



National
Asthma
Council AUSTRALIA

National Asthma Council Webinar Series

Asthma-COPD Overlap Session 6

Asthma Best Practice For Health Professionals

Acknowledgment to Country

I acknowledge the traditional owners of the country on which we work and live and recognise their continuing connection to land, water and culture.

I pay my respects to Elders past, present and emerging.



Learning Objectives

- Describe asthma-COPD overlap
- Describe how to access the COPD-X and asthma management guidelines
- Identify the steps to demonstrate the correct technique for inhaled respiratory devices
- Summarise the importance of written action plans in the management of asthma-COPD overlap

Australian Asthma Handbook

www.astmahandbook.org.au

V2.1 is here! For an overview of the update, [click here](#) [click here](#) ✕

 National Asthma Council |  Australian Asthma Handbook | [Council](#) • [Handbook](#) • [Sensitive Choice](#) 👤




[Diagnosis](#) ▾ | [Management](#) ▾ | [Acute Asthma](#) ▾ | [Clinical Issues](#) ▾ | [Populations](#) ▾ | [Prevention](#) ▾ | [About the Handbook](#) ▾ 🔍

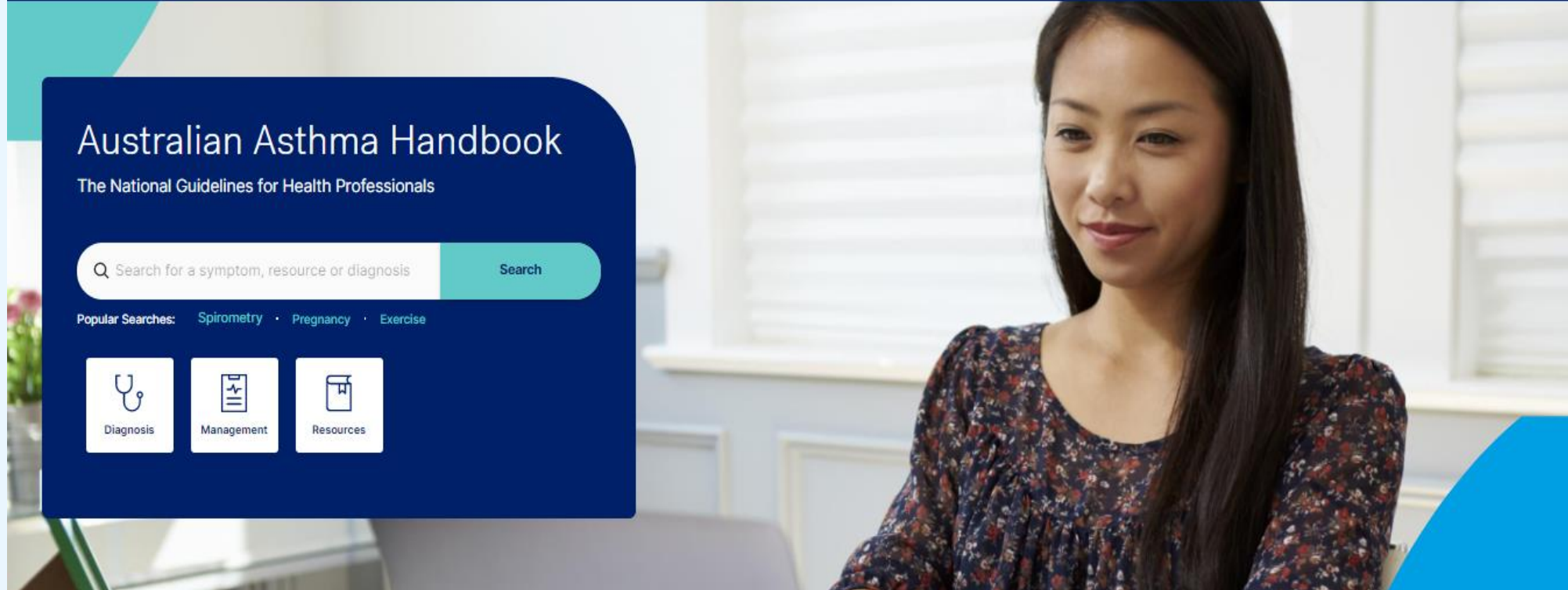
Australian Asthma Handbook

The National Guidelines for Health Professionals

🔍 Search for a symptom, resource or diagnosis Search

Popular Searches: [Spirometry](#) • [Pregnancy](#) • [Exercise](#)

 Diagnosis |  Management |  Resources



National Asthma Council

www.nationalasthma.org.au

The screenshot shows the homepage of the National Asthma Council Australia website. At the top left is the logo for the National Asthma Council Australia. To its right are navigation links for 'Council', 'Handbook', and 'Sensitive Choice'. Below this is a dark blue navigation bar with tabs for 'Understanding Asthma', 'Living with Asthma', 'Health Professionals', and 'Asthma First Aid' (which is highlighted in pink). On the far right of this bar are links for 'About Us', 'News & Events', 'Support Us', and a search icon. The main content area features a large blue banner on the left with the text 'The National Asthma Council Australia' and 'We are the national authority for asthma knowledge, setting the standard for asthma care.' To the right of this banner is a large image of a smiling female doctor with a stethoscope. Below the banner and image are three featured articles: 1) 'New Asthma Treatment Guidelines' with a sub-image of a woman at a laptop and the text 'See a preview of the update!'; 2) 'COVID-19 and your asthma patients' with a sub-image of a woman at a laptop and the text 'Find information for health professionals about asthma management, including spirometry, during the COVID-19 pandemic.'; and 3) 'Dr Simon Craig seeks consensus for research outcome measures' with a sub-image of a man and the text 'Meet Dr Simon Craig, 2020 Asthma and Airways Career Development Fellowship recipient.'



