

COPD-X Summary of Changes V2 68

Table of Contents

Snapshot of the evidence review cycle for V2 68 - October 2022.....	1
C: Case finding and diagnosis.....	2
O: Optimise function	3
D: Develop a plan of care	6
New studies cited (listed in alphabetical order)	7

Snapshot of the evidence review cycle for V2 68 - October 2022

The latest update of The COPD-X Plan has been provided by Lung Foundation Australia following the October 2022 meeting of the COPD-X Guidelines Committee. There are **11** changes outlined in this summary.

2 = Case finding and confirm

6 = Optimise function

0 = Prevent deterioration

3 = Develop a plan of care

0 = Manage eXacerbations

2

out of

11

changes are significant and likely to have an impact on clinical practice.

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.

C: Case finding and diagnosis

CHANGE	SECTION	TYPE OF CHANGE	IF THERE IS A RELEVANT KEY RECOMMENDATION, THIS IS LISTED BELOW FOR EACH CHANGE	PAGE NUMBER
C2.3 Spirometry				
1	In a community-based study of 1615 participants with a range of respiratory symptoms, but not recalling a diagnosis of respiratory disease, 8.4% had spirometry results consistent with asthma and 12.1% subjects had spirometry results consistent with COPD (Alhabeeb 2022). This highlights the prevalence of undiagnosed airways disease. These undiagnosed subjects also had more severe respiratory symptoms as assessed by the COPD Assessment Test (CAT), and poorer health-related quality of life as assessed by the St. George's Respiratory Questionnaire (SGRQ) compared to subjects with no airflow obstruction. This study highlights a beneficial yield of airways disease diagnoses, in adults who have respiratory symptoms but without a diagnosis, by performing spirometry.	New citation and wording added to existing paragraph outlining results from a cross-sectional case-finding study.	COPD is confirmed by the presence of persistent airflow limitation (post-bronchodilator FEV₁/FVC < 0.7) [evidence level III-2, strong recommendation].	p.28
C2.5 COPD case finding				
2	A targeted systematic review commissioned by the USPSTF to update the evidence on the effectiveness of screening asymptomatic adults found no new studies over the subsequent period January 1, 2015, to March 25, 2022 (Webber 2022) [evidence level I].	New citation and wording added to existing paragraph. Update to the previous USPSTF study.	Not directly related to a key recommendation.	p.30

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				
3	In an Australian study comparing an initial 8 week, twice weekly supervised home-based pulmonary telerehabilitation program compared to a centre-based pulmonary rehabilitation program, there were no significant differences between the groups for any outcome at either 8 weeks or 12 months follow-up, and both groups achieved meaningful improvement in dyspnoea and exercise capacity at the end of rehabilitation (Cox 2022) [evidence level II].	New citation and wording added to existing paragraph describing results of an Australian multicentre randomised controlled trial.	Non-pharmacological strategies (such as pulmonary rehabilitation and regular exercise) should be provided to all patients with COPD [evidence level I, strong recommendation].	p.65
4	Unsupervised home-based exercise for 12 months has been shown to improve 1 minute sit-to-stand performance compared to usual care, had no effect on dyspnoea, but was well accepted by people with COPD (Frei 2022) [evidence level III-2].	New citation and wording added to existing paragraph describing results of a multicentre randomised controlled trial.	Non-pharmacological strategies (such as pulmonary rehabilitation and regular exercise) should be provided to all patients with COPD [evidence level I, strong recommendation].	p.66

O6.7 Breathing exercises

5	<p>In a systematic review of 15 randomised control trials (1098 people with COPD), daily pursed lip breathing combined with deep breathing (2-5 times a day for 5-30 minutes) compared to usual care, showed statistically significant improved pulmonary function (FEV1, FVC, FEV1/FVC) and 6-minute walk distance (mean difference 29m, 95% CI 19-38, p<0.001) compared to control (Yang 2022) [evidence level I].</p> <p>Breathing exercises practiced daily may have a role to improve exercise capacity in people with COPD who are unable to undertake exercise training, and their use during daily living activities can be beneficial for breathlessness management by reducing respiratory rate at rest and shortening time taken to recover from breathlessness.</p>	New citation and wording added to existing paragraph describing results of a systematic review.	Not directly related to a key recommendation.	p.72
---	--	---	--	------

