



Chronic Obstructive Pulmonary Disease

Clinical Care Standard

October 2024

The Australian Commission on Safety and Quality in Health Care acknowledges the traditional owners of Country throughout Australia, and their continuing connection to land, sea and community. We pay our respects to them and their cultures, and to elders both past and present.

Published by the Australian Commission on Safety and Quality in Health Care

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Website: www.safetyandquality.gov.au

ISBN: 978-1-922880-93-2

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Australian Commission on Safety and Quality in Health Care. Chronic Obstructive Pulmonary Disease Clinical Care Standard. Sydney: ACSQHC; 2024.

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Quality statements

- 1** **Diagnosis with spirometry**
A person over 35 years of age with a risk factor and one or more symptoms of chronic obstructive pulmonary disease (COPD) receives high-quality spirometry to enable diagnosis. Spirometry is also performed for a person with a recorded diagnosis of COPD that has not yet been confirmed with spirometry.
- 2** **Comprehensive assessment**
A person with a confirmed COPD diagnosis receives a comprehensive assessment to determine their individual care needs. This includes assessing their symptoms and disease severity using a validated assessment tool, history and risk of exacerbations, and comorbidities. Follow-up assessment occurs at least annually.
- 3** **Education and self-management**
A person with COPD is supported to learn about their condition and treatment options. They participate in developing an individualised self-management plan that addresses their needs and treatment goals and includes an action plan for COPD exacerbations.
- 4** **Vaccination and tobacco-smoking cessation**
A person with COPD is offered recommended vaccinations for respiratory and other infections including influenza, pneumococcal disease and COVID-19. They are asked about their tobacco-smoking status and, if currently smoking, offered evidence-based tobacco-smoking cessation interventions.
- 5** **Pulmonary rehabilitation**
A person with COPD is referred for pulmonary rehabilitation. If the person has been hospitalised for a COPD exacerbation, they are referred to a pulmonary rehabilitation program on discharge and commence the program within four weeks.
- 6** **Pharmacological management of stable COPD**
A person with a confirmed COPD diagnosis is offered individualised pharmacotherapy in line with the COPD-X stepwise approach. Inhaler technique is demonstrated, assessed and corrected when starting treatment and regularly thereafter, including after any change in treatment or a COPD exacerbation.
- 7** **Pharmacological management of COPD exacerbations**
A person having a COPD exacerbation receives short-acting bronchodilator therapy at the onset of symptoms and, if indicated, oral corticosteroids in line with the current COPD-X Guidelines. Antibiotics are only considered if criteria for prescribing are met, and they are prescribed according to evidence-based guidelines.
- 8** **Oxygen and ventilatory support for COPD exacerbations**
A person experiencing hypoxaemia during a COPD exacerbation receives controlled oxygen therapy, ensuring that oxygen saturation levels are maintained between 88% and 92%. Non-invasive ventilation is considered in anyone with hypercapnic respiratory failure with acidosis.
- 9** **Follow-up care after hospitalisation**
A person who has been hospitalised for a COPD exacerbation is offered a follow-up assessment within seven days of discharge, facilitated by timely and effective communication between their hospital and primary care providers.
- 10** **Symptom support and palliative care**
A person with COPD is offered symptom support and palliative care that meets their individual needs and preferences.

Indicators for local monitoring

The following indicators will support healthcare services to monitor how well they are implementing the care recommended in this clinical care standard. The indicators are intended to support local quality improvement activities.

Note: The definitions required to collect and calculate indicator data, including applicable healthcare settings, are specified online at the Australian Institute of Health and Welfare's Metadata Online Registry (METEOR): meteor.aihw.gov.au/content/793471.

1

Diagnosis with spirometry

Indicator 1a: Proportion of patients with a recorded diagnosis of COPD whose healthcare record documented their spirometry results.

Applicable for: General practices and other specialist clinics.

Indicator 1b: Proportion of admitted patients with a COPD exacerbation whose healthcare record documented their spirometry results.

Applicable for: Hospitals.

2

Comprehensive assessment

Indicator 2a: Proportion of patients with COPD whose history of exacerbations was assessed and documented in their healthcare record in the previous 12 months.

Applicable for: General practices and other specialist clinics.

Indicator 2b: Proportion of patients with COPD whose symptom severity was assessed using a validated tool in the previous 12 months.

Applicable for: General practices and other specialist clinics.

3

Education and self-management

Indicator 3a: Proportion of patients with COPD who have a written COPD action plan.

Applicable for: Hospitals, general practices and other specialist clinics.

4

Vaccination and tobacco-smoking cessation

Indicator 4a: Proportion of patients with COPD who were immunised against influenza in the previous 15 months.

Applicable for: General practices and other specialist clinics.

Indicator 4b: Proportion of patients with COPD who were immunised with at least one dose of pneumococcal vaccination.

Applicable for: General practices and other specialist clinics.

Indicator 4c: Proportion of patients with COPD whose smoking status was recorded in their healthcare record in the previous 12 months.

Applicable for: Hospitals, general practices and other specialist clinics.

Indicator 4d: Proportion of patients with COPD who reported they currently smoke tobacco who were offered cessation advice.

Applicable for: Hospitals, general practices and other specialist clinics.

Indicator 4e: Proportion of patients with COPD who reported they currently smoke tobacco who were provided, or referred to, evidence-based behaviour support and counselling.

Applicable for: Hospitals, general practices and other specialist clinics.

Indicator 4f: Proportion of patients with COPD who reported they currently smoke tobacco who were prescribed pharmacotherapy for smoking cessation.

Applicable for: Hospitals, general practices and other specialist clinics.

5

Pulmonary rehabilitation

Indicator 5a: Proportion of patients with COPD who were referred to a pulmonary rehabilitation program.

Applicable for: Hospitals, general practices and other specialist clinics.

Indicator 5b: Proportion of patients discharged from hospital after a COPD exacerbation who started a pulmonary rehabilitation program within four weeks of discharge.

Applicable for: Hospitals, out-patient clinics and pulmonary rehabilitation programs. General practices and other specialist clinics.

6

Pharmacological management of stable COPD

Indicator 6a: Proportion of patients with COPD prescribed an inhaled medicine whose inhaler technique was assessed at least once in the previous 12 months.

Applicable for: Hospitals, general practices, other specialist clinics and community pharmacies.

Indicator 6b: Proportion of patients with COPD prescribed an inhaled corticosteroid who were previously prescribed dual long-acting bronchodilators.

Applicable for: Hospitals, general practices and other specialist clinics.

7

Pharmacological management of COPD exacerbations

Indicator 7a: Proportion of antibiotic prescriptions for a COPD exacerbation that met the criteria for prescribing in the current *Therapeutic Guidelines* or evidence-based, locally endorsed guidelines.

Applicable for: Hospitals.

Indicator 7b: Proportion of antibiotic prescriptions for a COPD exacerbation where the prescription was for oral amoxicillin or doxycycline.

Applicable for: Hospitals.

Indicator 7c: Proportion of patients with a COPD exacerbation who were prescribed a corticosteroid where the prescription was for an oral corticosteroid for five days.

Applicable for: Hospitals, general practices and other specialist clinics.

8

Oxygen and ventilatory support for COPD exacerbations

Indicator 8a: Proportion of patients with a COPD exacerbation who received controlled oxygen therapy where the target oxygen saturation levels of 88% to 92% were documented in the patient's healthcare record.

Applicable for: Hospitals.

Indicator 8b: Proportion of patients who presented to the emergency department with a COPD exacerbation who received a blood gas analysis to assess for hypercapnic respiratory failure with acidosis.

Applicable for: Hospitals.

Indicator 8c: Proportion of patients with hypercapnic respiratory failure with acidosis due to a COPD exacerbation who received non-invasive ventilation (NIV) or the reason for not using NIV was documented in their healthcare record.

Applicable for: Hospitals.

9

Follow-up care after hospitalisation

Indicator 9a: Proportion of patients with a COPD exacerbation whose discharge summary was sent to their nominated primary care provider on discharge from hospital.

Applicable for: Hospitals.

Indicator 9b: Proportion of patients with a COPD exacerbation who were seen for a follow-up assessment within seven days of discharge from hospital.

Applicable for: General practices and other specialist clinics.

10 Symptom support and palliative care

Indicator 10a: Proportion of admitted patients with a COPD exacerbation whose healthcare record contained a copy of their advance care plan.

Applicable for: Hospitals.

Indicator 10b: Proportion of patients who have been admitted to hospital for a COPD exacerbation whose healthcare record included documentation regarding advance care planning.

Applicable for: General practices and other specialist clinics.

Indicator 10c: Proportion of admitted patients with a COPD exacerbation whose healthcare record documented the patient's goals of care and their resuscitation plan for the episode of care.

Applicable for: Hospitals.

Overall monitoring of COPD management

COPD is a leading cause of potentially preventable hospitalisations (PPHs) in Australia. Indicators for PPHs measure hospitalisations for specific conditions that could potentially have been avoided through the provision of appropriate preventive healthcare interventions and early disease management in primary care and other community-based care settings. These indicators can be used to measure the effectiveness of non-hospital care and care pathways.

The *Australian Atlas of Healthcare Variation* series includes time-series data on PPHs for COPD. It reports trends at primary health network and local area levels. These data can be used to identify variation and raise important questions about why that variation might be occurring.

Measures of overall quality improvement

To support overall monitoring of the implementation of this clinical care standard as part of local quality improvement processes, hospitals, local health networks and primary health networks could consider monitoring data on:

- Admissions for COPD exacerbations
- Readmissions after a COPD exacerbation, and the reasons for readmissions.

Nationally agreed COPD code lists can support the monitoring of COPD admissions and readmissions by healthcare services. These lists can be found in the specifications of the *Australian Atlas of Healthcare Variation* COPD indicator and the Australian Institute of Health and Welfare's [Selected potentially preventable hospitalisations](#) indicator.

More information

The definitions required to collect and calculate indicator data are specified online at the Australian Institute of Health and Welfare's Metadata Online Registry (METEOR): meteor.aihw.gov.au/content/793471.

See the [Chronic Obstructive Pulmonary Disease Clinical Care Standard](#) webpage for more information about indicators and other relevant quality improvement measures.

Clinical care standards

A clinical care standard describes the care that patients should be offered by clinicians and healthcare services for a specific clinical condition, treatment, procedure or clinical pathway, regardless of where people are treated in Australia. Clinical care standards aim to address unwarranted variation in health care or patient outcomes by increasing evidence-based healthcare for priority aspects of care.

Clinical care standards include:

- Quality statements that describe the expected standard for key components of patient care
- Explanations of what each statement means for
 - People receiving care – so they know what care they may be offered and can make informed decisions in partnership with their clinician
 - Clinicians – to support decisions about appropriate care
 - Healthcare services – to inform them of the policies, procedures, and organisational factors that can enable the delivery of high-quality care
- Indicators to support local quality improvement, allowing clinicians and healthcare services to monitor the care described in the standard.

Clinical care standards are developed by the Australian Commission on Safety and Quality in Health Care (the Commission). The Commission works in partnership with the Australian Government, states and territories, the private sector, clinical experts, and patients and carers to ensure the health system is well-informed, supported and organised to provide safe and high-quality care.

National Safety and Quality Standards

Clinical care standards support quality improvement. Information about the role of clinical care standards for healthcare services accredited to the **National Safety and Quality Health Service (NSQHS) Standards**¹ and the **National Safety and Quality Primary and Community Healthcare Standards** (Primary and Community Healthcare Standards)² can be found online.

For more information, see the fact sheet: **Applicability of Clinical Care Standards**.

About the Chronic Obstructive Pulmonary Disease Clinical Care Standard

Goal

The goal of this clinical care standard is to reduce potentially preventable hospitalisations and improve overall outcomes for people with COPD by supporting best practice in the assessment and management of COPD, including exacerbations.

It also aims to increase consideration of the palliative care needs of people with COPD to support symptom management and improve quality of life.

Scope

The standard covers key aspects of care relating to the diagnosis and management of COPD, including exacerbations.

What is not covered

This clinical care standard does not specifically address:

- Screening for genetic disorders (for example, alpha-1 antitrypsin deficiency)
- Assessment and management of other respiratory conditions (for example, asthma or bronchiectasis)
- Surgical interventions for COPD management (for example, lung volume reduction surgery or lung transplantation)
- Long-term oxygen therapy (for example, home oxygen therapy).

Healthcare settings

This clinical care standard applies to both community-based and acute care settings where care within the scope of the standard is provided, including:

- Primary healthcare services (for example, general practices, Aboriginal Community Controlled Health Organisations [ACCHOs] and community pharmacies)
- Secondary healthcare services (for example, specialist respiratory clinics)

- Tertiary healthcare services (for example, hospital wards, emergency departments and outpatient clinics).

The clinical care standard is relevant to:

- Medical practitioners including general practitioners (GPs), respiratory physicians, rural generalists, emergency physicians, infectious diseases physicians, general physicians, geriatricians, palliative care physicians and rehabilitation physicians
- Nurses and nurse practitioners
- Aboriginal or Torres Strait Islander Practitioners and Health Workers
- Allied health practitioners including pharmacists, physiotherapists, accredited exercise physiologists, psychologists, occupational therapists, speech pathologists, dietitians, paramedics and qualified social workers.

The clinical care standard may also be relevant in other healthcare settings where care for COPD is provided (for example, residential aged care facilities).

Not all quality statements in this clinical care standard will be applicable to every healthcare service or clinical unit. Healthcare services should consider their individual circumstances in determining how to apply each statement.

When implementing this clinical care standard, healthcare services should consider:

- The context in which care is provided
- Local variation
- Quality improvement priorities of the individual healthcare service.

In rural and remote settings, different strategies may be needed to implement the standard. For example, the use of:

- Hub-and-spoke models integrating larger and smaller health services and ACCHOs
- Telehealth consultations
- Multidisciplinary teams including allied health involvement where clinically appropriate.

Evidence

Key sources that underpin the standard are current clinical guidelines and evidence including:

- *The COPD-X Plan – Australian and New Zealand Guidelines for the Management of Chronic Obstructive Pulmonary Disease (COPD-X Guidelines)*³
- *Therapeutic Guidelines: Respiratory*⁴
- *Therapeutic Guidelines: Antibiotic*.⁵

See the Commission's [webpage](#) for a full list of evidence sources that support this standard.

Terminology

Key terms used in this clinical care standard are described below (also see [Chronic obstructive pulmonary disease](#) and [Glossary](#)).

Chronic obstructive pulmonary disease

For the purposes of this clinical care standard, the following Australian Institute of Health and Welfare (AIHW) definition has been used:⁶

A preventable lung disease characterised by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. The symptoms, which include cough, sputum production, and dyspnoea, often don't appear until significant lung damage has occurred, which usually worsens over time.

Patient

The patient is the person receiving care. When the word 'patient' is used in this standard, it may include the person's carer, family member, support person, or substitute decision-maker.

Only the patient or their substitute decision-maker, such as a legal guardian, can give consent for care. However, carers, families and support people who are not substitute decision-makers may also support the patient in their decision-making and actively participate in their care. These people should be given information and included in discussions when the patient wishes this to occur.

Clinicians

Clinicians are all types of healthcare providers who deliver direct clinical care to patients. This includes doctors, nurses, nurse practitioners, paramedics, pharmacists, psychologists, Aboriginal and Torres Strait Islander Health Workers, Aboriginal and Torres Strait Islander Practitioners, physiotherapists and other allied health professionals.

Healthcare services

Health care is delivered in a wide range of settings. Healthcare services vary in size and organisational structure from single healthcare providers (clinicians) to complex organisations with many healthcare providers and an overarching governing body.

Where information is provided under the heading 'Healthcare services' in this standard, it refers to those responsible for leading and governing the service.

Supporting resources

See the Commission's [webpage](#) for supporting documents. These include the:

- [Consumer guide](#)
- [Information for clinicians](#)
- [Information for healthcare services](#).

Using indicators

Measurement is a key part of quality improvement. The indicators in this clinical care standard allow clinicians and healthcare services to monitor and improve the care they provide, as part of local quality improvement activities.

Before using the indicators, refer to each indicator's specifications as described in the [Metadata Online Registry](#) (METEOR). These define how to collect and calculate indicator data and describe the applicable healthcare settings.

When using the indicators note that:

- Indicators are listed with the related quality statement, however not all quality statements will have indicators
- The Commission does not set benchmarks for clinical care standards indicators
- Services may use other relevant quality improvement measures in addition to, or instead of these indicators.

See the Commission's [website](#) for more information on other quality measures, including [patient-reported outcomes measures](#) (PROMs) and [patient experience measures](#).

General principles of care

This clinical care standard should be implemented as part of an overall approach to safety, quality, and improving the appropriateness of care. Some principles and key actions are described in other Commission standards and guidance and are not reproduced here. These include:

- Effective clinical governance
- Person-centred care
- Shared decision making and informed consent.

