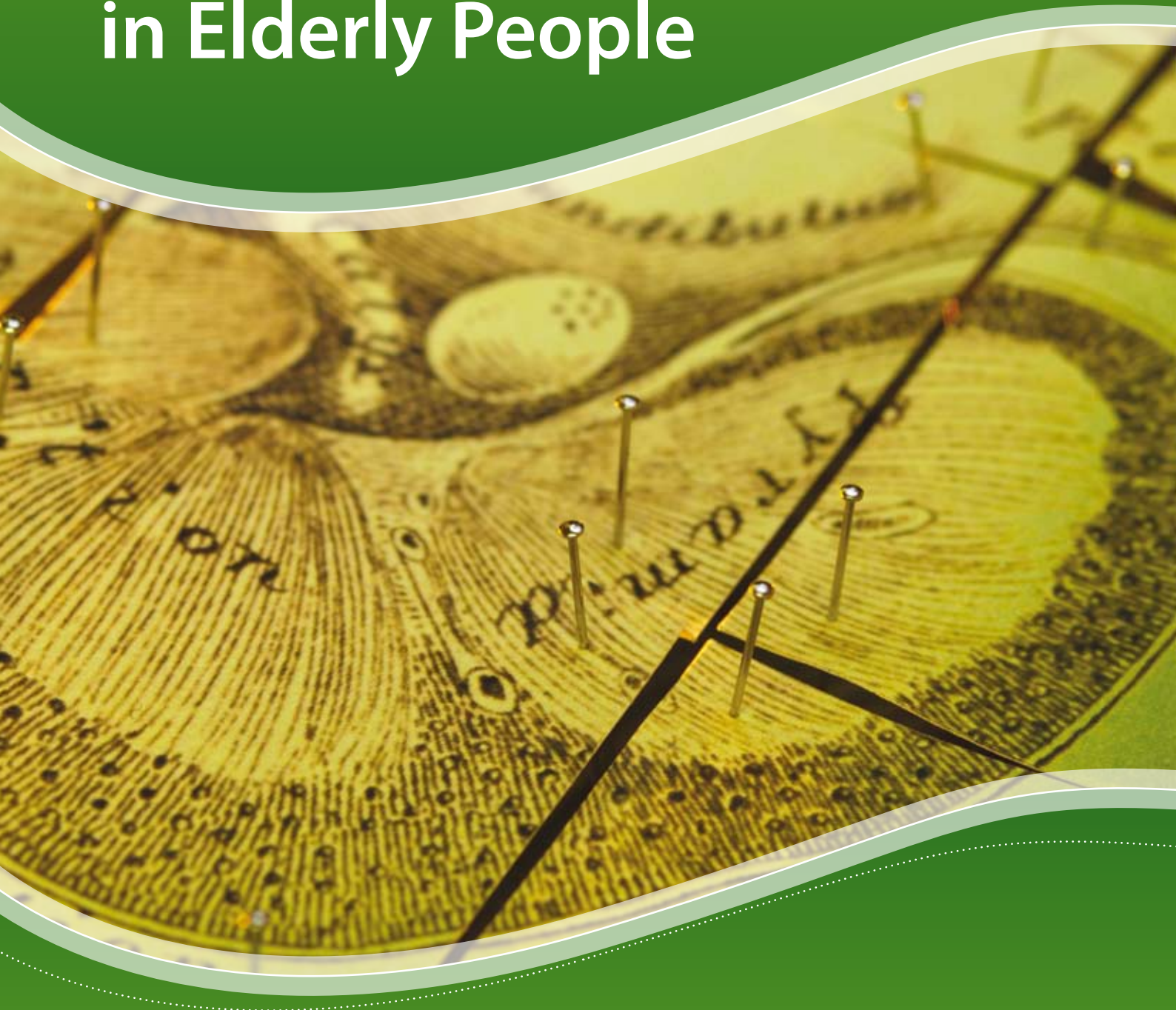


CLINICAL AUDIT

Testing Renal Function in Elderly People



RNZCGP endorsed
CQI credits

Valid to March 2015



bpac^{nz}
better medicine

Background

Laboratory testing is essential to monitor renal health in elderly people, particularly those people at risk of, or with, renal disease. Most people aged over 75 years will require a renal function test at least once per year due to declining health or the initiation and use of medicines that require monitoring. Most practitioners will have “a healthy few” aged over 75 years who do not require routine renal testing; however, these patients are likely to be the exception.

