

Quality Improvement Toolkit for General Practice

Conditions

Chronic Kidney Disease (CKD)
MODULE

Version 3
November 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 into manageable pieces, which are then tested to ensure that the change results in measurable improvements. There is an example on increasing the number of GP management plans completed on patients with CKD using the MFI at the end of this toolkit.

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.

While the Australian Government Department of Health has contributed to the funding of this material, the information contained in it does not necessarily reflect the views of the Australian Government and is not advice that is provided, or information that is endorsed, by the Australian Government. The Australian Government is not responsible in negligence or otherwise for any injury, loss or damage arising from the use of or reliance on the information provided herein.

The information in this toolkit does not constitute medical advice and Brisbane South PHN accepts no responsibility for the way in which information in this toolkit is interpreted or used.

Unless otherwise indicated, material in this booklet is owned by Brisbane South PHN. You are free to copy and communicate the work in its current form, as long as you attribute Brisbane South PHN as the source of the copyright material.

Brisbane South PHN would like to acknowledge the contribution of Kidney Health Australia in the production of this QI toolkit. Kidney Health Australia have provided resources, program framework and publications to assist general practice to identify, support and medically manage people with chronic kidney disease.

Kidney Health Australia recognises excellence in Kidney Health. If you or your practice would like to receive recognition from Kidney Health Australia for your efforts in improving early detection, management, and coding of CKD in your practice through this QI toolkit, please contact primarycare@kidney.org.au for more information.

Brisbane South PHN, 2021

CONTENTS

Chronic kidney disease (CKD)	5
What is CKD?	5
Who is at risk of CKD?.....	6
Signs and Symptoms of CKD	6
Chronic kidney disease progresses in 5 different stages.....	7
Geographical variation in chronic kidney disease	8
Algorithm for initial detection of CKD	9
Activity 1 - Understanding your CKD patient population	10
Activity 1.1 – Data collection from CAT4.....	10
Activity 1.2 – CKD measures on benchmarking report.....	10
Activity 1.3– Reviewing your practice CKD profile	11
Activity 2 – Building your practice CKD register	12
Activity 2.1 – Determine terms of consistent coding	12
Activity 2.2 – Cleaning up un-coded conditions in your practice software.....	13
Activity 2.3 – Confirming the right patients are on the register	13
Activity 3 – Co-morbidities and medication management of patients with CKD.....	15
Activity 3.1 –Data collection from CAT4.....	15
Medication considerations in CKD.....	15
Activity 3.2 –Data collection from CAT4.....	16
Activity 3.3– Reviewing co-morbidities and medication management of patients with CKD.....	16
Cardiovascular risk calculator	17
Heart Health Check.....	18
Kidney disease risk calculator	18
Activity 4 – Treatment goals for people with CKD.....	19
Activity 4.1 – Data collection from CAT4.....	21
Activity 4.2 - Reviewing your practice treatment goals for patients with CKD	21
Activity 4.3 – Recording risk factors & smoking status in your clinical software	22
Activity 5 – Medicare item numbers for people with CKD	23
Activity 5.1 – Data collection from CAT4	23
Activity 5.2 – Checklist for reflection on MBS claiming.....	24
Activity 6 - Establishing appropriate care pathways using evidence-based guidelines	26
Activity 6.1 – Identify roles for managing CKD patients within your practice.....	26
Early detection of CKD using Kidney Health check.....	27
Activity 7 - Referral pathways.....	28
Indications for referral to Nephrologist.....	28
Kidney Health Australia Helpline	29

SpotOnHealth HealthPathways29

Health Services Directory29

My Community Directory29

Refer Your Patient29

Activity 7.1 – Referral pathways29

What is the practice plan for communicating referral information?30

Activity 8 - CKD and recalls & reminders31

Activity 8.1 – Reminder system31

Activity 9 - CKD resources32

CKD Resources for Health Professionals32

CKD Guidelines for GPs32

Education for Health Professionals32

Resources for Patients32

Resources for Aboriginal and Torres Strait Islander Patients32

MFI and PDSA template EXAMPLE34

How to use this toolkit

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

- Identify a sample group of patients (between 50-100 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.
- If you find your process is not working and you are not seeing improvements, then review your process and start again.

For more support



support@bsphn.org.au



1300 467 265

Chronic kidney disease (CKD)

What is CKD?

CKD refers to all conditions of the kidney affecting the filtration and removal of waste from the blood for 3 months or more. CKD is identified by reduced filtration by the kidney and/or by the leakage of protein or albumin in the urine.

Approximately 1.7 million Australians (1 in 10) over 18 years of age have indicators of CKD. Fewer than 10% of people (over 1.5 million Australians) with CKD are aware that they have the condition. CKD puts people at an increased risk of cardiovascular disease and diabetes. People with CKD are up to 20 times more likely to die from cardiovascular disease than require dialysis or transplantation. Early detection and management of CKD can reduce the decline in kidney function by up to 50% and may even be reversible.¹

General practice is the ideal setting to address identified care gaps for the treatment of CKD. General practice is often the first point of contact for treatment coordination, access to medications, additional tests and referrals to other providers.

Toolkit aim - To identify who in your practice has chronic kidney disease 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. 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.

Unfortunately, kidney disease often shows no signs until you have lost up to 90% of your kidney function. CKD can be diagnosed with a simple blood test (eGFR) or by a simple urine test (urine albumin creatine ration, urine ACR). Evidence of kidney damage with or without decreased GFR that is present for ≥ 3 months as evidenced by the following, irrespective of the underlying cause:

- albuminuria
- haematuria after exclusion of urological causes
- structural abnormalities (e.g. on kidney imaging tests)
- pathological abnormalities (e.g. renal biopsy).

It is important that both e-GFR and ACR are completed to be sure of diagnosis. Refer to [algorithm for initial diagnosis](#).

¹ <https://www.aihw.gov.au/reports/australias-health/chronic-kidney-disease>

Who is at risk of CKD?

Adult Australians are at increased risk of developing CKD if they:

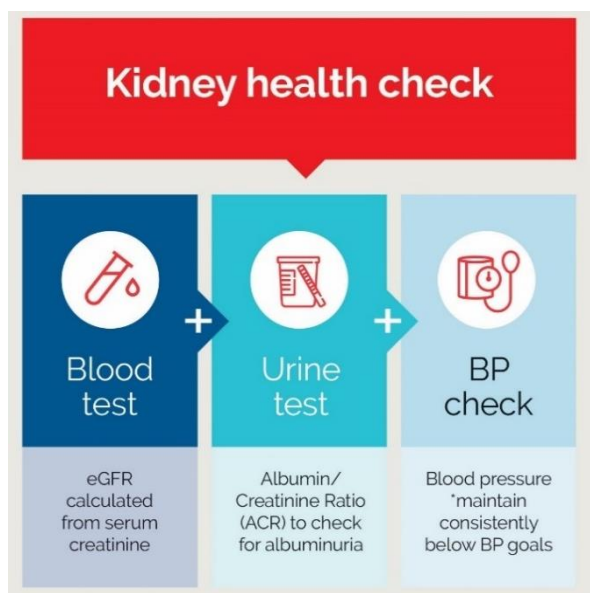
- have diabetes
- have hypertension
- have established cardiovascular disease
- have a family history of kidney failure
- are obese (body mass index ≥ 30 kg/m²)
- are a smoker
- are 60 years or older
- are of Aboriginal or Torres Strait Islander origin
- have a history of acute kidney injury (AKI).²

Signs and Symptoms of CKD

CKD is generally asymptomatic. Up to 90% of kidney function may be lost before symptoms are present.³ Some indicators of reduced kidney function include:

- high blood pressure
- changes in the amount and number of times urine is passed
- changes in the appearance of your urine (for example, frothy or foaming urine)
- blood in your urine
- puffiness in your legs, ankles or around your eyes
- pain in your kidney area
- tiredness
- loss of appetite
- anaemia
- difficulty sleeping
- headaches
- lack of concentration
- itching
- shortness of breath
- nausea and vomiting
- bad breath and a metallic taste in your mouth
- muscle cramps
- pins and needles in your fingers or toes.

