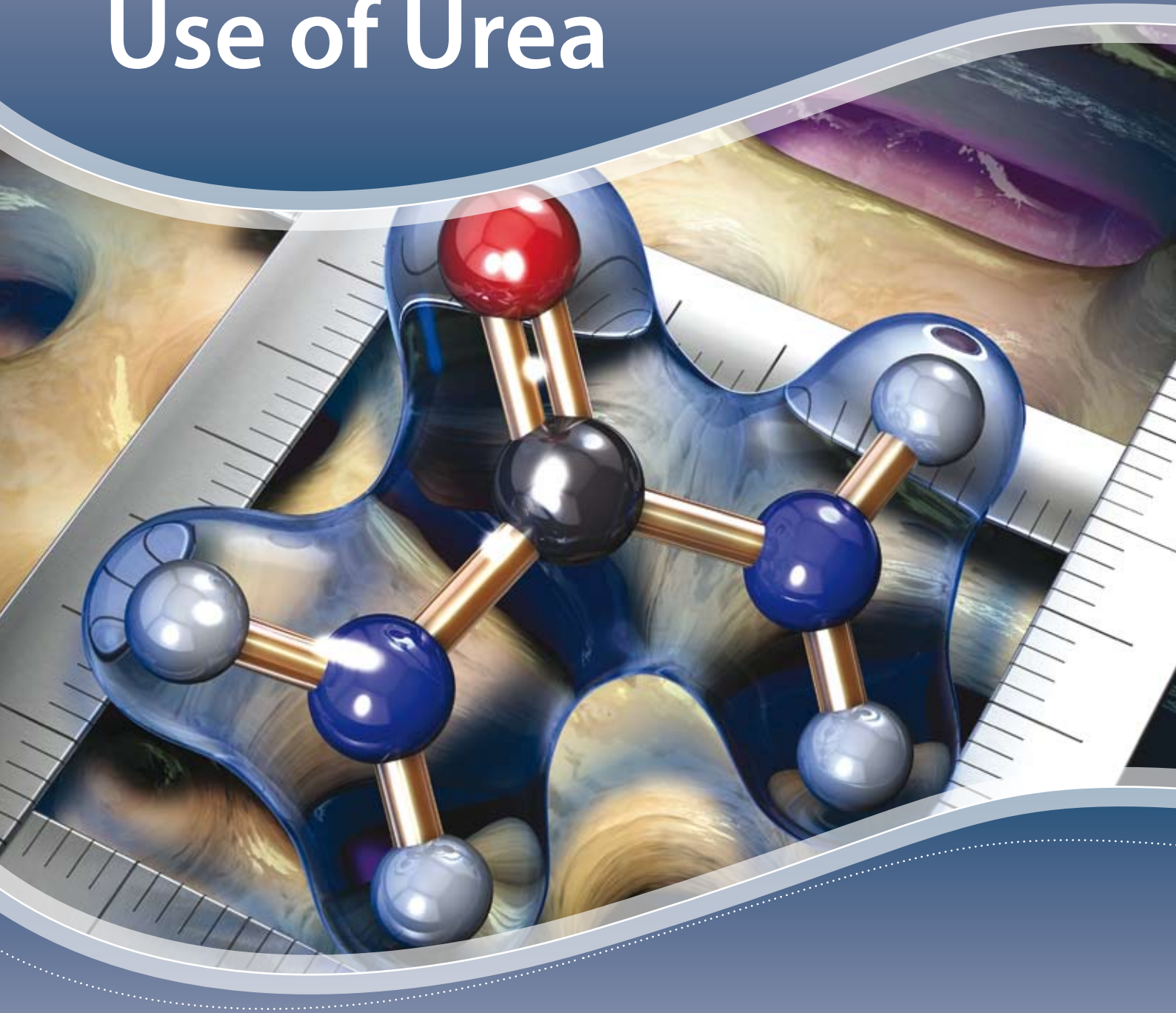


CLINICAL AUDIT

Appropriate Use of Urea



Valid to December 2012



Background

Over recent years the role of urea as a renal function test, has been mostly superseded by creatinine and more recently by eGFR. Despite urea being well recognised as less useful for routine investigation of renal function, there continues to be significant variation in the testing of urea throughout New Zealand.

