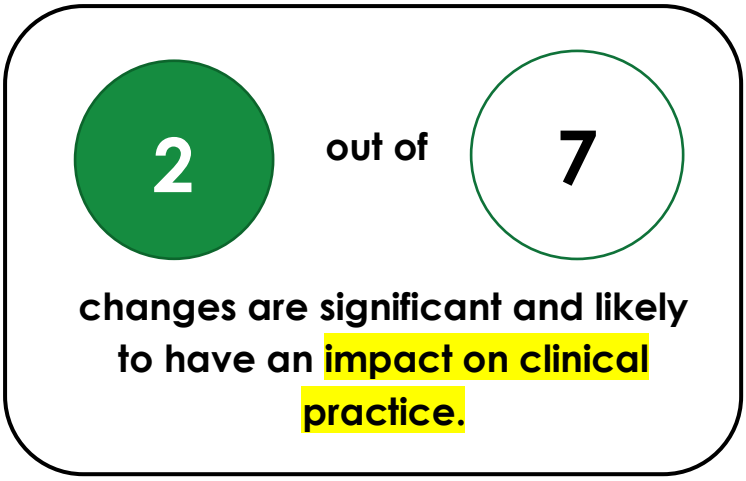
Snapshot of the evidence review cycle for V2 70 - March 2023

The latest update of The COPD-X Plan has been provided by Lung Foundation Australia following the March 2023 meeting of the COPD-X Guidelines Committee. There are **7** changes outlined in this summary.





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	IF THERE IS A RELEVANT KEY RECOMMENDATION, THIS IS LISTED BELOW FOR EACH CHANGE	PAGE NUMBER
O6.1 Pulmonary Rehabilitation				
1	Long-term telerehabilitation consisting of 2 years of unsupervised exercise at home on a treadmill and strength training, plus either supervised exercise sessions once/week for 8 weeks or supervised exercise sessions once/week for 8 weeks followed by once/month for the 2 year duration of the study, reduced the rate of hospitalisations and ED presentations compared to standard care (Zanaboni 2022) [evidence level II].	New citation and wording added to existing paragraph outlining results from a randomised control trial.	**Non-pharmacological strategies (such as pulmonary rehabilitation and regular exercise) should be provided to all patients with COPD** [evidence level I, strong recommendation]	62
2	Inspiratory muscle training (IMT), performed in isolation using a threshold loading device or target-flow resistive device at loads equal to or greater than 30% of an individual's maximum inspiratory pressure generated against an occluded airway (PImax) has been shown to produce short-term gains in inspiratory muscle strength and endurance, reduce dyspnoea, improve functional exercise capacity (6 or 12 minute walk distance) and confer small gains in health-related quality of life (HRQoL) in patients with COPD ~~(Geddes 2008, Gosselink 2011~~ (Ammous 2023) [evidence level I]. Although IMT used in isolation is beneficial, it does not appear to have any added benefits in terms of dyspnoea, functional exercise capacity or quality of life when combined with whole body exercise training in people with COPD ~~(Beaumont 2018, Schultz 2018)~~ (Ammous 2023) [evidence level I].	New citation added to existing paragraph to replace outdated citations.	Not directly related to a key recommendation.	66
O7.1 Increased risks from comorbidities in the presence of COPD				
3	A population-based cohort study in Ontario, Canada using linked datasets and including all patients aged 35 years or older living in Ontario who	New citation and paragraph added	**Comorbid conditions are common in patients with**	77

	underwent intermediate to high risk elective non-cardiac surgeries from April 2005 to March 2019, found that patients with COPD had lower survival and greater health care costs in the year after scheduled surgery than patients without COPD. Within 30 days after surgery, patients with COPD were more likely to die (n = 5873, 3.4%) than those without (n = 9429, 1.2%) (Sankar 2023) [evidence level III-2]. Perioperative patient care should include comprehensive assessment and treatment tailored not only to COPD, but also to management of concomitant conditions and surgical disease.	describing results from a retrospective population-based cohort study.	**COPD** [evidence level III-2, strong recommendation]	
O7.4 Frailty in COPD				
4	An additional meta-analysis on frailty, again highlighted the high prevalence of frailty in people with COPD, according to a range of frailty measures, associated with a clinically significantly increased risk of adverse outcomes (Hanlon 2023) [evidence level I]. Proactive identification of frailty can identify candidates for targeted intervention such as pulmonary rehabilitation, with evidence of frailty reduction in at least one study when participants completed a programme (Maddocks 2016).	New citation and wording added to existing paragraph outlining results from a systematic review and meta-analysis.	**Comorbid conditions are common in patients with COPD** [evidence level III-2, strong recommendation]	83

