

Getting Started

Installation	Refer to the PCS Clinical Audit Tool® Quick Reference Guide for installation instructions and an overview of CAT features.
---------------------	---

Overview

CAT CKD tab	<p>The Victorian Department of Health, the Victorian Renal Clinical Network, Kidney Health Australia and Western Health together with General Practice Victoria (GPV) have funded enhancements to CAT to support 1) the management of kidney disease patients and 2) early identification of 'at risk' kidney disease patients. This has resulted in a 'CKD' tab being added to CAT. In addition, for practices that have the PrimaryCareSidebar®, real time prompting of patients at risk has been made available.</p> <p>The CAT 'CKD' tab provides 2 graphs:</p> <ul style="list-style-type: none"> • CKD Management This graph is designed to enable practices to manage their patients who have been diagnosed with CKD. It displays the status of the clinical items that need to be reviewed for these patients, allowing clinicians to follow up on items that are outstanding or not at target. • CKD AT Risk This graph is designed to enable practices to identify their patients who are at risk of CKD. It excludes patients who are already diagnosed with CKD. It displays the status of the CKD risk factors for patients who have one or more risk factors, allowing clinicians to recall patients with high risk levels or multiple risk factors. <p>CKD Data Repository The project team, which has developed these enhancements, has recruited practices to be part of a CKD early detection pilot study. Practices that have agreed to partake in the CKD early detection pilot study will have additional CAT functionality available to be able to send data to the CKD Repository using CAT. This data will be analysed as part of the pilot study.</p>
--------------------	---

CKD Management Graph

Target Population

Target population is patients ≥ 15 years with a CKD diagnosis and without a history of renal dialysis or kidney transplant¹

CKD Management Graph

A stacked bar chart showing the % of patients that have a recorded value for each of the management items: Blood Pressure, BMI, HbA1c (if Diabetic), LDL, Total Cholesterol, Smoking, ACE/ARB prescribed, Statin prescribed.

Dark Green = Recorded

Light Green = Recorded and at target²

Yellow = Recorded and not at target

Red = Not Recorded



¹ Refer to diagnosis codes at the end of this guide

² Refer to target values at the end of this guide

CKD Management Graph > Worksheet

The worksheet provides a report of all the management items for the target population.

From the CKD Management Graph

- Tick 'Select All'
- Click 'Worksheet'

Some additional items of relevance are included: ACR, eGFR and Diabetes diagnosis.

Reidentify Report [patient count = 6] - CKD MANAGEMENT WORKSHEET

Selected: CKD Management (BP: Not Recorded, BMI: Not Recorded, LDL: Not Recorded, TChol: Not Recorded, Smoking: Not At Target, ACE/ARB: Recorded, Statin: Recorded, Statin: Not Recorded, ACE/ARB: Not Recorded, BP: Not At Target, LDL: Not At Target, TChol: Not At Target, BMI: At Target, BMI: Not At Target, HbA1c: At Target, LDL: At Target, TChol: At Target, HbA1c: Not At Target, BP: At Target, Smoking: At Target)

ID	Surname	First Name	Sex	D.O.B	ACR	eGFR	BP	BMI	Diabetes	HbA1c	LDL	TCHOL	Smoking	ACE/ARB	Statin
6580	BO6580	B6580	M	06/02/1930									Ex Smoker	√	√
13497	Lo13497	Y13497	M	10/01/1927			123/66	26.17	Y	7.2	1.8	3.8	Never Smoked	√	√
14227	Lo14227	G14227	M	20/02/1933			133/66	27.12			2.1	3.2	Ex Smoker	√	√
1602	Ma1602	M1602	F	17/12/1949			151/89	23.59			4.0	6.6	Ex Smoker		
28336	ON28336	S28336	M	13/06/1941									Ex Smoker	√	
2360	Wa2360	L2360	M	09/01/1927	57.60		999/69	29.91	Y	6.0	2.4	3.8	Ex Smoker		√

Extract Details:
 Practice Name: MELB2-234
 Medical Director, version 3
 Extract Date: 15/11/2011
 Patient Count: 13026
 Printed: 16/11/2011 4:49 PM
 Clinical Audit - Not Published(3.1.999.6) - Pen Computer Systems Pty Ltd

Refine Selection Add/Withdraw Patient Consent for Sharing Data Go OK

CKD At Risk Graph

Target Population

Target population is patients ≥ 15 years without a CKD diagnosis.
 Patients must have one or more of the risk factors present in their clinical record.

