



Queen Mary  
University of London



# APL-Renal tool

## User guide for EMIS Web

ceg

Clinical Effectiveness Group  
Queen Mary University of London

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# About

## Helping practices manage their patients with chronic kidney disease

The CEG APL-Renal tool highlights critical falls in renal function and helps GP practice teams to manage their patients with early or late chronic kidney disease (CKD).

The tool will support you to:



### List all adults with key indicators of CKD and filter the list into cohorts to take action

- Identify patients for follow-up for overdue measures
- Export a list of patients to send appointment messages, or key information to send with a referral
- Improve CKD coding for accurate disease registers



### Review critical falls in eGFR or uncontrolled blood pressure

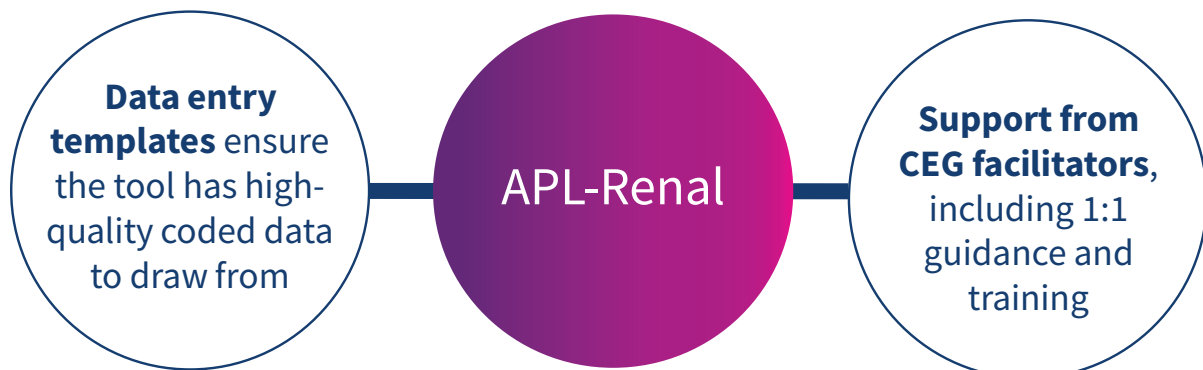


### Tailor your approach

See eGFR trend over time, urine ACR, and key medications for each patient

## Supporting elements

The APL-Renal tool is part of a wider programme of support that CEG provides to GP practices in the North East London NHS region, including data entry templates and training and guidance from our team of facilitators. The tool is intended for use with these supporting elements in place.



Practices using the east London Community Renal Service can incorporate the tool into their processes for this. (APL-Renal replaces CEG's former 'Falling eGFR trigger tool').

# About

## Definitions

**With no filters selected**, APL-Renal will list all patients in your records who are aged 18+ and **ever had**:

- an estimated glomerular filtration rate (eGFR) reading of less than 60ml/min, **or**
- a urine albumin to creatinine ratio (ACR) showing proteinuria of 3mg/mmol or more.

There may be patients with a one-off eGFR or ACR value meeting the criteria above, who do not have CKD.

<b>Latest eGFR</b>	Most recent eGFR reading within the last two years (prior to the search date). The Patient Information view displays up to six values and shows trend over time.
<b>Highest eGFR</b>	Highest of the six most recent eGFR readings within the last two years.
<b>Fall in eGFR</b>	The difference between the Latest eGFR and Highest eGFR values. Patients are automatically listed from greatest to smallest eGFR fall.
<b>Urine ACR</b>	Most recent urine ACR value within the last two years.
<b>Comorbidities</b>	“Yes” if the patient has been coded with chronic kidney disease stage 3-5 (“CKD”), cardiovascular disease (“CVD”), type 1 or type 2 diabetes (“Diab T1/T2”), hypertension (“HTN”), heart failure (“HF”) or atrial fibrillation (“AF”).
<b>BP</b>	Most recent blood pressure value recorded (no maximum timeframe).
<b>Medications</b>	Prescribed within the last six months. Including SGLT2 inhibitors, ACE inhibitors/ ARBs, statins. The Patient Information view includes doses.

### Values in red

The laboratories in North East London are changing GFR calculation from MDRD to CKD-EPI. Where a value shown in the tool is derived from a mixture of these methods, we have flagged it in red.