For more information, see:

- NSQHS Standards¹
- National Safety and Quality Primary and Community Healthcare Standards²
- [User Guide for Reviewing Clinical Variation](#)
- The Commission's [clinical care standards](#) webpages.

Cultural safety and equity

Person-centred care recognises and respects differences in individual needs, beliefs, and culture.

The Commission:

- Is committed to supporting healthcare services to provide culturally safe and equitable healthcare to all Australians
- Acknowledges that discrimination and inequity are significant barriers to achieving high-quality health outcomes for some patients from culturally and linguistically diverse communities.

Culturally safe services and environments are those where the where the places, people, policies, and practices foster mutual respect, shared decision making, and an understanding of cultural, linguistic, and spiritual differences and perspectives. They are created by organisations and individuals that recognise cultural power imbalances and actively address them by:

- Ensuring access to and use of interpreter services or cultural translators when this will assist the patient and is in line with patient wishes
- Providing cultural competency training for all staff

- Encouraging clinicians to review their own beliefs and attitudes when treating and communicating with patients^{7,8}
- Identifying variation in healthcare provision or outcomes for specific patient populations, including those based on ethnicity.⁹

When implementing this clinical care standard, cultural safety can be improved through embedding an organisational approach and addressing specific considerations for people with COPD from culturally and linguistically diverse backgrounds in relation to the quality statements.



Cultural safety and equity for Aboriginal and Torres Strait Islander people

In Australia, Aboriginal and Torres Strait Islander people generally experience poorer health outcomes than the rest of the population, with systemic racism a root cause. The considerations for improving cultural safety and equity throughout this clinical care standard focus primarily on overcoming cultural power imbalances and improving health outcomes for Aboriginal and Torres Strait Islander people through better access to health care.^{10,11}

Recommendations

When providing care for Aboriginal and Torres Strait Islander peoples, particular consideration should be given to:

- Taking a collaborative approach to planning treatment and management of COPD to ensure that interventions are suitably tailored to the individual's needs and preferences for care
- Supporting people to self-report their Aboriginal and Torres Strait Islander status and ensure appropriate systems and processes are in place to promote self-identification
- Engaging interpreter services and cultural translators when this will assist the patient
- Engaging Aboriginal and Torres Strait Islander Health Workers and Aboriginal and Torres Strait Islander Health Practitioners as part of a patient's multidisciplinary team

- Encouraging the inclusion of a carer, family member or friend in all aspects of care, including decision-making and management planning
- Providing flexible service delivery to optimise attendance and help develop trust with individual Aboriginal and Torres Strait Islander people and communities.

Related resources

- National Safety and Quality Health Service (NSQHS) Standards: [*User Guide for Aboriginal and Torres Strait Islander Health*](#) – a guide for health service organisations to help improve the quality of care and health outcomes for Aboriginal and Torres Strait Islander people based on the NSQHS Standards
- [*National Agreement on Closing the Gap*](#) – an agreement built around four priority reforms for transforming the way governments work with, and for, Aboriginal and Torres Strait Islander people to improve outcomes
- [*Cultural Respect Framework 2016–2026*](#) – a framework that commits the Australian Government and all states and territories to embed cultural respect principles into their health systems¹¹
- Western Australia Centre for Rural Health [*Clinical yarning*](#)¹² – a patient-centred framework to improve communication in Aboriginal health care
- NSW Ministry of Health [*Aboriginal cultural engagement self-assessment tool*](#) – a resource for healthcare services
- NSW Health – [*Communicating Positively: A Guide to Appropriate Aboriginal Terminology*](#).¹³

Environmental sustainability and climate resilience in health care

This clinical care standard highlights considerations relating to the environmental impact of the care provided to patients.

Healthcare activity generates carbon emissions which contribute to climate change. It is estimated that hospital care and pharmaceuticals are the largest contributors to the carbon footprint of health care in Australia, 44% and 19%, respectively.¹⁴ Climate change impacts human health and will affect the prevalence and severity of disease.¹⁵

The Commission seeks to support clinicians and healthcare services in delivering environmentally sustainable health care which improves patient health outcomes, finds ways to reduce carbon emissions and manages resources effectively. Involving patients and consumers, including Aboriginal and Torres Strait Islander peoples, is an important part of this process.

Actions to improve the appropriateness of care often have a related benefit of improving sustainability and reducing carbon emissions. Sustainable healthcare practices are important for protecting and promoting the health and wellbeing of all Australians, while reducing the environmental impact of the health system.¹⁶

Chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD) is a progressive and debilitating respiratory condition that can be life limiting. It is characterised by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible.⁶ Symptoms of COPD include chronic cough, sputum production and shortness of breath, especially on exertion. These symptoms often worsen over time and lead to functional impairment, social isolation and decreased quality of life.³

The most common risk factor for COPD is tobacco smoking. There are growing concerns about the potential impacts of vaping on lung health¹⁷, although long-term data do not yet exist. Other factors such as exposure to particles from occupational dusts and fumes, air pollution, and genetic factors also contribute to the disease. Smoking cessation is the only intervention that reduces the risk of developing COPD in people who smoke, and reduces further loss of lung function in people with COPD who smoke.¹⁸

COPD is a significant public health issue in Australia. It is estimated that one in 13 Australians over the age of 40 years have COPD.¹⁹ COPD is a leading cause of death in Australia and was the sixth leading cause of death in 2022.²⁰ It is also associated with significant costs to the healthcare system. In 2020–21, an estimated \$832 million was spent on COPD, and in 2023, it accounted for 50% of the total disease burden due to respiratory conditions in Australia.²¹

Concerningly, approximately 50% of people living with COPD may not know that they have it,¹⁹ meaning that the prevalence and burden of disease is likely to be higher than current estimates. There are disparities in the rates of COPD in Australia, with almost double the prevalence and three times the mortality rate among Aboriginal and Torres Strait Islander peoples compared to non-Indigenous Australians.²² The reasons for these higher rates are complex and multifaceted but include the impacts of colonisation, systemic racism and lack of access to culturally safe health care. Higher rates of COPD have also been observed among people living in rural and remote areas, with inequities in access to health care contributing to poorer outcomes.⁶

People living with COPD commonly experience exacerbations marked by a rapid deterioration in symptoms that often leads to hospitalisation. COPD is a leading cause of potentially preventable hospitalisations in Australia.²³ The *Fourth Australian Atlas of Healthcare Variation* identified up to 18-fold variation in hospitalisation rates for COPD between local areas.²⁴ While hospitalisation cannot always be avoided, there is potential to improve disease control and reduce hospitalisation rates through improved community-based care.

There is also evidence of high rates of inappropriate antimicrobial use for COPD exacerbations. This includes inappropriate antimicrobial choice, treatment duration and route of administration.²⁵ Inappropriate antimicrobial use is not only associated with a risk of short-term adverse effects, it also contributes to the growing global threat of antibiotic resistance.²⁶ This represents an important area for quality improvement and more sustainable practices in the management of COPD exacerbations.

Improved delivery of guideline-informed, evidence-based care has the potential to not only improve health outcomes for people living with COPD, but also reduce rates of preventable hospitalisations and the associated burden on the healthcare system.

This clinical care standard aims to promote best-practice care in the management of COPD to improve patient outcomes, quality of life, and support a more sustainable healthcare system for all Australians.

Environmental sustainability and COPD

Promoting environmental sustainability not only serves to reduce the environmental risk factors that contribute to the inception and progression of disease in people with COPD, but also helps to minimise the impact of the disease and its management on the environment.

Respiratory medicine is recognised as a significant contributor to the carbon footprint of health care.²⁷ This is largely attributed to the manufacture, distribution and use of inhaler devices. In particular, there are specific concerns relating to the greenhouse gas effects of the propellants used in pressurised metered-dose inhalers (pMDIs), which have 1,300–3,350 times the potency of carbon dioxide (CO₂).²⁸

Unlike pMDIs, dry powder inhalers (DPIs) and soft mist inhalers (SMIs) do not contain propellant gases and therefore have a lower carbon footprint. Switching a person from regular pMDI use to DPI use, where clinically appropriate, can save an equivalent of approximately 420 kg of CO₂ emissions annually. This is similar to the effect of a person switching from a petrol to a hybrid car (equivalent to approximately 500 kg CO₂ annually).²⁷

There are ways to minimise the environmental impact of pMDIs until more climate-friendly propellants are developed. Initiatives in the United Kingdom encourage clinicians to offer DPIs or SMIs as a first choice when clinically appropriate, and to review frequency of inhaler use and inhaler technique to ensure the efficacy and efficiency of treatment.^{29,30}

Importantly, the most environmentally friendly inhaler is one used by the patient as prescribed and with the correct technique, as this minimises wastage and improves disease control.³¹

While inhaler device selection is an important part, other opportunities to promote environmental sustainability along the trajectory of patient care for COPD include:

- Establishing an accurate diagnosis of COPD (including exacerbations) to prevent incorrect or unnecessary treatment²⁷
- Supporting patients to recognise symptoms of a COPD exacerbation and understand what actions to take (for example, through establishing a **COPD action plan**) to reduce emergency department visits and hospital admissions³²
- Encouraging evidence-based preventive measures (for example, smoking cessation and vaccination) to reduce the risk of exacerbations and hospitalisation³
- Optimising non-pharmacological (for example, pulmonary rehabilitation) and pharmacological management to support disease control, including reviewing inhaler device technique and adherence²⁷
- Reducing inappropriate antibiotic use for COPD exacerbations
- Encouraging patients to return used or unwanted inhalers to their community pharmacy for disposal.²⁷

1

Quality statement 1 – Diagnosis with spirometry

A person over 35 years of age with a risk factor and one or more symptoms of chronic obstructive pulmonary disease (COPD) receives high-quality spirometry to enable diagnosis. Spirometry is also performed for a person with a recorded diagnosis of COPD that has not yet been confirmed with spirometry.

Purpose

To enable early and accurate diagnosis of COPD and appropriate management to address symptoms, slow disease progression, reduce the risk of exacerbations and reduce mortality.

What the quality statement means

■ For patients

Chronic obstructive pulmonary disease (COPD) is a long-term condition that causes narrowing of the airways in the lungs, making it difficult to breathe. In some people, COPD may also cause damage to the lungs (sometimes called emphysema).

It is important to identify COPD early as there are a range of treatments that can help prevent your symptoms from getting worse, improve your lung health, and reduce the risk of flare-ups of the condition (sometimes called exacerbations).

COPD is more likely if you are over 35 years of age and have at least one risk factor and one or more symptoms of the condition.

The most common risk factor for COPD is current or past tobacco smoking (for example, cigarettes or waterpipes [shisha]).³ People who have never smoked tobacco can also have COPD. Other risk factors include:³

- Exposure to second-hand smoke
- Exposure to harmful chemicals, fumes, or dust, especially at work
- Exposure to indoor air pollution from using cooking or heating fuels without proper ventilation
- Exposure to outdoor air pollution, including bushfire smoke
- Childhood factors such as premature birth, low birthweight or frequent respiratory infections
- History of asthma
- Genetic conditions (for example, alpha-1 antitrypsin deficiency).

Symptoms of COPD include:^{3,4,33}

- Shortness of breath, which worsens with activity or exercise
- Having a cough that does not get better
- Regularly coughing up mucus or phlegm
- Frequent chest infections
- Wheezing
- Chest tightness
- Feeling more tired than usual.

A breathing test called spirometry (sometimes called a lung function test) is the only way to accurately diagnose COPD. Accurate diagnosis is important because other lung conditions such as asthma can cause similar symptoms to COPD but have different treatments.

You should have spirometry if you are over 35 years of age and:

- Have any risk factor for COPD and one or more symptoms
- Have been told that you have COPD but have not had spirometry, even if you have been in hospital because of COPD symptoms.

Your healthcare provider will provide you with information on spirometry and how to prepare for the test. See the fact sheet [Getting ready for spirometry](#) for more information. Spirometry is done by taking a deep breath in and then breathing all the air out as quickly as you can into a machine called a spirometer. The spirometer checks how well your lungs are working and if there is something affecting the airflow in your lungs as you breathe.

Your healthcare provider will explain your spirometry results to you. If the results show that you have COPD, they will explain what this means and discuss ways to manage the condition. This may include medicines and other treatments. If your spirometry does not suggest COPD, your healthcare provider will discuss other possible causes and next steps with you. They may recommend additional tests such as a chest X-ray or more detailed breathing tests.

COPD can also affect people who are younger than 35 years of age.⁴ Speak to your healthcare provider if you're worried about any symptoms related to your breathing, regardless of your age.

For clinicians

Early recognition and diagnosis of COPD is critical to ensure appropriate management and to reduce the risk of lung function decline, exacerbations and mortality.³

A diagnosis of COPD can only be made with spirometry.^{3,4} COPD cannot be diagnosed based on clinical features or chest X-ray alone.

Symptoms of COPD are experienced regularly and include:^{3,4,33}

- Breathlessness that worsens with exertion
- Chronic cough
- Sputum production
- Recurrent chest infections
- Wheezing
- Chest tightness
- Fatigue.

Current or past tobacco smoking is the most common risk factor for COPD, but COPD also occurs in people who have never smoked. Additional risk factors for COPD include:^{3,33}

- Exposure to environmental tobacco smoke, occupational dusts and fumes (organic and inorganic), indoor air pollution from fuels used for heating and cooking in poorly ventilated areas, and outdoor air pollution, including smoke from bushfires
- Childhood factors such as premature birth or low birthweight
- Asthma and airway hyper-reactivity
- Chronic bronchitis
- Infections, particularly tuberculosis and childhood respiratory infections
- Genetic factors (for example, alpha-1 antitrypsin deficiency).

Conduct spirometry in:

- People over 35 years of age who present with one or more recurrent respiratory symptoms and at least one risk factor for COPD
- Patients in the community or those hospitalised for a suspected COPD exacerbation who have a clinical diagnosis of COPD that has not previously been confirmed with spirometry or for whom results cannot be accessed.

If the patient is too unwell to undergo spirometry at the time of an exacerbation, it should be arranged by the clinician responsible for the patient's ongoing care. Spirometry should be conducted once acute instability has resolved, and no later than eight weeks after a suspected exacerbation.

Do not perform spirometry in patients who are known or suspected to have an active respiratory infection (for example, COVID-19).³⁴ Refer to the Thoracic Society of Australia and New Zealand (TSANZ) and Australian and New Zealand Respiratory Science (ANZRS) [joint position statement](#)³⁴ for guidance on infection prevention and control when performing spirometry.

Provide the patient with information on what spirometry involves and how to prepare for the test. See the [Getting ready for spirometry](#) fact sheet for further information.

High-quality spirometry is:

- Performed before and after administration of an inhaled bronchodilator³⁵
- Performed and interpreted by clinicians with appropriate training and competency³⁶
- Performed using spirometers that undergo regular quality control and calibration to meet current American Thoracic Society (ATS) and European Respiratory Society (ERS) Technical Statement³⁷ specifications.

If spirometry is unavailable within the healthcare service, refer patients to a respiratory laboratory, respiratory specialist or pathology collection centre that offers spirometry. General practitioners can refer to their local HealthPathways for services that offer spirometry.

A postbronchodilator forced expiratory volume in one second (FEV₁) to forced vital capacity (FVC) ratio (FEV₁/FVC) that is less than 0.7 confirms persistent airflow limitation and is diagnostic of COPD.⁴ If spirometry results are close to this threshold, spirometry should be repeated to confirm the results.³

Explain the spirometry results to the patient and discuss next steps if a diagnosis of COPD is confirmed. If spirometry results do not indicate COPD, consider alternative tests to investigate the patient's symptoms as appropriate (for example, chest X-ray or full pulmonary function testing).

Record spirometry results in the patient's healthcare record and My Health Record (if available).

Consider the patient's history, clinical context and risk factors when interpreting spirometry results. There is overlap in the clinical features of COPD and other respiratory conditions such as asthma (including adult-onset asthma) and bronchiectasis, and more than one condition can coexist in some patients.³ Some patients with asthma can also have persistent airflow limitation on spirometry.

Differentiating asthma from COPD is important for correct pharmacological management. For example, inhaled corticosteroids are important in asthma management, but in COPD should be limited to patients with severe symptoms and exacerbations.

In primary care, consider referral to a respiratory physician if spirometry results are unclear or there is diagnostic uncertainty.

For healthcare services

Ensure resources and systems are in place to enable access to high-quality spirometry for COPD diagnosis (see above). Establish referral pathways to ensure clinicians can refer for spirometry when required. Ensure systems are in place to ensure spirometry results are accessible to clinicians across all care settings.

