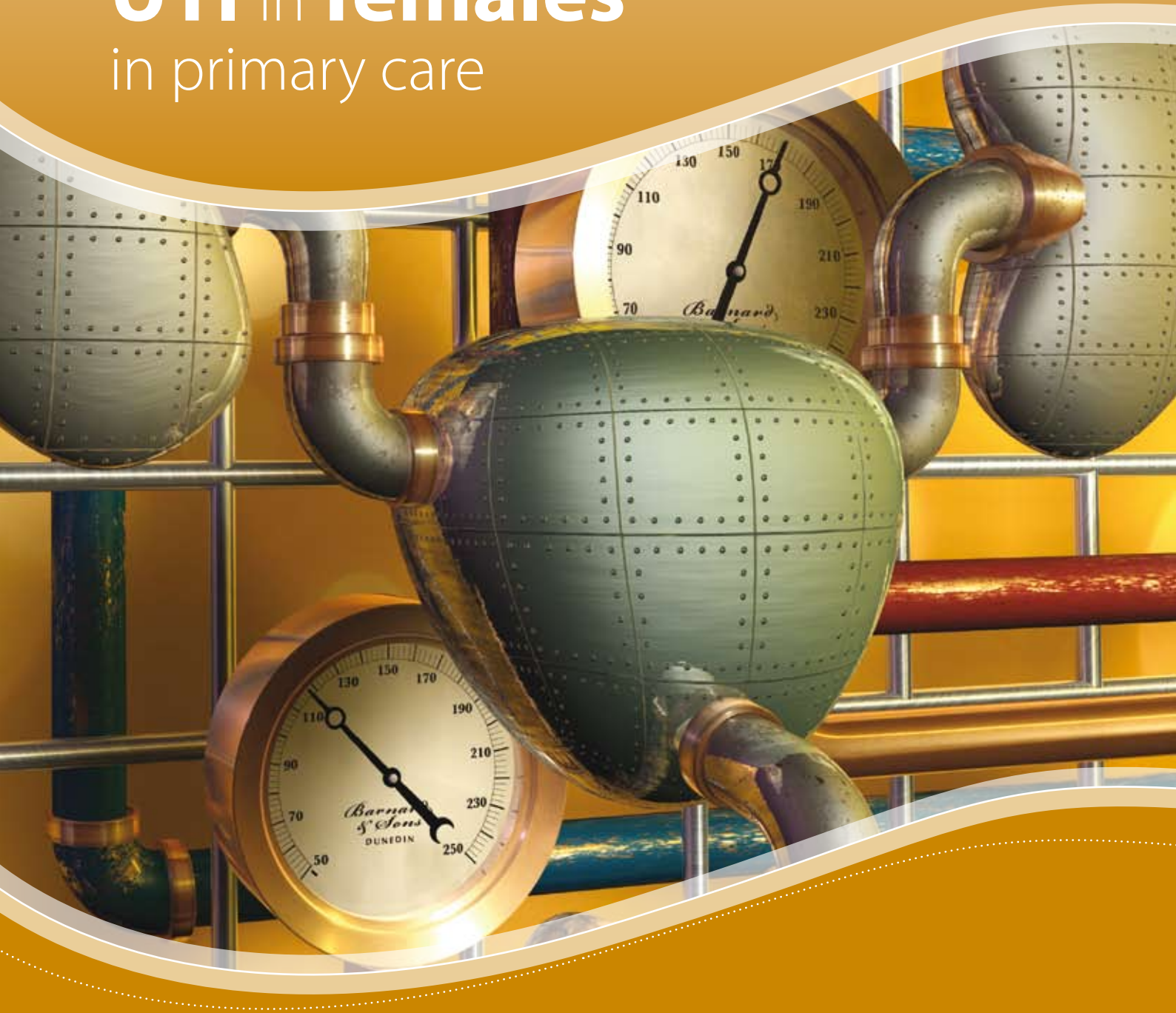


CLINICAL AUDIT

The laboratory investigation of
UTI in **females**
in primary care



Valid to December 2018



Background

Approximately 50% of all females will have a urinary tract infection (UTI) in their lifetime. Most females with UTI will have an uncomplicated infection that does not require urine culture. Avoiding unnecessary urine testing can reduce the burden on laboratories and decrease costs without compromising care.