CKD At Risk Graph

A stacked bar chart showing the % of patients that have an 'at risk' value for each of the CKD risk items: Smoking, Diabetes (Diagnosis, $HbA1c > 6.5$, $BSL > 11.1$ or $FBG > 7$), Hypertension (Diagnosis or $BP > 140/90$), Obesity ($BMI > 30$), CVD Diagnosis, or ATSI with $Age > 30$

Yellow = Risk factor not recorded

Red = Has this risk factor³

Recommendations for early detection of CKD are available at <http://www.kidney.org.au>



³ Refer to at risk levels at the end of this guide

CKD At Risk Graph > Worksheet

The worksheet provides a report of all the risk factors for the target population.

From the CKD At Risk Graph

- Tick 'Select All'
- Click 'Worksheet'

Reidentify Report [patient count = 2168] - CKD AT RISK WORKSHEET

Selected: CKD At Risk (Smoking: Has this Risk Factor, Diabetes: Risk factor not recorded, Obesity: Risk factor not recorded, ATSI and Age>30: Risk factor not recorded, Hypertension: Risk factor not recorded, Hypertension: Has this Risk Factor, Obesity: Has this Risk Factor, Diabetes: Has this Risk Factor, CVD: Has this Risk Factor, ATSI and Age>30: Has this Risk Factor, Smoking: Risk factor not recorded)

ID	Surname	First Name	Sex	D.O.B	Smoking	Diabetes	HbA1c	BSL	FBG	Hypertension	BP	BMI	CVD	ATSI	Age
123732	Surname	Firstname	M	01/01/1960	Smoker						130/80	23.4		Y	19
1231832	Surname	Firstname	M	01/01/1960	Smoker						125/70			N	66
1232232	Surname	Firstname	M	01/01/1960	Smoker						110/70				30
1232732	Surname	Firstname	F	01/01/1960	Smoker						130/85			N	40
1239332	Surname	Firstname	M	01/01/1960	Smoker				5.0		120/70			N	53
12311532	Surname	Firstname	M	01/01/1960	Smoker						130/80				28
12312532	Surname	Firstname	F	01/01/1960	Smoker			5.2							73
12313632	Surname	Firstname	M	01/01/1960	Smoker					Y	155/90	41.4		N	58
12314132	Surname	Firstname	F	01/01/1960	Smoker						120/78	19.5			57
12320432	Surname	Firstname	M	01/01/1960	Smoker						120/80	22.0		N	43
12321532	Surname	Firstname	F	01/01/1960	Smoker						106/48	33.4		N	25
12323132	Surname	Firstname	F	01/01/1960	Smoker						135/80	24.4			44
12324332	Surname	Firstname	M	01/01/1960	Smoker			4.6		Y	155/90			N	47
12327332	Surname	Firstname	M	01/01/1960	Smoker						163/95			N	56