The tool uses **QOF indicator codes** for all variables unless indicated otherwise. Codesets are available on request - please speak to your CEG facilitator.

## Example cohorts

The tool will support practices to meet the contractual requirements for renal health. For example, you could use the filters to identify people with:

- **Significant fall in eGFR**
- **Very low eGFR**
- **Latest eGFR <30 + No repeat eGFR**
- **No CKD code**
- **CKD (3-5) code**
  - + no urine ACR in last 12 months
  - + diabetes + urine ACR  $\geq$ 30
  - + hypertension + BP <140/90mmHg
  - + hypertension + prescribed ACE/ARB
  - + diabetes + urine ACR  $\geq$ 30 + prescribed SGLT2
  - + prescribed statins

You can **exclude people who have already been reviewed** since their last eGFR reading using the filter: '**Referral or Review after latest eGFR**'. For this feature to work, practices must enter the correct codes for renal review, renal referral or Structured Medication Review (SMR), which are included in the CKD section of the CEG Long Term Conditions template.

## Limitations

### The CEG APL-Renal tool is not a diagnostic tool or intended to replace clinical judgement

The tool selects people for whom there may be issues of clinical concern and displays their data. The tool does not make management recommendations – these are entirely a matter for the clinician.

### Information in the tool may be incomplete

- APL-Renal only displays **medications selected as relevant** to the tool, it does not show all prescribed medication.
- The tool only presents information that is **coded** in the patient health record using standard codes described by NHS Digital. If clinicians use free text or non-standard codes for eGFR values, demographic information or referral status, these will not display in the Renal tool.
- Clinicians' decisions must be based on review of the full EMIS or SystemOne record to check all indicators, prescribing, and any other relevant information.

### The tool should be used in conjunction with CEG templates

Our templates will support you to code activity correctly and ensure the tool has high quality data to draw from.

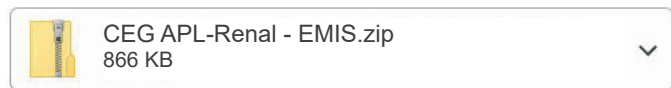
# Step-by-step: Downloading the tool

You only need to do this once

## Step 1: Download

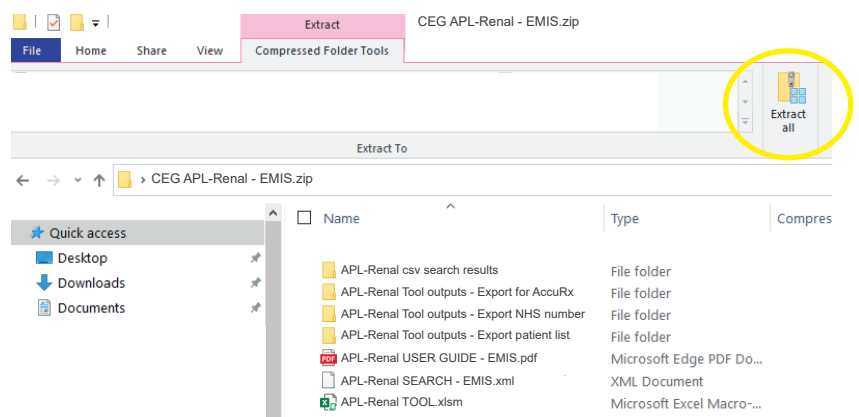
1.1 Download the EMIS zip file.

1.2 Double click the zipped file, then double click again.



## Step 2: Extract

Click 'Extract all' to extract the files.



## Step 3: Save

Save the files in a secure device or network that is accessible to other practice staff, including clinicians reviewing your work. **Choose a secure device or network if you intend to save exports of patient identifiable data in the same place.**