Conditions

- COPD
- Lung cancer
- Idiopathic Pulmonary Fibrosis
- Bronchiectasis
- Pulmonary Arterial Hypertension
- Childhood Interstitial Lung Disease

Networks

- Lung Cancer Nurse Network
- Respiratory Nurse Network
- Pulmonary Rehabilitation Network
- Multidisciplinary Teams (MDTs)
- Pulmonary Fibrosis Australasian Clinical Trials Network

Lung health

- Caring for your lungs
- Smoking cessation
- Lungs in Action exercise classes
- Pulmonary Rehabilitation

Training & events

- All events
- Training
- Webinars
- Conferences



Health Professional Membership

Find out more ->

Featured links

- [Pulmonary Rehabilitation guidelines & resources](#) ->
- [COPD-X guidelines & resources](#) ->
- [Primary Care Respiratory Toolkit](#) ->
- [Interstitial Lung Disease Toolkit](#) ->
- [Bronchiectasis Toolbox](#) ->

Lung Foundation Australia is working to improve lung health and reduce the impact of lung disease for all Australians.

Asthma-COPD Overlap Facts

- Approximately 20% of patients with obstructive lung disease have features of both asthma and COPD¹
- Asthma-COPD overlap is not a single well-defined disease, but is likely to have many underlying causes
- Asthma-COPD overlap is now recognised as an important clinical problem
- To date no consensus on a precise definition of Asthma-COPD overlap
- People with asthma-COPD overlap often have poorer disease outcomes than those with asthma or COPD alone e.g. more symptoms, more flare-ups, greater mortality

Remember Asthma is:

A chronic lung disease, which can be controlled but not cured

In clinical practice

- Asthma is defined by the presence of **both**:
 - excessive variation in lung function
 - variable respiratory symptoms
- Associated features of other allergic conditions such as rhinitis and eczema may be present as well as a family history, childhood asthma, rapidly relieved by a bronchodilator, eosinophilia or raised blood IgE

Remember COPD is

A common, preventable and treatable disease that is characterised by persistent respiratory symptoms and airflow limitation which is not fully reversible. The airflow limitation is usually progressive.

The irreversible component of airflow limitation is the end result of inflammation, fibrosis and remodeling of peripheral airways.

In clinical practice, diagnosis is usually based on:

- Symptoms of exertional breathlessness, cough and sputum
- A history of smoking, or exposure to other noxious agents
- $FEV_1/FVC < 0.7$ post-bronchodilator

COPD-X guidelines

- **C**: case finding and confirm diagnosis
- **O**: optimise function
- **P**: prevent deterioration
- **D**: develop a plan of care
- **X**: manage eXacerbations

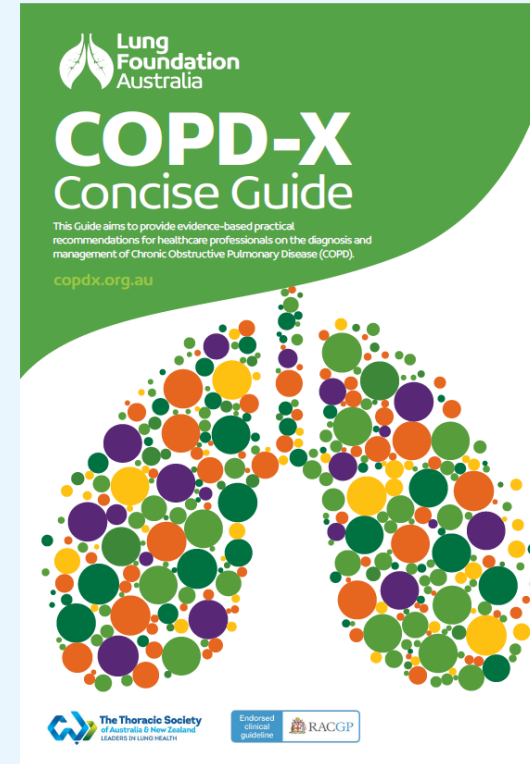
COPD-X resources:

copdx.org.au

COPD-X Concise Guide

www.lungfoundation.com.au

Supported by the Australian Government
Department of Health



nationalasthma.org.au

Asthma-COPD Overlap

Asthma-COPD overlap is characterised by persistent airflow limitation with several features usually associated with asthma and several features associated with COPD

In clinical practice asthma-COPD overlap is identified by the features it shares with both