CKD should be detected by performing a Kidney Health Check every 1-2 years on individuals who have risk factors for CKD.



² <https://kidney.org.au/your-kidneys/know-your-kidneys/know-the-risk-factors>

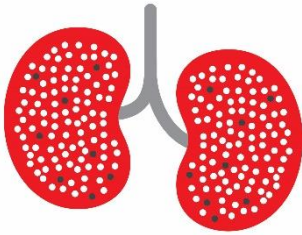
³ <https://kidney.org.au/resources/factsheets-and-photosheets/kidney-fast-facts-factsheet>

⁴ <https://kidney.org.au/health-professionals/chronic-kidney-disease-management-handbook> reference CKD Management in Primary Care 4th edition, 2020, Kidney Health Australia, Melbourne

Chronic kidney disease progresses in 5 different stages

Each stage of chronic kidney disease is related to the level of kidney function and kidney damage.⁵

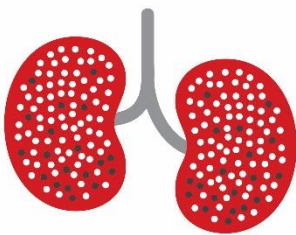
Stage 1:
Early stage
eGFR ≥ 90 + evidence of kidney damage*



Stage 1— a normal eGFR greater than or equal to 90 millilitres per minute per 1.73m^2 , and albuminuria, haematuria, a pathological abnormality or a structural abnormality.

* albuminuria, haematuria, structural or pathological abnormalities.

Stage 2:
Mild damage
eGFR 60 - 89 + evidence kidney damage*

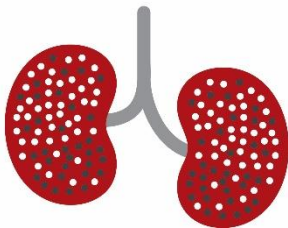


Stage 2— a slightly decreased eGFR between 60 and 89 millilitres per minute per 1.73m^2 , and albuminuria, haematuria, a pathological abnormality or a structural abnormality.

Note: If kidney function is at stage 1 or 2, the person only has chronic kidney disease if albuminuria, haematuria, a pathological abnormality or a structural abnormality are present.

* albuminuria, haematuria, structural or pathological abnormalities.

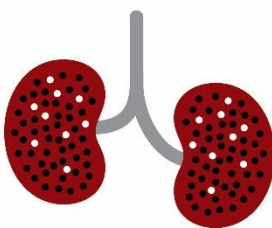
Stage 3:
Moderate damage
3A eGFR 45 - 59, 3B eGFR 30 - 44



Stage 3a— a mild to moderate decrease in eGFR between 45 and 59 millilitres per minute per 1.73m^2 .

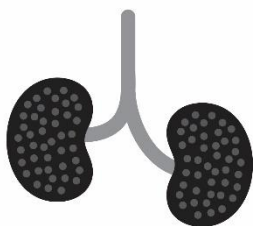
Stage 3b— a moderate to severe decrease in eGFR between 30 and 44 millilitres per minute per 1.73m^2 .

Stage 4:
Severe damage
eGFR 15 - 29



Stage 4— a severe decrease in eGFR between 15 and 29 millilitres per minute per 1.73m^2 .

Stage 5:
End stage kidney disease
eGFR < 15 or on dialysis



Stage 5— kidney failure, as eGFR decreases to less than 15 millilitres per minute per 1.73m^2 , or dialysis is started.

⁵ <https://kidney.org.au/your-kidneys/what-is-kidney-disease/stages-of-kidney-disease>

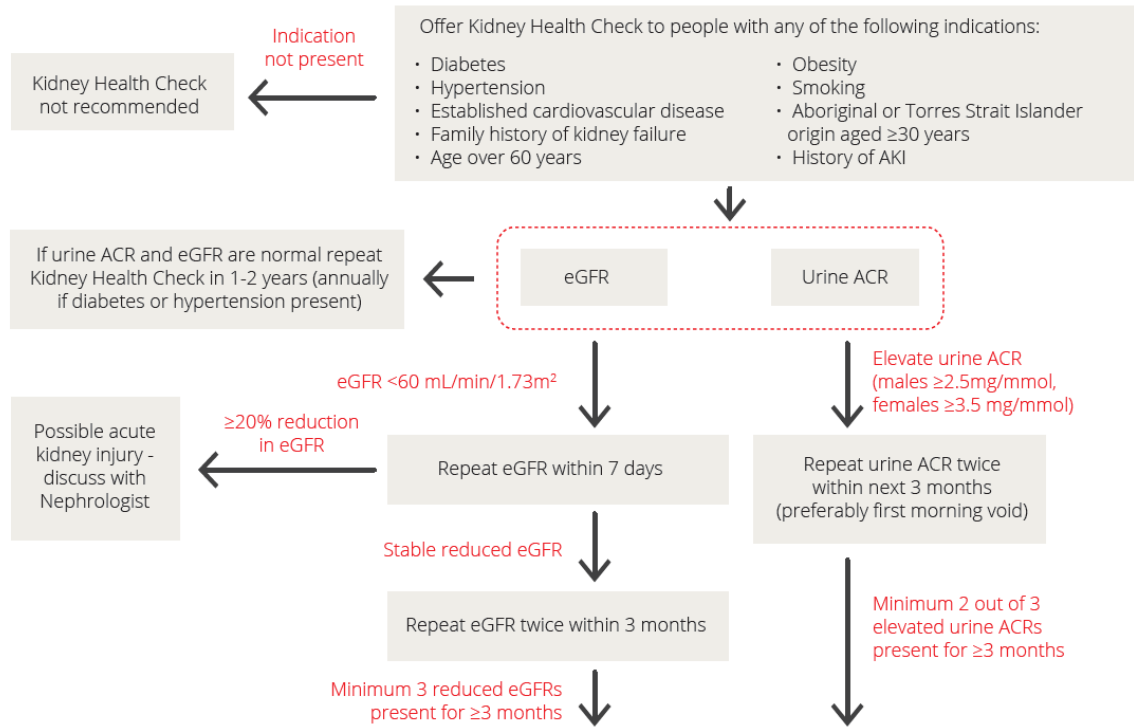
Geographical variation in chronic kidney disease

The impact of CKD is not distributed evenly across geographic areas, with some areas experiencing considerably higher rates of CKD than others. The Australian Institute of Health and Welfare have provided access to a set of [interactive maps](#) that present data on prevalence, treatment (hospitalisations for CKD and dialysis) and deaths at 3 levels: by state/territory, by primary health network areas and by population health areas. Summary statistics on the prevalence of CKD risk factors (smoking, insufficient physical activity, cardiovascular disease and diabetes) and the demographic profile of the area are included to help with interpretation.⁶

Number of people aged 75+ with CKD in Brisbane south (Qld) 2011-2012	Percentage of people aged 75+ with CKD in Brisbane south (Qld) 2011-2012	Percentage of people aged 75+ with CKD in Australia 2011-2012
17,449	38.9%	42.1%