O6.8 Chest physiotherapy (Airway clearance techniques)

6	<p>A randomised controlled trial of oscillating positive expiratory pressure (OPEP) using the Acapella device plus ACBT compared to ACBT alone in patients with COPD who frequently produce sputum demonstrated significant improvements in cough-related QOL, generic QOL, and reduced fatigue (Alghamdi 2022). In clinical practice, screening of patients who produce sputum on most days (i.e., COPD with a sputum producing phenotype), can identify patients where the Acapella™, and perhaps similar OPEP devices, can have a positive impact [evidence level II].</p>	New citation and paragraph added describing results of a randomised controlled trial.	Not directly related to a key recommendation.	p.73
---	---	---	--	------

O7.4 Frailty in COPD

7	<p>A study of 1,162 participants with COPD and 3,465 participants without COPD by Lee et al (2022) also supported the use of a bundle of physical frailty measurements in addition to lung function and dyspnoea scores in multidimensional evaluation of COPD. The addition of frailty measures highlighted the associations with the inability to perform daily tasks and mortality [evidence level III-2].</p>	New citation and wording added to existing paragraph describing results of a prospective cohort study.	Not directly related to a key recommendation.	p.86
---	---	--	--	------

O7.11 Combined pulmonary fibrosis and emphysema

8	Combined pulmonary fibrosis and emphysema (CPFE) is a syndrome defined by clustering of pulmonary fibrosis and emphysema in a patient (Cottin 2022).	New citation and wording added to existing paragraph outlining results of a task force research statement.	Not directly related to a key recommendation.	p.91
---	--	--	--	------

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
D4. Telehealth				
9	In an RCT of 375 people with COPD, a 12-week remote patient monitoring system focusing on daily step count and exercise practice along with weekly health coaching telephone calls utilising motivational interviewing, improved health-related quality of life measured by the Chronic Respiratory Disease Questionnaire which was maintained to 24 weeks (Benzo 2022) [evidence level II].	New citation and wording added to existing paragraph describing results of a multi-centre randomized clinical trial.	Not directly related to a key recommendation.	p.133
D5. Treat anxiety and depression				
10	People with COPD are not only at high risk of depressive symptoms and mood disorders but are at higher risk than people with other chronic conditions (Ng 2007 [evidence level III], Siraj 2020 [evidence level III-2]).	New citation added to existing sentence.	Not directly related to a key recommendation.	p.135
11	Depressive symptoms have been more strongly associated over four years with patient reported outcomes, including symptom control and physical activity related dyspnoea, than with change in FEV1 (O'Toole 2022) [evidence level II]. In summary, these findings support the benefit of screening for symptoms of depression and anxiety in people with COPD and of providing mental health care as a component of comprehensive multidisciplinary care.	New citation and wording added to existing paragraph describing longitudinal data from Subpopulations and Intermediate Outcome Measures in COPD Study.	Not directly related to a key recommendation.	p.135

New studies cited (listed in alphabetical order)