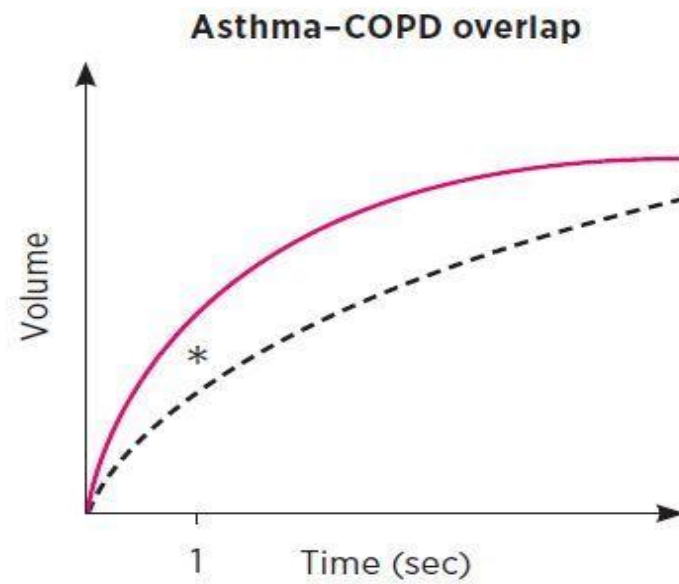
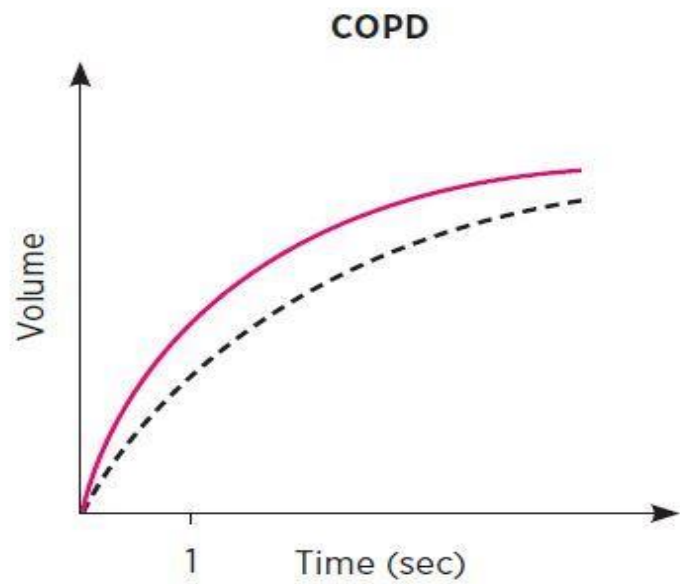
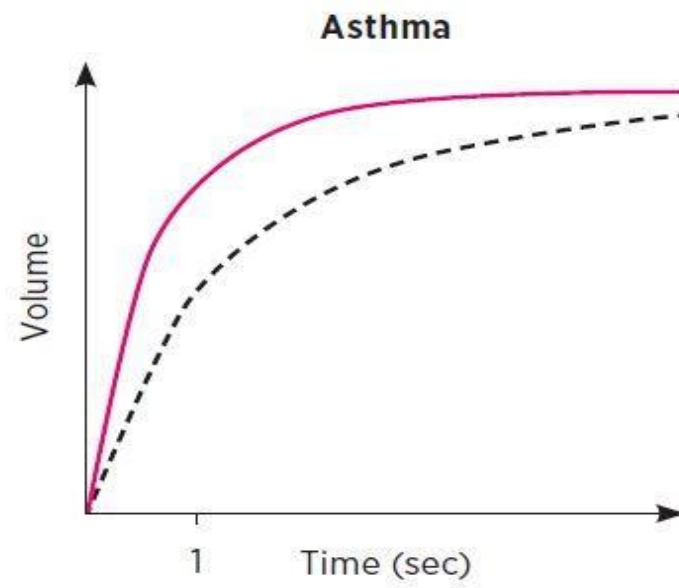
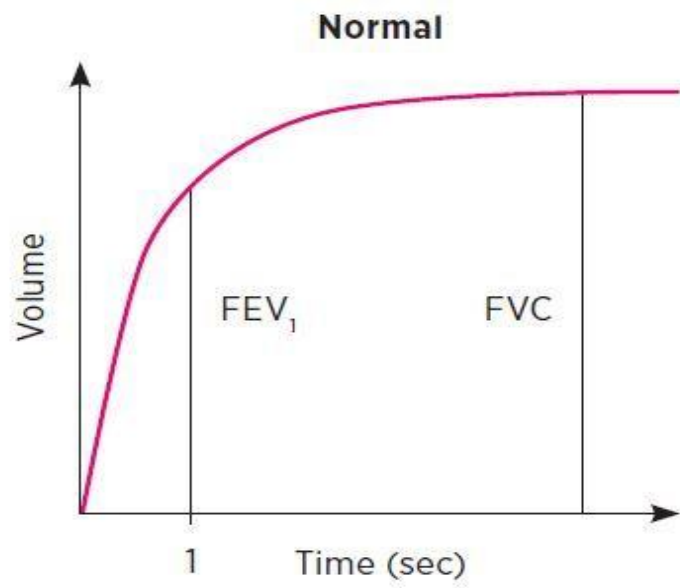
- As asthma-COPD overlap includes several different clinical phenotypes there is likely to be several underlying mechanisms

Diagnosis

- Based on:
 - **Detailed medical history** – *chronic or recurrent cough, sputum production, dyspnoea, wheezing, recurring acute lower RTI, exposure to tobacco smoke or other airborne pollutants, previous Dr diagnosed asthma or COPD*
 - **Physical examination** – *may be normal, evidence of hyperinflation, abnormal auscultation*
 - **Spirometry** - *The diagnosis of obstructive lung disease relies on spirometry. Pre and post-bronchodilator should be performed*
 - **Radiology** - *not routine for asthma, but Chest X-Ray, CT scans or MRI may identify an alternative diagnosis*

Spirometry

Finding	Consistent with		
	Asthma	COPD	Asthma-COPD overlap
Normal FEV ₁ /FVC before or after bronchodilator	Yes	No	No *
Abnormal lung function (post BD reduced FEV ₁ /FVC and FEV ₁ < lower limit of normal)	Yes #	Yes	Yes
Airflow limitation with greater bronchodilator reversibility than in healthy population (post BD FEV ₁ increase ≥ 12% and 200 mL from baseline)	Yes ±	Yes	Yes
Marked bronchodilator reversibility (FEV ₁ increase ≥ 12% and 400 mL from baseline)	Yes	Possible but unusual †	Possible §