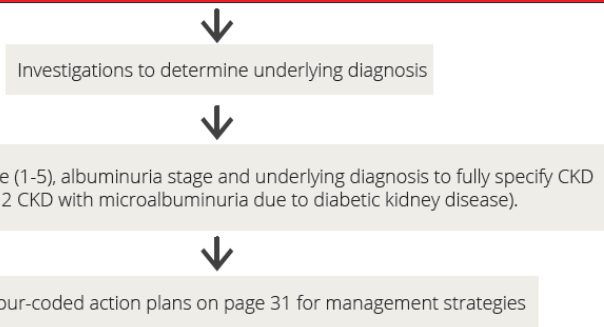
⁶ <https://www.aihw.gov.au/reports/chronic-kidney-disease/geographical-variation-ckd/contents/contents>

Algorithm for initial detection of CKD



Kidney Function Stage	GFR (mL/min/1.73m ²)	Albuminuria Stage		
		Normal (urine ACR mg/mmol) Male: < 2.5 Female: < 3.5	Microalbuminuria (urine ACR mg/mmol) Male: 2.5-25 Female: 3.5-35	Macroalbuminuria (urine ACR mg/mmol) Male: > 25 Female: > 35
1	≥ 90	Not CKD unless haematuria, structural or pathological abnormalities present	Yellow	Red
2	60-89		Yellow	Red
3a	45-59	Yellow	Orange	Red
3b	30-44	Orange	Orange	Red
4	15-29	Red	Red	Red
5	< 15 or on dialysis	Red	Red	Red

Download or purchase your copy of the handbook



Source: CKD Management in Primary Care 4th edition, Kidney Health Australia, Melbourne, 2020

Connect with us
 Website kidney.org.au
 Free call kidney helpline 1800 454 636

⁷ <https://kidney.org.au/health-professionals/chronic-kidney-disease-management-handbook>

Activity 1 - Understanding your CKD patient population

Activity 1.1 – Data collection from CAT4



The aim of this activity is to collect data to identify patients at risk of CKD, also assist with management of patients with CKD.

Complete the below table by collecting data from your CAT4 Data Extraction Tool.

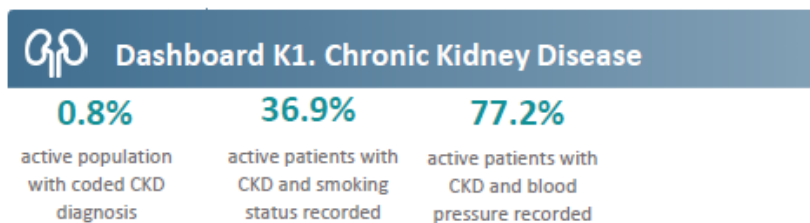
Note - Instructions on how to extract the data is available from the CAT4 website. [Indicated CKD with no diagnosis](#) or [CKD Management & Risk Guide](#) or [identify active patients](#).

	Description	Total number of active patients as per RACGP criteria (3 visits in 2 years)	Total number of active patients
1.1a	Identify patient population		
1.1b	Number of patients at risk of CKD (from CKD at risk graph)		
1.1c	Number of patients at risk of CKD with risk factors not recorded (in yellow from CKD at risk graph)		
1.1d	Number of patients with CKD (from CKD management graph)		
1.1e	Number of patients with CKD risk factors recorded – not at target (from CKD management graph)		
1.1f	Number of patients with CKD with risk factors not recorded (from CKD management graph)		
1.1g	Number of patients with indicated CKD with no diagnosis		

Activity 1.2 – CKD measures on benchmarking report



The aim of this activity is to review your practice’s data dashboard on the monthly benchmark report provided by Brisbane South PHN. You will need your practice’s benchmark report to complete this information. Refer to [instructions](#) on how to obtain report.



	Description	Percentage
1.2a	Active population with coded CKD diagnosis	
1.2b	Active patients with CKD and smoking status recorded	
1.2c	Active patients with CKD and blood pressure recorded	

Activity 1.3– Reviewing your practice CKD profile



Complete the checklist below which reviews your practices CKD patients ‘at risk’ and diagnosed.

Description	Status	Action to be taken
After completing activity 1.1 and 1.2 are there any unexpected results with your practice’s CKD patients?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Please explain: (e.g. <i>higher number of patients with CKD with risk factors not recorded than expected</i>). How will this information be communicated to the practice team?
Is your practice CKD profile similar to other practices in the Brisbane south region (<i>compare with information from your latest benchmark report</i>)?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No: see action to be taken.	Outline the differences – (<i>is it patients with CKD or is it CKD risk factors</i>). How will this information be communicated to the practice team?
After reviewing your practices CKD profile, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	<input type="checkbox"/> Yes, see action to be taken to help set you goals. <input type="checkbox"/> 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 – Building your practice CKD register

Coding is simply a process of using an agreed standardised descriptor, stored as a series of numbers or letters. You may have identified that there are multiple ways clinical staff may 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 CKD are uniform.

Activity 2.1 – Determine terms of consistent coding



The aim of this activity is for the clinical team to agree on consistent CKD 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)?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> 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 diabetes codes from the drop-down lists in your practice software?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No, see action to be taken.	Source list of clinical codes already available in current clinical software. Develop and agree on clinical codes for diabetes to be used within practice.
Have your agreed clinical codes been included in your practice policy?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No, see action to be taken.	Record agreed clinical codes in practice policy manual.
Are practice team members aware of how to enter diagnosis in clinical software using agreed diabetes terminology?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No, see action to be taken.	Refer to instructions from Best Practice or MedicalDirector .
After reviewing your practice’s clinical coding guidelines, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	<input type="checkbox"/> Yes, see action to be taken to help set your goals. <input type="checkbox"/> 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 2.2 – Cleaning up un-coded conditions in your practice software



The aim of this activity is to identify and clean up any un-coded CKD 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 CKD conditions.

Date data collected	Number of un-coded CKD conditions

What is a reasonable timeframe to complete this activity: _____

Who will be completing this activity: _____

Results

After you have actioned any un-coded CKD 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 CKD conditions

Activity 2.3 – Confirming the right patients are on the register



As CKD diagnoses are central to the patient register, the aim of this activity is to look at patients with indicated CKD with no diagnosis reported.

This activity will require you to access the [indicated CKD with no diagnosis report](#) which is determined by the combined results of kidney function (eGFR) and kidney damage (the level of albuminuria using ACR), indicates the possibility of CKD.

Description	Status	Action to be taken
After completing activity 1.1g note how many active patients have indications of CKD with no diagnosis.	Number: _____	
Is there an explanation as to this result?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No: see action to be taken.	Provide information (e.g. GPs unsure where to enter diagnosis, coding issue, information inconclusive, etc.).

Description	Status	Action to be taken
		How will this information be communicated to the practice team?
Have you distributed lists to individual GPs for review and update of their diagnosis?	<input type="checkbox"/> Yes: continue with activity. <input type="checkbox"/> No: see action to be taken.	Ensure you follow up in a week's time to receive the reviewed reports back from the GP. Refer to instructions .
After reviewing your patients marked with indications of CKD, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	<input type="checkbox"/> Yes, see action to be taken to help set your goals. <input type="checkbox"/> No: you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.