Recommendations

This audit addresses the appropriate use of renal function tests in people aged over 75 years. It will allow practitioners to identify and assess those patients who have not received renal monitoring, e.g. estimated glomerular filtration rate (eGFR) from serum creatinine or an albumin:creatinine ratio (ACR) or protein:creatinine ratio (PCR), during the previous year, and determine whether they should have.

Practitioners should have requested a renal function test, within the last year, in patients aged over 75 years:

- With chronic kidney disease (CKD) or other renal disease or abnormality
- With diabetes mellitus
- With high blood pressure
- Who are taking a medicine that has the potential to damage the kidneys or is secreted primarily by the kidneys (see “Monitoring medication”)
- Of Māori or Pacific ethnicity
- Who are obese
- Who smoke, or have smoked in the previous 12 months

Those patients without a renal function test in the previous 12 months should be assessed to determine whether there were indications for testing.

Diabetic renal disease

Urinary ACR and a serum creatinine, with eGFR, are the recommended tests for assessing diabetic renal disease. General practitioners should aim to perform the tests on all patients with diabetes at diagnosis and then at diabetes check-ups at least annually.

Chronic kidney disease

Renal function assessment is essential in people who are at risk or have symptoms of chronic kidney disease, and in assessing the level of decline in function for those people already diagnosed with the condition.

Serum creatinine, with eGFR, and urine protein quantification (ACR or PCR, dipstick for haematuria) are used to assess and monitor people with chronic kidney disease.

Monitoring medicines

Older people taking medicines that are primarily excreted by the kidneys require renal function monitoring in order to determine if dose adjustments are required or whether the medicine needs to be discontinued. Common medicines that require regular renal function monitoring include:


- ACE-inhibitors, such as cilazapril, enalapril
- Anti-coagulants, particularly dabigatran, warfarin
- Diuretics, such as furosemide
- NSAIDs
- Lithium
- Aminoglycosides, e.g. gentamicin, neomycin

Medicine clearance is usually measured with an estimated creatinine clearance via the Cockcroft-Gault equation, from a serum creatinine measurement, age and weight.

Other indications

For elderly people with other risk factors, such as obesity or Maori ethnicity, regular renal function monitoring is also required.

Serum creatinine used to calculate eGFR and blood pressure testing is recommended five-yearly after age 50 years but is likely to be required more regularly after age 75 years, particularly when other risk factors are present.

 For further information see “Testing for CVD, diabetes and renal disease in elderly people”, Best Tests (Mar, 2012).

Audit Plan

Indications

1. Most elderly people (>75 years) should have their renal function tested at least yearly
2. If an elderly person (>75 years) has not received a renal function test in the previous 12 months, was there an indication that they should have been tested?

Criteria for a positive result

- a) 1. A patient aged over 75 years has had a renal function test in the previous 12 months (Tested = Yes)
- b) 1. A patient aged over 75 years has not had a renal function test within the previous 12 months (Tested = No)
- 2. There were no indications for the patient to have had a renal function test (CKD, Diabetes, Medicines, etc = No)

Audit standards

- a) 80% of patients aged over 75 years have had a renal function test in the previous 12 months
- b) 80% of patients aged over 75 years who have not had a renal function test in the previous 12 months, did not have had an indication for testing

Data for completing the audit

Eligible people

All patients aged over 75 years are eligible for this audit.

Identifying patients

You will need to have a system in place that allows you to identify eligible patients. Many practices will be able to identify patients by running a 'query' through their practice management software.

Once a patient has been identified assess whether they have had a renal function test in the previous 12 months, then for those people who have not had a test, determine from the patient's disease classifications, medicine list and clinical notes whether testing was indicated.

Sample size

Number of eligible patients will vary according to your practice demographic. If you identify a large number of patients, take a random sample of 30 patients whose notes you will audit.

Data analysis

Use the data sheet to record your data and calculate percentages.

Data sheet – cycle 1

Audit: Testing Renal Function in Elderly People

	Tested?	If No, are there indications for testing?	If Yes (indications), recalled for test?
Patient	YES/NO	YES/NO	YES/NO
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
Total Yes			
% Yes			

% of patients tested =

% of patients not tested with no indications for testing =

Data sheet – cycle 2

Audit: Testing Renal Function in Elderly People

	Tested?	If No, are there indications for testing?	If Yes (indications), recalled for test?
Patient	YES/NO	YES/NO	YES/NO
1			
2			
3			
4			
5			
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9			
10			
11			
12			
13			
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25			
26			
27			
28			
29			
30			
Total Yes			
% Yes			

% of patients tested =

% of patients not tested with no indications for testing =

Identifying opportunities for CQI

Taking action

The first step to improving medical practice is to identify the criteria where gaps exist between expected and actual performance and then to decide how to change practice.