--- pre-bronchodilator — post-bronchodilator

Characteristic features of asthma and COPD

Feature	Asthma	COPD
Age of onset	<ul style="list-style-type: none"> • Before age 20 years 	<ul style="list-style-type: none"> • After age 40 years
Pattern of Symptoms	<ul style="list-style-type: none"> • Variation over minutes, hours or days • Worse during the night or early morning • Triggered by exercise, laughter, dust, exposure to allergens 	<ul style="list-style-type: none"> • Persistent despite treatment • Shortness of breath usually activity related and resolves with rest • Chronic cough and sputum unrelated to triggers
Lung function	<ul style="list-style-type: none"> • Variable airflow limitation 	<ul style="list-style-type: none"> • Persistent airflow limitation
Lung function between symptoms	<ul style="list-style-type: none"> • Normal 	<ul style="list-style-type: none"> • Abnormal
Past history/family history	<ul style="list-style-type: none"> • Previous diagnosis of asthma • Family history of asthma and/or other allergic conditions e.g. eczema • Smoking history nil or <15pack-year 	<ul style="list-style-type: none"> • Previous diagnosis COPD • Heavy exposure to risk factor tobacco smoke (>15 pack-year) or other noxious agent
Time course	<ul style="list-style-type: none"> • No worsening of symptoms over time, seasonal • Rapid response to bronchodilator or to ICS over weeks 	<ul style="list-style-type: none"> • Symptoms slowly worsen over time • Rapid-acting bronchodilator provides only limited relief

Pack year history = no of cigarettes per day x number of years smoked divided by 20

Adapted from GINA and GOLD 2018

Management of Asthma – COPD overlap

- Bronchodilators for symptom control
- Any features of asthma – prescribe regular low/moderate dose of inhaled corticosteroid (ICS)
- Depending on symptoms consider adding to ICS:
 - Long-acting beta₂ agonists (LABAs) or Long acting muscarinic antagonists (LAMAs)
 - LABA/LAMA combination
- All patients should have an Action Plan – updated regularly
- Monitor and treat respiratory tract infections