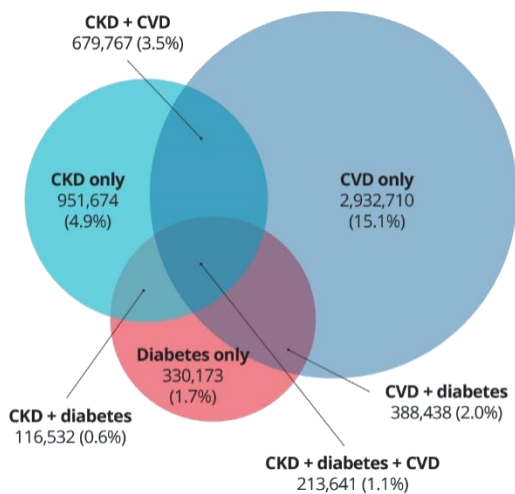
Practice decision point

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

CKD rarely occurs in isolation. In a primary care setting, it is very likely that individuals will have a CKD diagnosis that sits alongside one or more other chronic conditions.

CKD shares many treatment goals and management strategies with other common chronic conditions such as diabetes and cardiovascular disease. Taking a 'whole of person' approach and managing chronic conditions in conjunction with one another will lead to improved patient outcomes.⁸

9



5.6 million
Australians have at least 1 of these three conditions

⁸ <https://kidney.org.au/health-professionals/chronic-kidney-disease-management-handbook>

⁹ <https://kidney.org.au/get-involved/advocacy/make-the-link-kidneys-diabetes-and-heart>

Activity 3 – Co-morbidities and medication management of patients with CKD.

CKD, diabetes and cardiovascular disease are harmful chronic diseases that commonly occur together. These three conditions share causes and risk factors. They also have similar treatment strategies.¹⁰

Activity 3.1 –Data collection from CAT4



The aim of this activity is to collect data to identify patients at with CKD and at least one other chronic medical condition

Complete the below table by collecting data from your CAT4 Data Extraction Tool. Note - Instructions on how to extract the data is available from the CAT4 website. [Co-morbidities](#) or [Chronic Conditions](#)

	Description	Total number of active patients as per RACGP criteria (3 visits in 2 years)	Total number of active patients
3.1a	Number of active patients with CKD & diabetes (<i>select Diabetes yes & Renal Impairment Yes and recalculate</i>)		
3.1b	Number of active patients with CKD and cardiovascular disease (<i>select Cardiovascular yes & Renal Impairment Yes and recalculate</i>)		

Please note: You can search lists by [individual providers](#) and provide to them to identify patients with multiple chronic conditions.

Medication considerations in CKD

It is important to review renally excreted medications, as well as avoid nephrotoxic medications in people with CKD.

- Dosage reduction or cessation of renally excreted medications is generally required once the GFR falls below 60 mL/min/1.73m².
- Home Medicines Reviews and Residential Medication Management Reviews support general practitioner/ pharmacist collaboration and are funded by Medicare item numbers.
- Remember to code CKD correctly. Your practice software can help with medication considerations!
- Educate your patients to flag their kidney status with other providers and ensure your patient is aware that having CKD can affect prescribing of medications.

Patient safety: The combination of ACE inhibitor (or ARB), diuretic and NSAID or COX-2 inhibitor (except low-dose aspirin) can result in acute kidney injury (the ‘triple whammy’), especially if patient is volume-depleted or CKD is present. Ensure individuals on ACE inhibitor or ARB plus diuretic blood pressure medication are aware of the need to discuss appropriate pain relief medication with a general practitioner or pharmacist.

Refer to page 51 of the CKD management in Primary Care [handbook](#) for a full list of medications to reduce or cease.¹¹

¹⁰ <https://kidney.org.au/resources/factsheets-and-photosheets/chronic-kidney-disease-diabetes-and-cardiovascular-disease-factsheet>

¹¹ https://kidney.org.au/uploads/resources/CKD-Management-in-Primary-Care_handbook_2020.1.pdf

Activity 3.2 –Data collection from CAT4



The aim of this activity is to collect data to identify patients at with CKD and at least one other chronic medical condition

Complete the below table by collecting data from your CAT4 Data Extraction Tool. Note - Instructions on how to extract the data is available from the CAT4 website. [Chronic Conditions](#) and [Medications](#).

	Description	Total number of active patients as per RACGP criteria (3 visits in 2 years)	Total number of active patients
3.2a	Number of active patients with CKD taking ACE medications (select Renal Impairment Yes and ACE Yes and recalculate)		
3.2b	Number of active patients with CKD taking ARB medications (select Renal Impairment Yes and ARB Yes and recalculate)		
3.2c	Number of active patients with CKD taking NSAIDs medications (select Renal Impairment Yes and ACE Yes and recalculate)		

Activity 3.3– Reviewing co-morbidities and medication management of patients with CKD.



Complete the checklist below which reviews co-morbidities and medication management of your patients with CKD.

Description	Status	Action to be taken
After completing activity 3.1 are there any unexpected results with your patients' comorbidities?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Please explain: (e.g. higher number of patients with CKD and diabetes than expected). How will this information be communicated to the practice team?
After completing activity 3.1 make note of the number of patients who have CKD & diabetes. Do you need to review your process for managing these patients?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Consider completing a Diabetes Cycle of Care. Refer to MBS online for criteria. Refer to National Evidence Based Guideline for Diagnosis, Prevention and Management of Chronic Kidney Disease in Type 2 Diabetes. Refer to Brisbane South PHN's QI Toolkit – Chronic Conditions - Diabetes.

Description	Status	Action to be taken
After completing activity 3.1 make note of the number of patients who have CKD & cardiovascular disease. Do you need to review your process for managing these patients?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Consider a medication review . Consider recalling the patient to check if they are meeting treatment goals. Refer to Brisbane South PHN's QI Toolkit – Chronic Conditions – Cardiovascular .
After completing activity 3.2 are there any unexpected results with your patients' medications?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Please explain: (e.g. <i>higher number of patients with CKD taking NSAIDs than expected</i>). How will this information be communicated to the practice team?
After reviewing your practices comorbidities and medication management of CKD patients, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	<input type="checkbox"/> Yes, see action to be taken to help set your goals. <input type="checkbox"/> No: you have completed this activity.	Complete the MFI template for your practice. Refer to the example MFI at the end of this document.

Cardiovascular risk calculator

CKD is an important risk factor for cardiovascular disease. Even early CKD is a significant risk factor for cardiovascular events and death¹². All adults 45 and over (or 35 and over if ATSI) without existing cardiovascular disease or who are not automatically considered at high risk should be targeted. **People who have moderate or severe CKD are automatically at high cardiovascular risk and do not need to use the risk calculator** (ACR >25mg/mmol in men or >35 mg/mmol in women or eGFR <45).

The following groups are also automatically at high risk and do not need to use the calculator:

- diabetes > 60 years,
- diabetes with microalbuminuria,
- familial hypercholesterolaemia,
- SBP >180 or DBP >110,
- total cholesterol > 7.5,
- ATSI >74 years of age.

The Australian absolute [cardiovascular disease risk calculator](#) has been produced by the National Vascular Disease Prevention Alliance for the information of health professionals. To use the calculator, you will need patients age, blood pressure, smoking status, total and hdl cholesterol and ECG LVH if know. The calculator is included in [Best Practice](#) and [MedicalDirector](#).

¹² <https://kidney.org.au/health-professionals/prevent/chronic-kidney-disease-management-handbook>

Heart Health Check

Medicare has an item number, **699 (177 for non-VR)**, for GP's to conduct a comprehensive cardiovascular health assessment utilising the Australian Absolute Cardiovascular Disease Risk [calculator](#).¹³ The Heart Health Check includes absolute CVD risk assessment followed by development of a lifestyle management plan. This plan may include referral to My Health for Life or other available lifestyle support programs such as [Heart Foundation Walking](#), [Get Healthy Coaching](#), [Quitline](#) or [10,000 Steps](#).