Ensure quality control processes are in place for the performance and interpretation of spirometry as outlined in the Thoracic Society of Australia and New Zealand (TSANZ) *Standards for the Delivery of Spirometry for Resource Sector Workers*.³⁸ Spirometers should regularly undergo quality control and calibration to ensure they are consistent with ATS and ERS requirements.³⁷

Establish processes and systems to ensure that spirometry is performed and interpreted by suitably trained and competent clinicians acting within their scope of practice. Ensure that training is in line with the TSANZ *Standards for Spirometry Training Courses*.³⁶ Consider the frequency of spirometry performance and the ability to maintain competence when determining who should perform spirometry and interpret results.



Cultural safety and equity

Clinicians can:

- Consider historical, social and cultural factors that may limit patient access to assessment of their respiratory symptoms
- Consider personal biases that may influence communication with patients regarding their care
- Recognise that Aboriginal and Torres Strait Islander people may have a higher likelihood of risk factors for COPD, including smoking, premature birth and chronic lung infections³⁹
- Use culturally safe language when discussing any identified risks with the patient and when explaining the rationale for spirometry and other investigations
- Recognise that some people with COPD may feel stigmatised by the diagnosis, particularly people who have smoked, due to a perception that they are responsible for their condition.

Healthcare services can:

- Consider the increased prevalence of COPD among Aboriginal and Torres Strait Islander people²² and the relevance of this for the population accessing the healthcare service
- Ensure that systems are in place to support access to services that allow assessment of COPD symptoms and risk factors in a way that is free from racism, bias, and assumptions, including regarding people who have smoked
- Consider systems and processes to encourage use of high-quality spirometry for Aboriginal and Torres Strait Islander patients.

Related resources

- American Thoracic Society and European Respiratory Society
 - [*Standardization of spirometry 2019 update*](#)³⁷
- Asthma Australia – videos
 - [*Spirometry in primary care settings – Part I: Infection control advice*](#)
 - [*Spirometry in primary care settings – Part II: Infection control guidance for performing spirometry*](#)
- Lung Foundation Australia
 - [*COPD-X Handbook*](#)⁴⁰
 - [Lung Learning Hub](#)
- National Asthma Council Australia
 - [*The spirometry handbook for primary care*](#)³⁵
- NPS MedicineWise
 - [*Getting ready for spirometry fact sheet*](#)
- Thoracic Society of Australia and New Zealand
 - [*Standards for spirometry training courses*](#)³⁶
 - [*Standards for the delivery of spirometry for resource sector workers*](#)³⁸
 - Pulmonary function testing during sars-CoV-2: An ANZSRS/TSANZ position statement.³⁴

Indicators for local monitoring

Indicator 1a: Proportion of patients with a recorded diagnosis of COPD whose healthcare record documented their spirometry results.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793508

Indicator 1b: Proportion of admitted patients with a COPD exacerbation whose healthcare record documented their spirometry results.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793513

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

2

Quality statement 2 – Comprehensive assessment

A person with a confirmed COPD diagnosis receives a comprehensive assessment to determine their individual care needs. This includes assessing their symptoms and disease severity using a validated assessment tool, history and risk of exacerbations, and comorbidities. Follow-up assessment occurs at least annually.

Purpose

To enable individualised COPD management based on a holistic assessment of the patient, which occurs at least annually to identify changing care needs.

What the quality statement means

■ For patients

If you have been diagnosed with COPD, your healthcare provider will work with you to understand more about your symptoms, needs and health goals. They will also check if you have had or are at risk of having a COPD flare-up (also called an exacerbation) and identify any other health conditions you have. Depending on your needs, you may need to see more than one healthcare provider (for example, a general practitioner, nurse, physiotherapist or lung specialist).

Your healthcare provider will ask about your medical history, your medicines, your physical and mental wellbeing, and the assistance you have, or may need, to help you live well. They may ask you to complete questionnaires to help understand your symptoms, their impact on your day-to-day activities, and your care needs. You may need to have more than one conversation with your healthcare provider or longer appointments to discuss these aspects of your care.

As well as spirometry, you may need other tests such as blood tests, a chest X-ray or more detailed breathing tests. Your healthcare provider should share the results of any tests completed with you and explain to you what they mean.

A full assessment can help ensure that your treatment plan suits your individual needs and help you to make decisions with your healthcare team about your care. You can also involve support people (such as a family member or carer) to help you make decisions about your care.

Your healthcare provider should offer you a follow-up appointment to check how you are going with your COPD management, and whether any changes are needed. This follow-up should occur at least once every year, or more frequently depending on your health needs. It is important to see your healthcare provider if you are not feeling well between appointments.

■ For clinicians

A person with COPD requires a comprehensive assessment at the time of diagnosis and at least every 12 months thereafter to ensure all their care needs are met.

The assessment should be completed by the person's general practitioner or other specialist physician with multidisciplinary input as appropriate. Depending on the person's needs, this may include respiratory nurses, allied health professionals (for example, pharmacists, physiotherapists, exercise physiologists, speech pathologists, dietitians or psychologists) or other medical specialists (such as palliative care) where required.

Although critical for determining the presence of airflow limitation, spirometry results alone do not accurately indicate the severity of COPD symptoms or their impact on the person.

Comprehensive assessment should comprise:

- A detailed medical history that encompasses COPD risk factors (see [Quality statement 1](#))
- A review of symptoms, their severity and impact on daily living using a validated assessment tool (see '[Related resources](#)' for relevant assessment tools)
- Identifying risk of exacerbations, including the severity and frequency of past exacerbations
- An assessment of general physical and mental health (see '[Related resources](#)')
- A review of all current medicines, including whether any change (step up or step down) of therapy is required
- An assessment of inhaler device technique for inhaled therapies and appropriateness of the inhaler device for the person.

To assess risk of future exacerbations, obtain and document the person's history of exacerbations including their frequency, severity, and any associated hospitalisations.³ Severe and worsening airflow obstruction based on spirometry results and a history of exacerbations requiring hospitalisation are associated with a higher risk of exacerbations, which become more frequent and severe as COPD progresses.^{3,33}

Assess for, and actively manage undiagnosed comorbidities or existing comorbidities that may require adjustment to treatment. Common comorbidities include heart failure, diabetes, anxiety and depression.³ Investigate or refer the patient as appropriate (see [COPD-X Guidelines](#) for other comorbidities to consider).³

As COPD symptoms can limit mobility and opportunities for social engagement, people with limited sources of social support may experience social isolation and loneliness. Consider the person's social care needs and help organise access to relevant assessment and supports as appropriate (for example, My Aged Care assessment or Commonwealth Home Support Programme).

Also consider whether the person may benefit from individualised symptom management and palliative care support. Advance care planning should be considered for any patient who has been admitted to hospital for a COPD exacerbation (see [Quality statement 10](#)).

Complete and document the outcomes of the comprehensive assessment as soon as possible after diagnosis and repeat at least annually. Document the outcomes in the patient's healthcare record (and My Health Record where available). Share the results of any tests of investigations undertaken with the patient and explain what they mean.

Although not required annually, repeat spirometry is warranted if there are significant changes in the person's health status, including after admission to hospital for a COPD exacerbation.³³

■ For healthcare services

Ensure policies, procedures and systems are in place to support clinicians to carry out and document the outcomes of comprehensive assessments for people with COPD on at least an annual basis. Provide clinicians with access to validated assessment questionnaires and tools (see '[Related resources](#)').

Ensure that pathways of care enable referrals to clinicians and services that may be required as part of the comprehensive assessment. Services may include social support, pulmonary rehabilitation, home medicines review, specialist respiratory care and palliative care. Support clinician understanding of, and enable access to, local guidelines and referral pathways (for example, through HealthPathways).

Related resources

Lung Foundation Australia:

- [COPD-X Handbook](#)⁴⁰

Tools for assessing symptom severity and the impact on daily living include:

- [COPD Assessment Test \(CAT\)](#)⁴¹
- [Modified Medical Research Council \(mMRC\) Dyspnoea Scale](#)⁴²
- [St George's Respiratory Questionnaire \(SGRQ\)](#)⁴³

Tools for assessing psychological status include:

- Hospital Anxiety and Depression Scale (HADS)⁴⁴
- [Kessler Psychological Distress Scale \(K10\)](#)⁴⁵
- [Depression Anxiety Stress Scale \(DASS-21\)](#)⁴⁶

Tests to assess exercise capacity include:

- [Six-minute walk test or the incremental shuttle walk test](#) for functional exercise capacity⁴⁷
- One-minute sit-to-stand test for aerobic capacity⁴⁸
- Five-repetition sit-to-stand test for lower limb strength.

Indicators for local monitoring

Indicator 2a: Proportion of patients with COPD whose history of exacerbations was assessed and documented in their healthcare record in the previous 12 months.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793516

Indicator 2b: Proportion of patients with COPD whose symptom severity was assessed using a validated tool in the previous 12 months.

METEOR link: meteor.aihw.gov.au/content/793519

Applicable for: General practices and other specialist clinics.

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

3

Quality statement 3 – Education and self-management

A person with COPD is supported to learn about their condition and treatment options. They participate in developing an individualised self-management plan that addresses their needs and treatment goals and includes an action plan for COPD exacerbations.

Purpose

To increase patient understanding of COPD and available treatments and enable them to implement self-management strategies to manage their condition and symptoms and reduce their risk of hospitalisation.

What the quality statement means

■ For patients

Your healthcare providers will help you understand more about COPD, available COPD treatments and what you can do to manage your health. Although there is no cure for COPD, you can live well with your condition and there are things you can do to manage your symptoms. This information may be provided by your general practitioner, pharmacist, physiotherapist, nurse, nurse practitioner or lung specialist.

Information about COPD should be provided to you in a way that you can understand and use. This could be verbal information, written information, or information about where to find out more. It is important to ask questions, to make sure that your care is right for you.

You can manage and improve your symptoms, reduce the chance of flare-ups (exacerbations) and support your overall wellbeing by:³

- Quitting smoking if you smoke or vape (see [Quality statement 4](#))
- Keeping up to date with recommended vaccinations (see [Quality statement 4](#))
- Keeping physically active and exercising
- Participating in pulmonary rehabilitation (a supervised exercise, education and self-management program) (see [Quality statement 5](#))
- Using ways to help relieve breathlessness (for example, using a handheld fan, breathing techniques or breathlessness recovery positions); more information on breathlessness is available at the [Lung Foundation Australia website](#)
- Learning ways to manage tiredness and to conserve your energy
- Using your medicines as prescribed, and knowing how to use, clean and store your inhalers and spacers correctly
- Eating a healthy diet and having a healthy weight
- Washing your hands regularly and using a face mask and physical distancing when out in public, to reduce your chance of catching a cold, flu, or other virus.

Your healthcare provider will discuss the management options available and develop a self-management plan with you so you know what to do. The plan should include a written summary of the self-management activities you have discussed, as well as information about your inhalers and other medicines and how to take them. You may also be given referrals or recommendations for other services or healthcare providers (such as a dietitian, speech pathologist, or physiotherapist).

It is important to have an up-to-date **COPD action plan** as part of your self-management plan. A COPD action plan explains what to do if your symptoms are getting worse despite your usual treatment. The plan should say what medicines to use and how to use them and explain when to seek medical help (including contact phone numbers). Keep your COPD action plan somewhere you can easily find, if you have a flare-up of your symptoms.

If you are unsure about anything in your plan, ask questions to make sure it is clear to you. It is important that you and your healthcare provider check your COPD action plan regularly to make sure it is up to date and discuss any changes that may be required. This is especially important if you have a flare-up or have a hospital admission.

■ For clinicians

Provide information to the patient about COPD, including the nature and likely progression of the condition, the treatments available and self-management strategies. Explain that self-management is an important part of COPD care and can help to improve symptoms, reduce the risk of exacerbations, and support the patient's overall wellbeing.

Discuss the patient's expectations about the management of their condition and their treatment goals. Work with the patient to develop a self-management plan that aligns with their individual needs and treatment goals. The self-management plan should include a written summary of the patient's medicines and directions for use, and other agreed self-management strategies. In general practice, a **General Practitioner Management Plan** or a **Team Care Arrangement** may be appropriate to help the patient to achieve their treatment and self-management goals.⁴⁹

Discuss self-management strategies, including:³

- Smoking cessation (see [Quality statement 4](#))
- Keeping up to date with vaccinations (see [Quality statement 4](#))
- Regular physical activity and exercise
- Pulmonary rehabilitation (see [Quality statement 5](#))
- Using medicines as prescribed, including correct storage, and inhaler and spacer technique (if relevant) (see [Quality statement 6](#))
- Nutrition and weight optimisation
- Maintaining good hand hygiene, social distancing and using face masks where appropriate.

Discuss non-pharmacological management strategies for episodes of breathlessness, such as handheld fans, breathing techniques, and breathlessness recovery positions. Consider referral to pulmonary rehabilitation or other clinicians (for example, physiotherapist, respiratory nurse or respiratory physician) for advice on further strategies such as airway clearance techniques, activity pacing and energy conservation techniques.

Consider palliative care needs, including symptom support and advance care planning (see [Quality statement 10](#)).

Provide information about other services that may support the implementation of self-management strategies and organise referral where appropriate. This may include smoking cessation services, respiratory education programs or community exercise programs. Provide information on where to obtain further information about COPD (for example, organisations such as [Lung Foundation Australia](#) or local support groups).

Ensure the person has an up-to-date written COPD action plan for exacerbations which clearly addresses how to recognise and respond to deteriorating symptoms. The COPD action plan should include clear instructions for using medicines (including their name, dose and how and when to use them), and when to seek medical attention.³ See the [COPD Action Plan](#) developed by Lung Foundation Australia.⁵⁰

Discuss the self-management plan with the patient and ask if they have any questions or concerns. Document the patient's self-management plan in their healthcare record (and My Health Record where available).

Review the patient's self-management plan and COPD action plan regularly, and whenever there is a deterioration in symptoms, a change in medicines is being considered, or if a patient has a hospital admission (see [Quality statement 9](#)).

For healthcare services

Ensure that clinicians have access to consumer resources for COPD to enable clinicians to support patient participation in informed decision-making about treatment options and self-management strategies.

Establish and maintain policies and procedures to support the development of self-management plans (including COPD action plans) by clinicians jointly with patients, and to ensure these plans are reviewed regularly (for example, following a deterioration, exacerbation or hospital admission).

Ensure that clinicians have access to suitable templates for self-management plans and COPD action plans (for example, the Lung Foundation Australia [COPD Action Plan](#)⁵⁰). In general practice, this may include [General Practitioner Management Plans](#) or [Team Care Arrangements](#).

Ensure that appropriate services and referral pathways are available to enable access to self-management interventions (for example, smoking cessation and pulmonary rehabilitation).



Cultural safety and equity

Clinicians can:

- Ensure the information and education provided to patients about COPD is culturally safe and appropriate to the patient's language and literacy needs
- Allow longer appointment times for patients who prefer face-to-face education, as required
- Consider the National Aboriginal Community Controlled Health Organisation's [Chronic Obstructive Pulmonary Disease \(COPD\) Action Plan](#) when developing an action plan with the patient.

Healthcare services can:

- Provide patient information about COPD in a variety of languages and formats appropriate to the service's patient population
- Establish links with appropriate health and community services and ensure that referral processes and pathways are in place to allow Aboriginal and Torres Strait Islander patients access to a network of suitable service providers within the healthcare service or local area.

Related resources

- Lung Foundation Australia
 - [*Better living with COPD*](#)
 - [*Better living with exercise*](#)
 - [Breathlessness](#)
 - [COPD-X Handbook⁴⁰](#)
 - [COPD Action Plan](#)
 - [My COPD checklist](#)
 - [Overview: Chronic obstructive pulmonary disease](#)
- National Aboriginal Community Controlled Health Organisation
 - [Chronic Obstructive Pulmonary Disease \(COPD\) Action Plan](#)
- Australian Indigenous HealthInfoNet
 - [Chronic Obstructive Pulmonary Disease – Resources](#)

Indicator for local monitoring

Indicator 3a: Proportion of patients with COPD who have a written COPD action plan.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793523

More information about this indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR link.

4

Quality statement 4 – Vaccination and tobacco-smoking cessation

A person with COPD is offered recommended vaccinations for respiratory and other infections including influenza, pneumococcal disease and COVID-19. They are asked about their tobacco-smoking status and, if currently smoking, offered evidence-based tobacco-smoking cessation interventions.

Purpose

To ensure all people with COPD are supported to adopt interventions that may improve symptoms, slow disease progression, and decrease the risk of exacerbations.

What the quality statement means

■ For patients

There are some things you can do to slow the progression of COPD, reduce the risk of flare-ups, and improve your symptoms and overall health.

Vaccination

People with COPD are more likely to become very unwell and have complications from infections such as influenza (the flu) than other people.³

Vaccination can protect you against infections caused by viruses and bacteria and has been shown to prevent flare-ups and severe illness for people with COPD.

Recommended vaccinations include a flu vaccination every year and regular vaccinations for pneumococcal disease and COVID-19.⁵¹ Your healthcare provider may also recommend other vaccinations (for example, shingles), depending on your needs.

