QUALITY IMPROVEMENT TOOLKIT FOR GENERAL PRACTICE

Conditions

Chronic Obstructive Pulmonary Disease (COPD)

MODULE

Version 3

June 2021

Introduction

The Quality Improvement (QI) toolkit

This QI toolkit is made up of modules that are designed to support your practice to make easy, measurable and sustainable improvements to provide best practice care for your patients. The toolkit will help your practice complete QI activities using the Model For Improvement (MFI).

Throughout the modules you will be guided to explore your data to understand more about your patient population and the pathways of care being provided in your practice. Reflections from the module activities and the related data will inform improvement ideas for you to action using the MFI.

The MFI uses the Plan-Do-Study-Act (PDSA) cycle, a tried and tested approach to achieving successful change. It offers the following benefits:

- A simple approach that anyone can apply
- Reduced risk by starting small
- It can be used to help plan, develop and implement change that is highly effective.

The MFI helps you break down your change implementation into manageable pieces, which are then tested to ensure that the change results in measurable improvements. There is an example using the MFI to increase the number of influenza vaccinations completed on patients with COPD at the end of this module.

If you would like additional support in relation to quality improvement in your practice please contact Brisbane South PHN on support@bsphn.org.au.

This icon indicates that the information relates to the ten Practice Incentive Program Quality Improvement (PIP QI) measures.

Due to constant developments in research and health guidelines, the information in this document will need to be updated regularly. Please contact Brisbane South PHN if you have any feedback regarding the content of this document.

Acknowledgements

We would like to acknowledge that some material contained in this toolkit has been extracted from organisations including the Institute for Healthcare Improvement, the Royal Australian College of General Practitioners (RACGP); the Australian Government Department of Health; Best Practice; MedicalDirector, CAT4 and Train IT. These organisations retain copyright over their original work and we have abided by licence terms. Referencing of material is provided throughout.

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Brisbane South PHN would like to acknowledge the contribution of the Lung Foundation in the production of this QI toolkit.

Brisbane South PHN, 2021

Contents

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

What is COPD?

Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term for a group of progressive lung conditions including:

- Emphysema
- Chronic bronchitis
- Chronic asthma.

The condition causes narrowing of the airways (bronchi) and this makes it difficult to breathe. While COPD is a progressive and (currently) incurable disease, with the right diagnosis and treatment there are many things that can be done to improve symptom control, prognosis and quality of life.[1]

What causes COPD?

COPD results from a complex interaction between genes and the environment. According to the Global Initiative for Chronic Obstructive Lung Disease (GOLD), there are many causes of COPD, which may include:

- Tobacco smoking: both active smoking and passive exposure to smoking. Although cigarette smoking is the most well studied COPD risk factor, it is not the only risk factor and there is consistent evidence from epidemiologic studies that non-smokers may also develop chronic airflow limitation.
- Genetic factors: a small number of people have a form of emphysema caused by a protein disorder called alpha-1antitrypsin deficiency (AATD).
- Lung growth and development factors: any factors that affect lung growth during gestation and childhood have the potential for increasing an individual's risk of developing COPD, such as low birthweight, early childhood lung infections, abnormal lung growth and development.
- Environmental factors: working or living in areas where there is dust, gas, chemical agents and fumes, smoke or air pollution.
- Other chronic conditions: such as asthma and chronic bronchitis.[2]

What are the symptoms of COPD?

The first symptoms of COPD tend to come on slowly, and can be very mild. People often mistake their symptoms as signs of ageing, lack of fitness or asthma. Common symptoms of COPD include:

- shortness of breath
- a repetitive cough
- increased phlegm or mucus production
- feeling tired
- more frequent chest infections
- longer recovery from cold or chest infection.

COPD Statistics

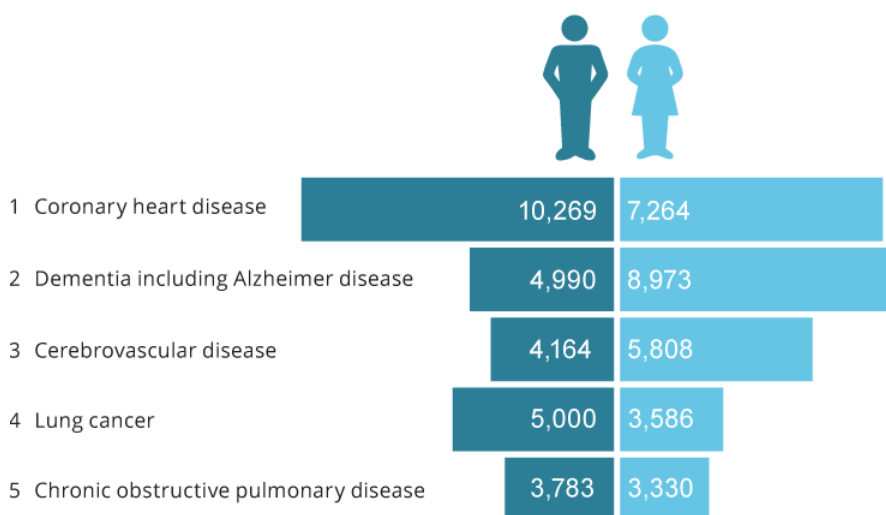The development of COPD occurs over many years and therefore affects mainly middle aged and older people while asthma affects people of all ages. The prevalence of COPD increases with age, mostly occurring in people aged 45 and over.

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[1] https://lungfoundation.com.au/patients-carers/living-with-a-lung-disease/copd/overview/
[2] https://www.aihw.gov.au/reports/chronic-respiratory-conditions/copd/contents/copd

- the prevalence of COPD in Australians aged 45 and over is 4.8%, or an estimated 464,000 people
- 90% of Australians aged 45 years and over with COPD had at least one other chronic condition in 2017-2018
- adults aged 45 and over with COPD were 2.1 times as likely to be a current daily smoker as adults without COPD
- around half of the people living with COPD symptoms do not know they have the condition.
- Indigenous Australians are 2.5 times more likely to have COPD than non-Indigenous Australians
- 55% of people aged 45 and over with COPD also had arthritis[3]
- Smoking cessation can slow the rate of decline in lung function, delay the onset of disability, and preserve remaining lung function.[4]

Lung cancer and chronic obstructive pulmonary disease (COPD) are two of the top 5 leading underlying causes of death in Australia in 2018 for males and females of all ages combined.

		Male	Female
1	Coronary heart disease	10,269	7,264
2	Dementia including Alzheimer disease	4,990	8,973
3	Cerebrovascular disease	4,164	5,808
4	Lung cancer	5,000	3,586
5	Chronic obstructive pulmonary disease	3,783	3,330

[5]

COPD and Asthma

Asthma and chronic obstructive pulmonary disease (COPD) were once considered to be at opposite ends of the spectrum of airway disease. Asthma was thought to be highly responsive to treatment and essentially reversible, while COPD was characterised by fixed airway narrowing that was unresponsive to bronchodilators. The currently accepted definitions still emphasise these features, even though there may be significant overlap between the two diseases.

Asthma is often described as a fully reversible inflammatory process, whereas COPD is a poorly reversible disease characterised by progressive airway narrowing.[6]

Brisbane South PHN have a QI toolkit to assist you to review your patients with asthma.