A Heart Health Check includes absolute CVD risk assessment and development of a lifestyle management plan. So, referral to *My health for life* can occur during a Heart Health Check.

Kidney disease risk calculator

The risk calculation for kidney disease is based on the Kidney Health Australia–Caring for Australasians with Renal Impairment (KHA-CARI) Guidelines. The [kidney health risk calculator](#) includes a series of questions about risk factors for heart disease, kidney disease and type 2 diabetes. The tool uses the answers to estimate the risk of CKD and are available in [Best Practice](#) and [MedicalDirector](#).

¹³ Heart Foundation Australia

Activity 4 – Treatment goals for people with CKD

The aim of this activity is to review patients with CKD and assist the practice to identify treatment goals for these patient's to prevent progression of CKD.

Description	Treatment goal	More information
Diet and nutrition	<ul style="list-style-type: none"> Consume a varied diet rich in vegetables, fruits, wholegrain cereals, lean meat, poultry, fish, eggs, nuts and seeds, legumes and beans, and low-fat dairy products. Limit salt to <6g/day (≤100mmol/day). Limit intake of foods containing saturated and trans fats. Limit intake of foods containing added sugars. Drink water to satisfy thirst. Avoid high calorie sweetened carbonated beverages at all costs. Dietary protein no lower than 0.75g/kg body weight/day. Maintain Serum albumin ≥35 g/L. 	<ul style="list-style-type: none"> Australian dietary guidelines Accredited Practising Dietitian Kidney Health Australia – webinars.
Obesity	<ul style="list-style-type: none"> Ideal weight should be BMI ≤25. Waist circumference ≤ 94cm in men or ≤ 80 cm in women. 	<ul style="list-style-type: none"> Clinical Practice Guidelines for management of overweight and obesity.
Physical activity	<ul style="list-style-type: none"> Be active on most, preferably all days every week Accumulate 150 to 300 minutes (2 ½ to 5 hours) of moderate intensity physical activity or 75 to 150 minutes (1 ¼ to 2 ½ hours) of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities each week. Do muscle strengthening activities on at least 2 days each week. Refer to Physical Activity and Sedentary behavior guideline for age specific recommendations. 	<ul style="list-style-type: none"> Australia's physical activity and sedentary behaviour guidelines
Smoking	<ul style="list-style-type: none"> Stop smoking using counselling and if required nicotine replacement therapy or other medication. 	<ul style="list-style-type: none"> Quitline ph. 137848
Alcohol	<ul style="list-style-type: none"> Limit intake to ≤ 2 standard drinks per day to reduce risk of alcohol related disease or injury over a lifetime. Do not drink ≥ 4 standard drinks on any single occasion 	<ul style="list-style-type: none"> NHMRC Australian guidelines

Description	Treatment goal	More information
Hypertension	<ul style="list-style-type: none"> Maintain below 130/80 mmHg for all people with CKD 	<ul style="list-style-type: none"> RACGP guidelines for preventative activities in general practice
Glycaemic control	<ul style="list-style-type: none"> Blood glucose levels: 6-8mmol/L fasting, 8-10 mmol/L postprandial. HbA1c: generally, ≤53 mmol/mol (range 48-58); ≤7% (range 6.5-7.5). Needs individualisation according to patient circumstances (e.g. disease duration, life expectancy, important comorbidities, and established vascular complications). 	<ul style="list-style-type: none"> RACGP Managing Type 2 Diabetes in General Practice Handbook Diabetes Australia Kidney Health Australia – webinars.
Albuminuria	<ul style="list-style-type: none"> 50% reduction in urine ACR. 	<ul style="list-style-type: none"> RACGP guidelines for preventative activities in general practice
Lipids	<ul style="list-style-type: none"> Use statin or statin/ezetimibe combination in people ≥50 years with any stage of CKD, or in people <50 years with any stage of CKD in the presence of one or more of: coronary disease, previous ischaemic stroke, diabetes or estimated high cardiovascular risk (>15% over 5 years) No target serum cholesterol level recommended. 	<ul style="list-style-type: none"> KDIGO guidelines KHA-CARI guidelines National Vascular Disease Prevention Alliance RACGP National guide to preventive health assessment in Aboriginal and Torres Strait Islander people
Anaemia	<ul style="list-style-type: none"> 100-115g/L. Prior to commencement of erythropoietin stimulating agent (ESA) a trial of iron supplementation maintaining: Ferritin >100 µg/L. 	<ul style="list-style-type: none"> Clinical Practice Guidelines - Anaemia. Kidney Health Australia – anaemia and kidney disease Kidney Health Australia – webinars.
Immunisation	<ul style="list-style-type: none"> Influenza and invasive pneumococcal disease vaccination recommended for all people with diabetes and / or ESKD. 	<ul style="list-style-type: none"> NHMRC guidelines

14

¹⁴ <https://kidney.org.au/health-professionals/chronic-kidney-disease-management-handbook>

Activity 4.1 – Data collection from CAT4



The aim of this activity is to collect data to identify treatment goals for patients with CKD.

Complete the below table by collecting data from your CAT4 Data Extraction Tool.

Note - Instructions on how to extract the data is available from the CAT4 website. [BMI](#) or [Physical activity](#) or [smoking status](#) or [alcohol status recorded](#) or [blood pressure](#) or [HbA1c](#) or [lipids](#) or [influenza](#) or [pneumococcal](#)

	Description	Total number of active patients
4.1a	Number of patients with CKD and BMI classified as overweight and obese (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1b	Number of patients with CKD who have had a physical activity assessment completed (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1c	Number of patients with CKD who are smokers (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1d	Number of patients with CKD who have had an alcohol assessment completed (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1e	Number of patients with CKD with a blood pressure recording > 130/80 mmHg (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1f	Number of patients with CKD with a HbA1c recorded (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1g	Number of patients with CKD with lipids recorded (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1h	Number of patients with CKD and influenza vaccination completed in the past 12 months (<i>ensure you select Renal Impairment under Conditions</i>)	
4.1i	Number of patients with CKD and pneumococcal vaccination up to date (<i>ensure you select Renal Impairment under Conditions</i>)	

Activity 4.2 - Reviewing your practice treatment goals for patients with CKD



Complete the checklist below which reviews your practices treatment goals for CKD patients.

Description	Status	Action to be taken
After completing activity 4.1 are there any unexpected results with your practice's treatment goals for CKD patients?	<input type="checkbox"/> Yes: see action to be taken. <input type="checkbox"/> No: continue with activity.	Please explain: (<i>e.g. higher number of patients with CKD who are obese than expected</i>).

Description	Status	Action to be taken
		How will this information be communicated to the practice team?
After reviewing your practice’s treatment goals for CKD patients, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?	<input type="checkbox"/> Yes, see action to be taken to help set your goals. <input type="checkbox"/> 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 4.3 – Recording risk factors & smoking status in your clinical software



The aim of this activity is to review where risk factors are being recorded in your clinical software.

Description	Status	Action to be taken
Are all the chronic kidney disease risk factors being recorded in the correct fields in your clinical software? (e.g.: BP, BMI, HbA1c, LDL, Cholesterol, smoking status, ACE/ARB, statin).	<input type="checkbox"/> Yes: you have completed this activity. <input type="checkbox"/> No, see action to be taken to help set your goals.	Review how and where your chronic kidney disease risk factor information is being recorded in your practice software. See instructions on entering information in Best Practice or MedicalDirector . Ensure all relevant team members are aware of how to record chronic kidney disease risk factor information. Document in practice policy.