Vaccinations are available at a range of healthcare services, including general practitioner clinics, community pharmacies, local council immunisation clinics, community health centres and Aboriginal Medical Services. You can ask your preferred vaccination provider about the vaccines they provide and whether you are eligible to receive funded vaccinations (free to the consumer) as part of the [National Immunisation Program](#).⁵¹

Quitting tobacco smoking

Quitting tobacco smoking is one of the most effective ways to slow the progression of COPD, reduce flare-ups, and improve symptoms and overall health.³

This is why your healthcare provider will ask you about tobacco smoking. This includes the use of cigarettes or electronic cigarettes (sometimes called e-cigarettes or vapes). Although research is ongoing, there is evidence that vaping can be harmful to your health.⁵² Your healthcare provider may also ask if you smoke substances other than tobacco.

Discussing tobacco smoking, if you currently smoke cigarettes or vape, can help your healthcare provider to understand more about your health. If you do smoke tobacco, it is important for your health that you quit. Your healthcare provider should discuss tobacco smoking in a non-judgemental way, and work with you to find ways to help you quit. There are different options they can advise you about.

For most people, quitting tobacco smoking is not easy, and usually takes more than one attempt. Because of this, your healthcare provider will offer to refer you to support services such as [Quitline](#). This is a telephone service staffed by counsellors who are trained to help people to quit tobacco smoking, including vaping. Your healthcare provider may also recommend nicotine replacement therapy or other medicines that may improve your chances of successfully quitting smoking.

Your healthcare provider will check your progress with the treatments or services they have recommended and can provide further advice and support on your journey to quit.

■ For clinicians

Explain that vaccination and smoking cessation are important for improving COPD symptoms, limiting disease progression, reducing exacerbations and improving long-term outcomes.

Vaccination

Explain that people with COPD are more susceptible to complications (for example, pneumonia) as a result of infections such as influenza. Discuss the importance of vaccinations to decrease the risk of infection, and if affected, the risk of complications and COPD exacerbations.³

Offer all patients with COPD vaccinations for respiratory and other infections in line with the recommendations in the [Australian Immunisation Handbook](#).⁵¹ This includes an annual influenza vaccination, and vaccinations for pneumococcal disease and COVID-19, according to their vaccination history and age.

Consider vaccinations for other vaccine-preventable conditions as appropriate (for example, herpes zoster), in line with the *Australian Immunisation Handbook*.⁵¹

Explain to the patient that not all vaccinations may be available free of charge under the [National Immunisation Program](#). Keep the patient's vaccination record up to date in their healthcare record and on the Australian Immunisation Register.

Tobacco-smoking cessation

Recognise that some patients who currently smoke (or have previously smoked) tobacco may experience stigma as a result of their COPD diagnosis. Always approach discussions about smoking cessation using careful and sensitive language. Ask the patient about their tobacco-smoking status at every appointment, including use of cigarettes, electronic cigarettes (vapes) or water pipes (shisha), and whether they smoke substances other than tobacco.

For patients who currently smoke (or have previously smoked) tobacco, obtain a detailed smoking history. Explain that tobacco-smoking cessation is one of the most effective ways to improve symptoms, slow disease progression and prevent exacerbations in COPD.

Support the patient to stop smoking by using evidence-based approaches, such as the three-step 'Ask, Advise, Help' model. This model is outlined in [*Supporting Smoking Cessation: A guide for health professionals*](#).⁵³

Explain to the patient that the most effective way to manage nicotine dependence is through a combination of behavioural strategies and pharmacotherapy.⁵³ Provide information about:³

- Behavioural support and counselling (for example, [referral to Quitline](#))
- Pharmacotherapy (for example, nicotine replacement therapy, bupropion or varenicline).

Consider comorbidities and current medicines when selecting pharmacotherapy.

Monitor the patient's progress at every visit and offer access to further tobacco-smoking cessation information or support services if required. Ensure smoking status is recorded in the patient's healthcare record and My Health Record (if available) and kept up to date.

For healthcare services

Establish and maintain policies, procedures and protocols for clinicians to offer people with COPD vaccinations for respiratory and other infections as recommended in the *Australian Immunisation Handbook*.⁵¹ This includes vaccinations for influenza, pneumococcal disease and COVID-19 at appropriate intervals. Ensure the patient's vaccination history is kept up to date on the Australian Immunisation Register and their healthcare record. Have systems and procedures in place to enable patient recall for subsequent vaccinations at the appropriate intervals.

Establish and maintain policies, procedures and protocols to support the provision and documentation of smoking cessation interventions. Provide clinicians with access to relevant training such as the [Quit Centre online training modules](#) to support discussions about smoking cessation with people with COPD. Have systems in place to organise referral to relevant services (for example, [referral to Quitline](#)). In hospital, ensure that patients have access to nicotine replacement therapy during admission.

Ensure clinicians document the outcomes of discussions with people with COPD about smoking cessation in the patient's healthcare record (and My Health Record where available).



Cultural safety and equity

Clinicians can:

- Recognise there are differences in the recommended vaccination schedule for Aboriginal and Torres Strait Islander patients compared to non-Indigenous patients⁵⁴
- Refer to the *Australian Immunisation Handbook*⁵¹ for details, including which vaccinations are provided free of charge under the National Immunisation Program
- Ensure cultural safety for Aboriginal and Torres Strait Islander patients accessing smoking cessation services in line with their needs and preferences.

Healthcare services can:

- Establish links with appropriate health and community services and ensure that referral processes are in place to allow Aboriginal and Torres Strait Islander patients access to a network of suitable service providers.

Related resources

- Australian Government Department of Health and Aged Care
 - *Australian Immunisation Handbook*⁵¹
 - National Quitline telephone number – 13 78 48
 - [Tackling indigenous smoking](#)
- Cancer Council Victoria – Quit Centre
 - [Quitline referral form](#)
 - [Resources and training for clinicians](#)
- Lung Foundation Australia
 - *COPD-X Handbook*⁴⁰
 - [Smoking cessation](#)
- NSW Health
 - [The facts about vaping](#)
- Pharmaceutical Society of Australia – [Professional practice guidelines for pharmacists: Nicotine dependence support](#)
- Royal Australian College of General Practitioners
 - [Smoking, nutrition, alcohol, physical activity \(SNAP\) guidelines](#)
 - [Supporting smoking cessation: A guide for health professionals – Recommendations](#)
 - Three-step brief advice: [Ask, Advise, Help](#)

Indicators for local monitoring

Vaccination

Indicator 4a: Proportion of patients with COPD who were immunised against influenza in the previous 15 months.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793525

Indicator 4b: Proportion of patients with COPD who were immunised with at least one dose of pneumococcal vaccination.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793527

Tobacco-smoking cessation

Indicator 4c: Proportion of patients with COPD whose smoking status was recorded in their healthcare record in the previous 12 months.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793529

Indicator 4d: Proportion of patients with COPD who reported they currently smoke tobacco who were offered cessation advice.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/794069

Indicator 4e: Proportion of patients with COPD who reported they currently smoke tobacco who were provided, or referred to, evidence-based behaviour support and counselling.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793531

Indicator 4f: Proportion of patients with COPD who reported they currently smoke tobacco who were prescribed pharmacotherapy for smoking cessation.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793536

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

5

Quality statement 5 – Pulmonary rehabilitation

A person with COPD is referred for pulmonary rehabilitation. If the person has been hospitalised for a COPD exacerbation, they are referred to a pulmonary rehabilitation program on discharge and commence the program within four weeks.

Purpose

To ensure that people with COPD are referred for pulmonary rehabilitation to improve their symptoms and exercise capacity, reduce the risk of exacerbations and hospital readmissions, and improve quality of life.

What the quality statement means

■ For patients

An important part of managing COPD is staying active and exercising to improve your wellbeing and help make your daily activities easier. If you find physical activity difficult and still have symptoms such as breathlessness despite using your medicines, you could benefit from a pulmonary rehabilitation program.

Pulmonary rehabilitation is a six- to eight-week program that combines exercise, education and self-management techniques to improve lung health in people with COPD. The program is delivered by healthcare professionals with specific training, including physiotherapists, accredited exercise physiologists, nurses and rehabilitation specialists. Depending on your needs, other healthcare providers such as dietitians, speech pathologists or psychologists may also be involved. These programs are offered through hospitals but may also be available in community clinics or delivered online.

Pulmonary rehabilitation programs can reduce breathlessness and fatigue, boost fitness levels and muscle strength, and reduce anxiety and depression in people with COPD. They can also reduce the risk of COPD flare-ups.^{3,33,55}

As part of pulmonary rehabilitation, you will be offered an exercise program to improve your symptoms and overall fitness. Your program will be tailored to your individual needs and abilities. It is important to continue exercising and stay active even after you have completed the pulmonary rehabilitation program so that you maintain the health benefits. Your healthcare provider will discuss what exercise may be best for you and how often you should exercise.

Pulmonary rehabilitation programs will also help you to better understand how to manage breathlessness and other COPD symptoms, use your inhalers effectively, and manage other aspects of your condition. For example, some people with COPD can experience swallowing difficulties, problems with their nutrition, or mental health concerns.

Depending on your needs, your healthcare provider can provide referrals to other clinicians (for example, speech pathologist, dietitian or psychologist) for further assessment and management.

If you are admitted to hospital because of a COPD flare-up, you should be referred to a pulmonary rehabilitation program, even if you have completed one before. For the best outcomes, it is recommended to start the program within four weeks of leaving the hospital.⁵⁶

In some areas, accessing a pulmonary rehabilitation program can be difficult. Your healthcare provider will help you find the nearest available program. If it is difficult for you to join a program, they may explore other ways to support you to exercise. This may involve online programs with at-home exercises (sometimes called telerehabilitation), local exercise programs, or a referral to a healthcare professional with experience in exercise and lung health (such as a physiotherapist or accredited exercise physiologist) who can provide advice about suitable exercises.

For further information, you can refer to the Lung Foundation Australia's [pulmonary rehabilitation fact sheet](#).

For clinicians

Refer all patients with COPD for pulmonary rehabilitation, including those who have been hospitalised for a COPD exacerbation.

Refer to local pathways (for example, HealthPathways) or use the Lung Foundation Australia's [location search](#) to find pulmonary rehabilitation programs in your local area.

Explain that pulmonary rehabilitation is a structured six- to eight-week program that combines exercise, education and self-management techniques designed for patients with COPD and demonstrated to:^{3,33,55}

- Reduce breathlessness and fatigue
- Improve fitness levels and muscle strength
- Reduce anxiety and depression
- Reduce the likelihood of hospitalisation for exacerbations.

Explain that pulmonary rehabilitation involves the following key aspects:

- Exercises tailored to the patient's needs and abilities
- Education about COPD and its treatments, including self-management strategies
- Advice on managing breathlessness
- Advice on using inhaled medicines, including correct inhaler technique
- Advice on healthy eating
- Access to psychological support if appropriate.

Any patient admitted for a COPD exacerbation should have access to pulmonary rehabilitation arranged on or before discharge, and commenced within four weeks. This reduces the short-term risk of readmission and improves exercise capacity and quality of life following an exacerbation.^{56,57} The clinician or care team responsible for the patient's ongoing care should follow up to ensure that the patient commences pulmonary rehabilitation within this timeframe.

If access to hospital-based pulmonary rehabilitation programs is limited, discuss the suitability of alternative options with the patient. These may include referral to pulmonary telerehabilitation programs if available, local exercise programs, or a clinician with expertise in pulmonary rehabilitation such as a physiotherapist or accredited exercise physiologist who can offer advice on suitable exercises and breathing techniques. In primary care, consider the suitability of a Team Care Arrangement to enable access.⁴⁹

Once a patient has completed a pulmonary rehabilitation program, offer them access to exercise maintenance programs. Emphasise the importance of continuing to exercise and staying physically active to maintain the benefits of the program.

Consider the patient's eligibility for local community-based exercise programs or programs such as the Lung Foundation Australia's [Lungs in Action](#).

■ For healthcare services

Ensure that systems, processes, and resources are in place to support and monitor referral and access to pulmonary rehabilitation programs for all patients with COPD in all care settings.

Healthcare services discharging patients after a COPD exacerbation should ensure the patient has a referral for pulmonary rehabilitation and provide adequate handover to the clinician responsible for the patient's ongoing care. This includes handover of the need for the patient to commence pulmonary rehabilitation within four weeks of discharge.⁵⁶

Ensure that clinicians have access to information about local pulmonary rehabilitation programs and relevant referral pathways (for example, in primary care this may be through HealthPathways).

Where a pulmonary rehabilitation program is not available locally, identify alternative pathways or programs for patients. This may include pulmonary telerehabilitation programs, local exercise programs, or referring patients to a clinician in primary care with expertise in pulmonary rehabilitation such as a physiotherapist or accredited exercise physiologist.

In primary care, set up systems that support clinicians to provide Team Care Arrangement items where appropriate, to help patients access clinicians with expertise in pulmonary rehabilitation.



Cultural safety and equity

Clinicians can:

- Recognise potential barriers to patients participating in pulmonary rehabilitation programs, including
 - personal or cultural preferences about exercising in group settings or mixed gender environments
 - limited access to programs, especially in rural and remote areas
- Consider virtual pulmonary rehabilitation programs where available, or referral to a clinician with expertise in pulmonary rehabilitation who can provide advice on exercises tailored to the patient's individual needs
- For Aboriginal and Torres Strait Islander patients, consider referral to culturally safe pulmonary rehabilitation programs offered through Aboriginal Community Controlled Health Organisations (ACCHOs) where available and in line with the patient's needs and preferences.

Healthcare services can:

- Have systems in place to support clinicians to consider virtual pulmonary rehabilitation programs for patients who may have personal or cultural preferences about exercising in group settings, or who live in rural and remote areas where access to centre-based programs may be limited
- Establish links with appropriate health and community services, including ACCHOs, and support referral pathways to culturally safe programs where available for Aboriginal and Torres Strait Islander patients in line with their needs and preferences
- Review data on Aboriginal and Torres Strait Islander patients' participation rates in pulmonary rehabilitation programs at their healthcare service and work with their local Aboriginal or Torres Strait Islander communities to maximise participation.

Related resources

- [*Australian and New Zealand Pulmonary Rehabilitation Guidelines*⁵⁸](#)
- Lung Foundation Australia – for patients
 - Information support line – (free call) 1800 654 301
 - [Am I too sick to exercise?](#)
 - [Better living with exercise booklet](#)
 - [Lungs in Action program](#)
 - [Peer Support Program](#)
 - [Pulmonary rehabilitation fact sheet](#)
 - [Pulmonary rehabilitation: A patient's point of view](#) (video)
- Lung Foundation Australia – for clinicians
 - [COPD-X Handbook](#)⁴⁰
 - [Giving lungs life: Pulmonary rehabilitation in lung disease](#) (webinar)
 - [Pulmonary rehabilitation program location search](#)
 - [Pulmonary rehabilitation referral form template](#)
 - [Pulmonary rehabilitation toolkit](#)
 - [Summary of the Australian and New Zealand pulmonary rehabilitation guidelines](#)

Indicators for local monitoring

Indicator 5a: Proportion of patients with COPD who were referred to a pulmonary rehabilitation program.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: <https://meteor.aihw.gov.au/content/793538>

Indicator 5b: Proportion of patients discharged from hospital after a COPD exacerbation who started a pulmonary rehabilitation program within four weeks of discharge.

Applicable for: Hospitals, out-patient clinics and pulmonary rehabilitation programs. General practices and other specialist clinics.

METEOR link: <https://meteor.aihw.gov.au/content/793542>

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

6

Quality statement 6 – Pharmacological management of stable COPD

A person with a confirmed COPD diagnosis is offered individualised pharmacotherapy in line with the COPD-X stepwise approach. Inhaler technique is demonstrated, assessed and corrected when starting treatment and regularly thereafter, including after any change in treatment or a COPD exacerbation.

Purpose

To support pharmacological management of COPD in line with current best practice guidelines and ensure inhaler technique is regularly assessed and corrected as needed.

What the quality statement means

■ For patients

Medicines are an important part of managing COPD. Although they cannot cure COPD, they can help reduce your symptoms and prevent flare-ups.

There are different medicines used for COPD. Because every person's health needs are different, your healthcare provider will recommend medicines that are appropriate for you and explain how they can help improve your symptoms and reduce the risk of flare-ups.

When you are first diagnosed with COPD, your healthcare provider will prescribe a 'reliever' medicine – a medicine to provide quick relief if you are experiencing symptoms such as breathlessness or wheezing. Your healthcare provider may also prescribe a 'maintenance' medicine – a medicine to be used regularly to help control your symptoms and prevent flare-ups. If your COPD becomes more severe, your healthcare provider may prescribe additional medicines.

It is important to use your medicines as prescribed. If you are unsure about how and when to take your medicines, ask your prescriber to explain, or seek advice from your pharmacist.