P: Prevent deterioration

CHANGE	SECTION	TYPE OF CHANGE	IF THERE IS A RELEVANT KEY RECOMMENDATION, THIS IS LISTED BELOW FOR EACH CHANGE	PAGE NUMBER
P1.1 Smoking Cessation ***P1.2.5 Electronic cigarettes (e-cigarettes)***				
5	A 2022 NHMRC CEO Statement on electronic cigarettes was informed by a systematic review of global evidence by Banks et al (Banks E, 2022, National Health and Medical Research Council 2022) [evidence level I]. Key conclusions in the NHMRC CEO statement are: • All e-cigarette users are exposed to chemicals and toxins that have the potential to cause adverse health effects. • People who have never smoked may be more likely to take up tobacco smoking if they use e-cigarettes. • Short-term e-cigarette use may benefit smokers if they are motivated to quit smoking and have been previously unsuccessful with other smoking cessation aids.	New citation and paragraph added summarising recommendations from a systematic review.	**Smoking cessation is the most important intervention to prevent the worsening of COPD** [evidence level II, strong recommendation]	106

D: Develop a plan of care

CHANGE	SECTION	TYPE OF CHANGE	IF THERE IS A RELEVANT KEY RECOMMENDATION, THIS IS LISTED BELOW FOR EACH CHANGE	PAGE NUMBER
D5. Treat anxiety and depression				
6	Symptoms of anxiety and depression and associated disorders are common in people with COPD (Ng 2007, Xu 2008, Weiss 2022) and have a range of negative impacts [evidence level III, III-2].	New citation added to existing sentence.	Not directly related to a key recommendation.	133

X: Manage eXacerbations

CHANGE	SECTION	TYPE OF CHANGE	IF THERE IS A RELEVANT KEY RECOMMENDATION, THIS IS LISTED BELOW FOR EACH CHANGE	PAGE NUMBER
X: Manage exacerbations				
7	A systematic review of over 40 studies reported a 30-day COPD related readmission rate of 11% and a 12-month readmission rate of 37% (Ruan 2023) [evidence level I].	New citation and wording added to existing paragraph outlining results of a systematic review.	**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].	137

New studies cited (listed in alphabetical order)

BANKS E, YAZIDJOGLOU A, BROWN S, NGUYEN M, MARTIN M, BECKWITH K, DALUWATTA A, CAMPBELL S & G, J. 2022. Electronic cigarettes and health outcomes: systematic review of global evidence. Report for the Australian Department of Health. Canberra: National Centre for Epidemiology and Population Health.

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WEISS, J. R., SERDENES, R., MADTHA, U., ZHAO, H., KIM, V., LOPEZ-PASTRANA, J., EAKIN, M. N., O'TOOLE, J., COOPER, C. B., WOODRUFF, P., KANNER, R. E., KRISHNAN, J. A., IYER, A. S., COUPER, D. & MORRISON, M. F. 2022. Association Among Chronic Obstructive Pulmonary Disease Severity, Exacerbation Risk, and Anxiety and Depression Symptoms in the SPIROMICS Cohort. J Acad Consult Liaison Psychiatry.

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GOSSELINK, R., DE VOS, J., VAN DEN HEUVEL, S. P., SEGERS, J., DECRAMER, M. & KWAKKEL, G. 2011. Impact of inspiratory muscle training in patients with COPD: what is the evidence? *Eur Respir J,* 37**,** 416-25.

SCHULTZ, K., JELUSIC, D., WITTMANN, M., KRAMER, B., HUBER, V., FUCHS, S., LEHBERT, N., WINGART, S., STOJANOVIC, D., GOHL, O., ALMA, H. J., DE JONG, C., VAN DER MOLEN, T., FALLER, H. & SCHULER, M. 2018. Inspiratory muscle training does not improve clinical outcomes in 3-week COPD rehabilitation: results from a randomised controlled trial. *Eur Respir J,* 51.