Activity 5 – Medicare item numbers for people with CKD

Patients with CKD **may be eligible** to access item numbers within the Medicare Benefit Schedule (MBS). 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 has a comprehensive [toolkit](#) looking at MBS items, however, a summary of the item numbers include:

MBS items

- [GP Management Plans \(GPMP\)](#)
- [Team Care Arrangements \(TCA\)](#)
- [Nurse chronic disease item number](#)
- [Mental health items](#)
- [Health assessment](#)
- [Aboriginal and Torres Strait Islander health assessment](#)
- [Home medication review](#)
- [MBS telehealth fact sheet](#)
- [Ambulatory BP monitoring \(new MBS item\)](#)



TIP: GPs are required to make sure each patient meets the MBS criteria prior to claiming each item number.

Activity 5.1 – Data collection from CAT4



The aim of this activity is to collect data to determine the number of MBS claims made for patients with CKD over the past 12 months.

Complete the below table by collecting data from your CAT4 Data Extraction Tool.

Instructions on how to extract the data is available from: [Number of people eligible for a Home Medication Review](#) or [Number of people eligible for GPMP/TCA](#) or [Number of patients eligible for Health Assessment](#) or [Number of patients eligible for a Diabetes Cycle of Care](#) or [Number of people eligible for an Aboriginal and Torres Strait Islander health assessment](#) or [Number of people eligible for a mental health treatment plan](#)

Item	Description	Total number of active patients
5.1a	Number of active patients with CKD who may be eligible for a GPMP &/or TCA plan (ensure you select Renal Impairment under Conditions).	
5.1b	Number of active patients with CKD who may be eligible for a Health Assessment (ensure you select Renal Impairment under Conditions).	
5.1c	Number of active patients with CKD who may be eligible for a HMR (ensure you select Renal Impairment under Conditions).	
5.1d	Number of active patients with CKD who may be eligible for a Diabetes Cycle of Care (ensure you select Renal Impairment under Conditions).	

Item	Description	Total number of active patients
5.1e	Number of active patients with CKD who may be eligible for an Aboriginal and Torres Strait Islander assessment (<i>ensure you select Renal Impairment under Conditions</i>).	
5.1f	Number of patients with CKD who may be eligible for a MHTP (<i>ensure you select Renal Impairment under Conditions</i>)	

Activity 5.2 – Checklist for reflection on MBS claiming



Complete the checklist below to review your practice’s MBS claiming for patients with CKD.

Questions to consider	Status	Action to be taken
Are there any patients with CKD without a HMR completed in the past 12 months? (<i>note: not all patients with CKD will be eligible for a HMR, refer to MBS criteria</i>).	<input type="checkbox"/> Yes, see action to be taken. <input type="checkbox"/> No, continue with activity.	Please explain: What action will you take? How will you use this information to increase the number of HMR completed?
Are there any patients with CKD without a GPMP &/or TCA completed in the past 12 months? (<i>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</i>).	<input type="checkbox"/> Yes, see action to be taken. <input type="checkbox"/> No, continue with activity.	Please explain: What action will you take? How will you use this information to increase the number of management plans completed?
Do relevant staff know where to find specific CKD templates for GPMP/TCA (<i>e.g. Red, orange and yellow stages</i>)?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken.	Refer to pages 31,32 & 33 of CKD management in primary care guidelines .

Questions to consider	Status	Action to be taken
<p>Are there any patients with CKD without a health assessment completed in the past 12 months? (<i>note: not all patients identified in the search will be eligible for a health assessment e.g. not regular GP please ensure that MBS criteria is met</i>).</p>	<p><input type="checkbox"/> Yes, see action to be taken.</p> <p><input type="checkbox"/> No, continue with activity.</p>	<p>Please explain:</p> <p>What action will you take?</p> <p>How will you use this information to increase the number of Health Assessments completed?</p>
<p>Have you created a Topbar prompt on all patients with CKD who may be eligible for a HMR, GPMP or health assessment?</p>	<p><input type="checkbox"/> Yes: continue with activity.</p> <p><input type="checkbox"/> No: see action to be taken.</p>	<p>Follow the instructions to complete this.</p>
<p>Do you know the contact details for any MBS related questions?</p>	<p><input type="checkbox"/> Yes, continue with activity.</p> <p><input type="checkbox"/> No, see actions to be taken.</p>	<p>Email: askMBS@health.gov.au</p> <p>Provider Enquiry Line - 13 21 50.</p>
<p>Do relevant staff know that Medicare provides online training modules?</p>	<p><input type="checkbox"/> Yes, continue with activity.</p> <p><input type="checkbox"/> No, see action to be taken.</p>	<p>More information can be obtained from Medicare Australia e-learning modules.</p>
<p>After reviewing the MBS claiming for patients with CKD, are there any changes you would like to implement in the practice to help manage patients over the next 12 months?</p>	<p><input type="checkbox"/> Yes, see action to be taken to help set your goals.</p> <p><input type="checkbox"/> No, you have completed this activity.</p>	<p>Complete the MFI template for your practice.</p> <p>Refer to the example MFI at the end of this document.</p>

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

Activity 6.1 – Identify roles for managing CKD patients 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 CKD assessment and management.

Activity	Nurse	GP	Admin
Organise eGFR test & follow up			
Organise urine ACR (albumin creatinine ratio) & follow up			
Check all patients with CKD have had an initial diagnostic evaluation with FBC, CRP, ESR, fasting lipids and glucose and renal ultrasound			
Organise renal ultrasound			
Monitor blood pressure			
Complete cardiovascular risk assessment (if not already at high risk)			
Updating patient reminders for regular monitoring (frequency depends on patients' condition)			
Review diet/healthy eating			
Review physical activity and exercise tolerance			
Review smoking & alcohol intake			
Check mental health status and offer support services			
Provide self-care education (refer to Kidney Helpline/ provide My Kidneys My Health resource)			
GP Management Plan			
Consider comorbidities (diabetes, anxiety, depression, cardiovascular disease, lung cancer)			
Review medications according to eGFR			
Home Medication Review			
Assess need for specialist referral			
Consider advanced care planning			

Early detection of CKD using Kidney Health check

Indication for assessment	Recommended assessments	Frequency
<ul style="list-style-type: none"> Age ≥ 60 years * diabetes hypertension established cardiovascular disease ** family history of kidney failure obesity (BMI ≥ 30kg/m²) smoker Aboriginal or Torres Strait Islander origin aged ≥ 30 years history of acute kidney injury 	Urine ACR, eGFR, blood pressure. If urine ACR positive repeat twice over 3 months (preferably first morning void). If eGFR <60ml/min/1.73m² repeat within 7 days.	Every 1-2 years ±

* Whilst being aged 60 years of age or over is considered to be a risk factor for CKD, in the absence of other risk factors it is not necessary to routinely assess these individuals for kidney disease.

** Established cardiovascular disease is defined as a previous diagnosis of coronary heart disease, cerebrovascular disease or peripheral vascular disease.

± annually for individuals with diabetes or hypertension.

Recommendations for CKD detection in Aboriginal and Torres Strait Islander peoples		
Indication for assessment	Recommended assessments	Frequency
People aged 18-29 years without any CKD risk factors	Screen for CKD risk factors.	As part of annual health assessment.
All people ≥30 years And People 18-29 years with one or more CKD risk factors. ¹⁵	Urine ACR, eGFR, blood pressure. If urine ACR positive repeat twice over 3 months (preferably first morning void). If eGFR <60ml/min/1.73m² repeat within 7 days.	Every two years (or more frequently if CVD risk is elevated).