Focus of this audit

In the past “U&Es” (urea and electrolytes) was frequently requested for assessing renal function. Creatinine has replaced urea in most situations. Although there are some limitations with creatinine, it is considered a better measure of renal function for most routine situations. Furthermore, the eGFR (calculated by the laboratory) reflects renal function more accurately even when the creatinine levels are normal.

The main indication for requesting urea is to assist with the management of dialysis in end stage renal failure. This decision would usually be made by the nephrologist, although the day-to-day requirements of the patient may be managed by their general practitioner.

Urea is occasionally useful for the assessment of frail elderly. In most situations, physical signs rather than biochemical test results provide more information about hydration status. Occasionally in the frail elderly, the physical signs can be difficult to interpret, and urea may be helpful.

This audit is designed to help you review your ordering of urea tests against the specific indications for its use.

Plan

Indicators

1. Routine tests of renal function should not include urea
2. When urea is requested, there is an appropriate indication for its use

Criteria

1. Laboratory requests for the routine investigation of renal function, as recorded in the patient's notes, do not include a urea test.
2. When a urea test is requested, an appropriate indication for its use is recorded in the patient's notes.

Standards

1. Laboratory requests for the routine investigation of renal function, as recorded in the patient's notes, do not include a urea test on 90% of occasions.
2. When a urea test is requested, an appropriate indication for its use is recorded in the patient's notes on 90% of occasions.

Note: For the purposes of this audit, renal function tests are defined as any combination of electrolytes (sodium, potassium), creatinine, and urea.



Data

Eligible people

All patients who have had any combination of renal function tests are eligible for this audit.

Identifying patients

You will need to have a system in place that allows you to identify eligible patients and the laboratory tests that were requested on them. Many practices will be able to identify patients by running a 'query' through their practice management software.

Sample size

Number of eligible patients will vary according to your practice demographic. It would be optimal to identify 20 – 30 patients. If you identify more, take a random sample of 20 – 30 patients whose notes you will audit.

Data analysis

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

Compare these percentages to the standards set in advance by the practice team. Standards are suggested in this protocol but may also be set at a practice/practitioner level, dependent upon the practice population. Discussion amongst peers may be useful in establishing standards.

Data sheet – cycle 1

Audit: Appropriate use of Urea

	Requests for 'renal function tests' do not include a urea	When urea is requested, are there specific indications for doing so?
	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		
%		

Data sheet – cycle 2

Audit: Appropriate use of Urea

	Requests for 'renal function tests' do not include a urea	When urea is requested, are there specific indications for doing so?
	YES/NO	YES/NO
1		
2		
3		
4		
5		
6		
7		
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10		
11		
12		
13		
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16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
Total		
%		

Identifying opportunities for CQI

Taking action

The first step in taking action is to identify where gaps exist between expected and actual performance and decide on priorities for change.

Once priority areas for change have been decided on, an action plan should be developed to implement any changes.

The plan should assign responsibility for various tasks to specific members of the practice team and should include a timeline.

It is important to include the whole practice team in the decision-making and planning process.

It may be useful to consider the following points when developing a plan for action (RNZCGP 2002).

1. 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?

2. 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.

3. 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.

TIP: It may be worth checking the 'renal function' panel within your PMS system, to ensure it does not include a urea test.

Review

Monitoring change and progress

It is important to review the action plan against the timeline at regular intervals with the practice team. It may be helpful to discuss 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 practices complete the first part of the CQI activity summary sheet (Appendix 1).

Undertaking a second cycle

In addition to regular reviews of progress with the practice team, 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 practices 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 **17 December 2012**.

To claim MOPS points, you can indicate completion of the audit on the annual claim sheet, or alternatively you can go to the RNZCGP website, and claim your points at “MOPS online” at www.rnzcgp.org.nz

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

Appropriate use of urea

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.
COMMENTS	

AUDIT CHECKLIST

Date:

1 Audit Planning

FIRST CYCLE

2 Data collected

3 RNZCGP Summary Sheet completed

4 MOPS Credits claimed

SECOND CYCLE

5 Data collected

6 RNZCGP Summary Sheet completed

7 MOPS Credits claimed

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