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[3] https://www.aihw.gov.au/reports/chronic-respiratory-conditions/copd/contents/copd
[4] (Fletcher 1977, Anthonisen 2002, Tashkin 1996)
[5] https://www.aihw.gov.au/reports/life-expectancy-death/deaths-in-australia/contents/leading-causes-of-death
[6] https://www.mja.com.au/journal/2005/183/1/distinguishing-asthma-and-chronic-obstructive-pulmonary-disease-why-why-not-and

Aim of this QI toolkit

General practice is the ideal setting to address identified care gaps for the prevention, diagnosis and treatment of COPD. It is also an ideal setting for primary and secondary prevention and is often the first point of contact for treatment coordination, access to medications, additional tests and referrals to other providers.

Toolkit aim - To identify in your practice who has COPD and how these patients are being managed.

To achieve this, you will need to extract patient data and establish a valid patient list or register.

The following activities will help guide you through the process at your own pace. There are additional activities to find any patients who may have been missed in the initial data extraction activity and to ensure they are then coded correctly. These activities will improve the accuracy of the register and maintain the system for the future.

Once you have an accurate register you will be able to easily identify how your patients are being managed for their disease and what needs to happen within the practice to optimise patient care.

How to use this toolkit

There are checklists included below that will guide you and your practice to:

- Identify a sample group of patients by reviewing data measures from your practice population.

- Use this toolkit to guide you along the journey.

- Set yourselves timelines to achieve your goals.

- Consider potential internal or external factors that could impact the activity and factor these into your planning e.g. accreditation preparation, staff leave (planned or unplanned), global pandemic, influenza vaccination season.

- Review your progress regularly.

- review your process and start again if you find your process is not working and you are not seeing improvements.

For more support

support@bsphn.org.au   1300 467 265

Activity 1 - Understanding your COPD patient population

Activity 1.1 – Data collection from CAT4

The aim of this activity is to collect data to determine the number of patients coded with COPD, and to create various lists of patients for review to assist in building your COPD register.

* It is recommended that you repeat this activity at the completion of this toolkit to see if there are any differences in patient numbers.

Complete the below table by collecting data from your CAT4 Data Extraction Tool. Instructions are available from: identify active patients OR COPD diagnosis OR spirometry OR smoking OR Aboriginal & Torres Strait Islander status OR medications.

Item	Description	Current total	Post toolkit total *
1.1a	Number of patient population (Active 3 visits in 2 years)		
1.1b	Number of patients with COPD		
1.1c	Number of patients with COPD who have NOT completed spirometry within the past 12 months		
1.1d	Number of patients with COPD who are smokers		
1.1e	Number of patients with COPD who identify as Aboriginal or Torres Strait Islander status		
1.1f	Number of patients taking Tiotropium		

COPD data from your Brisbane South PHN Benchmark report

You may also obtain some practice COPD data from your monthly benchmark report provided by Brisbane South PHN.

Dashboard P1. Chronic Obstructive Pulmonary Disease

2% active population with coded a COPD diagnosis

20% active patients with COPD and smoking status recorded

2% active patients with COPD and spirometry recorded
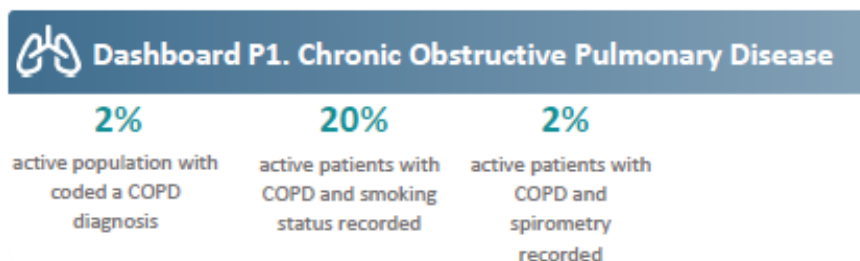
COPD – Medication

Chronic Diseases - COPD

Figure P2. COPD medication graph

Legend: ■ Practice % ■ BSPHN %
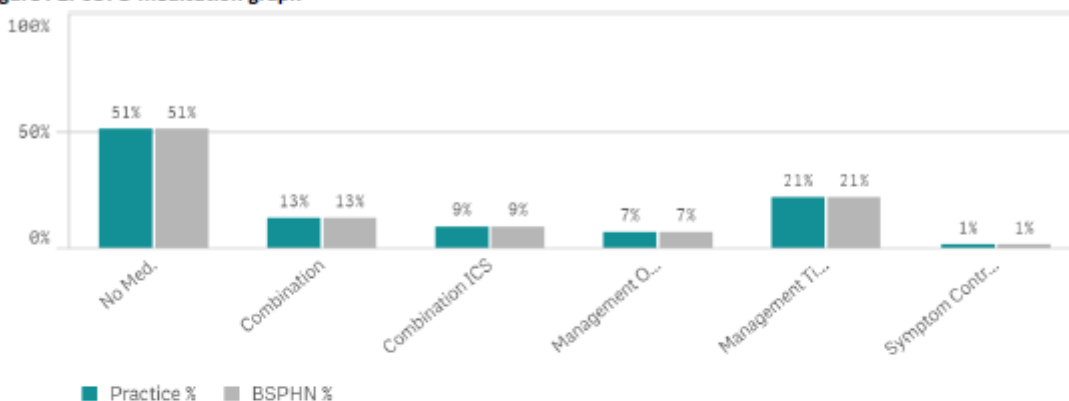
Table P2. COPD medication table

Current Medications	-	- %	BSPHN	BSPHN %
Active patients with COPD	21,260	-	21,260	-
No Medication Prescribed	10,796	51%	10,796	51%
Combination	2,700	13%	2,700	13%
Combination ICS	1,919	9%	1,919	9%
Management Other	1,430	7%	1,430	7%
Management Tiotropium	4,563	21%	4,563	21%
Symptom Controllers	303	1%	303	1%

Please note: if patient's have not been coded with COPD, then they will not be included in these reports. More information on coding can be found at activity 3.

Activity 1.2 – Reviewing your practice COPD profile

Complete the checklist below to increase your understanding of active patients with COPD.

Description	Status	Action to be taken
After completing **activity 1.1** are there any unexpected results with your practice's COPD patients?	☐ Yes: **see action to be taken.** ☐ No: continue with activity.	Please explain: (*e.g. high number of patients with COPD than expected or only a low percentage of patients with COPD have a spirometry recorded*).

Description	Status	Action to be taken
		How will this information be communicated to the practice team?
Is your practice COPD profile similar to other practices in the Brisbane south region (*compare with information from your latest benchmark report*)?	☐ Yes: continue with activity. ☐ No: **see action to be taken.**	Outline the differences – (*is it the number of patients with COPD, is it risk factors?*) How will this information be communicated to the practice team?
After reviewing your practices COPD profile, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	☐ Yes, see **action to be taken** to help set your goals. ☐ No: you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Activity 2 – COPD risk factors

Common COPD risk factors

COPD shares a number of risk factors with other chronic conditions, such as:

- Non-modifiable risk factors
    - age (COPD is more common as people age)
    - genetic predisposition
- Modifiable risk factors
    - smoking or exposure to environmental tobacco smoke (including in childhood)
    - exposure to fumes and smoke from carbon-based cooking and heating fuels, such as charcoal and gas
    - occupational hazards (for example, exposure to pollutants and chemicals)
    - poor nutrition
    - pneumonia or childhood respiratory infection.