## Step 4: Unblock macros

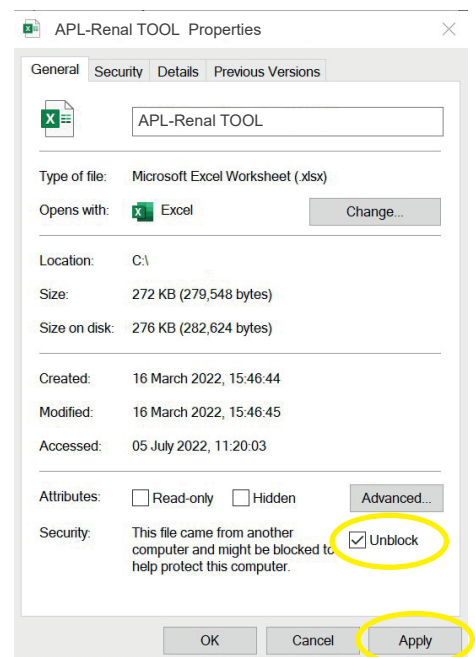
Microsoft has introduced a security feature that blocks Excel macros by default. Macros are automated actions that the tool uses to run - without them, it will not work.

4.1 Right click on the 'APL-Renal TOOL' XLSM file and select 'Properties'.

4.2 In the 'General' tab, tick the box to 'Unblock'

4.3 Click 'Apply'. You must click 'Apply' before 'OK', otherwise the change won't take affect.

If you accidentally click 'OK' without clicking 'Apply', the option will no longer be visible and you will need to download the file again.