Management Principles

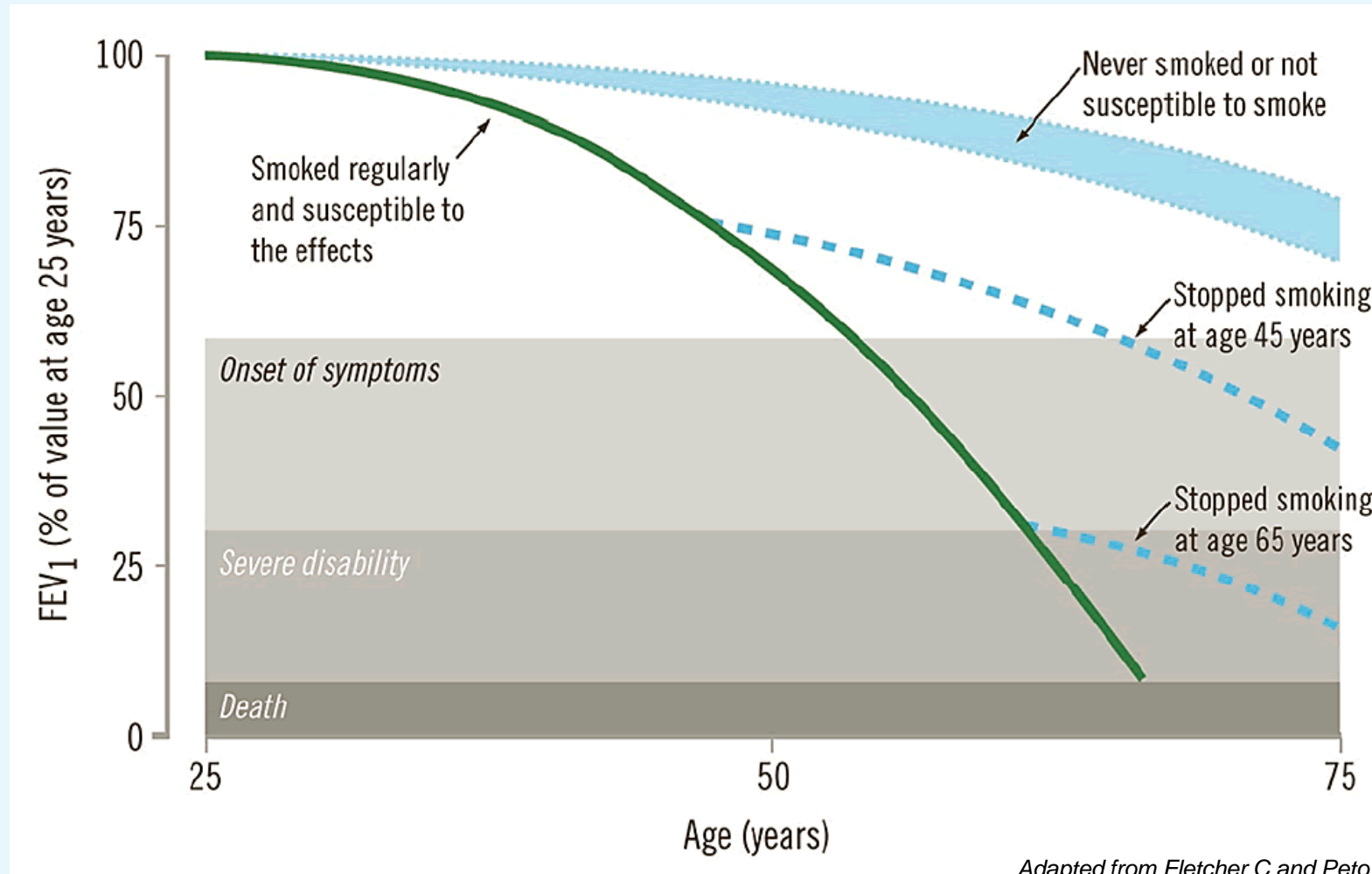
A chronic disease needs ongoing care

- Smoking cessation – all forms!
- Eliminate passive exposure
- Identify triggers - avoidance strategies
- Vaccinations
- Pulmonary rehabilitation
 - Self-management education – inhaler technique and written action plan
 - Healthy well balanced diet
 - Exercise regime/activity levels
 - Stress management
- Regular follow up

Tobacco smoking.....

- Largest single preventable cause of death and disease
- Passive smoking increased risk of:
 - Heart disease, asthma, COPD, SIDs and some cancers
- Smoking in pregnancy increases health risks to both mother and child
- Smoking worsens asthma and/or COPD
- Reduces effectiveness of inhaled medications
- >10 pack years smoking = effect on lungs

Smoking: effects on lung function



Adapted from Fletcher C and Peto R.
The natural history of chronic airflow obstruction.
BMJ 1977;1:1645-1648

From COPD-X Checklist, The Australian Lung Foundation

QUITTING – never give up

- **Stopping smoking** reduces the incidence and progression of lung disease including chronic bronchitis and emphysema
- Smokers who quit at age 50 halve their risk of death caused by smoking
- Quitting by age 30 avoids almost all of the excess risk associated with smoking

“It’s far better to try and try again,
than to fail to try again”.

ASTHMA & COPD MEDICATIONS

SABA RELIEVERS



Bricanyl Turbuhaler †
terbutaline 500mcg



Ventolin Inhaler †
salbutamol 100mcg



Airomir Autohaler ‡
salbutamol 100mcg



Asmol Inhaler †
salbutamol 100mcg

NON STEROIDAL PREVENTERS



Singular Tablet ‡
montelukast
4mg + 5mg + 10mg



Montelukast Tablet ‡
montelukast
4mg + 5mg + 10mg
Generic medicine suppliers



Intal Inhaler †
sodium cromoglycate
1mg + 5mg
*Intal Forte



Tilade Inhaler †
nedocromil sodium
2mg

ICS PREVENTERS



Flixotide Inhaler †
fluticasone propionate
50mcg* + 125mcg + 250mcg
*Flixotide Junior



Fluticasone Cipla Inhaler †
fluticasone propionate
125mcg + 250mcg



Flixotide Accuhaler †
fluticasone propionate
100mcg* + 250mcg + 500mcg



Pulmicort Turbuhaler †
budesonide
100mcg + 200mcg + 400mcg



QVAR Inhaler †
beclomethasone
50mcg + 100mcg



QVAR Autohaler ‡
beclomethasone
50mcg + 100mcg

SAMA MEDICATION



Atrovent Metered Aerosol †
ipratropium 21mcg



Alvesco Inhaler †
ciclesonide
80mcg + 160mcg

ICS/LABA COMBINATIONS



Symbicort Turbuhaler ‡
budesonide/formoterol
100/6 + 200/6 + 400/12 #



DuoResp Spiromax ‡
budesonide/formoterol
200/6 + 400/12 #



Symbicort Rapihaler ‡
budesonide/formoterol
50/3 + 100/3 + 200/6 #



Flutiform Inhaler ‡
fluticasone propionate/formoterol
50/5 + 125/5 + 250/10



Seretide MDI ‡
fluticasone propionate/salmeterol
50/25 + 125/25 + 250/25 #



Fluticasone + Salmeterol Cipla Inhaler ‡
fluticasone propionate/salmeterol
125/25 + 250/25 #



Seretide Accuhaler ‡
fluticasone propionate/salmeterol
100/50 + 250/50 + 500/50 #



Breo Ellipta ‡
fluticasone furate/vilanterol
100/25 # + 200/25

all units in mcg

LAMA MEDICATIONS



Spiriva Respimat # ‡
tiotropium 2.5mcg



Spiriva Handihaler #
tiotropium 18mcg



Bretaris Genuair #
acridinium 302mcg



Seebri Breezhaler #
glycopyrronium 50mcg



Incruse Ellipta #
umeclidinium 62.5mcg



Trelegy Ellipta †
fluticasone furate/
umeclidinium/vilanterol
100/62.5/25

LAMA/LABA COMBINATIONS



Spiolto Respimat †
tiotropium/olodaterol
2.5/2.5



Brimica Genuair †
acridinium/formoterol
360/12



Ultibro Breezhaler †
indacaterol/glycopyrronium
110/50



Anoro Ellipta †
umeclidinium/vilanterol
62.5/25

all units in mcg



This chart was developed independently by the National Asthma Council Australia with support from Boehringer-Ingelheim, GSK Australia, Mundipharma and Teva Pharma Australia.