Sending CKD Data to the Repository

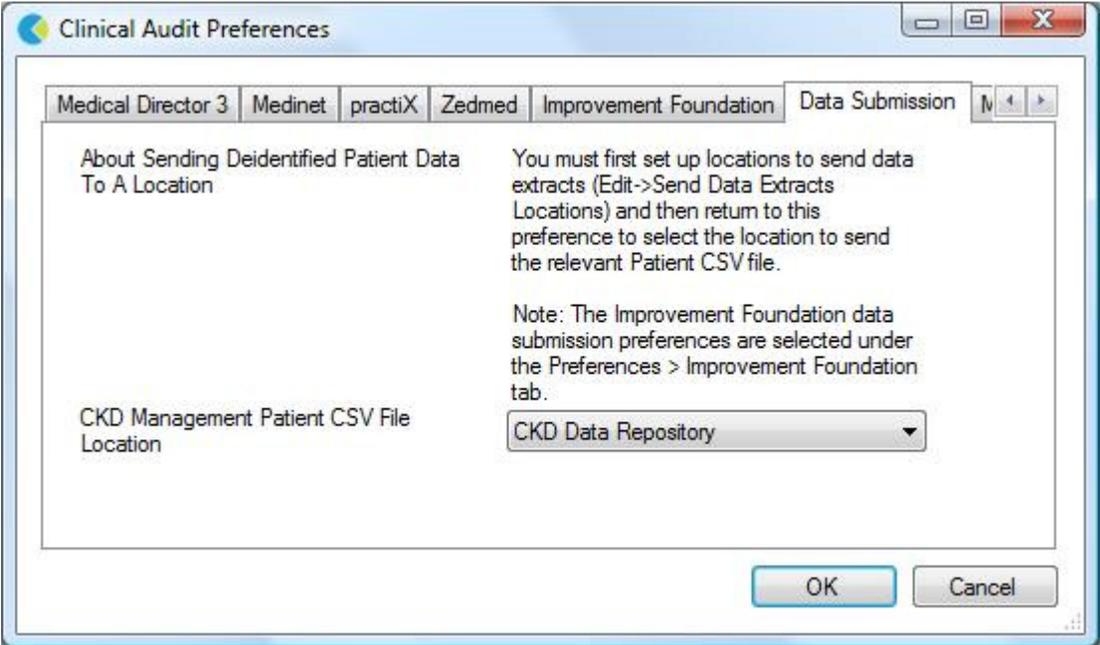
CKD CSV File

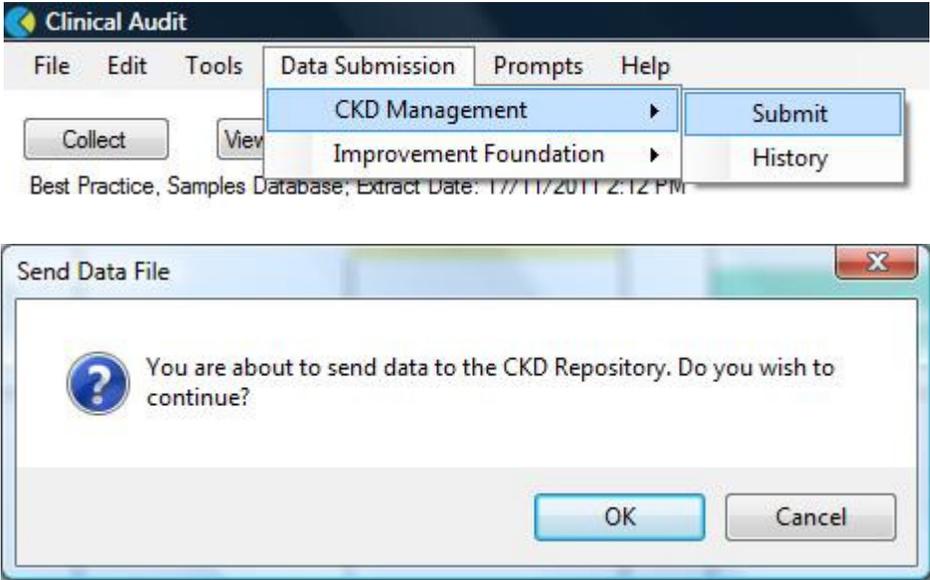
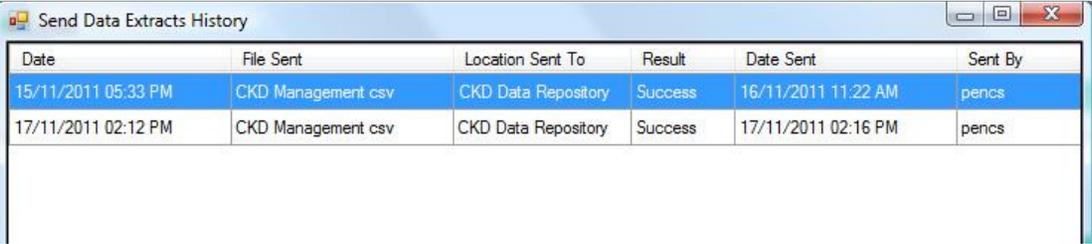
Sending data to the CKD Repository requires the user to have a licence code for this functionality switched on. The functionality described in this section will only be visible if the user has the licence code.

The CKD CSV file is created when a CAT extract file is loaded. It is saved in the same folder as the CAT extract file.

Data items included in the file are:

Patient ID, Practice ID, DOB, Postcode, Gender, ATSI, Smoking status, Diagnosis List, Medications List, BMI/Date, ACR/Date, eGFR/Date, LDL/Date, TCholesterol/Date, BP/Date, HbA1c/Date, BSL/Date, FBG/Date, Creatinine/Date

<p>Configuring the Repository Location</p>	<p>Step 1: From the CAT menu choose Edit > Send Data Extracts Locations</p> <p>Type Location Name = CKD Data Repository</p> <p>Configuration parameters will be advised to users with a licence code.</p>	
	<p>Step 2: From the CAT menu choose Edit > Preferences Click the Data Submission tab</p> <p>Select the CKD Data Repository location you have configured in the 'CKD Management Patient CSV File Location' drop down list. This is the location the file will be sent to.</p> <p>Click OK</p>	 <p>The screenshot shows a window titled "Clinical Audit Preferences" with several tabs: "Medical Director 3", "Medinet", "practiX", "Zedmed", "Improvement Foundation", and "Data Submission". The "Data Submission" tab is active. The main content area contains the following text:</p> <p>About Sending Deidentified Patient Data To A Location</p> <p>You must first set up locations to send data extracts (Edit->Send Data Extracts Locations) and then return to this preference to select the location to send the relevant Patient CSV file.</p> <p>Note: The Improvement Foundation data submission preferences are selected under the Preferences > Improvement Foundation tab.</p> <p>CKD Management Patient CSV File Location</p> <p>CKD Data Repository</p> <p>At the bottom of the dialog are "OK" and "Cancel" buttons.</p>