In people with COPD, risk factors for poor health outcomes such as worsening symptoms, exacerbations (flare-ups) and increased risk of death include:

- smoking and exposure to environmental tobacco smoke
- influenza and pneumococcal infection
- malnutrition/ obesity
- insufficient physical activity
- presence of comorbidities.[7]

Recommended vaccinations for people with chronic respiratory disease

Research has shown that vaccinations against influenza, COVID-19 and pneumococcal infection can benefit people with obstructive airways disease, which includes asthma and chronic obstructive pulmonary disease. [8]

Activity 2.1 – Data collection from CAT4

The aim of this activity is to collect data to identify COPD risk factors on patients in your practice.

Please note: not all patients with a risk factor will have COPD.

Complete the below table by collecting data from your CAT4 Data Extraction Tool. Instructions are available: patients with respiratory condition with no smoking status recorded OR smoking* OR BMI* OR physical activity* influenza* OR pneumococcal* OR co-morbidities*

include COPD under conditions as an extra step to each search.

COPD QI dashboard from benchmark report provided by Brisbane South PHN.

You may also access your influenza immunisation information from your practices benchmark report.

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[7] https://www.aihw.gov.au/reports/chronic-respiratory-conditions/copd-associated-comorbidities-risk-factors/contents/risk-factors-associated-with-copd

[8] https://www.aihw.gov.au/reports/chronic-respiratory-conditions/vaccination-uptake-among-people-with-chronic-respi/contents/summary

Dashboard QI 6. COPD – Influenza immunisation

64%

active patients aged 15+ years with COPD
who have been immunised against
influenza in the previous 15 months

Item	Description		Total
2.1a	Number of patients with a respiratory condition with no smoking status recorded		
2.1b	Number of patients with COPD who are smokers	PIP QI	
2.1c	Number of patients with COPD who are classified obese	PIP QI	
2.1d	Number of patients with COPD who are classified as morbid	PIP QI	
2.1e	Number of patients with COPD who have insufficient physical activity recorded		
2.1f	Number of patients with COPD who have NOT received an influenza vaccine in the past 15 months	PIP QI	
2.1g	Number of patients with COPD who have NOT received a pneumococcal vaccine		
2.1h	Number of patients with COPD and at least one other chronic medical condition		

Activity 2.2 - Recording COPD risk factors and vaccination in your clinical software

The aim of this activity is to review results of risk factors on patients with COPD in your practice.

Description	Status	Action to be taken
After completing **activity 2.1** are there any unexpected results with your practice's COPD patients?	☐ Yes: **see action to be taken.** ☐ No: continue with activity.	Please explain: (*e.g. high number of patients with COPD with no smoking status recorded or only a low percentage of patients with COPD have an influenza vaccination recorded*).

Description	Status	Action to be taken
		How will this information be communicated to the practice team?
Are all the COPD measures being recorded in the correct fields in your clinical software? (e.g.: respiratory rate, peak flow, smoking status, influenza vaccination, FEV1/FEVC ratio, height, weight, physical activity levels)	☐ Yes: continue with activity. ☐ No, **see action to be taken.**	Review how and where your COPD information is being recorded in your practice software. Refer to instructions for Best Practice and MedicalDirector**.** Ensure all relevant team members are aware of how to record relevant COPD information. Document in practice policy and procedure manual.
Is Topbar installed and working for all team members assist to easily identify missing demographics on patients with COPD?	☐ Yes: continue with activity. ☐ No, **see action to be taken.**	Refer to instructions.
Are there any COPD patients who have not received an influenza vaccination this year?	☐ Yes, **see action to be taken**. ☐ No, continue with activity.	Please explain: What action will you take? Who will be responsible for contacting these patients? Will a reminder be added to patient's file for future years? ☐ Yes ☐ No

Description	Status	Action to be taken
Are there any COPD patients who are not up to date with their pneumococcal vaccination?	☐ Yes, **see action to be taken**. ☐ No, continue with activity.	Please explain: What action will you take? *NB: Please check your latest Immunisation Handbook for current recommendations, especially for newly diagnosed patients with COPD.* Who will be responsible for contacting these patients?
Please note how many COPD patients are smokers from **activity 2.1b**? Does the practice have a plan to review these patients?	☐ Yes, **see action to be taken**. ☐ No, continue with activity.	Please explain: What action will you take? Who will be responsible for this?
After reviewing where your team members are entering data, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	☐ Yes, see **action to be taken** to help set your goals. ☐ No: you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Links to other QI toolkits

Brisbane South PHN have a number of QI toolkits available for general practice. After completing this toolkit, you may benefit from choosing one of the following:

- Influenza – this toolkit is designed to assist practices to review their patients who are eligible for an influenza vaccination and assist your practice to review setting up dedicated flu vaccine clinics.
- Pneumococcal vaccines – this toolkit is designed to assist practices to identify patients who are eligible for pneumococcal vaccine and identify patients who are overdue for their vaccination.
- Asthma – this toolkit is designed to assist practices review patients who have asthma and ensure they are being managed with optimal care.

The full suite of toolkits are available on Brisbane South PHN's website.

Activity 3 – Building your practice COPD register

Coding is a process of using an agreed standardised descriptor and stored as a series of numbers or letters e.g. COPD and chronic obstructive pulmonary disease can both be coded as COPD.

You may have identified that there are multiple ways clinical staff enter a patient's diagnosis in practice software. Some will type this information directly into the patient progress notes or enter this information as free text in the 'reason for encounter' or 'diagnosis field'. This process is called free texting or un-coded diagnosis. Free text is not easily searchable in any database by the clinical software or third-party software (e.g. extraction tools) and is therefore not the preferred process.

The recommended process is to use a diagnosis from the drop-down boxes provided in the clinical software. This is a coded diagnosis. If all clinical staff within the practice use the same codes to identify a diagnosis then it is easier to search for particular conditions. It also allows the practice software to create automatic prompts e.g. reminders and warnings.

It is important to ensure your coding is consistent and agreed upon by all clinical staff in the practice, and diagnostic criteria for COPD are uniform.

Activity 3.1 – Determine terms for consistent coding

Determine which clinicians are currently using clinical codes for COPD and decide what 'condition coding' will be used as standard across the practice team.

It is recommended that you meet either in your established micro-team or at a practice clinical team meeting to complete the below clinical coding activities.

The aim of this activity is for the clinical team to agree on consistent COPD coding to be used within the practice.

Description	Status	Action to be taken
Are relevant practice team members aware of the importance of quality data including using consistent coding (avoiding free text)?	☐ Yes: continue with activity. ☐ No, **see action to be taken.**	Organise a practice team meeting to discuss how to develop a clinical coding policy for your practice.
Have you agreed on accepted terminology of COPD codes from the drop-down lists in your practice software?	☐ Yes: continue with activity. ☐ No, **see action to be taken.**	Source list of clinical codes already available in current clinical software. Develop and agree on clinical codes for COPD to be used within practice.
Are practice team members aware of how to enter diagnosis in clinical software using agreed COPD terminology?	☐ Yes: continue with activity. ☐ No, **see action to be taken.**	Refer to instructions from Best Practice or MedicalDirector.