For further details information refer to the [National Guide to a Preventive Health Assessment for Aboriginal and Torres Strait Islander People](#).

¹⁵ <https://kidney.org.au/health-professionals/ckd-management-handbook>

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, consultants; allied health; social, disability and community services) assist the practice to provide optimal care to patients whose health needs require integration with other services.

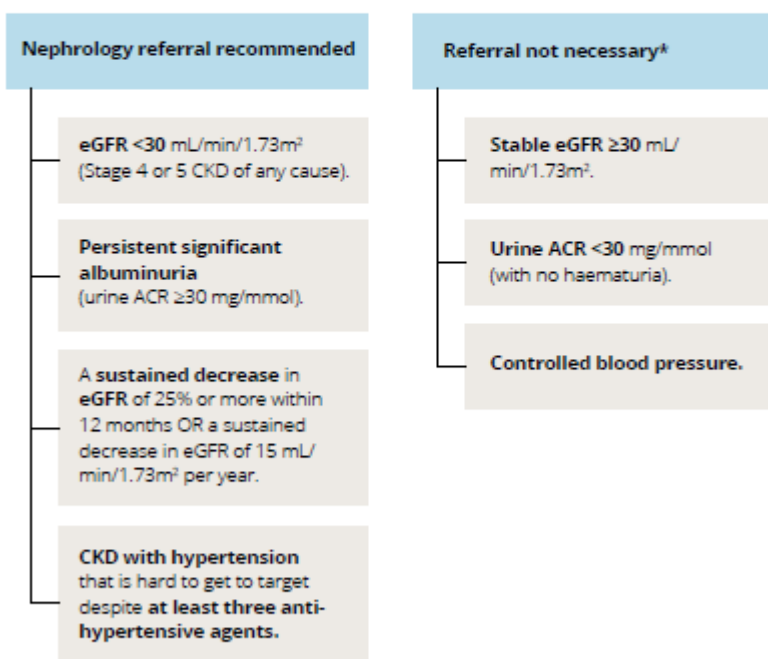
Indications for referral to Nephrologist

The management of CKD is always a collaborative effort, involving at least the individual and their General Practitioner. As kidney function declines, and as complications and comorbidities increase, it is likely that the contribution of others will be needed for optimal care.¹⁶

Indications for referral to a nephrologist^{12, 58}

Appropriate referral is associated with positive outcomes, including:

- Reduced rate of progression to ESKD.
- Decreased morbidity and mortality.
- Decreased need for and duration of hospitalisation.
- Increased likelihood of timely preparation of permanent dialysis access prior to dialysis onset.
- Increased likelihood of kidney transplantation.



* In the absence of other referral indicators.

* The decision to refer or not must always be individualised, and particularly in younger individuals the indications for referral may be less stringent. Discuss management issues with a specialist by letter, email or telephone in cases where it may not be necessary for the person with CKD to be seen by the specialist.

17

¹⁶ <https://kidney.org.au/health-professionals/ckd-management-handbook>

¹⁷ <https://kidney.org.au/health-professionals/ckd-management-handbook> - page 61.

Kidney Health Australia Helpline

Health professional staff are available 9-5pm Monday to Friday to provide patients, carers and health care professionals with information and support about kidney disease, dialysis and services available nationally and locally. [Kidney Helpline](#) - Kidney Health Australia.

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.

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.

Refer Your Patient

Metro South Health is the major provider of public health services, and health education and research, in the Brisbane south side, Logan, Redlands and Scenic Rim regions. [Refer Your Patient Website](#) is to assist health professionals access 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.

Activity 7.1 – Referral pathways

Complete the checklist below in relation to 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.

Description	Status	Action to be taken
Do all GPs and nurses have login details for SpotOnHealth HealthPathways?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken .	Register on the login page to request access.
Do all GPs and nurses know how to access SpotOnHealth HealthPathways via Topbar?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken .	Follow the instructions . Or contact BSPHN Digital Health Team via email: health@bsphn.org.au .

Description	Status	Action to be taken
Do all GPs know the criteria for referring patients to Nephrologist?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken .	Refer to Metro South Health’s website for referral criteria.
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?	
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?	<input type="checkbox"/> Yes, see action to be taken to help set your goals . <input type="checkbox"/> 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 8 - CKD and recalls & 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 CKD 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 the practice’s reminder system.

Question to consider	Status	Action to be taken
Does your practice have a routine reminder for appropriate CKD tests?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken.	Refer to instructions from Best Practice or MedicalDirector .
Do clinicians know how to initiate a patient reminder within clinical software?	<input type="checkbox"/> Yes, continue with activity. <input type="checkbox"/> No, see action to be taken.	Clinician education on setting up patient reminders
Is there a system for ensuring patients recently diagnosed with diabetes are incorporated into the reminder system	<input type="checkbox"/> Yes, policy is working. <input type="checkbox"/> Yes, policy is not working, see action to be taken. <input type="checkbox"/> No policy, see action to be taken.	Revise policy Practice policy on reminders to be implemented
Does the recall and reminder system take into consideration patients with low English proficiency?	<input type="checkbox"/> Yes, policy is working. <input type="checkbox"/> Yes, policy is not working, see action to be taken. <input type="checkbox"/> No policy, see action to be taken.	Revise or implement practice policy. Letters and voice phone messages can be confusing for patients with limited or no English. Using the Translating and Interpreting Service to call the patient or sending text messages can be more effective. Consider using the online Appointment Reminder Translation Tool .
After reviewing your practice’s 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?	<input type="checkbox"/> Yes, see action to be taken to help set your goals. <input type="checkbox"/> 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 - CKD resources

CKD Resources for Health Professionals

- [Chronic Kidney disease in the elderly](#) – Australian Family Physician
- [90% of those with chronic kidney disease don't know they have it](#) – Australian Doctor
- [Chronic kidney disease and measurement of albuminuria or proteinuria](#) – Medical Journal of Australia
- [GP Psychiatry support line](#) – Brisbane South PHN.

CKD Guidelines for GPs

- [Chronic Kidney Disease Management handbook](#)
- [CKD-Go! App.](#)

Education for Health Professionals

- [RACGP e-learning modules](#)
- [ThinkGP/KHA free e-learning modules](#)
- Kidney Health Australia – [webinars](#)
- Kidney Health Australia - [GP champions](#).