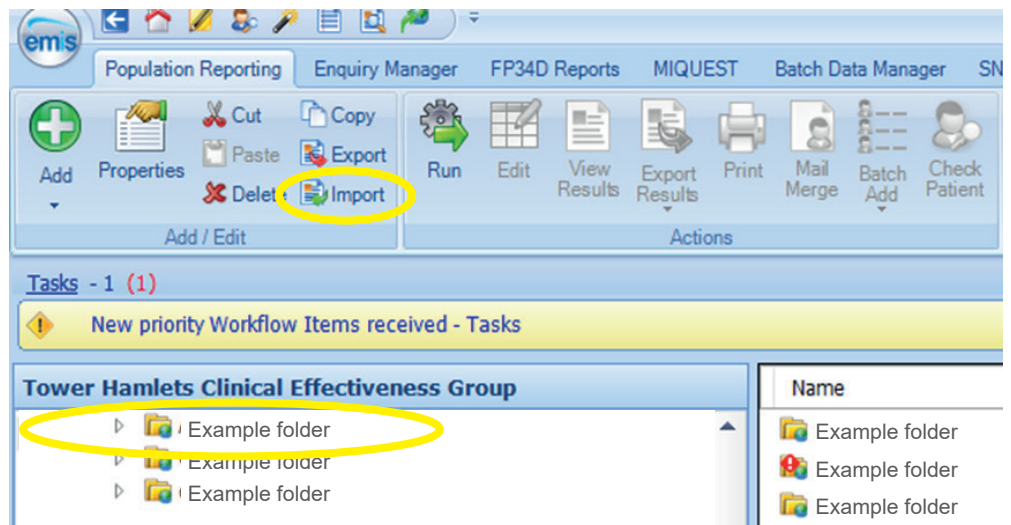


# Step-by-step: Using the tool

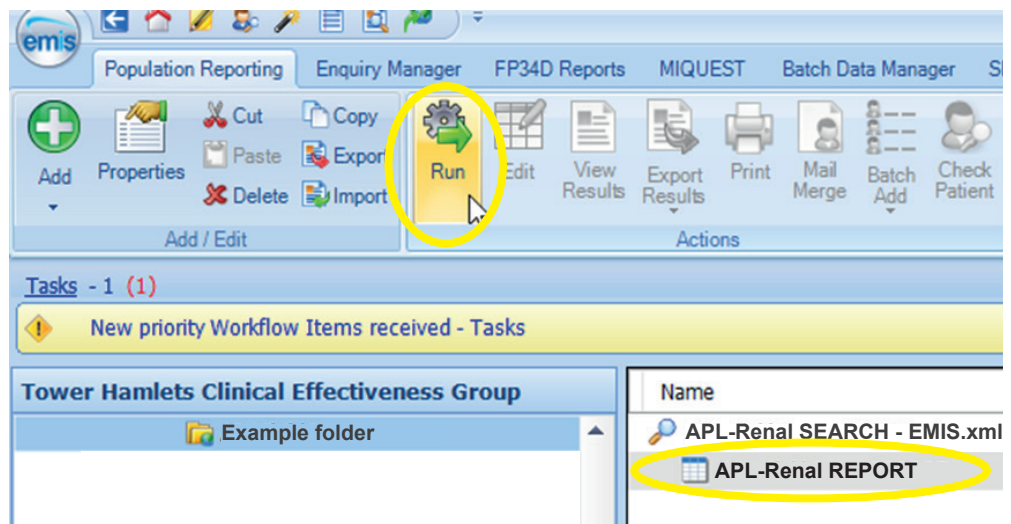
## Step 1: Run the search in EMIS

**1.1** Open EMIS Web and click '**Population Reporting**' in the Quick Launch Menu.

**1.2** Choose a destination folder and click '**Import**':



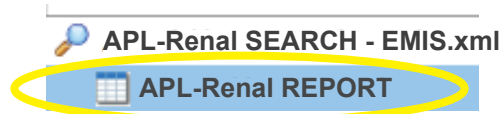
**1.3** Navigate to **APL-Renal SEARCH - EMIS.xml**, select the **REPORT** and click '**Run**':



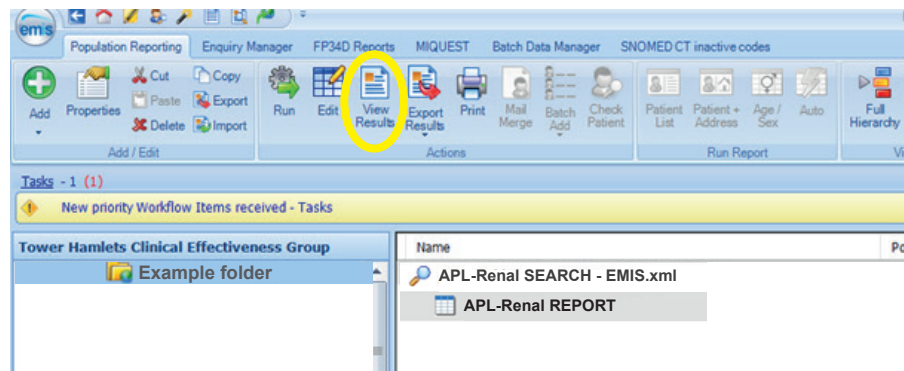
# Step-by-step: Using the tool

## Step 2: Export the search results

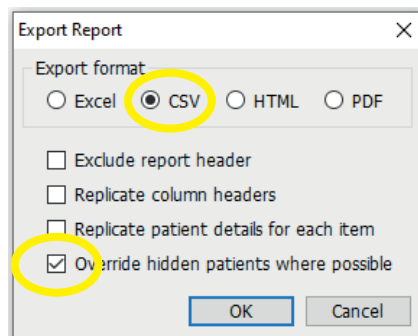
2.1 When the run is complete, select the **APL-Renal REPORT** (it has a grid icon rather than a magnifying glass):



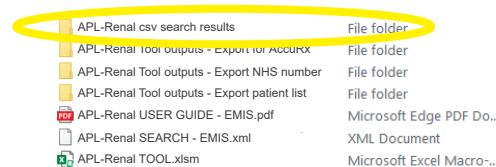
2.2 Click 'View Results' in the top ribbon. When the table of patients has loaded, click 'Export'.



2.3 Choose to export it as a **CSV** and tick the bottom checkbox: 'Override hidden patients where possible':



2.4 Save your export in a location where you can find it easily and include the export date in the file name.



The APL-Renal download includes a set of empty folders that you can use to organise your files if you wish.

**Important:** Patient identifiable data should always be stored on a secure device or network.

# Step-by-step: Using the tool

## Step 3: Import data into the tool

3.1 Open **APL-Renal TOOL.xlsm** (Excel file).

3.2 Select **'EMIS Web'** as your clinical system:



3.3 Click **'Press to locate CSV file'** and find and select the file you just exported from EMIS Web:



The tool will list the patients from your search and display relevant information from their record.

With no filters selected, APL-Renal will list all patients in your records who are aged 18+ and **ever had**:

- an estimated glomerular filtration rate (eGFR) reading of less than 60ml/min, **or**
- a urine albumin to creatinine ratio (ACR) showing proteinuria of 3mg/mmol or more.