Description	Status	Action to be taken
After reviewing your practices clinical coding guidelines, are there any changes you would like to implement in the practice, to help manage patients, over the next 12 months?	☐ Yes, **see actions to be taken to help set your goals.** ☐ No, you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Activity 3.2 – Cleaning up un-coded conditions in your practice software

The aim of this activity is to identify and clean up any un-coded COPD conditions in your practice software.
Cleaning up un-coded items makes it easier to perform database searches and manage third-party clinical audit tools.

Identify

Follow the instructions for Best Practice or MedicalDirector to identify the number of un-coded COPD conditions.

Date data collected	Number of un-coded COPD conditions

What is a reasonable timeframe to complete this activity: _____

Who will be completing this activity: _____

Results

After you have actioned any un-coded COPD diagnosis, perform another database search in your practice software and record the number of un-coded conditions to track your results.

Date data collected	Number of un-coded COPD conditions

Activity 3.3– Identifying patients with indications for COPD, but no diagnosis recorded in your clinical software

The aim of this activity is to collect data to identify any patients with indications of COPD, but no diagnosis recorded.

Complete the below table by collecting data from your CAT4 data extraction tool. Instructions on how to complete this activity is available from CAT4 website: Indicated conditions report detail.

Item	Description	Total
3.3a	Number of patients indicated as likely having COPD (coded red)	
3.3b	Number of patients indicated as possibly having COPD (coded yellow)	
3.3c	Number of patients indicated with COPD with no diagnosis based on medications	
3.3d	Number of patients indicated with COPD with no diagnosis based on post spirometry results	

Activity 3.4 – Review COPD patient data and identify what to do with the results

Complete the checklist below which reviews your practice COPD patients. Please note: note all of the identified patients will have COPD, a review of their chart or clinical review may be required to confirm the diagnosis.

Questions to consider	Status	Action to be taken
Are there any patients taking tiotropium but do not have COPD recorded in their current conditions? *(Please note you may have patients with asthma on tiotropium as an add on therapy).*	☐ Yes, **see action to be taken.** ☐ No, continue with activity.	Please explain: What action will you take? Who will be responsible for this?
Are there any patients with indicated COPD following post bronchodilator spirometry results with no diagnosis?	☐ Yes, **see action to be taken**. ☐ No, continue with activity.	Please explain: What action will you take? Who will be responsible for this?

Are there any patients with indicated COPD but no diagnosis?	☐ Yes, **see action to be taken**. ☐ No, continue with activity.	Please explain: What action will you take? Who will be responsible for this?
Have you distributed lists to individual GPs for review and update of their diagnosis?	☐ Yes, continue with activity. *Ensure you follow up in a weeks' time to receive the reviewed reports back from the GP.* ☐ No, **see action to be taken.**	Refer to [instructions](#) from CAT4.
Is Topbar available and set up for relevant team members to be able to use the indications tab?	☐ Yes, continue with activity. ☐ No, **see action to be taken**.	Refer to [instructions](#).
After reviewing your COPD patients, are there any changes you would like to implement in the practice, to help manage patients, over the next 12 months?	☐ Yes, **see action to be taken to help set your goals.** ☐ No, you have completed this activity.	Complete the [MFI template](#) for your practice. Refer to the [example MFI](#) at the end of this document.

Practice decision point

It is recommended that you have a practice meeting to review the data collection table results and determine any action that needs to be taken.

Activity 4 - COPD assessment and diagnosis

COPD is formally diagnosed through clinical assessment and presence of fixed airway obstruction detected via spirometry.

COVID/infection control and spirometry

The TSANZ in conjunction with the ANZSRS updated their recommendations about lung function testing:

- All Pulmonary Function Testing including cardiopulmonary exercise testing and bronchoprovocation testing can now be performed in patients who are afebrile, and who have no symptoms of a viral illness.
- In such patients, infection control measures (such as level of PPE and cleaning of equipment between patients) in line with respective Federal and state health departments, and physical distancing in public areas is still required.
- It is recommended that spirometry should only be performed where "in-line filters" are in place.
- It is recommended that Body Temperature is measured on all patients prior to testing to ensure they are afebrile.[9]

Importance of entering spirometry results

If results are imported directly from the spirometers software the data may be stored as an image or PDF and therefore **not coded**. This means the data will not be picked up by the CAT4 audit tool. It is important that someone in the practice manually enters the results in the appropriate fields in the practice software. This information can be useful if you would like to look at whether your patients with COPD have spirometry results in or out of target ranges according to clinical guidelines.

Please note that currently only POST bronchodilator results are extracted by CAT4.

Activity 4.1 – Spirometry

The aim of this activity is to review relevant team members use of spirometry.

Description	Status	Action to be Taken
Are relevant team members aware of the guidelines relating to COVID and spirometry?	☐ Yes, continue with activity. ☐ No: **see action to be taken.**	Refer to COVID/infection control and spirometry information.
Does your spirometer have an in line filter?	☐ Yes, continue with activity. ☐ No: **see action to be taken.**	Discuss in line filters at your practice.
Do relevant team members know where to enter spirometry results in your clinical software?	☐ Yes, continue with activity. ☐ No: **see action to be taken.**	Refer to instructions from Best Practice and MedicalDirector.

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[9] https://www.health.qld.gov.au/__data/assets/pdf_file/0041/963887/covid19-updates-pc-50.pdf

Description	Status	Action to be Taken
Are spirometry results recorded as values in your clinical software (not just an uploaded image)?	☐ Yes, continue with activity. ☐ No: **see action to be taken.**	Review how and where your spirometry information is being stored in your practice software. Refer to instructions importance of entering spirometry results. Document in practice policy.
Do any team members require training in spirometry?	☐ Yes, **see action to be taken.** ☐ No: continue with activity.	Spirometry training from National Asthma Council. Refer to Spirometry Learning or Spirometry Training Company. Training for Aboriginal Health workers refer here.
Do all relevant team members know the MBS criteria for completing spirometry?	☐ Yes, continue with activity. ☐ No: **see action to be taken**.	Refer to MBS criteria for item number 11505 and 11506.
After reviewing your practices spirometry use, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	☐ Yes, **see actions to be taken to help set your goals.** ☐ No: you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

mMRC Dyspnoa Scale for the grading the severity of breathlessness during daily activities

The effect of breathlessness on daily activities can be quantified easily in clinical practice using the Modified Medical Research Council (mMRC) Dyspnoea Scale.

Grade	Symptom complex
0	I only get breathless with strenuous exercise
1	I get short of breath when hurrying on level ground or walking up a slight hill
2	On level ground, I walk slower that people of the same age because of breathlessness, or I have to stop for breath when walking at my own pace on the level
3	I stop for breath after walking 100 metres or after a few minutes on level ground
4	I am too breathless to leave the house or I am breathless when dressing or undressing

10

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[10] https://copdx.org.au/copd-x-plan/confirm-diagnosis/c2-diagnosis/

Guide to the severity of COPD

Once COPD has been diagnosed, the following table helps classify the severity of COPD as outlined in the COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease (COPD-X).

The severity of COPD is then used to tailor treatment.

Typical FEV$_1$	Typical symptoms	History of Exacerbations	Comorbid conditions
Mild 60-80% predicted	- few symptoms - breathless on moderate exertion - little or no effect on daily activities - cough and sputum production	Frequency may increase with severity of disease.	Present across all severity groups.
Moderate 40-59% predicted	- breathless walking on level ground - increasing limitation of daily activities - recurrent chest infections - exacerbations requiring corticosteroids and/or antibiotics		
Severe <40% predicted	- breathless on minimal exertion - daily activities severely curtailed - exacerbation of increasing frequency and severity.		

