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Concise guidance for COPD

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In 2014, Lung Foundation Australia (LFA) first published the 'COPD-X Concise Guide for Primary Care' with the aim of distilling the more detailed 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease' into a pragmatic, point-of-care guide for primary care clinicians. Since then, the Concise Guide has been updated by the COPD-X Guidelines Committee, a multi-disciplinary group of Australian clinicians that meets quarterly to review COPD literature and update the 'COPD-X Plan'.

In 2020 the 'Concise Guide' has been rewritten and 'primary care' has been removed from the title to reflect that a wide range of clinicians require succinct, evidence-based recommendations on caring for patients with COPD (<https://copdx.org.au/>). The format of the guide has been altered to improve readability with each topic beginning with a real-world question, such as 'How can exacerbation risk be reduced?' with dot-point answers, practice tips and key recommendations. The guide has been updated to ensure that levels of evidence and statements regarding the strength of recommendations are clear. For clinicians requiring more detailed information and a discussion of the evidence, hyperlinks to the full COPD-X guide are provided.

The COPD-X Guidelines Committee reviews the quarterly changes made to the 'COPD-X Plan' to identify key developments and incorporate the latest evidence into the 'Concise Guide'. Key stakeholders and primary care representatives are also invited to submit feedback.

The 'Stepwise Management of COPD', also published by LFA, is a single page, graphical summary of the pharmacological and non-pharmacological therapies across the severity spectrum of COPD (Figure 1). The principle of stepwise management, beginning with one pharmacological intervention and assessing response before adding another agent, is consistent across all of the LFA COPD guides. Furthermore, the guides emphasise the vital role of reducing risk factors (particularly smoking), optimising function with multi-disciplinary care, optimising treatment of co-morbidities and referring symptomatic patients to pulmonary rehabilitation.

Since its inception, the 'Concise Guide' has provided recommendations around **C**ase finding and diagnosis, **O**ptimising function, **P**revention of deterioration, **D**evelopment of care plans and management of **eX**acerbations. The 2020 update provides new evidence regarding the role of triple therapy (ICS/LABA/LAMA) and non-pharmacological options for symptom management including handheld fans and recovery positions. New level 1 data on interventions to reduce exacerbations have also been included with reference to oral mucolytics and COPD action plans.

Guideline user surveys indicate that the suite of COPD-X guidelines is accessed by primary care physicians, practice nurses, allied health professionals and health care agencies. Results of a recent user survey indicated that the Guidelines improved knowledge and understanding of COPD management, supported the delivery of patient-centred care and had relevance across hospital, primary and community care settings¹. Feedback from this survey, in addition to that provided by the LFA General Practice Advisory Group, supports the presentation of guidance in a brief, user-friendly format such as is presented in the 'Concise Guide' and 'Stepwise', underpinned by the full guidance provided in COPD-X.

LFA is a peak body advocating for lung health for all Australians and supports the involvement of consumers with COPD and/or their carers/advocates in all its services, including in the development of the Concise Guide. The Concise Guide, as well as the rest of the Guideline Suite, incorporates feedback from key stakeholders including, importantly, members of the Thoracic Society of Australia and New Zealand, and is endorsed by the peak body for general practitioners, The Royal Australian College of General Practitioners.

The diversity of aetiologies of COPD, complex presentations, gaps in available management and different health care systems provide barriers to implementation of best-practice care for patients with COPD, both globally and in regions such as the Asia-Pacific. For clinicians providing day-to-day management, and for health policy makers shaping the system, keeping up-to-date with the ever-expanding evidence in COPD epidemiology, diagnosis and management^{2,3} is a rewarding but never-ending challenge.

Principles from international guidelines need careful adopting or adapting to ensure local relevance. In 'Management of COPD in Asia: A position statement of the Asian Pacific Society of Respiriology', the case is made for fit-for-purpose adaptation of COPD guidelines in Asian populations, especially when recognising the low use of spirometry in some Asian countries, high prevalence of smoking, and other risk factors of importance (e.g. biomass smoke exposure, tuberculosis-destroyed lung)⁴.

Whilst the COPD-X Concise Guide is written for a specific setting, its format may be useful educationally as another example of implementation of guidelines in the Asia-Pacific region. For example, the Concise Guide employs a pragmatic style of communication, including asking clinical questions in diagnosis and management, and visual representation of inhaled medicines.