- ALGHAMDI, S. M., ALSULAYYIM, A. S., ALASMARI, A. M., PHILIP, K. E. J., BUTTERY, S. C., BANYA, W. A. S., POLKEY, M. I., BIRRING, S. S. & HOPKINSON, N. S. 2022. Oscillatory positive expiratory pressure therapy in COPD (O-COPD): a randomised controlled trial. *Thorax*.
- ALHABEEB, F. F., WHITMORE, G. A., VANDEMHEEN, K. L., FITZGERALD, J. M., BERGERON, C., LEMIÈRE, C., BOULET, L. P., FIELD, S. K., PENZ, E., MCIVOR, R. A., GUPTA, S., MAYERS, I., BHUTANI, M., HERNANDEZ, P., LOUGHEED, D., LICSKAI, C. J., AZHER, T., COTE, A., AINSLIE, M., FRASER, I., MAHDAVIAN, M. & AARON, S. D. 2022. Disease burden in individuals with symptomatic undiagnosed asthma or COPD. *Respir Med*, 200, 106917.
- BENZO, R., HOULT, J., MCEVOY, C., CLARK, M., BENZO, M., JOHNSON, M. & NOVOTNY, P. 2022. Promoting COPD Wellness through Remote Monitoring and Health Coaching: A Randomized Study. *Ann Am Thorac Soc*.
- COTTIN, V., SELMAN, M., INOUE, Y., WONG, A. W., CORTE, T. J., FLAHERTY, K. R., HAN, M. K., JACOB, J., JOHANNSON, K. A., KITAICHI, M., LEE, J. S., AGUSTI, A., ANTONIOU, K. M., BIANCHI, P., CARO, F., FLORENZANO, M., GALVIN, L., IWASAWA, T., MARTINEZ, F. J., MORGAN, R. L., MYERS, J. L., NICHOLSON, A. G., OCCHIPINTI, M., POLETTI, V., SALISBURY, M. L., SIN, D. D., SVERZELLATI, N., TONIA, T., VALENZUELA, C., RYERSON, C. J. & WELLS, A. U. 2022. Syndrome of Combined Pulmonary Fibrosis and Emphysema: An Official ATS/ERS/JRS/ALAT Research Statement. *Am J Respir Crit Care Med*, 206, e7-e41.
- COX, N. S., MCDONALD, C. F., MAHAL, A., ALISON, J. A., WOOTTON, R., HILL, C. J., ZANABONI, P., O'HALLORAN, P., BONDARENKO, J., MACDONALD, H., BARKER, K., CRUTE, H., MELLERICK, C., WAGECK, B., BOURSINOS, H., LAHAM, A., NICHOLS, A., CZUPRYN, P., CORBETT, M., HANDLEY, E., BURGE, A. T. & HOLLAND, A. E. 2022. Telerehabilitation for chronic respiratory disease: a randomised controlled equivalence trial. *Thorax*, 77, 643-651.
- FREI, A., RADTKE, T., LANA, K. D., BRUN, P., SIGRIST, T., SPIELMANN, M., BEYER, S., RIEGLER, T. F., BÜSCHING, G., SPIELMANN, S., KUNZ, R., CERINI, T., BRAUN, J., TOMONAGA, Y., BURRIEL, M. S., POLHEMUS, A. & PUHAN, M. A. 2022. Effectiveness of a long-term home-based exercise training program in patients with COPD following pulmonary rehabilitation: A multi-center randomized controlled trial. *Chest*.
- LEE, S. Y., NYUNT, M. S. Z., GAO, Q., GWEE, X., CHUA, D. Q. L., YAP, K. B., WEE, S. L. & NG, T. P. 2022. Co-occurrence of Physical Frailty and COPD and Association With Disability and Mortality: Singapore Longitudinal Ageing Study. *Chest*, 161, 1225-1238.
- O'TOOLE, J., WOO, H., PUTCHA, N., COOPER, C. B., WOODRUFF, P., KANNER, R. E., PAINE, R., BOWLER, R. P., COMELLAS, A., HOTH, K. F., KRISHNAN, J. A., HAN, M., DRANSFIELD, M., IYER, A. S., COUPER, D., PETERS, S. P., CRINER, G., KIM, V., BARR, R. G., MARTINEZ, F. J., HANSEL, N. N. & EAKIN, M. N. 2022. Comparative Impact of Depressive Symptoms and FEV(1)% on Chronic Obstructive Pulmonary Disease. *Ann Am Thorac Soc*, 19, 171-178.
- SIRAJ, R. A., MCKEEVER, T. M., GIBSON, J. E., GORDON, A. L. & BOLTON, C. E. 2020. Risk of incident dementia and cognitive impairment in patients with chronic obstructive pulmonary disease (COPD): A large UK population-based study. *Respir Med*, 177, 106288.

- WEBBER, E. M., LIN, J. S. & THOMAS, R. G. 2022. Screening for Chronic Obstructive Pulmonary Disease: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *Jama*, 327, 1812-1816.
- YANG, Y., WEI, L., WANG, S., KE, L., ZHAO, H., MAO, J., LI, J. & MAO, Z. 2022. The effects of pursed lip breathing combined with diaphragmatic breathing on pulmonary function and exercise capacity in patients with COPD: a systematic review and meta-analysis. *Physiother Theory Pract*, 38, 847-857.