National Asthma Council Australia
Leading the attack against asthma

RESOURCES

TREATMENT GUIDELINES

Australian Asthma Handbook: asthmandhandbook.org.au
COPD-X Plan: cepd.org.au

INHALER TECHNIQUE

How-to videos, patient and practitioner information
nationalasthma.org.au
Inhalers/MDIs should be used with a compatible spacer

LABA MEDICATIONS



Oxis Turbuhaler ‡
formoterol
4mcg + 12mcg



Serevent Accuhaler ‡
salmeterol
50mcg



Onbrez Breezhaler †
indacaterol
150mcg + 300mcg

Medications for Asthma, COPD, Asthma-COPD overlap

Relievers – short-acting beta₂ agonists (SABAs)

- Short-acting beta₂ agonist can be used for short-term symptom relief in asthma, COPD and asthma-COPD overlap
- Check inhaler technique – where possible use a spacer

Long-acting beta2 agonists (LABAs)

- Formoterol (Oxis) – twice daily dosing
- Salmeterol (Serevent) – twice daily dosing
- Indacaterol (Onbrez breezhaler) - once daily dosing

LABAs should not be used in people with asthma or asthma-COPD overlap unless they are also taking an ICS, in combination or separately

Long Acting Muscarinics (LAMAs)

- Tiotropium (*Spiriva Handihaler* or *Respimat*, *Braltus Zonda*) - once daily maintenance
- Glycopyrronium (*Seebri Breezhaler*) - once daily maintenance
- Umeclidinium (*Incruse Ellipta*) – once daily maintenance
- Aclidinium (*Bretaris Genuair*) - twice daily maintenance

Combination LABA/LAMA

A single device consisting of a long acting beta₂ agonist (LABA) and a long acting muscarinic antagonist (LAMA) and

Available as:

- Vilanterol + umeclidinium (*Anoro Ellipta*) - once daily
- Indacaterol + glycopyrronium (*Ultibro Breezhaler*) – once daily
- Olodaterol + tiotropium (*Spiolto Respimat*) – once daily
- Formoterol + aclidinium (*Brimica Genuair*) – twice daily

Combination therapy-ICS/LABA

A single device consisting of a preventer (ICS) and a long acting beta2 agonist (LABA)

Available as:

- Fluticasone propionate/salmeterol (*Seretide, Fluticasone & salmeterol Cipla, Salplus F, Pavtide*) – twice daily
- Fluticasone propionate/formoterol (*Flutiform*)
- Budesonide/formoterol (*Symbicort, DuoResp Spiromax*) – twice daily
- Beclometasone/formoterol (*Fostair*)
- Fluticasone furoate/vilanterol (*Breo Ellipta*) – once daily

Side effects: due to ICS - dysphonia, oral thrush

Triple combination – ICS/LAMA/LABA

Fluticasone furoate (100mcg ICS) + umeclidinium (62.5mcg LAMA) & vilanterol (25mcg LABA)

Available as:

- Trelegy Ellipta

Once daily maintenance for those with **moderate to severe** COPD- FEV1 < 50% predicted and 2 or more exacerbations in the last 12 months



Spacer and pMDI suggested checklist

1. Assemble spacer (if necessary)
2. Remove inhaler cap
3. Check dose counter (if applicable)
4. Hold inhaler upright and shake well
5. Insert inhaler upright into spacer
6. Put mouthpiece between teeth without biting and close lips to form good seal
7. Breathe out gently, into the spacer
8. Hold spacer horizontal and press down firmly on canister once
 - a) Breathe in slowly, deeply and fully, hold breath for about 5 seconds (**recommended**)

OR

- a) Breathe in and out normally for 4 breaths (tidal breathing)
9. Remove spacer from mouth
10. Breathe out gently
11. Remove inhaler from spacer
12. If an extra dose is needed, repeat steps 4 to 13
13. Replace cap and disassemble spacer

Breezhaler/Handihaler suggested checklist

1. Open cap; open mouthpiece
2. Insert capsule
3. Close mouthpiece until it clicks
4. Press piercing button in once and release (Do not shake)
5. Breathe out gently away from mouthpiece
6. Put mouthpiece between teeth without biting and close lips to form a good seal
7. Breathe in rapidly and steadily, so capsule vibrates
8. Continue to breath in as long as comfortable
9. Hold breath for about 5 seconds or as long as comfortable
10. While holding breath, slip inhaler out of mouth
11. Breathe out gently away from mouthpiece
12. Open mouthpiece and remove used capsule
13. Close mouthpiece and cap



For handihaler repeat steps 6-11 for full dose from capsule

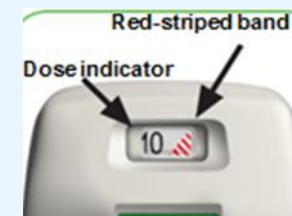
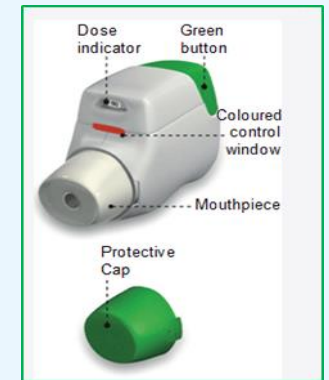
Ellipta suggested checklist

1. Check dose counter (do not shake the inhaler at any time)
2. Slide to cover down until a click is heard
3. Breathe out gently, away from inhaler
4. Put mouthpiece in mouth and close lips to form a good seal. Do not block air vent with your fingers.
5. Breathe in steadily and deeply
6. Hold breath for about 5 seconds or as long as comfortable
7. While holding breath, remove inhaler from mouth
8. Breathe out gently away from inhaler
9. Close the cover.