Most medicines for COPD are given through an inhaler. Some inhalers are best used with a 'spacer' – a device which attaches to the inhaler and can make it easier to use. Your healthcare provider may recommend using a spacer if it suits the type of inhaler you have been prescribed.

There are different types of inhalers available and each one has different instructions for use. It is important to understand how to use your inhaler correctly.

Your healthcare provider should show you how to use your inhaler (and your spacer if you have one) and explain how to look after it. This is to make sure you are getting the full dose of your medicine. They may ask you to show them how you use it, to make sure you are comfortable using it correctly. They may also give you written information on how to use your inhaler, so you can refer to this later on if needed. Your inhaler technique should be checked regularly, including:

- When you start an inhaler for the first time
- Whenever you are prescribed a different inhaler
- If you experience a flare-up of your symptoms.

Remember to take your inhalers with you to any follow-up appointments. This will help your healthcare provider check how you are using your inhalers.

You can ask any member of your healthcare team (for example, general practitioner, nurse, pharmacist, physiotherapist or lung specialist) if you are not sure how to use your inhalers, and you can ask more than once – your healthcare team will know this is important.

For clinicians

COPD-X stepwise approach

For patients with a spirometry-confirmed COPD diagnosis, offer pharmacotherapy to manage symptoms and prevent exacerbations according to the COPD-X stepwise approach.³ Individualise treatment according to symptom severity, exacerbation history and findings from the comprehensive assessment (see [Quality statement 2](#)).

Information about the COPD-X stepwise approach is available in the Lung Foundation Australia's *COPD-X Handbook*.⁴⁰ Briefly, this approach involves stepping up (or stepping down) therapy in response to symptoms and exacerbations, and includes:

- A short-acting inhaled bronchodilator – either a short-acting beta₂-agonist (SABA*) or short-acting muscarinic antagonist (SAMA†) – for as-needed short-term relief of acute breathlessness
- Adding a long-acting bronchodilator – either a long-acting beta₂-agonist (LABA‡) or long-acting muscarinic antagonist (LAMA§) – for regular use in patients with persistent troublesome dyspnoea despite SABA/SAMA use
 - note that the use of a LAMA is contraindicated in patients using a SAMA, but not a SABA
- Dual therapy with a LABA and a LAMA for patients who remain symptomatic despite using either one alone, and after assessment of adherence and inhaler technique
- Considering the addition of an inhaled corticosteroid for patients who meet both of the following criteria
 - history of a severe exacerbation (requiring hospitalisation) or at least two moderate exacerbations in the previous 12 months
 - experiencing severe symptoms despite dual long-acting bronchodilator therapy (LABA plus LAMA).⁴

* SABAs include: salbutamol, terbutaline.

† SAMA: ipratropium.

‡ LABAs include: salmeterol, formoterol, indacaterol.

§ LAMAs include: tiotropium, aclidinium, glycopyrronium, umeclidinium.

Macrolide antibiotics

Long-term, low-dose, oral macrolide antibiotics may be an option to reduce the frequency of exacerbations in patients with severe symptoms and recurrent exacerbations requiring hospitalisation despite maximal non-pharmacological and pharmacological therapy.⁵ However, there are significant risks. Do not start treatment without review by a respiratory specialist to ensure existing therapy is maximal and potential adverse effects of the macrolide antibiotics (for example, cardiac toxicity, ototoxicity or developing antibiotic resistance) have been adequately considered.⁵ Review the need for ongoing therapy after six months, and after each COPD exacerbation.⁵

Inhaler and spacer technique

Up to 90% of patients do not use their inhalers correctly,⁴ and clinicians may also be unfamiliar with correct techniques.^{59,60} Ensure current knowledge of inhaler technique before discussing correct use with the patient.

All clinicians involved in the patient's care have a role in checking and correcting inhaler technique. Inhaler technique should be assessed and corrected by pharmacists whenever an inhaler device is dispensed.

Provide clear instructions on inhaler technique and demonstrate correct inhaler use, including the use of a spacer if applicable. Explain how to clean and maintain these devices. Ask the patient to demonstrate using their inhaler (and spacer if applicable) and correct if necessary. Consider using an inhaler technique checklist when assessing and correcting inhaler technique and provide the patient with a copy as a reminder (see '[Related resources](#)').

Check inhaler technique regularly, and always:

- Before considering an escalation of therapy
- After a change in treatment
- After an exacerbation.^{3,4}

Consider a [Home Medicines Review](#) (HMR)⁶¹ or a [Residential Medication Management Review](#) (RMMR)⁶² to support assessment of inhaler device technique and adherence.

To reduce the complexity of device use, consider the type of inhaler device prescribed and any opportunities to simplify the patient's treatment regimen. This may include offering the patient a similar inhaler device to one they are already familiar with, or a combination inhaler device (for example, one that includes a LAMA plus a LABA) rather than two separate inhaler devices. Also consider the environmental impact of different inhaler devices (see '[Environmental sustainability and COPD](#)').

■ For healthcare services

Establish and maintain systems, processes, and resources to support clinicians to offer people with COPD individualised pharmacotherapy, according to the COPD-X stepwise approach outlined in the Lung Foundation Australia's [COPD-X Handbook](#).⁴⁰

Ensure that clinicians are trained and competent in explaining and demonstrating correct inhaler and spacer technique to patients. This includes providing access to relevant training, including access to placebo inhaler devices and other resources (for example, inhaler device technique training videos) as appropriate.

Establish systems to ensure inhaler technique and adherence are regularly and routinely assessed, and outcomes documented in the patient's healthcare record (and My Health Record where available). This includes before an escalation of therapy, after any change in inhaled medicines or a COPD exacerbation.

Related resources

- Lung Foundation Australia
 - [*COPD-X Handbook*⁴⁰](#)
 - [COPD inhaler device chart poster](#)
 - [Stepwise management of stable COPD – fact sheet](#)
 - [Inhaler device technique training videos](#)
 - [Digital inhaler device technique training – online training for clinicians](#)
- National Asthma Council and NPS MedicineWise
 - [Inhaler technique device-specific checklists](#)
- Pharmacy Programs Administrator
 - [Home Medicines Review](#)
 - [Residential Medication Management Review](#)

Indicators for local monitoring

Indicator 6a: Proportion of patients with COPD prescribed an inhaled medicine whose inhaler technique was assessed at least once in the previous 12 months.

Applicable for: Hospitals, general practices, other specialist clinics and community pharmacies.

METEOR link: meteor.aihw.gov.au/content/793550

Indicator 6b: Proportion of patients with COPD prescribed an inhaled corticosteroid who were previously prescribed dual long-acting bronchodilators.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793546

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

7

Quality statement 7 – Pharmacological management of COPD exacerbations

A person having a COPD exacerbation receives short-acting bronchodilator therapy at the onset of symptoms and, if indicated, oral corticosteroids in line with the current *COPD-X Guidelines*. Antibiotics are only considered if criteria for prescribing are met, and they are prescribed according to evidence-based guidelines.

Purpose

To support pharmacological management of COPD exacerbations in line with current best practice guidelines and ensure antibiotics are only used when clinically indicated.

What the quality statement means

■ For patients

People with COPD can sometimes experience a flare-up of their symptoms (called an exacerbation) that requires extra treatment. It is important to know the signs of a flare-up, as early treatment can prevent it from getting worse and could help prevent a hospital admission. Signs of a flare-up may include:^{3,4,50}

- Feeling more out of breath than usual
- Feeling more tired than usual
- Having difficulty with usual activities
- Coughing more than usual
- Producing more mucus than usual
- A change in the thickness or colour of your mucus.

If you think you are having a flare-up, follow the instructions in your **COPD action plan** which should explain what changes to make to your medicines (see [Quality statement 3](#)). For most people, this will include using more of your reliever medicine to relieve symptoms of breathlessness or wheeze. Some people may need extra medicines such as corticosteroid tablets (for example, prednisolone) or antibiotics.

Antibiotics are only used for some exacerbations when it is likely a bacterial infection is present. Even if a flare-up is caused by a bacterial infection, antibiotics may not always help and may cause side effects. It is important to discuss the potential benefits and harms of using antibiotics with your healthcare provider.

If antibiotics are required, it is important to take them as prescribed and to complete the whole prescription. Antibiotics are more likely to be prescribed if your flare-up is severe enough to need a hospital stay.

If your symptoms do not improve or they get worse despite treatment, or after following your COPD action plan, contact your healthcare provider as soon as possible.

You can also speak to a registered nurse for advice on what to do next by calling:

- Healthdirect (1800 022 222) in New South Wales, South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory
- NURSE-ON-CALL line (1300 60 60 24) in Victoria
- 13-HEALTH line (on 13 43 25 84) in Queensland.

If you feel very unwell and cannot get in touch with your usual healthcare provider, visit your local hospital emergency department or call **000**. Information about when to seek help should be in your COPD action plan.

For clinicians

A COPD exacerbation is characterised by an acute worsening of symptoms that is more severe than normal day-to-day fluctuations in patient symptoms. Triggers include viral and bacterial infections and exposure to environmental pollutants.⁴

Symptoms include:⁴

- Increased breathlessness
- Reduced exercise tolerance
- Tachypnoea
- Increased cough and sputum production or purulence
- Fever.

Manage COPD exacerbations in line with [*COPD-X Guidelines*](#)³, and with consideration to patient comorbidities.³³ The clinical features of a COPD exacerbation may overlap with conditions such as heart failure, pulmonary embolism, pneumonia and sepsis. Consider these as potential differential diagnoses and manage in line with current evidence-based guidelines.

COPD exacerbations can often be managed in the community. However, if symptoms worsen or persist despite treatment, a visit to the hospital emergency department is required. Additional indications for hospital attendance include:^{3,4}

- Hypoxaemia
- Deteriorating functional status
- High-risk comorbidities (for example, pneumonia or cardiovascular disease [heart failure, atrial fibrillation, ischaemic heart disease])
- Patient concern about the severity of their symptoms or ability to cope.

Pharmacological management of COPD exacerbations includes treatment with:

- An appropriate inhaled short-acting bronchodilator at the onset of symptoms according to the person's [**COPD action plan**](#)
- An oral corticosteroid for five days if the response to the short-acting bronchodilator is inadequate; intravenous corticosteroids may be required if the person cannot take medicines orally.⁴

Escalate pharmacotherapy according to the severity of the exacerbation in line with [*COPD-X Guidelines*](#).

Antibiotic therapy is not routinely recommended for COPD exacerbations; the benefit of antibiotic therapy is related to the likelihood of bacterial infection and severity of exacerbation. Refer to the current *Therapeutic Guidelines: Antibiotic*⁵ or locally endorsed evidence-based guidelines for specific guidance on antibiotic management of COPD exacerbations.

If antibiotics are indicated according to guidelines and the patient's clinical circumstances:

- Prescribe oral amoxicillin or doxycycline according to the prescribing criteria in the current *Therapeutic Guidelines*⁵ or locally-endorsed evidence-based guidelines
- Do not use broad spectrum antibiotics (for example, amoxicillin plus clavulanate, macrolides or cephalosporins) for initial therapy – these antibiotics are no more effective than amoxicillin or doxycycline, and unnecessarily expose the patient to harms from broad-spectrum treatment
- Do not use intravenous antibiotic therapy unless oral medicines cannot be taken
- Manage antibiotic therapy as described in the *Antimicrobial Stewardship Clinical Care Standard*⁶³ including reviewing the appropriateness of the antibiotic's microbial spectrum of activity, dose and route of administration within 48 hours of the first prescription.

■ For healthcare services

Ensure that systems, resources and pathways are in place to support clinician management of COPD exacerbations in line with *COPD-X Guidelines*.³ Provide access to, and ensure that antibiotic prescribing is in line with, *Therapeutic Guidelines: Antibiotic*⁵ or locally endorsed evidence-based guidelines⁴ and the *Antimicrobial Stewardship Clinical Care Standard*.⁶³

Ensure systems and processes are in place to support appropriate use of antibiotics when managing COPD exacerbations, with particular emphasis on:

- Using antibiotics only when in line with the criteria for prescribing antimicrobials described in the current *Therapeutic Guidelines: Antibiotic*⁵ or locally endorsed evidence-based guidelines
- Selecting appropriate antibiotics if treatment is indicated – using amoxicillin or doxycycline first-line, and avoiding broad-spectrum antibiotics (for example, amoxicillin plus clavulanate, macrolides or cephalosporins) for initial therapy
- Using an appropriate route of administration, reserving intravenous therapy only for patients who cannot take oral therapy
- Reviewing appropriateness of dose, route, and the antibiotic's microbial spectrum of activity within 48 hours of the first prescription (as per the *Antimicrobial Stewardship Clinical Care Standard*).⁶³

In acute care settings, evaluate antimicrobial prescribing and use in line with the NSQHS *Preventing and Controlling Infections Standard* Actions 3.18 and 3.19. Ensure that antimicrobial stewardship systems are effective in supporting the appropriate use of antibiotics for COPD exacerbations and consider the findings of local antimicrobial audits.

Related resources

- Australian Commission on Safety and Quality in Health Care
 - [Chronic obstructive pulmonary disease exacerbation \(flare-up\): Should I take antibiotics?](#) A decision aid on antibiotics for COPD exacerbations in community settings
 - [Antimicrobial Stewardship Clinical Care Standard](#)⁶³
 - [Sepsis Clinical Care Standard](#)
 - [National Antimicrobial Prescribing Survey Circular – COPD November 2022](#)
 - [AURA 2023: Fifth Australian report on antimicrobial use and resistance in human health](#)²⁵
- Lung Foundation Australia
 - [COPD-X Handbook](#)⁴⁰
 - [COPD Action Plan](#)
 - [Managing exacerbations algorithm](#)
 - [Managing a COPD exacerbation checklist](#)

Indicators for local monitoring

Indicator 7a: Proportion of antibiotic prescriptions for a COPD exacerbation that met the criteria for prescribing in the current *Therapeutic Guidelines* or evidence-based, locally endorsed guidelines.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793552

Indicator 7b: Proportion of antibiotic prescriptions for a COPD exacerbation where the prescription was for oral amoxicillin or doxycycline.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793555

Indicator 7c: Proportion of patients with a COPD exacerbation who were prescribed a corticosteroid where the prescription was for an oral corticosteroid for five days.

Applicable for: Hospitals, general practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793557

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

Antimicrobial Stewardship Clinical Care Standard indicators

Services should also monitor relevant *Antimicrobial Stewardship (AMS) Clinical Care Standard* indicators:

- **Indicator 6a – The proportion of prescriptions for which the indication for prescribing the antimicrobial is documented**
- **Indicator 6b – The proportion of prescriptions for which the duration, stop date or review date for the antimicrobial is documented**
- **Indicator 7a – The proportion of prescriptions for which an antimicrobial review and updated treatment decision is documented within 48 hours from the first prescription.**

Computation descriptions and definitions needed to collect and calculate indicators from the *AMS Clinical Care Standard* can be found online at meteor.aihw.gov.au/content/736878



Quality statement 8 – Oxygen and ventilatory support for COPD exacerbations

A person experiencing hypoxaemia during a COPD exacerbation receives controlled oxygen therapy, ensuring that oxygen saturation levels are maintained between 88% and 92%. Non-invasive ventilation is considered in anyone with hypercapnic respiratory failure with acidosis.

Purpose

To ensure the safe use of oxygen during COPD exacerbations and that people with hypercapnic respiratory failure with acidosis receive non-invasive ventilation, which can significantly reduce mortality risk and length of hospital stays.⁶⁴

What the quality statement means

■ For patients

Experiencing a flare-up of your COPD symptoms (called an exacerbation) can make it more difficult for you to breathe. For some people, this can reduce the amount of oxygen in the blood. This is called hypoxaemia.

If the oxygen levels in your blood are too low, your healthcare provider will recommend that you receive oxygen therapy. This may occur if you are being transferred in an ambulance to the hospital, or while being cared for at the hospital.

Your healthcare provider will prescribe an appropriate amount of oxygen to make sure that you have the right level of oxygen in your blood (for most people with COPD, this is between 88% and 92%).⁶⁵ In some people, too much oxygen in the blood can lead to high levels of carbon dioxide, which can be dangerous. It is important to tell members of your healthcare team, including ambulance officers, that you have COPD, and show them your COPD action plan (see [Quality statement 3](#)). Also tell them if you have a history of high carbon dioxide levels (sometimes referred to as being a 'carbon dioxide retainer') or have been receiving treatment with oxygen at home.

During an exacerbation, sometimes carbon dioxide can build up in the body because of breathing problems. If this happens in hospital, your healthcare provider may recommend a treatment called 'non-invasive ventilation'. This involves wearing a tight-fitting mask connected to a machine that can help you to breathe more easily.

A very small number of people may require more support with their breathing, and their healthcare provider may recommend a treatment called 'mechanical ventilation'. This treatment involves going to the intensive care unit and having a tube put into your windpipe to deliver oxygen into the lungs. It is only provided in emergency settings.