[11]

Activity 4.2 – COPD assessment tools

Consider using assessment tools to measure level of functioning and symptoms. The COPD assessment tool is a simple and short (eight item) questionnaire for patients diagnosed with COPD. It is designed to form a foundation of understanding between clinician and patient and can help you achieve your aims in improving and maintaining your patient's quality of life.

Description	Status	Action to be taken
Are you using COPD-X plan for reference within your practice?	☐ Yes: continue with activity. ☐ No: **see action to be taken**.	Refer to COPD guidelines.
Are GPs and nurses aware of who would be at higher risk of COPD?	☐ Yes: continue with activity. ☐ No: **see action to be taken**.	Refer to Lung Foundation fact sheets.
Do GPs and/or nurses use a Lung Health Checklist on patients at higher risk of COPD?	☐ Yes: continue with activity. ☐No: **see action to be taken**.	Refer to Lung Foundation checklist.

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[11] https://copdx.org.au/

Description	Status	Action to be taken
Do you have a COPD screening device such as a COPD-6 or PIKo-6 in the practice?	☐ Yes: continue with activity. ☐ No: **see action to be taken**.	Investigate screening device options for your practice.
After reviewing your COPD assessments, are there any changes you would like to implement in the practice, to help manage patients, over the next 12 months?	☐ Yes, **see action to be taken to help set your goals.** ☐ No, you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

The Lung Health Checklist

The Lung Health checklist is a quick way to identify those patients over 35 who are at risk of COPD.

Do you have a new, persistent or changed cough?	Yes ☐ No ☐
Do you cough up mucus or phlegm?	Yes ☐ No ☐
Do you get out of breath more easily than others your age?	Yes ☐ No ☐
Do you experience chest tightness or wheeze?	Yes ☐ No ☐
Do you experience recurrent chest infections?	Yes ☐ No ☐
Do you cough up blood or have blood in your mucus or phlegm?	Yes ☐ No ☐
Do you experience chest pain or have unexplained weight loss?	Yes ☐ No ☐
Are you a smoker or ex-smoker?	Yes ☐ No ☐
Have you ever worked in a job that exposed you to dust, gas or fumes?	Yes ☐ No ☐

If the patient says yes to any of these and is 35 years of age or older, they could be at risk of having COPD and would benefit from further testing either by conducting full diagnostic spirometry or conducting a test with a COPD screening device.

Stepwise management of stable COPD

	MILD	MODERATE	SEVERE
	Increasing COPD severity		
Typical symptoms	⊙ few symptoms ⊙ breathless on moderate exertion ⊙ little or no effect on daily activities ⊙ cough and sputum production	⊙ breathless walking on level ground ⊙ increasing limitation of daily activities ⊙ recurrent chest infections ⊙ exacerbations requiring oral corticosteroids and/or antibiotics	⊙ breathless on minimal exertion ⊙ daily activities severely curtailed ⊙ exacerbations of increasing frequency and severity
Typical lung function	$FEV_1 \approx 60\text{-}80\%$ predicted	$FEV_1 \approx 40\text{-}59\%$ predicted	$FEV_1 < 40\%$ predicted

CONFIRM diagnosis. Confirm post-bronchodilator airflow limitation ($FEV_1/FVC < 0.70$) using **spirometry**. Any pattern of cough with or without chronic sputum production may indicate COPD.

OPTIMISE function. PREVENT deterioration. DEVELOP a plan of care.

Non-pharmacological interventions

REDUCE RISK FACTORS Avoid exposure to risk factors including tobacco smoke and air pollution, support smoking cessation, recommend annual influenza vaccine and pneumococcal vaccine according to immunisation handbook

OPTIMISE FUNCTION Encourage regular exercise and physical activity, review nutrition, provide education, develop GP management plan and written COPD action plan (and initiate regular review)

OPTIMISE TREATMENT OF CO-MORBIDITIES especially cardiovascular disease, anxiety, depression, lung cancer and osteoporosis

REFER symptomatic patients to pulmonary rehabilitation

INITIATE advanced care planning

MANAGE advanced lung disease with domiciliary oxygen therapy, long-term non-invasive ventilation, surgery and bronchoscopic interventions, if indicated

Pharmacological interventions (inhaled medicines)"

START with short-acting relievers: (used as needed):
SABA (short-acting beta₂-agonist) OR **SAMA** (short-acting muscarinic antagonist)

ADD long-acting bronchodilators:
LAMA (long-acting muscarinic antagonist) OR **LABA** (long-acting beta₂-agonist)
Consider need for combination **LAMA/LABA** depending on symptomatic response

CONSIDER adding **ICS** (inhaled corticosteroids):
Single inhaler triple therapy **(ICS/LABA/LAMA)** may be suitable*

*In patients with ≥1 severe exacerbation requiring hospitalisation or ≥2 moderate exacerbations in the previous 12 months, AND significant symptoms despite LAMA/LABA or ICS/LABA therapy; OR in patients stabilised on a combination of LAMA, LABA and ICS.

Assess and optimise inhaler device technique at each visit. Minimise inhaler device polypharmacy

REFER PATIENTS TO LUNG FOUNDATION AUSTRALIA FOR INFORMATION AND SUPPORT - FREECALL 1800 654 301
Lung Foundation Australia has a range of resources to promote understanding of COPD and assist with management.

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

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

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

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

[12]

Reproduced with permission from Lung Foundation Australia (2020).

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[12] https://lungfoundation.com.au/resources/stepwise-management-of-stable-copd/

Optimising function for patients with COPD

The principal goals of therapy are to stop smoking, to optimise function through symptom relief with medications and pulmonary rehabilitation, and to prevent or treat aggravating factors and complications. Adherence to inhaled medications regimes is associated with reduced risk of death and admissions to hospital due to exacerbations in COPD. [13]

Some factors associated with optimising function for patients with COPD include:

1. assess severity of COPD using spirometry and COPD assessment tool (CAT)
2. reduce risk by assessing smoking status and assisting with smoking cessation
3. reduce risk by ensuring influenza and pneumococcal vaccines are up to date
4. optimise function by encouraging regular exercise and reviewing nutrition
5. provide education and COPD action plan
6. GP Management Plan and Team Care Arrangement
7. consider comorbidities
8. refer symptomatic patients to pulmonary rehabilitation
9. use medications guided by severity
10. consider home medication review
11. assess psychosocial needs and utilise support services
12. consider specialist referral when required
13. check device use and adherence at each visit.

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[13] https://copdx.org.au/copd-x-plan/o-optimise-function/

Activity 5 – Medicare item numbers for patients with COPD

Patients with COPD *may be eligible* to access chronic disease item numbers within the Medicare Benefit Schedule. These are dependent on patient age, ethnicity and co-morbidities. Conditions apply to each item number, please ensure the GP understands these prior to claiming the item number/s. Brisbane South PHN have a comprehensive toolkit looking at MBS items, however, a summary of the item numbers include:

> **MBS items**
>
> - Spirometry
> - GP Management Plans (GPMP)
> - Team Care Arrangements (TCA)
> - Nurse chronic disease item number
> - Mental health items
> - Aboriginal and Torres Strait Islander health assessment
> - Home medication review
> - MBS telehealth fact sheet
>
> *TIP: GPs are required to make sure each patient meets the MBS criteria prior to claiming each item number.*

Activity 5.1 – Data Collection - Medicare claiming for COPD patients

The aim of this activity is to review your practices claiming of relevant Medicare item numbers for patients with COPD.