Genuair suggested checklist

1. Check dose counter (do not shake) and remove cap
2. Hold device horizontally with red button facing straight up DO NOT TILT
3. Press coloured button all the way down then release
4. Ensure coloured control window turns green
5. Breath out gently away from inhaler
6. Place lips tightly around mouth piece
7. Inhale strongly and deeply and continue breathing in after “click” is heard
8. Hold breath for about 5 seconds or as long as comfortable, breath out gently away from inhaler
9. Make sure control window is now red
10. Replace protective cap



Respimat suggested checklist

1. First time load cartridge and prime device
 - check specific loading and priming instructions
2. Hold upright and keeping cap on **TURN** base in direction of arrows until you hear a click
3. Flip cap **OPEN** until clicks
4. Breath out; then close lips around mouthpiece
5. While breathing in slowly and deeply **PRESS** dose button, keep breathing in
6. Hold breath for 5 seconds or as long as comfortable
7. Breathe out gently away from inhaler
8. Close cap
9. Repeat 2-7 for a full dose of 2 inhalations



Written Action Plans

Must:

- Be personalised
- Be in language the patient understands
- Provide advice about modification of treatment according to symptoms
- Contain emergency steps
- Include useful contact numbers
- Useful resources: www.asthmahandbook.org.au
lungfoundation.org.au

Asthma or COPD action plan?

- Choose the plan depending on the person's dominant clinical features

ASTHMA ACTION PLAN

Take this ASTHMA ACTION PLAN with you when you visit your doctor

NAME _____ **DOCTOR'S CONTACT DETAILS** _____ **EMERGENCY CONTACT DETAILS** _____
DATE _____ **Name** _____
NEXT ASTHMA CHECK-UP DUE _____ **Phone** _____
 _____ **Relationship** _____

WHEN WELL *Asthma is under control (almost no symptoms)* **ALWAYS CARRY YOUR RELIEVER WITH YOU!** *Peak flow? If used often*

Your preventer is: _____ **OTHER INSTRUCTIONS** _____
 Take _____ puffs/tablets _____ times every day

 Your reliever is: _____
 Take _____ puffs _____
 When you have symptoms like wheezing, coughing or shortness of breath

WHEN NOT WELL *Asthma getting worse (needing more reliever e.g. more than 2 times per week, waking up with asthma, more symptoms than usual, asthma is interfering with usual activities)*

Keep taking preventer: _____ **OTHER INSTRUCTIONS** _____ Contact your doctor
 Take _____ puffs/tablets _____ times every day

 Your reliever is: _____
 Take _____ puffs _____

IF SYMPTOMS GET WORSE *Asthma is worse (needing reliever again within 3 hours, increasing difficulty breathing, waking up at night with asthma symptoms)*

Keep taking preventer: _____ **OTHER INSTRUCTIONS** _____ Contact your doctor today
 Take _____ puffs/tablets _____ times every day

 Your reliever is: _____
 Take _____ puffs _____

DANGER SIGNS **DIAL 000 FOR AMBULANCE**

DANGER SIGNS *Asthma emergency (severe breathing problems, symptoms get worse very quickly, reliever has little or no effect)*

DIAL 000 FOR AMBULANCE *Call an ambulance immediately. Say that this is an asthma emergency. Keep taking reliever as often as needed.*

National Asthma Council Australia
Leading the attack against asthma
www.nationalasthma.org.au

ASTHMA ACTION PLAN

what to look out for

WHEN WELL **THIS MEANS:**
 • you have no night-time wheezing, coughing or chest tightness
 • you only occasionally have wheezing, coughing or chest tightness during the day
 • you need reliever medication only occasionally or before exercise
 • you can do your usual activities without getting asthma symptoms

WHEN NOT WELL **THIS MEANS ANY ONE OF THESE:**
 • you have night-time wheezing, coughing or chest tightness
 • you have morning asthma symptoms when you wake up
 • you need to take your reliever more than usual e.g. more than 2 times per week
 • your asthma is interfering with your usual activities

IF SYMPTOMS GET WORSE **THIS MEANS:**
 • you have increasing wheezing, cough, chest tightness or shortness of breath
 • you are waking up at night with asthma symptoms
 • you need to use your reliever again within 3 hours
THIS IS AN ASTHMA ATTACK

DANGER SIGNS **THIS MEANS:**
 • your symptoms get worse very quickly
 • you have severe shortness of breath, can't speak comfortably or lips look blue
 • you get little or no relief from your reliever inhaler
CALL AN AMBULANCE IMMEDIATELY; DIAL 000 SAY THIS IS AN ASTHMA EMERGENCY.

ASTHMA MEDICINES **PREVENTERS** **RELIEVERS**
 Your preventer medicine reduces inflammation, swelling and mucus in the airways of your lungs. Preventers need to be taken every day, even when you are well.
 Some preventer inhalers contain 2 medicines to help control your asthma (combination inhalers).
 Your reliever medicine works quickly to make breathing easier by making the airways wider. Always carry your reliever with you – it is essential for first aid. Do not use your preventer inhaler for quick relief of asthma symptoms unless your doctor has told you to do this.

To order more Asthma Action Plans visit the National Asthma Council website. A range of action plans are available on the website – please use the one that best suits your patient.
www.nationalasthma.org.au

National Asthma Council Australia
Leading the attack against asthma
 Developed by the National Asthma Council Australia and supported by GlaxoSmithKline Australia.
 National Asthma Council Australia national asthma centre.

MY COPD ACTION PLAN

Your doctor, nurse and other members of your healthcare team can help you fill in your COPD Action Plan. Review it each year, and also after a flare-up.

MY DETAILS **MY HEALTHCARE TEAM**

Name _____ Doctor _____
 Phone _____
 Date of birth _____
 Date of influenza immunisation (annual) _____
 Date of pneumococcal immunisation _____

Other members of your healthcare team
 Name _____
 Profession _____
 If I am unwell, I can call _____ for after hours advice.