Your healthcare provider will discuss the potential benefits and risks of treatment with you and your support people so you can make an informed decision about oxygen and assisted ventilation.

For clinicians

In acute care settings, provide controlled oxygen therapy to patients with a COPD exacerbation experiencing hypoxaemia (oxygen saturation level [SpO₂] < 88% on pulse oximetry) to achieve and maintain SpO₂ levels between 88% and 92%, or according to the individualised level for the patient.⁶⁵ This applies to all acute care settings including during patient transfer in an ambulance, within hospital emergency departments and in all wards. In hospitals, calling criteria for rapid response (as provided by medical emergency teams) should be amended in line with these targets.

Ensure that the appropriate flow rate, delivery device, and target SpO₂ levels are documented in the patient's healthcare record at initiation of oxygen therapy. Monitor and record the patient's SpO₂ levels, respiratory rate and other vital signs, and regularly review the ongoing need for oxygen therapy and the prescribed flow rate.

Patients experiencing a COPD exacerbation may also be at risk of hypercapnic respiratory failure with acidosis. Assess and monitor for signs of hypercapnia in patients receiving oxygen therapy, such as drowsiness, confusion, bounding pulse, or flushed skin, and perform blood gas analysis to assess blood pH and carbon dioxide (CO₂) levels.

Hypercapnic respiratory failure with acidosis is defined as partial pressure of carbon dioxide in arterial blood (PaCO₂) above 45 mmHg and pH below 7.35.⁴ Arterial blood gas analysis is recommended as the most accurate method for excluding hypercapnia.⁶⁵ However, venous blood gas analysis may be used as a screening tool for hypercapnic respiratory failure with acidosis in emergency care settings.⁶⁶⁻⁶⁸

Consider non-invasive ventilation in all patients with hypercapnic respiratory failure with acidosis.³ Non-invasive ventilation should be delivered by clinicians trained and experienced in its use in a hospital environment where close monitoring can be undertaken. This is because intubation and invasive mechanical ventilation may subsequently be required.^{65,69}

The decision to proceed to non-invasive or invasive mechanical ventilation should be made in conjunction with the patient or a nominated substitute decision-maker where this will not delay urgent care, in line with local procedures. A senior clinician should be involved in decisions about mechanical ventilation. Decisions about non-invasive or invasive mechanical ventilation must always consider and respect the patient's expressed goals of care, including plans for endotracheal intubation and resuscitation, and any advance care plans.

An escalation plan addressing what to do in the event of deterioration and ceilings of therapy should be discussed with the patient or a nominated substitute decision-maker, before starting non-invasive or invasive mechanical ventilation. The plan should be documented in the patient's healthcare record.

Ensure the patient's goals of care for this episode of COPD exacerbation, and advance care plan, are documented in their healthcare record.

■ For healthcare services

Ensure there are systems, policies and pathways in place to enable access to controlled oxygen therapy for patients experiencing a COPD exacerbation, and non-invasive ventilation for patients with hypercapnic respiratory failure with acidosis.

Acute healthcare services should have local policies and protocols in place that provide guidance on assessment for hypercapnic respiratory failure with acidosis in COPD patients, and the use of non-invasive ventilation in these patients. These should be appropriate to the context of service delivery and consistent with the patient's care goals.

Clinicians who prescribe or administer controlled oxygen therapy and non-invasive ventilation must be suitably trained and competent in:

- The use of oxygen delivery devices and non-invasive ventilation equipment
- Administering both therapies at the appropriate settings.

Ensure that protocols are in place for oxygen therapy which include:

- Checking patient history for COPD for any patient receiving oxygen therapy
- Appropriate documentation of oxygen prescriptions
- Guidance on appropriate target oxygen saturation levels for people with COPD (that is, SpO₂ between 88% and 92%)⁶⁵
- Amended calling criteria for rapid response (as provided by medical emergency teams) in line with target oxygen saturation levels.⁶⁹

Ensure that there are systems, policies and procedures in place to:

- Enable assessment for hypercapnic respiratory failure in patients with a COPD exacerbation
- Provide non-invasive ventilation for patients with hypercapnic respiratory failure with acidosis and invasive mechanical ventilation when indicated
- Ensure the person's goals of care are considered and a senior clinician is involved in the decision to use non-invasive ventilation or mechanical ventilation
- Support documentation of advance care planning discussions and the patient's expressed goals of care for the episode of care, including plans for non-invasive and mechanical ventilation, endotracheal intubation and resuscitation, and advanced care plan.

Related resources

- *Therapeutic Guidelines: Respiratory*⁴
- Lung Foundation Australia
 - [*COPD-X Handbook*](#)⁴⁰
- Thoracic Society of Australia and New Zealand
 - [*Position statement on acute oxygen use in adults: 'Swimming between the flags'*](#)⁶⁵
- NSW Health
 - [*Non-invasive ventilation for patients with acute respiratory failure*](#)⁶⁹

Indicators for local monitoring

Indicator 8a: Proportion of patients with a COPD exacerbation who received controlled oxygen therapy where the target oxygen saturation levels of 88% to 92% were documented in the patient's healthcare record.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793577

Indicator 8b: Proportion of patients who presented to the emergency department with a COPD exacerbation who received a blood gas analysis to assess for hypercapnic respiratory failure with acidosis.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793583

Indicator 8c: Proportion of patients with hypercapnic respiratory failure with acidosis due to a COPD exacerbation who received NIV or the reason for not using NIV was documented in their healthcare record.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793585

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

9

Quality statement 9 – Follow-up care after hospitalisation

A person who has been hospitalised for a COPD exacerbation is offered a follow-up assessment within seven days of discharge, facilitated by timely and effective communication between their hospital and primary care providers.

Purpose

To ensure people with COPD receive timely follow-up and review to optimise management after hospitalisation for an exacerbation.

What the quality statement means

■ For patients

If you have been in hospital because of a flare-up of your COPD symptoms, it is important to see your usual healthcare provider (for example, general practitioner or nurse practitioner) after you leave the hospital. The appointment should occur within seven days of leaving the hospital, but it can be sooner, depending on your needs.

If you are unable to see your healthcare provider face-to-face, you may be able to have an appointment via telephone or online (this is sometimes called a telehealth appointment). If you need assistance arranging an appointment, speak to your healthcare team before you leave hospital.

The hospital will provide you and your healthcare provider with a summary of your hospital stay. This is called a 'discharge summary' and it should include information about reasons for your hospital visit, tests you had while in hospital, any medicines you were prescribed and how and when you should take your medicines. It will also include when you should have a follow-up appointment with your general practitioner or other usual healthcare provider.

Someone from your healthcare team at the hospital should go through the discharge summary with you (or with your family or support people) before you leave hospital, so you know what to do when you go home. The discharge summary should be given to you as a written document before you leave the hospital, added to your personal electronic medical record (known as My Health Record) with your permission, and sent to your healthcare provider when you leave the hospital.

During your follow-up appointment, your general practitioner or usual healthcare provider should:

- Check how you are feeling and your response to any new medicines prescribed in hospital
- Discuss what may have caused your flare-up, and the results of tests completed in hospital
- Discuss ways to reduce the chance of another flare-up (for example, quitting smoking or having recommended vaccinations)
- Review your medicines and check if any changes to your medicines are needed, including checking and correcting your inhaler technique
- Check on your other health conditions and their treatments if relevant
- Check that you have enough supply of your medicines and whether you need any new prescriptions
- Follow up on referrals that were given to you during your hospital stay (for example, for pulmonary rehabilitation, or to see a lung specialist or other healthcare provider)
- Discuss the benefits of a pulmonary rehabilitation program and provide a referral if not already completed in hospital (see [Quality statement 5](#))
- Discuss the need to involve additional healthcare providers in your care if relevant (for example, dietitian, speech pathologist or psychologist).

Your healthcare provider should then update your self-management plan and COPD action plan (see [Quality statement 3](#)) based on the changes that you have discussed, and provide you with a new copy.

For clinicians

People with COPD who have been hospitalised due to an exacerbation should receive a follow-up assessment with their nominated primary care provider (usually a general practitioner) within seven days of discharge, or sooner for more complex or unwell patients.^{3,70}

For hospital clinicians, provide a discharge summary to the patient and to the patient's nominated primary care provider on discharge, requesting they provide a patient review within seven days. The discharge summary should include:

- Diagnoses and results of investigations undertaken
- Medicines initiated or changed and their recommended treatment duration
- Documentation of the patient's oximetry on room air, and whether the patient is a carbon dioxide retainer
- Details of referral to pulmonary rehabilitation and other follow-up appointments, including that the patient should see their nominated primary care provider within seven days of discharge
- The date, time, and place for spirometry if required, as arranged by hospital staff
- Clear instructions for the managing primary care team that if spirometry is required but has not been arranged by hospital staff, this needs to be arranged within eight weeks of discharge
- Instructions to the patient on what actions to take if their condition deteriorates after discharge.

Explain the information in the discharge summary to the patient and answer questions they may have before they leave the hospital.

For clinicians conducting the follow-up, tailor assessment to the patient's individual needs, taking into consideration the recommendations in the discharge summary.

Aspects of the follow-up assessment may include:

- Reviewing medicines, including assessment of adherence and inhaler technique, supported by a referral for a home medicines review (HMR) if appropriate (see [Quality statement 6](#))
- Reviewing the patient's self-management plan and COPD action plan, or developing these plans if required (see [Quality statement 3](#))
- Assessing barriers to coping at home, such as carer needs, home environment (for example, exposure to mould or dust) and the need for social care supports
- Conducting spirometry if there is no evidence that this has been completed previously (see [Quality statement 1](#)) or if repeat testing is required
- Reviewing comorbidities and determining if any adjustments to treatment are needed
- Discussing smoking cessation and reviewing vaccination needs as appropriate (see [Quality statement 4](#))
- Providing a referral for pulmonary rehabilitation if not provided in hospital (see [Quality statement 5](#))
- Screening for mental health conditions such as anxiety and depression (see [Quality statement 2](#))
- Evaluating the need for referral to a respiratory specialist or allied health professional (for example, dietitian, speech pathologist or psychologist) if appropriate
- Assessing the need for symptom support and palliative care services, including advance care planning (see [Quality statement 10](#)).

If face-to-face consultation is difficult, consider using telehealth services to enable a timely review.

■ For healthcare services

Hospitals

Ensure that clinical information systems support clinicians to provide discharge summaries to the patient's nominated primary care provider (for example, general practitioner or Aboriginal Medical Service) and other community providers (for example, residential aged care facility) and communicate the need for follow-up within seven days of discharge or sooner if indicated. Where local clinical information systems allow, upload this information to the patient's My Health Record where the patient has given permission.

Establish effective communication systems between the hospital network and community care providers.

Primary care

Ensure that systems, processes and resources are in place to enable follow-up assessment of patients who have been hospitalised due to a COPD exacerbation within seven days of discharge, or sooner if required.

Related resources

- Lung Foundation Australia
 - [COPD-X Handbook](#)⁴⁰
 - [Managing a COPD exacerbation checklist](#)

Cultural safety and equity

Clinicians can:

- Recognise that ACCHOs and Aboriginal Medical Services have an important role in facilitating access to relevant support services for Aboriginal and Torres Strait Islander patients after discharge, especially in rural and remote areas
- Ensure that the patient's usual care provider, if based in an ACCHO or Aboriginal Medical Service, is advised that the patient has been discharged from hospital to allow appropriate follow-up arrangements; involve an Aboriginal or Torres Strait Islander Liaison Officer or an Aboriginal or Torres Strait Islander Practitioner or Health Worker according to the patient's needs and preferences
- Check the availability of discharge medicines with the ACCHO or Aboriginal Medical Service providing follow-up care
- Consider the use of telehealth or outreach models to support access to follow-up for patients living in rural and remote communities.

Healthcare services can:

- Ensure that systems are in place to enable effective follow-up after discharge that consider the patient's culture and location of care; Aboriginal and Torres Strait Islander people and others who have received acute treatment away from their community may need structured support to safely return home and receive timely follow-up after discharge
- Establish appropriate, culturally safe networks and arrange access to services, support and contacts for people who have been transferred from remote locations
- Support clinicians to consider the use of telehealth or outreach models to enable access to follow-up for patients living in rural and remote communities
- Ensure systems are in place to monitor and address the needs of Aboriginal and Torres Islander people who choose to leave hospital before their treatment is completed.

Indicators for local monitoring

Indicator 9a: Proportion of patients with a COPD exacerbation whose discharge summary was sent to their nominated primary care provider on discharge from hospital.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793625

Indicator 9b: Proportion of patients with a COPD exacerbation who were seen for a follow-up assessment within seven days of discharge from hospital.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793628

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

10

Quality statement 10 – Symptom support and palliative care

A person with COPD is offered symptom support and palliative care that meets their individual needs and preferences.

Purpose

To ensure that people with COPD are offered access to support, symptom management and palliative care in line with their individual needs and preferences.

What the quality statement means

■ For patients

COPD is a long-term condition and symptoms often become worse over time. This can affect people in different ways, and at different times you may need support for physical, emotional, spiritual and practical issues.

Palliative care is care that aims to help people live well and improve their quality of life when they have a severe illness or symptoms that are hard to manage. It is not just for care at the end of life or for people with cancer. For example, care to help relieve COPD symptoms such as breathlessness or fatigue may be part of palliative care.

Palliative care can help address things you may be worried about. It can also help you and your support people make decisions about your health care. This includes making decisions about the health care you would, or would not, like to receive if you were to become very unwell in the future. This is called ‘advance care planning’. See [Advance care planning explained](#) on the Advance Care Planning Australia website for more information.

Because of its benefits, palliative care may be offered at any stage in the management of your condition. Your healthcare provider should discuss your palliative care needs with you if you have been to hospital with a flare-up of your COPD symptoms.

Importantly, you can receive usual treatment for COPD and palliative care at the same time. The care offered will be based on your individual needs, and can include things such as:

- Strategies to relieve symptoms (for example, breathlessness, fatigue, anxiety or pain)
- Medicine management
- Dietary advice and support
- Resources to support your care and mobility at home
- Referrals to respite care services
- Discussing and planning your preferences for your future health care (advance care planning)
- Support for family members and carers.

For many people with COPD, palliative care can be provided by the usual members of their healthcare team such as general practitioners, lung specialists, nurses, nurse practitioners, pharmacists, physiotherapists and psychologists. Some people with more complex symptoms or needs may benefit from a referral to a specialist palliative care service. It is

important to discuss symptom management and palliative care options with the healthcare providers involved in your care, including when you are admitted to hospital for a flare-up of your COPD symptoms.

For clinicians

Offer people with COPD access to individualised symptom management and palliative care that aligns with their needs and preferences, to improve quality of life throughout the course of their illness. All clinicians involved in the patient's care, including in primary care settings, should be competent in providing palliative care (see the [National Palliative Care Standards](#)).

Consider a palliative approach to care from the time of diagnosis, not only for patients with severe symptoms or those at the end of life.³ This is particularly important for patients with significant comorbidities.

Explain that palliative care does not focus only on people at the end of life but can benefit patients with COPD with severe symptoms. Palliative care includes health advice, self-management education, treatment and other assistance to meet the patient's individual physical, emotional, spiritual and practical needs to improve quality of life. For patients with COPD, this may include management of severe breathlessness, fatigue, pain or anxiety. Palliative care can be delivered alongside the patient's usual COPD care.

Hospitalisation for an exacerbation, with or without admission to an intensive care unit, increases mortality risk and should prompt consideration of palliative care needs if not already established. Additional factors that should trigger discussions about palliative care include:^{4,71}

- Poor respiratory status (for example, forced expiratory volume in one second [FEV₁] less than 25% of predicted, hypoxaemia, hypercapnia or respiratory failure)
- Need for advanced respiratory therapy (for example, home oxygen therapy or domiciliary non-invasive ventilation)
- Heart failure or other comorbidities
- Unintended weight loss or cachexia
- Functional decline (for example, housebound, poor functional status or cognitive decline)
- Increasing dependence on others
- Challenging physical or emotional symptoms (for example, breathlessness, fatigue, cough or mood disturbance)
- Disease progression (for example, worsening cor pulmonale or more frequent hospital admissions).

When discussing palliative care, consider the person's physical, emotional, spiritual and practical needs. Provide palliative care as required or offer referrals to other clinicians who can provide suitable care and support. Depending on the patient's needs, this may include allied health professionals such as physiotherapists, psychologists or speech pathologists. Patients with severe symptoms may benefit from referral to a respiratory physician or specialist palliative care service.

Discuss advance care planning and support the patient to set up an advance care plan if they do not already have one in place. Document the outcomes of these discussions, including a copy of the patient's advance care plan when available, in the patient's healthcare record and upload to their My Health Record (if available).

When a patient is admitted for a COPD exacerbation, document their goals of care, and plans for ventilation and resuscitation. This should be informed by the patient's advance care plan (if available).