Note – Information to complete this activity is available from your latest benchmark report from Brisbane South PHN. (Examples of benchmark report included).

Chronic Obstructive Pulmonary Disease (COPD)   **Chronic Diseases - COPD**

Figure P1. COPD management graph

Legend: Practice % (teal), BSPHN % (grey)
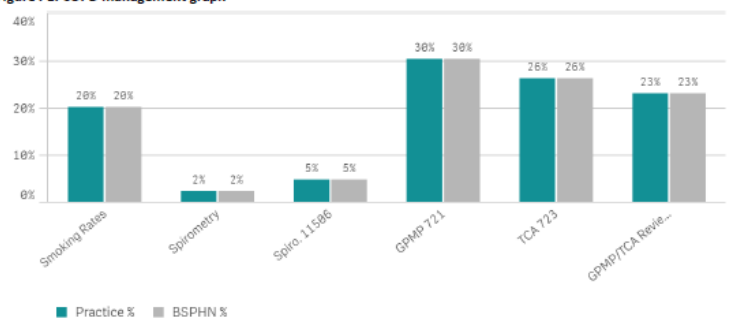
Table P1. COPD management table

COPD Management	-	- %	BSPHN	BSPHN %
Active patients with COPD	21,260	-	21,260	-
Smoking Rates Recorded	4,264	20%	4,264	20%
Spirometry Measurement Recorded*	493	2%	493	2%
Spirometry MBS Item Claimed**	1,002	5%	1,002	5%
GPMPs claimed**	6,434	30%	6,434	30%
TCAs claimed**	5,558	26%	5,558	26%
GPMP/TCA Reviews claimed**	4,889	23%	4,889	23%

COPD – Financial Review

Figure P3. COPD financial review graph

Measures ■ Revenue Captured ■ Revenue Missed
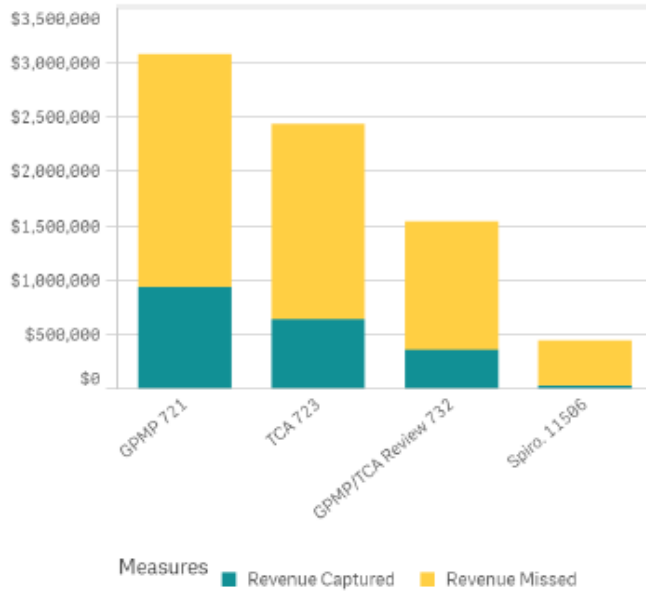
Table P3. COPD financial review table

MBS Billing Item*	GPMPs	TCAs	GPMPs Reviews	Spirometry
Captured Revenue	$928,105	$635,279	$352,252	$20,591
Potential Missed Revenue	$2,138,651	$1,794,739	$1,179,531	$416,302

Item	Description	Number
5.1a	Number of patients with COPD (*from activity 1.1*)	
5.1b	Number of patients with COPD with a GPMP claimed in the past 12 months	
5.1c	Number of patients with COPD who have NOT had a GP Management plan completed in the past 12 months	
5.1d	Number of patients with COPD with a TCA claimed in the past 12 months	
5.1e	Number of patients with COPD with a GPMP/TCA review claimed in the past 12 months	
5.1f	Number of patients with COPD with a spirometry tests claimed in the past 12 months	
5.1g	Number of patients with COPD with a home medication review completed in the past 12 months	
5.1h	Number of patients with COPD with a mental health treatment plan claimed in the past 12 months	

Activity 5.2– Reviewing your practice MBS claiming for patients with COPD

Complete the checklist below which reviews your practices COPD profile from your benchmark report and MBS claiming history.

Description	Status	Action to be taken
After completing **activity 5.1** are there any unexpected results with your practice's MBS claiming for patients with COPD?	☐ Yes: **see action to be taken.** ☐ No: continue with activity.	Please explain: (*e.g. a low percentage of patients with COPD have a GP Management plan*). How will this information be communicated to the practice team?
Is your practice chronic disease claiming for COPD patients similar to other practices in the Brisbane south region (*compare information from benchmark report*)?	☐ Yes: continue with activity. ☐ No: **see action to be taken.**	Outline the differences – (*e.g. our practice is lower at claiming GPMP than other practices*). How will this information be communicated to the practice team?
Do you need to review systems to manage patients with COPD without a GP Management Plan &/or Team Care Arrangement Plan completed in the past 12 months. (*note: not all patients identified in the search will be eligible for a GPMP or TCA e.g. not regular GP, refer to MBS criteria*).	☐ Yes, **see action to be taken.** ☐ No, continue with activity.	Please explain: What action will you take? How will you use this information to increase the number of GPMP completed?

Description	Status	Action to be taken
Do you know the contact details for any MBS related questions?	☐ Yes, continue with activity. ☐ No, **see action to be taken.**	Email: askMBS@health.gov.au. Provider Enquiry Line - 13 21 50.
Do relevant staff know that Medicare provides online training modules?	☐ Yes, continue with activity. ☐ No, **see action to be taken.**	More information can be obtained from Medicare Australia e-learning modules.
After reviewing the MBS claiming for patients with COPD, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	☐ Yes, see **action to be taken** to help set your goals. ☐ No, you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Activity 6 – Establishing appropriate care pathways using evidence-based guidelines

Activity 6.1 – Identify roles for managing patients with COPD within your practice

Consider how best to use your practice staff to provide optimum care and the impact this will have on the workload and appointment system. This involves systematically determining if your practice is set-up and equipped to provide evidence-based COPD assessment and management.

Activity	Nurse	GP	Admin
Check lung function; perform pre and post bronchodilator spirometry (item 11505 or 11506)			
Assess functional status; complete COPD assessment test			
Review smoking status and support smoking cessation			
Check vaccination status for influenza and pneumococcal			
Measure height, weight, BMI			
Review diet/healthy eating			
Review physical activity and exercise tolerance			
Check mental health status and offer support services e.g. Lung Foundation Australia or mental health services			
Provide self-care education and COPD action plan			
GPMP			
Consider comorbidities (osteoporosis, anxiety, depression, cardiovascular disease, lung cancer)			
Check inhaler device technique			
Refer symptomatic patients to pulmonary rehabilitation			
Review medications using stepwise COPD treatment guidelines			
Review frequency of exacerbations/hospitalisations			
Assess need for specialist referral including PULM REHAB			
Assess need (or review use) of long-term oxygen therapy			
Consider advanced care planning			
Monitor patient recall and reminder			

Activity 7 – Referral pathways

The aim of this activity is to ensure that practice staff have access to the relevant information and understand pathways for referral of patients to specialists and allied health staff as deemed clinically appropriate.