Once a set of priorities for change have been decided on, an action plan should be developed to implement any changes.

The plan should assign responsibility for any actions to the doctor and should include realistic timelines.

It may be useful to consider the following points when developing a plan for action:

Problem solving process

- What is the problem or underlying problem(s)?
- Change it to an aim
- What are the solutions or options?
- What are the barriers?
- How can you overcome them?

Overcoming barriers

- Identifying barriers can provide a basis for change
- What is achievable – find out what the external pressures on the practice are and discuss ways of dealing with them in the practice setting
- Identify the barriers
- Develop a priority list
- Choose one or two achievable goals

Effective interventions

- No single strategy or intervention is more effective than another, and sometimes a variety of methods are needed to bring about lasting change
- Interventions should be directed at existing barriers or problems, knowledge, skills and attitudes, as well as performance and behaviour

Review

Monitoring change and progress

It is important to review the action plan against the timeline at regular intervals. It may be helpful to consider the following questions:

- Is the process working?
- Are the goals for improvement being achieved?
- Are the goals still appropriate?
- Do you need to develop new tools to achieve the goals you have set?

Following the completion of the first cycle, it is recommended that the doctor completes the first part of the CQI activity summary sheet (Appendix 1).

Undertaking a second cycle

In addition to regular reviews of progress, a second audit cycle should be completed in order to quantify progress on closing the gaps in performance.

It is recommended that the second cycle be completed within 12 months of completing the first cycle. The second cycle should begin at the data collection stage. Following the completion of the second cycle it is recommended that doctors complete the remainder of the CQI activity summary sheet.

Claiming MOPS credits

This audit has been endorsed by the RNZCGP as a CQI Activity for allocation of MOPS credits. General practitioners taking part in this audit can claim credits in accordance with the current MOPS programme. This status will remain in place until **March 2015**.

To claim points for MOPS or CPD online please enter your credits on your web records. Go to the RNZCGP website: www.rnzcgp.org.nz and claim your points on 'MOPS online' for vocationally registered doctors, or 'CPD online' for general registrants. Alternatively MOPS participants can indicate completion of the audit on the annual credit summary sheet which is available from the College on request.

As the RNZCGP frequently audit claims you should retain the following documentation, in order to provide adequate evidence of participation in this audit:

1. A summary of the data collected
2. A Continuous Quality Improvement (CQI) Activity summary sheet (included as Appendix 1).

Appendix 1: RNZCGP Summary Sheet – CQI Activity

DOCTORS NAME

The activity was designed by (please tick appropriate box):

- RNZCGP
- Organisation e.g. IPA/PHO/BPAC (name of organisation) bpac^{nz}
- Individual (self)

TOPIC

Testing Renal Function in Elderly People:

Describe why you chose this topic (relevance, needs assessment etc):

FIRST CYCLE

1. DATA

Information collected

Date of data collection:

Please attach:

- A summary of data collected **or**
- If this is an organisation activity, attach a certificate of participation.

2. CHECK

Describe any areas targeted for improvement as a result of the data collected.

3. ACTION

Describe how these improvements will be implemented.

4. MONITOR

Describe how well the change process is working. When will you undertake a second cycle?

SECOND CYCLE

1. DATA	Information collected
Date of data collection:	
Please attach:	
<ul style="list-style-type: none">▪ A summary of data collected or▪ If this is an organisation activity, attach a certificate of participation.	
2. CHECK	Describe any areas targeted for improvement as a result of the data collected.
3. ACTION	Describe how these improvements will be implemented.
4. MONITOR	Describe how well the change process is working. Will you undertake another cycle?
COMMENTS	

AUDIT CHECKLIST

Date:

1 Audit Planning

FIRST CYCLE

2 Data collected

3 RNZCGP Summary Sheet completed

4 MOPS Credits claimed (see Page 8)

SECOND CYCLE

5 Data collected

6 RNZCGP Summary Sheet completed

7 MOPS Credits claimed (see Page 8)

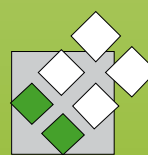
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