■ For healthcare services

Ensure that systems, processes, and resources are in place to:

- Enable timely palliative care support for people with COPD, including after hospitalisation for an exacerbation
- Enable patient referrals to suitable clinicians or specialist palliative care services if required
- Support discussions about advance care planning and documentation of the patient's advance care plan in their healthcare record or My Health Record
- Enable documentation of goals of care for admitted patients with a COPD exacerbation, including plans for ventilation and resuscitation.



Cultural safety and equity

Clinicians can:

- Recognise that patients may have diverse and important religious beliefs or cultural practices related to palliative care and end-of-life care; always ask patients about their needs and preferences, and do not make assumptions about the care they require
- Provide opportunities for patients to involve family members or other support people when making decisions about palliative care and advance care planning
- Consider consulting an Aboriginal or Torres Strait Islander Practitioner or Health Worker, or a cross-cultural health worker, to enable discussions with patients and their family members or other support people about palliative care; offer access to interpreting services or the involvement of an Aboriginal and Torres Strait Islander Liaison Officer if required
- Recognise that ACCHOs and Aboriginal Medical Services play an important role in providing Aboriginal and Torres Strait Islander patients with palliative care supports, especially in rural and remote areas; understand what palliative care support is available in ACCHOs and Aboriginal Medical Services in your region and offer referral where appropriate, in line with the patient's needs and preferences.

Healthcare services can:

- Have systems in place to support clinicians to deliver culturally safe palliative care that meets the patient's individual needs and preferences
- Develop referral pathways to palliative care services that are available through ACCHOs and Aboriginal Medical Services
- Establish ways to enable the involvement of Aboriginal or Torres Strait Islander Practitioners or Health Workers, cross-cultural health workers, and interpreters to align with patients' needs and preferences.

Related resources

- Australian Commission on Safety and Quality in Health Care
 - [*Essential elements for safe and high-quality end-of-life care: National Consensus Statement*](#)
- [Advance Care Planning Australia](#) (website)
- Lung Foundation Australia
 - [*COPD-X Handbook*](#)⁴⁰
 - [Support and palliative care](#)
 - [Managing breathlessness](#)
- Palliative Care Australia
 - [Asking questions can help – an aid for people seeing the palliative care team](#)
 - [National Palliative Care Service Directory](#)
 - [National Palliative Care Standards for All Health Professionals and Aged Care Services](#)
- Royal Australian College of General Practitioners
 - [Advance care planning](#)

Indicators for local monitoring

Indicator 10a: Proportion of admitted patients with a COPD exacerbation whose healthcare record contained a copy of their advance care plan.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793630

Indicator 10b: Proportion of patients who have been admitted to hospital for a COPD exacerbation whose healthcare record included documentation regarding advance care planning.

Applicable for: General practices and other specialist clinics.

METEOR link: meteor.aihw.gov.au/content/793632

Indicator 10c: Proportion of admitted patients with a COPD exacerbation whose healthcare record documented the patient's goals of care and their resuscitation plan for the episode of care.

Applicable for: Hospitals.

METEOR link: meteor.aihw.gov.au/content/793634

More information about each indicator and the definitions needed to collect and calculate indicator data can be found online at the above METEOR links.

Glossary

Term	Definition
Aboriginal Community Controlled Health Organisations (ACCHOs)	Primary healthcare services initiated and operated by the local Aboriginal or Torres Strait Islander community to deliver holistic, comprehensive and culturally appropriate health care to the community that controls it, through a locally elected board of management.
Aboriginal Medical Services (AMSs)	Healthcare services funded principally to provide services to Aboriginal and Torres Strait Islander people. These may or may not be community controlled. See ' Aboriginal Community Controlled Health Organisations (ACCHOs) '.
advance care planning	A process of planning for future health and personal care, whereby the person's values and preferences are made known to guide decision-making at a future time when the person cannot make or communicate their decisions. Formal advance care planning programs usually operate within a health, institutional or aged care setting after a life-limiting condition has been diagnosed, and frequently require the assistance of trained professionals. However, people can choose to discuss their advance care plans in an informal family setting. ⁷²
Ask, Advise, Help	A brief three-step intervention to support smoking cessation that can be provided by a wide range of clinicians in a variety of settings. ⁵³
assessment	A clinician's evaluation of a disease or condition, based on the patient's subjective report of the symptoms and course of the illness or condition, and the clinician's objective findings. These findings include data obtained through laboratory tests; physical examination and medical history; and information reported by carers, family members and other members of the healthcare team. ¹
carbon footprint	A measure of the exclusive total amount of emissions of greenhouse gases that is directly and indirectly caused by an activity or service, or that which is accumulated over the life stages of a product.
carer	A person who provides personal care, support and assistance to another individual who needs it because they have a disability, medical condition (including a terminal or chronic illness) or mental illness, or they are frail or aged. An individual is not a carer merely because they are a spouse, de facto partner, parent, child, other relative or guardian of an individual, or live with an individual who requires care. A person is not considered a carer if they are paid, a volunteer for an organisation, or caring as part of a training or education program. ⁷³
chronic obstructive pulmonary disease	A preventable lung disease characterised by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. The symptoms which include cough, sputum production, and dyspnoea, often don't appear until significant lung damage has occurred and usually worsen over time. ⁶

Term	Definition
climate resilience	The ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks. Addressing climate resilience involves health service organisations considering the risks they pose to the climate through greenhouse gas emissions as well as risks that climatic change poses to the health of the population and the delivery of future health services.
clinical care standards	Nationally relevant standards developed by the Australian Commission on Safety and Quality in Health Care, and agreed by health ministers, that identify and define the care people should expect to be offered or receive for specific conditions.
clinical practice guidelines	Statements that include recommendations intended to optimise patient care and are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options. ⁷⁴
clinician	A trained health professional, including registered and non-registered practitioners, who provides direct clinical care to patients. A clinician may provide care within a healthcare service as an employee, a contractor or a credentialed healthcare provider, or under other working arrangements. They include nurses, midwives, medical practitioners, allied health professionals, Aboriginal and Torres Strait Islander Health Workers and Practitioners and students who provide health care under supervision.
comorbidities	Coexisting diseases (other than those being studied or treated) in an individual.
consumer	A person who has used, or may potentially use, health services, or is a carer for a patient using health services. A healthcare consumer may also act as a consumer representative to provide a consumer perspective, contribute consumer experiences, advocate for the interests of current and potential health service users, and take part in decision-making processes. ⁷⁵
COPD action plan	A written document developed by a person with COPD in conjunction with their clinician outlining the treatments and strategies they should use to manage their COPD symptoms daily, how to recognise worsening symptoms or signs of an exacerbation, and what actions to take if this occurs. ⁵⁹
COPD exacerbation	An acute worsening of COPD symptoms that is more severe than normal day-to-day fluctuations in symptoms that the patient is accustomed to. Symptoms include: ⁴ <ul style="list-style-type: none"> ■ Increased breathlessness ■ Reduced exercise tolerance ■ Tachypnoea ■ Increased cough and sputum production or purulence ■ Fever.
environmental sustainability	Fulfilling the needs of current generations without compromising the needs of future generations, while ensuring a balance between economic growth, environmental care and social wellbeing.

Term	Definition
forced expiratory volume in 1 second (FEV₁)	The volume of air forcefully expired from full lungs during the first second of an expiratory manoeuvre. ³⁵
forced vital capacity (FVC)	The maximum volume of air that can be expired during a single expiratory manoeuvre using maximal effort initiated following a full inspiration. ³⁵
general practitioner management plan (GPMP)	A written plan of management of one or more chronic diseases developed by a patient's usual general practitioner in consultation with the patient (and/or their carer) that describes the patient's health problems and needs, treatment goals, and additional healthcare services required for optimal management. ⁵⁹
goals of care	Clinical and other goals for a patient's episode of care that are determined in the context of a shared decision-making process. ¹
healthcare record	A record of the patient's medical history, treatment notes, observations, correspondence, investigations, test results, photographs, prescription records and medication charts for an episode of care. ¹
healthcare service	A separately constituted health service that is responsible for implementing clinical governance, administration and financial management of service unit(s) providing health care at the direction of the governing body. A service unit involves a group of clinicians and others working in a systematic way to deliver health care to patients. It can be in any location or setting, including pharmacies, clinics, outpatient facilities, hospitals, patients' homes, community settings, practices and clinicians' rooms. ¹
health literacy	<p>The Australian Commission on Safety and Quality in Health Care separates health literacy into two components: individual health literacy and the health literacy environment.</p> <p>Individual health literacy is the skills, knowledge, motivation and capacity of a consumer to access, understand, assess and apply information to make effective decisions about health and health care, and take appropriate action.</p> <p>The health literacy environment is the infrastructure, policies, processes, materials, people and relationships that make up the healthcare system, which affect the ways consumers access, understand, assess and apply health-related information and services.¹</p>
home medicines review	A comprehensive clinical review of a patient's medicines by a credentialed pharmacist on referral from a general practitioner. The review is designed to enhance the quality use of medicines, reduce the chance of side effects, and is conducted by a pharmacist in the patient's home. ⁷⁶
hospital	A licensed facility providing healthcare services to patients for short periods of acute illness, injury or recovery. ¹
hypercapnic respiratory failure	Partial pressure of blood carbon dioxide (PaCO ₂) above 45 mmHg and pH below 7.35. ⁴

Term	Definition
informed consent	A process of communication between a patient and clinician about options for treatment, care processes or potential outcomes. This communication results in the patient's authorisation or agreement to undergo a specific intervention or participate in planned care. The communication should ensure that the patient understands the care they will receive, all the available options and the expected outcomes, including success rates and side effects for each option. ⁷⁷
medical record	See 'healthcare record'.
multidisciplinary team	A team comprising clinicians from multiple disciplines (branches of knowledge within the health system) who work together to deliver comprehensive care that deals with as many of the patient's health and other needs as possible. The team may operate under one organisational umbrella or may be from several organisations brought together as a unique team. As a patient's condition changes, the composition of the team may change to reflect the changing clinical and psychosocial needs of the patient. ¹
non-invasive ventilation	The delivery of positive pressure ventilation via a face or nasal mask that can safely and effectively treat ventilatory failure while allowing preservation of cough, physiological air warming and humidification, and normal swallowing, feeding and speech. ⁵⁹
palliative care	Person- and family-centred care provided for a person with an active, progressive, advanced disease, who has little or no prospect of cure and for whom the primary goal is to optimise quality of life. ⁷⁸
partnership	<p>When patients and consumers are treated with dignity and respect, information is shared with them, and participation and collaboration in healthcare processes are encouraged and supported to the extent that patients and consumers choose. Partnerships can exist in different ways in a healthcare service, including at the level of individual interactions; at the level of a department or program; and at the level of the service. They can also exist with consumers and groups in the community.</p> <p>Generally, partnerships at all levels are necessary to ensure that the healthcare service is responsive to patient and consumer input and needs, although the nature of the activities for these different types of partnerships will depend on the context of the healthcare service.¹</p>
patient	A person who is receiving care in a healthcare service. ¹

Term	Definition
person-centred care	<p>An approach to the planning, delivery and evaluation of health care that is founded on mutually helpful partnerships among clinicians and consumers. Person-centred care is respectful of, and responsive to, the preferences, needs and values of consumers. Key dimensions of person-centred care include:</p> <ul style="list-style-type: none"> ■ Respect ■ Emotional support ■ Physical comfort ■ Information and communication ■ Continuity and transition ■ Care coordination ■ Involvement of carers and family ■ Access to care. <p>Also known as patient-centred care or consumer-centred care.¹</p>
primary health care	<p>The first point of contact for individuals, families and communities with health services. Primary health care is provided as close as possible to where people live and work and comprises a large and essential part of the healthcare system.⁷⁹ It includes health promotion, prevention, early intervention, treatment of acute conditions, management of chronic conditions and end-of-life care.⁸⁰</p>
psychologist	<p>A mental health professional who has completed at least six years of approved university study and supervised experience and is registered with the Australian Health Practitioner Regulation Agency.</p>
pulmonary rehabilitation	<p>A six- to eight-week exercise, education and self-management program for people with chronic respiratory disease, tailored to the patient's individual needs and ability and delivered by specially trained clinicians to improve exercise, functional capacity and quality of life.</p>
qualified social worker	<p>An individual who has completed a social work degree accredited by the Australian Association of Social Workers (AASW) and is eligible for AASW membership.</p>
quality improvement	<p>The combined efforts of the workforce and others – including consumers, patients and their families or carers, researchers, planners and educators – to make changes that will lead to better patient health outcomes, better system performance in care, and better professional development.⁸¹</p> <p>Quality improvement activities may be sequential, intermittent, or continuous.¹</p>
risk factor	<p>A characteristic, condition, or behaviour that increases the possibility of disease, injury, or loss of wellbeing.</p>
scope of practice	<p>The extent of an individual clinician's approved clinical practice within a particular organisation, based on the clinician's skills, knowledge, performance and professional suitability, and the needs and service capability of the organisation.⁸²</p>
self-management	<p>The various activities that patients carry out themselves to manage their condition.⁵⁹</p>

Term	Definition
shared decision making	A consultation process in which a clinician and a patient jointly participate in making a health decision, having discussed the options, their benefits and harms, and having considered the patient's values, preferences and circumstances. ⁸³
spiritual care	Person-centred care that focuses on the spiritual dimensions of life, provided by practitioners to appropriately meet an individual's spiritual and emotional needs. It is most commonly offered in a one-to-one relationship, and may include presence, conversations, ritual, ceremonies, and the sharing of sacred texts and resources. ⁸⁴
spirometry	A dynamic test of ventilatory function, which measures how quickly the lungs empty (flow) and how much air can be moved out of the lungs (volume) during a maximal expiration. ³⁸ In conjunction with clinical assessment, the test is used for the diagnosis and monitoring of respiratory conditions such as chronic obstructive pulmonary disease and asthma. ³⁵
substitute decision-maker	A person appointed or identified by law to make health, medical, residential, and other personal (but not financial or legal) decisions on behalf of a person whose decision-making capacity is impaired. A substitute decision-maker may be appointed by the person, appointed on behalf of the person or identified as the default decision-maker by legislation, which varies from state to state. ⁸⁵ See 'carer'.
support people	In this clinical care standard, 'support people' refers to individuals who the patient receiving care chooses to involve in their care. This may include family members, carers, friends, advocates, or people who can provide religious or spiritual support.
system	The resources, policies, processes and procedures that are organised, integrated, regulated and administered to accomplish a stated goal. A system: <ul style="list-style-type: none"> ■ Brings together risk management, governance and operational processes and procedures, including education, training and orientation ■ Deploys an active implementation plan; feedback mechanisms include agreed protocols and guidelines, decision support tools and other resource materials ■ Uses several incentives and sanctions to influence behaviour and encourage compliance with policy, protocol, regulation, and procedures. The workforce is both a resource in the system and involved in all elements of system development, implementation, monitoring, improvement and evaluation. ¹
training	The development of knowledge and skills. ¹
unwarranted clinical variation	Clinical variation that does not reflect a difference in patients' clinical needs or preferences and may present an opportunity for improvement in healthcare system performance.