Engaging other medical services (e.g. diagnostic services; hospitals and consultants; allied health; respiratory nurse practitioners, chronic disease management nurse practitioners, social, disability and community services) assist the practice to provide optimal care to patients whose health needs require integration with other services.

Guidelines for referring patients to other health professionals include:

- request urgent non-acute respiratory assessment if the patient develops chronic respiratory failure or worsening right heart failure

- request non-acute respiratory assessment if:

  - FEV1 < 40%

  - MMRC Class 4 dyspnoea

  - uncontrolled but stable symptoms that limit activities of daily living (ADLs) on a daily basis

  - requiring assessment for oxygen therapy

  - recurrent (> 3 in 12 months) acute exacerbations or acute presentations to Emergency.[14]

Essential referral information for patients with COPD – Refer your patient – Metro South Health

Metro South Health is the major provider of public health services, and health education and research, in Brisbane south including Logan, Redlands and Scenic Rim regions. The Refer Your Patient Website provides health professionals with important information to assist in accessing public health services for patients. It provides a single point of entry for all new referrals.

On the website, it outlines available health professionals, criteria to access appointments with the health professionals, expected wait times plus all the information that is required in the referral.

Minimum referral criteria Does your patient meet the minimum criteria?

Category 1 (appointment within 30 calendar days) If you feel your patient meets Category 1 criteria, please mark "urgent" on your referral	▸ COPD with chronic respiratory failure ▸ COPD with worsening right heart failure
Category 2 (appointment within 90 calendar days)	▸ Recurrent (>3 in 12 months) acute exacerbations or acute presentations to emergency ▸ Uncontrolled but stable symptoms on a daily basis that limit ADLs/ Class 4 dyspnoea ▸ Requiring assessment for oxygen therapy ▸ COPD with demonstrated sever airflow obstruction (FEV1 <40%)
Category 3 (appointment within 365 calendar days)	▸ Stable COPD for consideration for pulmonary rehabilitation or education (where community services are not available)

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[14] https://spotonhealth.communityhealthpathways.org/16602.htm

SpotOnHealth HealthPathways

SpotOnHealth HealthPathways provides clinicians in the greater Brisbane South catchment with web-based information outlining the assessment, management and referral to other clinicians for over 550 conditions.

It is designed to be used at point of care primarily by general practitioners but is also available to specialists, nurses, allied health and other health professionals.

National Disability Insurance Scheme (NDIS)

The NDIS is Australia's first national scheme for people with disability. It provides funding directly to individuals. It provides all people with disability with information and connections to services in their communities such as doctors, sporting clubs, support groups, libraries and schools, as well as information about what support is provided locally.

Health Services Directory

Health Services Directory is a joint initiative of all Australian governments, delivered by HealthDirect Australia, to enable health professionals and consumers access to reliable and consistent information about health services.

My Community Directory

My Community Directory lists organisations that provide services that are free or subsidised to the public in thousands of locations across Australia. These services are organised into various Community Directories.

Activity 7.1 – Referral pathways

This activity is designed to raise your awareness of local referral options available for you and your patients to facilitate co-ordinated and therefore optimal care.

Complete the checklist below in relation to referral pathways.

Description	Status	Action to be taken
Do all GPs and nurses have login details for SpotOnHealth HealthPathways?	☐ Yes, continue with activity. ☐ No, see **action to be taken.**	Refer to instructions to obtain access.
Do all GPs and nurses know how to access SpotOnHealth HealthPathways via Topbar?	☐ Yes, continue with activity. ☐ No, see **action to be taken.**	See instructions. Or contact BSPHN Digital Health Team via email: ehealth@bsphn.org.au.
How will you communicate information so clinicians know where to access details on referring a patient to specialist services?	What is the practice plan for communicating referral information?	

Description	Status	Action to be taken
After reviewing your practice referral system, are there any changes you would like to implement in the practice, to help manage patients, over the next 12 months?	☐ Yes, see **action to be taken** to help set your goals. ☐ No, you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Support options for patients

Lung Foundation

The Lung Foundation information and support centre team provides guidance, information and support, and connects people to relevant support services. This free and confidential service is available Monday to Friday 8am – 4.30pm (AEST) (excl. public holidays). Freecall 1800 654 301**.**

Lung support service

The Lung Support Service is designed to provide people with tips to assist in managing chronic disease that are practical and supportive. The simplicity of the text messages people will receive, which have been tailored by clinicians specifically for people living with COPD, will empower them to manage their condition and seek further support and information from the treating healthcare team. To access this service, complete the registration form.

Quitline (13 78 48)

Quitline is a telephone service dedicated to helping Queenslanders quit smoking. Referrals can be made by calling the Quitline on 137848 or completing an online request form. Quitline counsellors are available between 8am and 9pm, 7 days a week.

Activity 8 – Recalls and reminders

As part of the RACGP accreditation standards, it is a requirement that practices provide health promotion, illness prevention, preventive care and a reminder system based on patient need and best available evidence. Brisbane South PHN have a comprehensive toolkit to assist you to review your practice recall and reminder systems, however, the aim of this activity is to assist with COPD specific recall and reminders. You can also access other QI tools via medical software modules that will assist your practice to merge duplicate recall/reminder lists in your practice's clinical software. These modules are:

- Module 7 – Recalls, Reminders and Screening using MedicalDirector
- Module 8 – Recalls, Reminders and Screening using Best Practice

You can access these modules via DiscoverPHN.

Activity 8.1 – Reminder system

The aim of this activity is to review reminder systems within your practice.

Description	Status	Action to be taken
Are patients with COPD reminded to have their influenza vaccination?	☐ Yes, continue with activity. ☐ No, **see action to be taken.**	Create a reminder category in your practice's clinical software package to ensure annual influenza vaccination is given. Conduct search on CAT4 to identify patients with COPD who have not had their vaccination in the past 15 months.
Do clinicians know how to initiate a patient reminder within clinical software?	☐ Yes, continue with activity. ☐ No, **see action to be taken**.	Clinician education on setting up patient reminders.
Is there a system for ensuring patients recently diagnosed with COPD are incorporated into the reminder system?	☐ Yes, system is working. ☐ Yes, system is not working, see action to be taken. ☐ No system, see action to be taken.	Revise policy. Practice policy on reminders to be implemented.
After reviewing your practice recall and reminder system, are there any changes you would like to implement in the practice, to help manage patients, over the next 12 months?	☐ Yes, see **action to be taken** to help set your goals. ☐ No, you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Activity 9 – Resources and education

Best Practice guidelines

Clinical guidelines recommend how healthcare professionals should care for people with specific conditions.

They can cover any aspect of a condition and may include recommendations about providing information and advice, prevention, diagnosis, treatment and longer-term management.

GPs and practice nurses should be following the latest best practice guidelines for COPD management. These include:

- COPD-X: Full Guidelines
- COPD-X: Concise Guide
- COPD-X: Primary Care Respiratory Toolkit.

COPD resources and education for health professionals

- NPS MedicineWise – Chronic Obstructive Pulmonary Disease (COPD)
- National Asthma Council - Spirometry training
- Spirometry Learning
- Spirometry Training Company
- Metro North - Spirometry training for Aboriginal Health workers.