Clinical guidelines are but one element of an integrated system to promote health service delivery; other strategies include professional education, point of care reminders in electronic health records, and computer decision support systems⁵. Considerable effort is required to effectively translate evidence to practical management in our community.

In day-to-day clinical practice, clinicians therefore mostly turn to trusted, local guidelines to help manage their patients with COPD. Involvement of stakeholders and end-users is a critical enabler for guideline development. Evidence-based resources for COPD management – whether in the form of a pragmatic 2-page stepwise wallchart/digital desktop tool, a directed 40-page guidance for primary through to tertiary care practitioners, or a comprehensive, nuanced critical appraisal of evidence-based recommendations – are all essential tools to achieving high quality care for patients with COPD.

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Figure 1: Stepwise Management of stable COPD

The Stepwise Guide summarises key recommendations for diagnosis and both non-pharmacological and pharmacological management of stable COPD in Australia. Current inhaled medicines available in Australia are listed on the back page of the Stepwise Guide. Available at: <https://copdx.org.au/> (April 2020 version shown). Reproduced with permission from Lung Foundation Australia.

STEPWISE MANAGEMENT OF STABLE COPD

	Increasing COPD severity		
	MILD	MODERATE	SEVERE
Typical symptoms	- few symptoms - breathless on moderate exertion - little or no effect on daily activities - cough and sputum production	- breathless walking on level ground - increasing limitation of daily activities - recurrent chest infections - exacerbations requiring oral corticosteroids and/or antibiotics	- breathless on minimal exertion - daily activities severely curtailed - exacerbations of increasing frequency and severity
Typical lung function	FEV ₁ ~ 60-80% predicted	FEV ₁ ~ 40-59% predicted	FEV ₁ < 40% predicted
CONFIRM diagnosis. Confirm post-bronchodilator airflow limitation (FEV ₁ /FVC <0.70) using spirometry. Any pattern of cough with or without chronic sputum production may indicate COPD.			
OPTIMISE function. PREVENT deterioration. DEVELOP a plan of care.			
Non-pharmacological interventions	REDUCE RISK FACTORS Avoid exposure to risk factors including tobacco smoke and air pollution, support smoking cessation, recommend annual influenza vaccine and pneumococcal vaccine according to immunisation handbook		
	OPTIMISE FUNCTION Encourage regular exercise and physical activity, review nutrition, provide education, develop GP management plan and written COPD action plan (and initiate regular review)		
	OPTIMISE TREATMENT OF CO-MORBIDITIES especially cardiovascular disease, anxiety, depression, lung cancer and osteoporosis		
	REFER symptomatic patients to pulmonary rehabilitation		
	INITIATE advanced care planning		
	MANAGE advanced lung disease with domiciliary oxygen therapy, long-term non-invasive ventilation, surgery and bronchoscopic interventions, if indicated		
Pharmacological interventions (inhaled medicines)**	START with short-acting relievers: (used as needed): SABA (short-acting beta ₂ -agonist) OR SAMA (short-acting muscarinic antagonist)		
	ADD long-acting bronchodilators: LAMA (long-acting muscarinic antagonist) OR LABA (long-acting beta ₂ -agonist) Consider need for combination LAMA/LABA depending on symptomatic response		
	CONSIDER adding ICS (inhaled corticosteroids): Single inhaler triple therapy (ICS/LABA/LAMA) may be suitable*		
*In patients with ≥1 severe exacerbation requiring hospitalisation or ≥2 moderate exacerbations in the previous 12 months, AND significant symptoms despite LAMA/LABA or ICS/LABA therapy; OR in patients stabilised on a combination of LAMA, LABA and ICS.			
Assess and optimise inhaler device technique at each visit. Minimise inhaler device polypharmacy			

REFER PATIENTS TO LUNG FOUNDATION AUSTRALIA FOR INFORMATION AND SUPPORT - FREECALL 1800 654 301

Lung Foundation Australia has a range of resources to promote understanding of COPD and assist with management.