References

1. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards (second edition). Sydney: ACSQHC; 2017.
2. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Primary and Community Healthcare Standards. Sydney: ACSQHC; 2021.
3. Yang I, George J, McDonald C, McDonald V, Ordman R, Goodwin A, et al. The COPD-X plan: Australian and New Zealand guidelines for the management of chronic obstructive pulmonary disease 2024. Version 2.75. [Internet]. Brisbane: Lung Foundation Australia; 2024. Available from: copdx.org.au/copd-x-plan
4. Therapeutic Guidelines. Respiratory [Internet]. Melbourne: Therapeutic Guidelines Limited; 2020 December. Available from: www.tg.org.au.
5. Therapeutic Guidelines. Antibiotic [Internet]. Melbourne: Therapeutic Guidelines Limited; 2019 April. Available from: www.tg.org.au.
6. Australian Institute of Health and Welfare. Chronic obstructive pulmonary disease (COPD) [Internet]. AIHW; 2019 [cited 2023 Jul 21]. Available from: www.aihw.gov.au/reports/chronic-respiratory-conditions/copd.
7. Australian Commission on Safety and Quality in Health Care. NSQHS standards: user guide for Aboriginal and Torres Strait Islander health. Sydney: ACSQHC; 2017 Nov.
8. Australian Commission on Safety and Quality in Health Care. NSQHS standards: user guide for health service organisations providing care for patients from migrant and refugee backgrounds. Sydney: ACSQHC; 2021.
9. Australian Commission on Safety and Quality in Health Care. User guide for reviewing clinical variation. Sydney: ACSQHC; 2023.
10. Australian Indigenous Doctors' Association. Position paper | Cultural safety for Aboriginal and Torres Strait Islander doctors, medical students and patients. Canberra: AIDA; 2017.
11. National Aboriginal and Torres Strait Islander Health Standing Committee of the Australian Health Ministers' Advisory Council. Cultural respect framework 2016–2026 for Aboriginal and Torres Strait Islander health. Canberra; 2019.
12. Lin I, Green C, Bessarab D. 'Yarn with me': applying clinical yarning to improve clinician-patient communication in Aboriginal health care. *Aust J Prim Health*. 2016 Nov;22(5): 377–82.
13. Centre for Aboriginal Health. Communicating positively: a guide to appropriate Aboriginal terminology. NSW Health. St Leonards, NSW: NSW Health; 2019.
14. Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. *The Lancet Planetary Health* [Internet]. 2018 Jan;2(1):e27–35. Available from: [www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(17\)30180-8/fulltext](http://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(17)30180-8/fulltext).
15. Intergovernmental Panel on Climate Change (IPCC). Summary for policymakers. In: Lee HR, Romero J, editors. Climate change 2023: synthesis report. Contribution of working groups I, II and III to the sixth assessment report of the intergovernmental panel on climate change. Geneva, Switzerland; 2023.
16. Department of Health and Aged Care. National health and climate strategy [Internet]. Australian Government; 2023 [cited 2024 Apr 30]. Available from: www.health.gov.au/our-work/national-health-and-climate-strategy.
17. Banks E, Yazidjoglou A, Brown S, Nguyen M, Martin M, Beckwith K, et al. Electronic cigarettes and health outcomes: umbrella and systematic review of the global evidence. *Med J Aust*. 2023 Apr 3;218(6):267–75.
18. Greenhalgh E, Stillman S, Ford C. Health and other benefits of quitting. In: Greenhalgh E, Scollo M, Winstanley M, editors. Tobacco in Australia: facts and issues. Melbourne: Cancer Council Victoria; 2020.

19. Toelle BG, Xuan W, Bird TE, Abramson MJ, Atkinson DN, Burton DL, et al. Respiratory symptoms and illness in older Australians: the burden of obstructive lung disease (BOLD) study. *Med J Aust*. 2013 Feb 18;198(3):144–8.
20. Australian Institute of Health and Welfare. Deaths in Australia [Internet]. Canberra: AIHW; 2024. Available from: www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/data.
21. Australian Institute of Health and Welfare. Chronic obstructive pulmonary disease [Internet]. AIHW; 2024. Available from: www.aihw.gov.au/reports/chronic-respiratory-conditions/copd.
22. Australian Bureau of Statistics. National Aboriginal and Torres Strait Islander health survey [Internet]. Canberra: ABS; 2018–19. Available from: www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/national-aboriginal-and-torres-strait-islander-health-survey/latest-release.
23. Australian Institute of Health and Welfare. Potentially preventable hospitalisations in Australia by small geographic areas, 2020–21 to 2021–22: Data [Internet]. Canberra: AIHW; 2024. Available from: www.aihw.gov.au/reports/primary-health-care/potentially-preventable-hospitalisations-2020-22/data.
24. Australian Commission on Safety and Quality in Health Care. The fourth Australian atlas of healthcare variation. Sydney: ACSQHC; 2021 p. 69–86.
25. Australian Commission on Safety and Quality in Health Care. AURA 2023: fifth Australian report on antimicrobial use and resistance in human health. Sydney: ACSQHC; 2023.
26. Brett AS, Al-Hasan MN. COPD exacerbations – a target for antibiotic stewardship. *N Engl J Med*. 2019 Jul 11;381(2):174–5.
27. Montgomery BD, Blakey JD. Respiratory inhalers and the environment. *Aust J Gen Pract*. 2022 Dec 1;51(12):929–34.
28. Wilkinson AJ, Braggins R, Steinbach I, Smith J. Costs of switching to low global warming potential inhalers. An economic and carbon footprint analysis of NHS prescription data in England. *BMJ Open*. 2019 Oct;9(10):e028763.
29. Crooks MG, Crowther L, Cummings H, Cohen J, Huang C, Pitel L, et al. Improving asthma care through implementation of the SENTINEL programme: findings from the pilot site. *ERJ Open Res*. 2023 May;9(3).
30. Greener Practice. How to reduce the carbon footprint of inhaler prescribing: a guide for healthcare professionals in the UK. UK: Greener Practice; 2021.
31. Usmani OS, Levy ML. Effective respiratory management of asthma and COPD and the environmental impacts of inhalers. *NPJ Prim Care Respir Med* 2023 Jul 1;33(1):24.
32. Howcroft M, Walters EH, Wood-Baker R, Walters J. Action plans with brief patient education for exacerbations in chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2016 Dec 19; 12(12). CD005074. doi: 10.1002/14651858.CD005074.pub4.
33. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive lung disease | 2024 report. GOLD; 2024.
34. Borg BM, Osadnik C, Adam K, Chapman DG, Farrow CE, Glavas V, et al. Pulmonary function testing during SARS-CoV-2: An ANZSRS/TSANZ position statement. *Respirology*. 2022 Sep;27(9):688–719.
35. National Asthma Council Australia. The spirometry handbook for primary care. Melbourne: National Asthma Council Australia; 2023.
36. The Thoracic Society of Australia & New Zealand. Standards for spirometry training courses: companion document to standards for the delivery of spirometry for resource sector workers. Chatswood, NSW: TSANZ; 2022.
37. Graham BL, Steenbruggen I, Miller MR, Barjaktarevic IZ, Cooper BG, Hall GL, et al. Standardization of spirometry 2019 update. An official American Thoracic Society and European Respiratory Society technical statement. *Am J Respir Crit Care Med*. 2019 Oct 15;200(8):e70–88.
38. The Thoracic Society of Australia & New Zealand. Standards for the delivery of spirometry for resource sector workers. Sydney: TSANZ; 2022.

39. Australian Institute of Health and Welfare. Aboriginal and Torres Strait Islander Health Performance Framework: 1.04 Respiratory disease [Internet]. AIHW, National Indigenous Australians Agency; [cited 2023 Jul 21]. Available from: www.indigenoushpf.gov.au/measures/1-04-respiratory-disease.
40. Yang IA, Hancock K, George J, McNamara R, McDonald CF, McDonald VM, et al. COPD-X handbook: Summary clinical practice guidelines for the management of chronic obstructive pulmonary disease (COPD). [Internet] Milton, Queensland: Lung Foundation Australia; 2024. Available from: lungfoundation.com.au/resources/copd-x-handbook.
41. Global Allergy & Airways Patient Platform. The Chronic Airways Assessment Test (CAAT) formerly known as the COPD assessment test (CAT) [Internet]. Vienna, Austria: GAAPP; 2024 [cited 2024 Jan 15]. Available from: gaapp.org/caat-cat.
42. MDCalc. mMRC (Modified Medical Research Council) dyspnea scale [Internet]. MDCalc. [cited 2023 Jun 30]. Available from: www.mdcalc.com/calc/4006/mmrc-modified-medical-research-council-dyspnea-scale.
43. St George's University of London. St George's respiratory questionnaire (SGRQ) [Internet]. St George's University of London; 2023 [cited 2023 Jun 30]. Available from: www.sgul.ac.uk/research/research-operations/research-administration/st-georges-respiratory-questionnaire.
44. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand*. 1983 Jun;67(6):361–70.
45. Kessler RC, Barker PR, Colpe LJ, Epstein JF, Gfroerer JC, Hiripi E, et al. Screening for serious mental illness in the general population. *Arch Gen Psychiatry*. 2003 Feb 1;60(2):184–9.
46. Lovibond S, Lovibond PF. Manual for the depression anxiety stress scales. 2nd ed. Sydney: Psychology Foundation of Australia; 1995.
47. Lung Foundation Australia. Patient assessment: assessing exercise capacity [Internet]. Lung Foundation Australia. 2023. Available from: pulmonaryrehab.com.au/patient-assessment/assessing-exercise-capacity.
48. Holland AE, Spruit MA, Troosters T, Puhan MA, Pepin V, Saey D, et al. An official European Respiratory Society/American Thoracic Society technical standard: field walking tests in chronic respiratory disease. *Eur Respir J*. 2014 Dec;44(6):1428–46.
49. Services Australia. Chronic disease GP management plans and team care arrangements [Internet]: Australian Government; 2023 [cited 2023 Sep 9]. Available from: www.servicesaustralia.gov.au/chronic-disease-gp-management-plans-and-team-care-arrangements.
50. Lung Foundation Australia. COPD action plan. Brisbane: Lung Foundation Australia; 2022.
51. Australian Technical Advisory Group on Immunisation. Australian immunisation handbook [Internet]. Department of Health and Aged Care; 2022 [cited 2023 Jun 30]. Available from: immunisationhandbook.health.gov.au.
52. Department of Health and Aged Care. About vaping and e-cigarettes [Internet]. Australian Government; 2023 [cited 2024 Jan 15]. Available from: www.health.gov.au/topics/smoking-vaping-and-tobacco/about-vaping.
53. Royal Australian College of General Practitioners. Supporting smoking cessation: a guide for health professionals. 2nd ed. Melbourne: RACGP; 2021.
54. Department of Health and Aged Care. Immunisation for Aboriginal and Torres Strait Islander people [Internet]. DHAC; 2023 [cited 2023 Sep 15]. Available from: www.health.gov.au/topics/immunisation/when-to-get-vaccinated/immunisation-for-aboriginal-and-torres-strait-islander-people.
55. Puhan MA, Gimeno-Santos E, Cates CJ, Troosters T. Pulmonary rehabilitation following exacerbations of chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2016 Dec 8; 12(12): CD005305. doi: 10.1002/14651858.CD005305.pub4.
56. Rysø CK, Godtfredsen NS, Kofod LM, Lavesen M, Mogensen L, Tobberup R, et al. Lower mortality after early supervised pulmonary rehabilitation following COPD-exacerbations: a systematic review and meta-analysis. *BMC Pulm Med*. 2018 Sep 15;18(1):154.

57. Jenkins AR, Burtin C, Camp PG, Lindenauer P, Carlin B, Alison JA, et al. Do pulmonary rehabilitation programmes improve outcomes in patients with COPD posthospital discharge for exacerbation: a systematic review and meta-analysis. *Thorax* [Internet]. 2024 Feb 13 (Epub ahead of print). Available from: pubmed.ncbi.nlm.nih.gov/38350731.
58. Alison JA, McKeough ZJ, Johnston K, McNamara RJ, Spencer LM, Jenkins SC, et al. Australian and New Zealand pulmonary rehabilitation guidelines. *Respirol*. 2017 May;22(4):800–19.
59. Melani AS, Bonavia M, Cilenti V, Cinti C, Lodi M, Martucci P, et al. Inhaler mishandling remains common in real life and is associated with reduced disease control. *Respir Med*. 2011 Jun;105(6):930–8.
60. Braido F, Chrystyn H, Baiardini I, Bosnic-Anticevich S, van der Molen T, Dandurand RJ, et al. “Trying, But Failing” – The role of inhaler technique and mode of delivery in respiratory medication adherence. *J Allergy Clin Immunol Pract*. 2016 Sep-Oct;4(5):823–32.
61. Pharmacy Programs Administrator. Home medicines review [Internet]: Australian Government Department of Health and Aged Care; 2022 [cited 2023 Sep 9]. Available from: www.ppaonline.com.au/programs/medication-management-programs/home-medicines-review.
62. Pharmacy Programs Administrator. Residential medication management review and quality use of medicines [Internet]: Australian Government Department of Health and Aged Care; 2022 [cited 2023 9 Sep]. Available from: www.ppaonline.com.au/programs/medication-management-programs/residential-medication-management-review-and-quality-use-of-medicines.
63. Australian Commission on Safety and Quality in Health Care. Antimicrobial stewardship clinical care standard. Sydney: ACSQHC; 2020.
64. Osadnik C, Tee V, Carson-Chahhoud K, Picot J, Wedzicha J. Non-invasive ventilation for the management of acute hypercapnic respiratory failure due to exacerbation of chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2017 Jul 13;7(7):CD004104. doi: 10.1002/14651858.CD004104.pub4.
65. Barnett A, Beasley R, Buchan C, Chien J, Farah CS, King G, et al. Thoracic Society of Australia and New Zealand position statement on acute oxygen use in adults: ‘Swimming between the flags.’ *Respirology*. 2022 Feb 17;27(4):262–76.
66. Kelly AM, Kyle E, McAlpine R. Venous pCO₂ and pH can be used to screen for significant hypercarbia in emergency patients with acute respiratory disease. *J Emerg Med*. 2002 Jan;22(1):15–9.
67. McCanny P, Bennett K, Staunton P, McMahon G. Venous vs arterial blood gases in the assessment of patients presenting with an exacerbation of chronic obstructive pulmonary disease. *Am J Emerg Med*. 2012 Jul;30(6):896–900.
68. McKeever TM, Hearson G, Housley G, Reynolds C, Kinnear W, Harrison TW, et al. Using venous blood gas analysis in the assessment of COPD exacerbations: a prospective cohort study. *Thorax*. 2016 Mar;71(3):210–5.
69. Agency for Clinical Innovation. Non-invasive ventilation for patients with acute respiratory failure: clinical practice guide. Sydney: NSW Government; 2023.
70. Royal Australian College of General Practitioners. RACGP advocacy priorities | Prioritising patient outcomes in primary care reform. Melbourne: RACGP; 2022 Aug.
71. Philip J, Collins A, Smallwood N, Chang YK, Mo L, Yang IA, et al. Referral criteria to palliative care for patients with respiratory disease: a systematic review. *Eur Respir J*. 2021 Mar 18;58(4).
72. Australian Commission on Safety and Quality in Health Care. National Consensus Statement: essential elements for safe and high-quality end-of-life care. Sydney: ACSQHC; 2015.
73. Carer Recognition Act 2010, No. 123 (Cth).
74. Institute of Medicine, Committee on Standards for Developing Trustworthy Clinical Practice Guidelines. Clinical practice guidelines we can trust. Graham R, Mancher M, Miller Wolman D, Greenfield S, Steinberg E, editors. Washington (DC): National Academies Press (US); 2011.
75. Consumers Health Forum of Australia. Representation | About consumer representation [Internet]. CHFA; 2016. Available from: chf.org.au/representation.

76. Pharmacy Guild of Australia. Home medicines review [Internet]. PGA; 2023 [cited 2023 Sep 27]. Available from: www.findapharmacy.com.au/our-services/home-medicines-review.
77. Carey-Hazell K. Improving patient information and decision making. Australian Health Consumer. 2005 Jan;1(1):21–2.
78. Palliative Care Australia. What is palliative care? [Internet]. Palliative Care Australia; 2015 [cited 2023 Sep 26]. Available from: palliativecare.org.au/resource/what-is-palliative-care.
79. International Conference on Primary Health Care. Declaration of Alma-Ata. USSR: World Health Organization; 1978.
80. Australian Institute of Health and Welfare. Australia's health 2018 [Internet]. AIHW; 2018. Available from: www.aihw.gov.au/reports/australias-health/australias-health-2018.
81. Batalden PB, Davidoff F. What is 'quality improvement' and how can it transform healthcare? Qual Saf Health Care. 2007 Feb 1;16(1):2–3.
82. Australian Commission on Safety and Quality in Health Care. NSQHS standards | Standard 1: governance for safety and quality in health service organisations. Sydney: ACSQHC; 2012.
83. Hoffmann TC, Légaré F, Simmons MB, McNamara K, McCaffery K, Trevena LJ, et al. Shared decision making: what do clinicians need to know and why should they bother? Med J Aust. 2014 Jul 7;201(1):35–9.
84. Spiritual Care Australia. Who we are [Internet]. Spiritual Care Australia; [cited 2023 Sep 14]. Available from: www.spiritualcareaustralia.org.au/about-us/who-we-are.
85. The Clinical, Technical and Ethical Principal Committee of the Australian Health Ministers' Advisory Council. A national framework for advance care directives. Canberra: Department of Health and Ageing; 2011 Sep.

Acknowledgements

Many individuals and organisations have freely given their time and expertise in the development of this document. In particular, the Commission wishes to thank the *Chronic Obstructive Pulmonary Disease Clinical Care Standard* Topic Working Group members, and other key experts who have given their time and advice. The involvement and willingness of all concerned to share their experience and expertise are greatly appreciated.

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A number of Commission staff were also involved in the writing and review of this publication, and the Commission wishes to acknowledge:

- Dr Rana Ahmed
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The above artwork used throughout the document was designed by Ms Lani Balzan, a Wiradjuri artist from the south coast of New South Wales. The central symbol is the logo for the clinical care standards program, which began at the Commission in 2013. The outer four circles of the artwork represent the four priority areas of patient safety; partnering with patients, consumers and communities; quality, cost and value; and supporting health professionals to provide care that is informed, supported and organised to deliver safe and high quality health care. The outer dots represent growth, healing, change and improvement.





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