Resources for patients

- Better Health Channel – Lung Conditions: Chronic Obstructive Pulmonary Disease (COPD)
- Quitline.

Resources for Aboriginal and Torres Strait Islander patients

- Queensland Health – Aboriginal and Torres Strait Islander respiratory resources.

Activity 9.1 – Education for the general practice team

Complete the table below to identify any required training or education for health professionals within the practice.

Topic	Who would like the education?	What would they like to know?
Spirometry		
Inhalers, spacers and correct technique		
GP management plan		
Self-management skills/techniques		
Other		

Example PDSA for the management of patients with COPD

See below for suggested goals related to COPD you may wish to achieve within your practice:

Goal	How you may achieve the goal
Increase the number of GPMPs completed on patients with COPD.	Refer to CAT4 recipe: chronic disease and MBS item numbers.
Increase adult smoking and alcohol status for patients with COPD recorded in clinical software to 75%.	Refer to CAT4 recipe: increase adult smoking and alcohol status for patients.
Increase the number of flu injections given to COPD patient over the past 15 months by 10%.	Refer to CAT4 recipe: influenza immunisations for patients with COPD.

Model for Improvement diagram

Question 1
WHAT ARE WE TRYING TO ACCOMPLISH?
By answering this question you will develop your goal.

Question 2
HOW WILL WE KNOW THAT CHANGE IS AN IMPROVEMENT?
By answering this question you will develop measures for tracking your goal.

Question 3
WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?
By answering this question you will develop ideas for change.

STEP 1 THINKING PART

TEST A NEW IDEA

Try another PDSA cycle for this idea

▼ 1 PLAN

Plan the test or observation, including a plan for collecting data.
State the objectives of the test. Make predictions about what will happen and why. Develop a plan to test the change.

What data needs to be collected
WHO, WHAT, WHEN, WHERE?

Based on your analysis, adopt, adapt or abandon your idea.
Test your adaptations with another PDSA cycle or start a new PDSA for a different idea.

4 ACT ▼

Try out the test on a small scale.
Carry out the test. Document problems and unexpected observations. Record collected data.

▼ 2 DO

STEP 2 DOING PART

Set aside time to analyse the data and study the results.
Analyse the collected data. Compare the data to your predictions. Summarise and reflect on what was learned.

3 STUDY ◄

Source: http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx

MFI and PDSA template EXAMPLE

Step 1: The thinking part - The 3 fundamental questions

Practice name:	Date:

Team members:

Q1. What are we trying to accomplish? (Goal)
By answering this question, you will develop your GOAL for improvement. Record this as a S.M.A.R.T. goal (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime bound).
Our goal is to: Ensure patients who have a diagnosis of COPD receive an influenza vaccine. *This is a good start, but how will you measure whether you have achieved this goal*? The team will be more likely to embrace change if the goal is more specific and has a time limit. So, for this example, a better goal statement would be: o*ur S.M.A.R.T. goal is to* increase the proportion of our active patients with COPD who have an influenza vaccine by 20% by 31st July.

Q2. How will I know that a change is an improvement? (Measure)
By answering this question, you will determine what you need to MEASURE in order to monitor the achievement of your goal. Include how you will collect your data (e.g. CAT4 reports, patient surveys etc.). Record and track your baseline measurement to allow for later comparison.

We will measure the percentage of active patients with COPD who have had a flu vaccine. To do this we will:
     A) Identify the number of active patients with COPD.
     B) Identify the number of active patients with COPD who have had a flu vaccination.
B divided by A x 100 produces the percentage of patients with COPD who have had a flu vaccination.
 	
BASELINE MEASUREMENT: 47% of active patients with COPD have a flu vaccination   DATE:

Q3. What changes could we make that will lead to an improvement? (List your IDEAS)
By answering this question, you will generate a list of IDEAS for possible changes you could implement to assist with achieving your S.MA.R.T. goal. You will test these ideas using part 2 of this template, the 'Plan, Do, Study, Act (PDSA)' cycle. Your team could use brainstorming or a driver diagram to develop this list of change ideas.
IDEA: Identify patients with COPD who have not had a flu vaccination in the past 15 months. IDEA: Source and provide endorsed patient education resources (in waiting rooms, toilets etc.). IDEA: Run an awareness campaign for COPD and flu vaccination.

Note: Each new GOAL (1st Fundamental Question) will require a new MFI plan.

Source: Langley, G., Nolan, K., Nolan, T., Norman, C. & Provost, L. 1996, The Improvement Guide, Jossey-Bass, San Francisco, USA.

MFI and PDSA template

Step 2: The doing part - Plan, Do, Study, Act

You will have noted your IDEAS for testing when you answered the 3rd fundamental question in step 1. You will use this template to test an idea. Ensure you communicate the details of the plan to the entire practice team.

IDEA	Record the change idea you are testing
Which idea are you going to test? *(Refer to Q3, step 1 above)*	

Identify patients with COPD who have not had a flu vaccination in the past 15 months.

PLAN	Record the details of how you will test your change idea
Plan the test, including a plan for collecting data	What exactly do you plan to do? Record who will do what; when they will do it (day, time etc) and for how long (1 week, 2 weeks etc); and where (if applicable); the data to be collected; and predictions about the outcome.

WHAT:

Mary will conduct a search on CAT4 and identify active patients with COPD who have not had a flu vaccination recorded in the past 15 months. A Topbar prompt will be created for these patients. The practice nurse will ensure there is adequate stock of the vaccine to ensure patient demand is met. Mary will search the appointment book to see if any of the patients have an upcoming appointment. Mary will contact patients by phone to see if she can book an appointment with the nurse and the GP for the vaccination.

WHO/WHEN/WHERE:

Who: Receptionist.   When: Begin 20th May.   Where: Dr Bill's office.

DATA TO BE COLLECTED: Number of active patients with COPD and the number of active patients with COPD who have not had a flu vaccination recorded in the past 15 months..

DO	Run the test, then record your actions, observations and data
Run the test on a small scale	What did you do? Were there any deviations from the original plan? Record exactly what you did, the data collected and any observations. Include any unexpected consequences (positive or negative).

Done – completed 20th May –the receptionist completed a search on CAT4 to identify patients with COPD who had not received their flu vaccination in the past 15 months. She then created a Topbar prompt. The receptionists then phoned patients who appeared on the list to arrange an appointment. The practice nurse monitored vaccine stock levels.

STUDY	Analyse the data and your observations
Analyse the results and compare them to your predictions	Was the plan executed successfully? Did you encounter any problems or difficulties? What worked/didn't work? What did you learn on the way? Compare the data to your predictions. Summarise and reflect on what was learned.

The practice managed to increase the number of COPD patients with their flu vaccination by 15%. The goal was to increase by 20%, therefore, the goal was not met, however, the practice was still happy with the progress.

Communicate the results of your activity with your whole team. Celebrate any achievements, big or small.

ACT	Record what you will do next
Based on what you learned from the test, record what your next actions will be	Will you adopt, adapt or abandon this change idea? Record the details of your option under the relevant heading below. *ADOPT: record what you will do next to support making this change business as usual*; ADAPT: *record your changes and re-test with another PDSA cycle; or ABANDON: record which change idea you will test next and start a new PDSA.*

ADOPT:

The practice will continue to contact patients with COPD who have not had the flu vaccine recorded.

ADAPT:

ABANDON:

Repeat step 2 to re-test your adapted plan or to test a new change idea