There may be patients with a one-off eGFR or ACR value meeting the criteria above, who do not have CKD.

The screenshot shows the main interface of the APL Renal Tool. The 'Filters' section is expanded, showing various criteria for patient selection. The 'Summary' table on the right provides an overview of the patient cohort. The patient list table below shows three dummy patients.

Summary	
Entire cohort	800
% CKD (3-5)	37%
% CKD (3-5) with uACR within 12m	53%
% CKD (3-5) + Diab + uACR ≥ 30 with SGLT2	23%
% CKD (3-5) + HTN + Diab + uACR ≥ 3 with ACEI/ARB	82%
% CKD (3-5) + HTN + uACR ≥ 30 (No Diab) with ACEI/ARB	86%
% CKD (3-5) + HTN + uACR ≥ 70 with BP < 130/80	40%
% CKD (3-5) with Any Statin	75%

Full Name	Age	Gender	Patient Reference no.	Latest eGFR Value	Latest eGFR Date (2y)	Highest eGFR Value	Highest eGFR Date (2y)	Fall in eGFR*	Urine ACR mg/mmol	CKD (3-5)	CVD	Diab T1/T2	HTN	HF	AF	BP	SGLT2 Issued (6m)	ACEI/ARB Issued (6m)	Statin Issued (6m)	Renal referral (latest ever)	GP review (latest ever)
Patient_1	75	Female	11200	31	22-02-2023	90	29-03-2022	59		No	Yes	No	No	No	Yes	85/58	No	No	Yes		
Patient_2	67	Male	11201	40	07-02-2023	90	09-01-2023	50	7.1	No	No	No	No	No	No	129/69	No	Yes	No		13-01-2023
Patient_3	54	Male	11202	54	10-08-2022	90	31-03-2021	36	584.4	No	No	Yes	Yes	No	No	147/81	No	Yes	Yes		

The screenshots in this guide show a dummy dataset, not real patients.

### Summary

The tool also shows a summary for the whole patient list (irrespective of filters), so you can see an overview of your practice's performance.



# Step-by-step: Using the tool

## Step 4: Filter the patient list

**4.1** Use the **checkboxes** to filter your list and create a cohort of patients to focus on. The tool will list all patients who meet the criteria you select. You can use multiple filters at once. Click the same checkbox again to deselect it.

The screenshot shows the APL Renal Tool interface. At the top, it says "eGFR < 60 ml/min OR urine ACR ≥ 3mg/mmol ever recorded". Below this are navigation options like "Select Clinical System" (EMIS Web, SystemOne) and "Export patient list". A yellow circle highlights the "Filters" section, which includes checkboxes for "Fall in eGFR", "BP (mmHg)", "CKD (3-5)", "Albuminuria", "SGLT2 issued", "ACEI/ARB issued", "Statin issued", "Diabetes", "Hypertension", and "Heart Failure". A "Filtered patients count = 800" is displayed. Below the filters is a table of patient data with columns for Full Name, Age, Gender, Patient Reference no., Latest eGFR, Highest eGFR, Fall in eGFR, ACR, CKD (3-5), CVD, Diab T1/T2, HTN, HF, AF, BP, SGLT2 Issued (6m), ACEI/ARB Issued (6m), Statin Issued (6m), Renal referral (latest ever), and GP review (latest ever).

## Step 5: View more information about an individual patient

**5.1** Click on a name in your list to view the Patient Information page for that individual. This view displays more detail, including eGFR trend over time and prescribed dosage of relevant medications.

Click **back** to return to the patient list.

The screenshot shows the Patient Information page for Patient 1. It includes a "Patient Information" section with details like Full Name, Date of Birth, NHS Number, and Ethnicity. Below this is an "eGFR value (ml/min)" section with a line graph showing values over time (31, 54, 46, 83, 90, 87). The "Clinical data" section lists various conditions like CKD coding, Systolic/Diastolic BP, and Diabetes. On the right, there is a "Prognosis of CKD by GFR and Albuminuria Categories" chart. A blue arrow points to the "Export Patient Info" button, and another blue arrow points to the "Legend" section of the prognosis chart.

### Export Patient Info

You can generate a PDF of the Patient Information page, which could be sent with a referral.