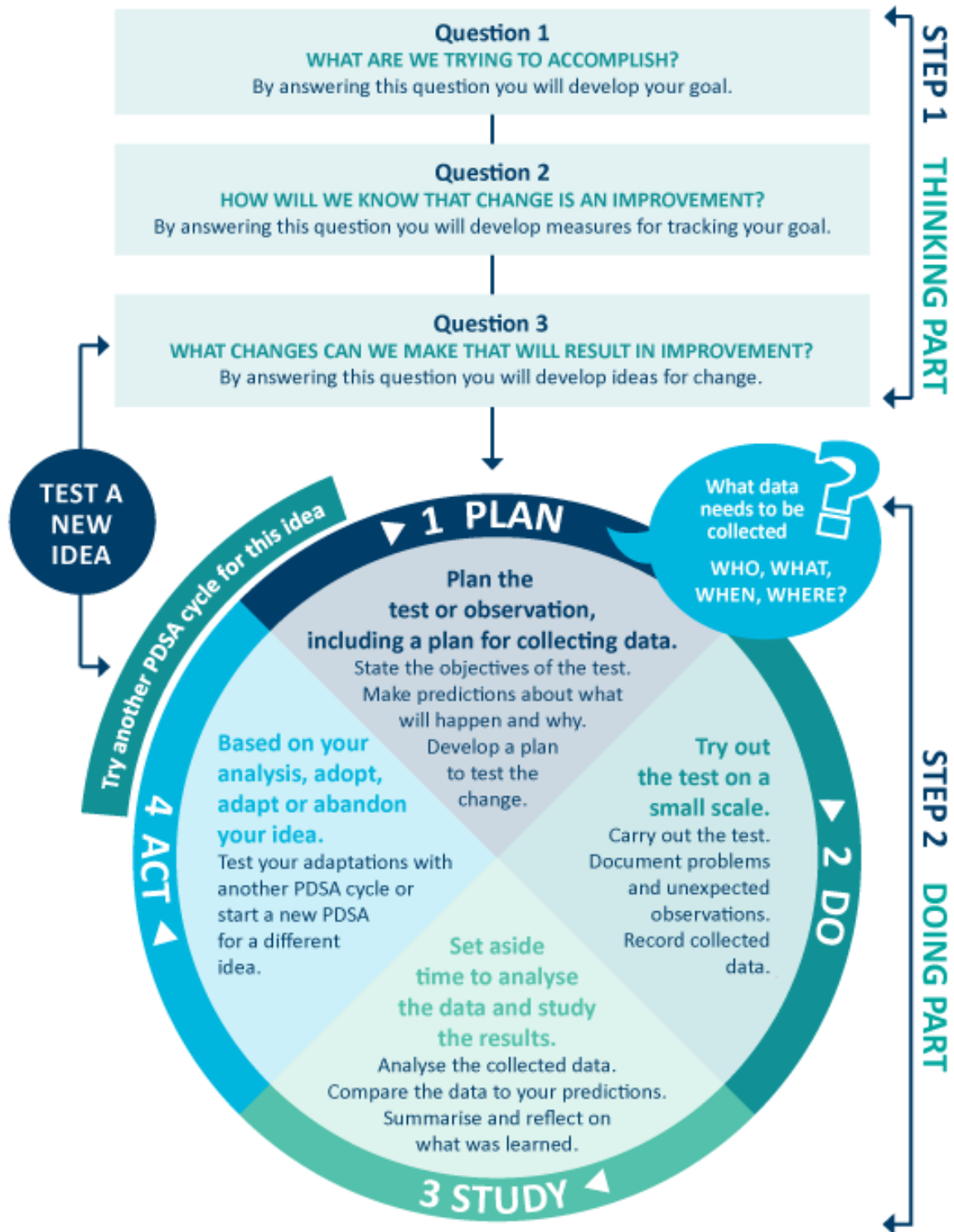
Resources for Patients

- [My Kidneys My Health – Handbook and App](#) – Kidney Health Australia
- Kidney Helpline – 1800 454 363 or kidney.helpline@kidney.org.au for patients and carers impacted by Kidney Disease
- [Check my kidney's – take the test](#) – Kidney Health Australia
- [Keeping your kidneys healthy](#)
- [Yesterday, Today & Tomorrow: Personal accounts of people living with kidney failure](#)
- [Key fact sheets about Kidney Disease in several languages](#)
- [Health translations.](#)

Resources for Aboriginal and Torres Strait Islander Patients

- [Are your kidneys ok?](#)
- [Bush tucker, healthy eating & wellness](#)
- [Aboriginal and Torres Strait Islander peoples resource library](#)
- [First Nations Health Focus.](#)

Model for Improvement diagram



Source: <http://www.ihl.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 (Specific, Measurable, Achievable, Relevant, Time bound).	
Our goal is to: Increase the number of GPMPs completed on patients with CKD. <i>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.</i> <i>So, for this example, a better goal statement would be:</i> Our S.M.A.R.T. goal is to: Increase the number of GPMPs completed on patients with CKD by 5% by 10 th May.	
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 CKD who have a GPMP completed in the past 12 months. To do this we will: A) Identify the number of active patients with CKD. B) Identify the number of active patients with CKD and a GPMP completed in the past 12 months. B divided by A x 100 produces the percentage of patients with CKD and GPMP completed in the past 12 months. BASELINE MEASUREMENT: 33% of active patients with CKD have a GPMP completed in the past 12 months.	
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.M.A.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 active patients with CKD who do not have a GPMP recorded in the past 12 months. IDEA: Update the reminder criteria on the practice software to ensure the GPMP reminder interval is set at the appropriate time. IDEA: Clinical team develop a system for flagging eligible patients and addressing completing opportunistically. IDEA: Review practice GPMP templates to ensure there is consistency for all patients with CKD. IDEA: Source and provide endorsed patient education resources (in waiting rooms, toilets etc.).	

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 EXAMPLE

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 active patients with CKD who have not had a GPMP completed in the past 12 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.
<p>WHAT: Lucy (office manager) will set aside an hour on a Tuesday afternoon to conduct a search on CAT4 of all active patients with CKD and no GPMP recorded. She will also generate individual reports for each GP of the patients with indications of CKD with no diagnosis. Lucy will organise with each GP to review their list of patients and provide feedback on suitable patients to have a GPMP completed. Lucy will then search the appointment book to see if any of the patients have an existing appointment booked in the next month or so. If they do, she will call the patient to see if they would be able to come to the practice for a longer appointment and see the nurse as well. If the patient does not have an appointment, Lucy will call them to arrange an appointment. Tom the nurse will check the software template to ensure all the measures for CKD are included. Jane the practice manager will monitor the practice’s monthly benchmark report to review any changes with CKD data.</p> <p>WHO/WHEN/WHERE:</p> <p>Who: Lucy, Tom & Jane When: Begin 1st February. Where: Practice.</p> <p>DATA TO BE COLLECTED: Number of active patients with CKD and number of active patients with CKD who have not had a GPMP completed in the past 12 months.</p> <p>PREDICTION: 38% of the active CKD patient population will have had a GPMP completed in the past 12 months.</p>	
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).
<p>Done – completed 10th May – Lucy (office manager) conducted a search on CAT4 of all active patients with CKD and no GPMP recorded. She also generated individual reports for each GP of the patients with indications of CKD with no diagnosis. Lucy organised a meeting with each GP to review their list of patients and provide feedback on suitable patients to have a GPMP completed. The appointment book was reviewed to see if any of the patients have an existing appointment booked in the next month or so. 8 patients did have an appointment and Lucy contacted them to offer a longer appointment and an appointment with the nurse. 5 of those patients accepted the offer. Lucy then contacted other patients that the GPs had identified to co-ordinate appointments. Tom the nurse checked the software template to ensure all the measures for CKD are included. Jane the practice manager monitored the practice’s monthly benchmark report to review any changes with CKD data.</p>	

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.
<p>At the end of the focus on GPMP for patients with CKD, 43% of patients with GPMP recorded. This has resulted in a 10% increase in results which is 5% higher than our goal.</p> <p>Results have been shared with the whole practice team. We can see the benefit in discussing this with eligible patients. The practice principals were very pleased to hear about the 17 people who came in for a GPMP. The team has been commended for their work in identifying eligible patients.</p> <p><i>Communicate the results of your activity with your whole team. Celebrate any achievements, big or small.</i></p>	
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. <i>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.</i>
<p>ADOPT: The practice will regularly monitor CKD measures via the monthly benchmark report supplied by Brisbane South PHN to ensure the rates are increasing. Lucy will ensure a Topbar prompt has been created for all patients with CKD to ensure they have a GPMP recorded.</p> <p>ADAPT:</p> <p>ABANDON:</p>	

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