<p>Sending the Data</p>	<p>From the CAT menu choose Edit > Data Submission Choose the CKD Management submenu Click Submit</p> <p>You will be prompted to continue Click OK</p> <p>You will be notified when the submission had completed successfully or if there has been an error.</p>																			
<p>Data Submission History</p>	<p>From the CAT menu choose Edit > Data Submission Choose the CKD Management submenu Click History</p> <p>You will be able to view all the submissions you have made.</p> <p>This screen also provides a message column that displays a success if submission was sent or an error message if the submission failed.</p>	 <table border="1" data-bbox="848 865 1940 971"> <thead> <tr> <th>Date</th> <th>File Sent</th> <th>Location Sent To</th> <th>Result</th> <th>Date Sent</th> <th>Sent By</th> </tr> </thead> <tbody> <tr> <td>15/11/2011 05:33 PM</td> <td>CKD Management csv</td> <td>CKD Data Repository</td> <td>Success</td> <td>16/11/2011 11:22 AM</td> <td>pencs</td> </tr> <tr> <td>17/11/2011 02:12 PM</td> <td>CKD Management csv</td> <td>CKD Data Repository</td> <td>Success</td> <td>17/11/2011 02:16 PM</td> <td>pencs</td> </tr> </tbody> </table>	Date	File Sent	Location Sent To	Result	Date Sent	Sent By	15/11/2011 05:33 PM	CKD Management csv	CKD Data Repository	Success	16/11/2011 11:22 AM	pencs	17/11/2011 02:12 PM	CKD Management csv	CKD Data Repository	Success	17/11/2011 02:16 PM	pencs
Date	File Sent	Location Sent To	Result	Date Sent	Sent By															
15/11/2011 05:33 PM	CKD Management csv	CKD Data Repository	Success	16/11/2011 11:22 AM	pencs															
17/11/2011 02:12 PM	CKD Management csv	CKD Data Repository	Success	17/11/2011 02:16 PM	pencs															

Diagnosis Codes	
CKD	<p>Chronic Kidney Disease - Stage 1 Chronic Kidney Disease - Stage 2 Chronic Kidney Disease - Stage 3 Chronic Kidney Disease - Stage 4 Chronic Kidney Disease - Stage 5 CKD (Chronic Kidney Disease) Stage 1 CKD (Chronic Kidney Disease) Stage 2 CKD (Chronic Kidney Disease) Stage 3 CKD (Chronic Kidney Disease) Stage 4 CKD (Chronic Kidney Disease) Stage 5 Kidney Disease - Chronic - Stage 1 Kidney Disease - Chronic - Stage 2 Kidney Disease - Chronic - Stage 3 Kidney Disease - Chronic - Stage 4 Kidney Disease - Chronic - Stage 5 Kidney failure - chronic</p> <p>Chronic Renal Failure Chronic Renal Failure - Hyperparathyroidism Renal Disease - Chronic - Stage 1 Renal Disease - Chronic - Stage 2 Renal Disease - Chronic - Stage 3 Renal Disease - Chronic - Stage 4 Renal Disease - Chronic - Stage 5 Renal insufficiency – chronic Dialysis - haemodialysis Haemodialysis Hemodialysis Renal dialysis</p>
Renal Dialysis	<p>Dialysis - haemodialysis Haemodialysis Hemodialysis Renal dialysis</p>
Kidney Transplant	<p>Kidney transplant Renal transplant Surgery - Kidney transplant Transplant - kidney</p>

Management Item Targets		
Item	Target	Timeframe
Blood Pressure	If ACR in last 12 months > 3.5 mg/mmol female or > 2.5 mg/mmol male: BP <= 130/80 mmHg Otherwise: BP <= 140/90 mmHg	BP in last 12 months ACR in last 12 months (Note if ACR is not recorded or older than 12 months then BP is checked against 140/90 target value)
BMI	18.5 – 24.9	Weight in last 12 months Height recorded
HbA1c	If Diabetic: < 7%	HbA1c in last 12 months
LDL	< 2.5 mmol/L	LDL in last 12 months
Total Cholesterol	< 4.0 mmol/L	Total Cholesterol in last 12 months
Smoking	Non smoker, never smoked or ex smoker	Smoking recorded
At Risk Levels		
Item	"At Risk" Level	
Smoker	Smoking = Daily, Weekly or Irregular	
Diabetes (Dx or Risk)	Diabetes Diagnosis recorded OR HbA1c >= 6.5% OR BSL > 11.1 mmol/L OR BSLF > 7 mmol/L	
Hypertension (Dx or Risk)	Hypertension Diagnosis recorded OR SBP > 140 mmHG or DBP > 90 mmHg	
Obesity	BMI > 30	
CVD Dx	CVD Diagnosis recorded	
ATSI and Age>30		