### Links to external resources

Includes a static chart showing CKD prognosis according to eGFR and urine ACR values, and a link to a validated kidney failure risk calculator (hosted by the University of Leicester) that can help with classifying CKD stage.

# Step-by-step: Using the tool

## Step 6: Print or export your list



Ways to use your filtered list outside of the tool:

### Option 1: Print

Click **'File'** then **'Print'**. Set the orientation to 'landscape' and scale to fit.

### Option 2: Export as an Excel file

Click **'Export patient list'**.

### Option 3: Export list for Accurx

Click **'Export for Accurx'**.

### Option 4: 'Export NHS number'

This will create a .txt file that you can import back into EMIS to batch add codes or letters, or run auto reports.

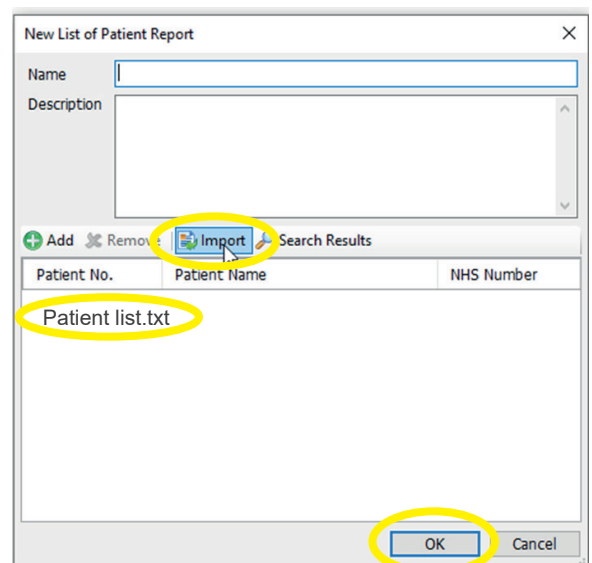
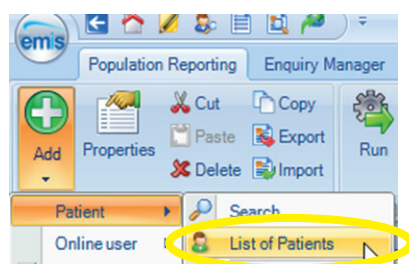
To make your list available to other practice staff

To contact patients or arrange appointments

Advanced use

## How to import NHS numbers into EMIS (for advanced users)

- 1 Follow **Option 4** above to export your list as NHS numbers.
- 2 Open EMIS Web and click **'Population Reporting'**.
- 3 Select a folder of your choosing. Click **'Add'**, **'Patient'**, **'List of Patients'**.
- 4 Click **'Import'** and navigate to your .txt file of NHS numbers (repeat if you have multiple lists) then click **'OK'**.



# Troubleshooting

## Frequently Asked Questions

### **Why do some patients have blank eGFR or ACR results?**

If a patient has no eGFR / urine ACR reading in the last two years, that field will be blank - you should check the individual's patient record to see if there are any results, and to check if this is an issue of concern.

### **My patient's CKD or proteinuria is resolved but they are still showing up in the tool, why is this?**

Adults with previous CKD or proteinuria will be picked up by the tool even if these conditions have resolved. The tool does not exclude such people.

### **Can I select multiple filters at once?**

Yes – For example you could choose BP  $\geq$ 160/100 + Hypertension + No ACE/ARB

### **How do I deselect a filter?**

Click the individual checkbox again to untick the filter. Or click 'Reset filters' to deselect all.

### **What does the 'Reset to clear' button do?**

This will remove all patients from the tool – you will have to reimport your search results to use the tool again.

### **Can I save the tool with a patient list within it?**

If you want to save a particular cohort, export it using the instructions on page 10. Save the export in a suitably secure location as it will contain patient identifiable data.

### **Who do I contact for help?**

Practices in North East London should contact their [local CEG facilitator](#). They can help you to install the tool and use it effectively.

## Contact us

If you have any questions or feedback about our APL-Renal tool or this user guide, please get in touch:

**CEG-Feedback@qmul.ac.uk**  
[qmul.ac.uk/ceg/about-us/contact-us](http://qmul.ac.uk/ceg/about-us/contact-us)

**By post:**  
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