I have a usual amount of phlegm/breathlessness. I can do my usual activities.

ACTION: Take your usual COPD medicines.

My FEV1 is _____ I retain CO²? Yes No Unknown

Medicine	Inhaler colour	Number of puffs	Times per day

I need to use home oxygen on _____ setting or L/min for _____ hours/day.

I am coughing more. I have more phlegm. It is harder to breathe than normal.

ACTION: Take your flare-up medicines. Monitor your COPD symptoms closely. Call your doctor.

Take _____ puffs of _____ (reliever) _____ times every _____ hours / A.M. / P.M. (circle)
 Use a spacer

I have taken my extra medicines but I am not getting better.

Take action now to manage your symptoms. Call your doctor.

Shortness of breath or wheeze _____ Phlegm has changed colour or fever _____

ACTION: Take _____ prednisolone tablets _____ times per day for _____ days.
ACTION: Take _____ antibiotic tablets _____ times per day for _____ days. Antibiotic name: _____

My COPD symptoms have changed a lot. I am worried.

Difficulty sleeping/woken easily
 Blood in phlegm or swollen ankles

Very short of breath/wheezy
 High fever or confusion
 Chest pain or slurred speech.

ACTION: Call your healthcare team today. **ACTION: Call 000 now.**

CAUTION: Ambulacros/Paracetamol: Oxygen supplementation to maintain SpO₂ 88 - 92%. To reduce risk of hypercapnia.

Health professional authorisation
 This COPD Action Plan was prepared on _____ / _____ / _____ by _____ in consultation with the patient.
 Signature: _____
 Profession: _____
 Authorised by (if prepared by a non-prescriber): _____
 Signature: _____
 Entered into recall system

Lung Foundation Australia
 1800 654 301 | Lungfoundation.com.au

ALGORITHM MANAGING EXACERBATIONS

PATIENT IS FEELING UNWELL
 They are finding it harder to breathe than usual or experiencing any of the following:
 • More coughing
 • More phlegm
 • Thicker phlegm than usual.
Recommend start using more short-acting bronchodilator (SABA) e.g. salbutamol 4-8 puffs (100-800 mcg), via MDI and spacer every 3-4 hours, titrated to response.

PATIENT IS FEELING BETTER
Recommend:
 • Step down short-acting bronchodilator use
 • Return to usual daily prescribed medicines
 • Check and correct inhaler device technique
 • Review and reinforce use of the COPD Action Plan.

PATIENT IS FEELING WORSE
 If 3-4 hourly SABA not relieving symptoms adequately, commence oral prednisolone 30-50mg daily (in addition to daily prescribed medicines) for 5 days, then stop.
 If clinical features of infection are present:
 • Fever
 • A change in colour and/or volume of phlegm
 Also commence oral antibiotics (amoxicillin or doxycycline) for 5 days.

PATIENT IS FEELING BETTER
 5 days after treatment commenced:
 • Step down short-acting bronchodilator use
 • Cease oral prednisolone and/or antibiotics after 5 days and continue usual daily prescribed medicines
 • Check and correct inhaler device technique
 • Review and reinforce use of the COPD Action Plan.

PATIENT STILL UNWELL
 5 days after treatment commenced:
 • Review by GP or specialist
 • Review and reinforce use of the COPD Action Plan
 • Check and correct inhaler device technique.

SEND TO HOSPITAL
 Send to hospital if any of the following:
 • Marked increased intensity of symptoms
 • New or worsening peripheral oedema
 • Worsening of hypoxaemia from usual (if known)
 • SpO₂ <92% if not on home oxygen
 • Shortness of breath that is worsening and/or at rest
 • High fever
 • Altered mental state (confusion, slurred speech, drowsiness)
 • Chest pain
 • Worsening of co-morbidities (e.g. heart failure, ischaemic heart disease, diabetes)
 • Inability to perform daily activities and/or manage safely at home
 • Increased anxiety (feeling scared/fraided).

Lung Foundation Australia
 1800 654 301 | Lungfoundation.com.au

Publication date: October, 2018

Key Points

- Many adults have features of both asthma and COPD
- Asthma, COPD and asthma–COPD overlap are all heterogeneous disorders
- Patients with asthma-COPD overlap are at a higher risk for more serious disease, more symptoms, more flare-ups, greater need for health care utilisation and greater mortality
- Refer for atypical symptoms, flare-ups despite treatment, or complex comorbidities
- Manage patients holistically

Asthma, COPD and COVID-19

Refer to [Australian Asthma Handbook](#) and [Lung Foundation Website](#) for updates

- Check everyone has a current written action plan – telehealth if need be
- Avoid performing spirometry unless urgent
- Advise to continue with current medications, including inhaled corticosteroids
- Only use oral steroids for severe flare ups as indicated
- Avoid using a nebuliser- ***a well fitting mask and spacer with puffer is preferred***
- Advise not to share any medications or spacers even between family members
- Advise to have medications handy- reliever therapy as per action plan

Resources:

- Asthma–COPD overlap. National Asthma Council Australia, Melbourne, 2017. © 2017 National Asthma Council Australia & Lung Foundation Australia
- www.astmahandbook.org.au
 - current Australian asthma guidelines- online resource
- www.nationalasthma.org.au
 - Videos, brochures, charts- free to order online
- <https://lungfoundation.com.au>
- Current COPD guidelines and other resources

Health Professional Network: nationalasthma.org.au

Twitter: [@asthmacouncilau](https://twitter.com/asthmacouncilau)

Facebook: [National Asthma Council Australia](https://www.facebook.com/NationalAsthmaCouncilAustralia)