Based on The COPD-X Plan: Australian and New Zealand Guidelines for the Management of COPD and COPD-X Concise Guide

**Refer to PBS criteria: www.pbs.gov.au

Register at copdx.org.au to receive an alert when the COPD-X Guidelines are updated



Lung Foundation Australia

1800 654 301 | Lungfoundation.com.au

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Green tick indicates therapies that can be used together

		SABA	SAMA	LAMA	LABA	LABA/LAMA	ICS/LABA	ICS/LABA/LAMA
SABA	• salbutamol (Ventolin TM , Airomir TM , Asmol TM) • terbutaline (Bricanyl TM)		✓	✓	✓	✓	✓	✓
SAMA	• ipratropium (Atrovent TM)	✓			✓		✓	
LAMA	• tiotropium (Spiriva TM /Braltus TM) • glycopyrronium (Seebri TM)	✓			✓		✓	
LABA	• salmeterol (Serevent TM) • formoterol (Oxis TM , Foradile TM)	✓	✓	✓				
LABA/LAMA	• indacaterol/glycopyrronium (Ultibro TM) • umeclidinium/vilanterol (Anoro TM)	✓						
ICS/LABA	• fluticasone propionate/salmeterol (Seretide TM /Salplus TM /Cipla TM) • budesonide/formoterol (Symbicort TM /DuoResp TM)	✓	✓	✓				
ICS/LABA/LAMA	• fluticasone furoate/umeclidinium/vilanterol (Trelegy TM)	✓						

Relievers

SABA: Short-acting beta₂-agonists



Ventolin[®] MDI salbutamol



Asmol[®] MDI salbutamol



Airomir[®] Autohaler salbutamol



Bricanyl[®] Turbuhaler terbutaline

SAMA: Short-acting muscarinic antagonist



Atrovent[®] MDI ipratropium

Maintenance

LAMAs: Long-acting muscarinic antagonists



Incruse[®] Ellipta[®] umeclidinium



Braltus[®] Zonda[®] tiotropium



Spiriva[®] Respimat[®] tiotropium



Spiriva[®] HandiHaler[®] tiotropium



Seebri[®] Breezhaler[®] glycopyrronium

LAMA/LABA combinations



Ultibro[®] Breezhaler[®] indacaterol/glycopyrronium



Spiolto[®] Respimat[®] tiotropium/olodaterol



Anoro[®] Ellipta[®] umeclidinium/vilanterol



Brimica[®] Genuair[®] acclidinium/formoterol

LABAs: Long-acting beta₂-agonists



Onbrez[®] Breezhaler[®] indacaterol



Foradil[®] Aerolizer[®] formoterol



Oxis[®] Turbuhaler[®] formoterol



Serevent[®] Accuhaler[®] salmeterol

ICS/LABA combinations



Bretaris[®] Genuair[®] acclidinium



Symbicort[®] Rapihaler[®] budesonide/formoterol



Symbicort[®] Turbuhaler[®] budesonide/formoterol



Seretide[®] Accuhaler[®] fluticasone propionate/salmeterol



Seretide[®] MDI fluticasone propionate/salmeterol



DuoResp[®] Spiromax[®] budesonide/formoterol

ICS: Inhaled corticosteroids (for patients with COPD and Asthma)



Fluticasone Cipla MDI fluticasone propionate



Flixotide[®] MDI fluticasone propionate



Arunity[®] Ellipta[®] fluticasone furoate



QVAR[®] MDI beclomethasone



Alvesco[®] MDI ciclesonide



Flixotide[®] Accuhaler[®] fluticasone propionate



Pulmicort[®] Turbuhaler[®] budesonide

ICS/LABA combination



Flutiform[®] MDI fluticasone propionate/formoterol

ICS/LABA/LAMA



Trelegy[®] Ellipta[®] fluticasone furoate/umeclidinium/vilanterol



Breo[®] Ellipta[®] fluticasone furoate/vilanterol



Fluticasone + Salmeterol Cipla[®]/Salplus[®] MDI fluticasone propionate/salmeterol

Watch inhaler device technique videos on your device through ZAPPAR

1. Download **ZAPPAR** from Google Play or iTunes app store.
2. Open the app.
3. Scan this page.
4. Choose the inhaler device video.



Flare Up Medicines

1. Antibiotics (Refer to Therapeutic Guidelines: Antibiotic: www.tg.org.au)
2. Oral steroids (prednisone, prednisolone)

Notes

- Handihaler, Breezhaler, Zonda and Aerolizer devices require a capsule to be loaded into the device. All other devices are preloaded.
- Where possible, metered dose inhalers (MDI) should be used with a spacer
- ICS monotherapy is not indicated for COPD without co-existing asthma
- Shaded = PBS listed for asthma only