Uncomplicated UTI

An uncomplicated UTI is any UTI occurring in an adult female who is not pregnant and has a normal genitourinary tract and a routine presentation (Table 1). For females with uncomplicated UTI appropriate management is empirical treatment with trimethoprim, 300 mg, once daily, for three days, with follow up if symptoms persist or recur. Urine culture* is not necessary for females with uncomplicated lower UTI as it does not improve outcomes.

* Sentinel urine cultures may be appropriate in some circumstances, however, the local laboratory will usually indicate this.

Complicated UTI

A complicated UTI is any UTI occurring in a female who does not have classic UTI symptoms or who is known to have a genitourinary tract abnormality. UTIs in males or in children are also regarded as complicated (Table 1). A urine culture is indicated for people with a complicated UTI. The request for urine culture should not delay the initiation of empirical

antibiotic therapy. The results of the culture may help to confirm the choice of antibiotic, or indicate that a change of antibiotic is required

Audit plan

Summary

This audit focuses on females aged between 15 – 55 years. When a female within this age group presents with symptoms of UTI such as dysuria, frequency, urgency or suprapubic pain with no other complicating factors, an uncomplicated UTI is likely. In this group, empirical antibiotic treatment is indicated and there is no indication for urine culture. If a female had features that indicate the UTI may be complicated, urine culture is appropriate.

Criteria for a positive outcome

A positive result is any female aged 15 – 55 years, who:

- A. Did not have a urine culture requested, and had an uncomplicated UTI, **OR**;
- B. Had a urine culture requested, and had a complicated UTI

Recommended audit standards

A recommended audit standard for this audit is for 80% of females aged 15 – 55 years who have had a UTI in the previous twelve months to have either had no urine culture requested, or if a urine culture was requested, had an indication recorded in their notes that justifies the test.

Table 1: The features of an uncomplicated and complicated UTI

Uncomplicated	Complicated
<ul style="list-style-type: none">▪ Dysuria▪ Frequency▪ Urgency▪ Suprapubic pain	<ul style="list-style-type: none">▪ UTI in:<ul style="list-style-type: none">◦ Women who are pregnant◦ Males◦ Children▪ Suspected pyelonephritis▪ Recurrent UTIs▪ Failed antibiotic treatment or persistence despite treatment▪ Patients with a catheter▪ People with abnormalities of the genitourinary tract▪ People with renal impairment

 For further information see: "Antibiotics Guide: Choices for common infections", BPJ Supplement (Jul, 2013).

Data

Eligible people

Any female enrolled in the practice aged 15 – 55 years who received a prescription for trimethoprim in the previous twelve months is eligible for this audit.

N.B. If a sentinel urine culture has been requested by the local laboratory for females with uncomplicated UTI, exclude these patients from the audit.

Identifying patients

You will need to have a system in place that allows you to identify these eligible patients. Many practices will be able to identify patients by running a 'query' through their PMS system. Identify all female patients aged 15 – 55 years who have received a prescription for trimethoprim in the previous twelve months.

Trimethoprim is being used as a proxy measure for UTI in a female, as not all practices will code every case of UTI with a Read code in the clinical records. Some patients may be missed, but searching for trimethoprim should identify the majority of females with a UTI seen in primary care.

Sample size

The number of eligible patients will vary according to your practice demographic. If you identify a large number of patients, take a random sample of 20-30 patients whose notes you will audit (or the first 20-30 results returned).

Data analysis

Use the data sheet to record your data.

A positive result is any patient who has either a "Yes" in column A and a "Yes" in column B or a "No" in column A and a "No" in Column B. Any patient who does not have two "Yes" or two "No" answers recorded is a negative result.

Calculate your percentage achievement by adding up the number of positive results (those with a tick in column C) and dividing this number by the total number of patients audited.

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.

Decide on a set of priorities for change and develop an action plan to implement any changes.

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 to promote 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.

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.

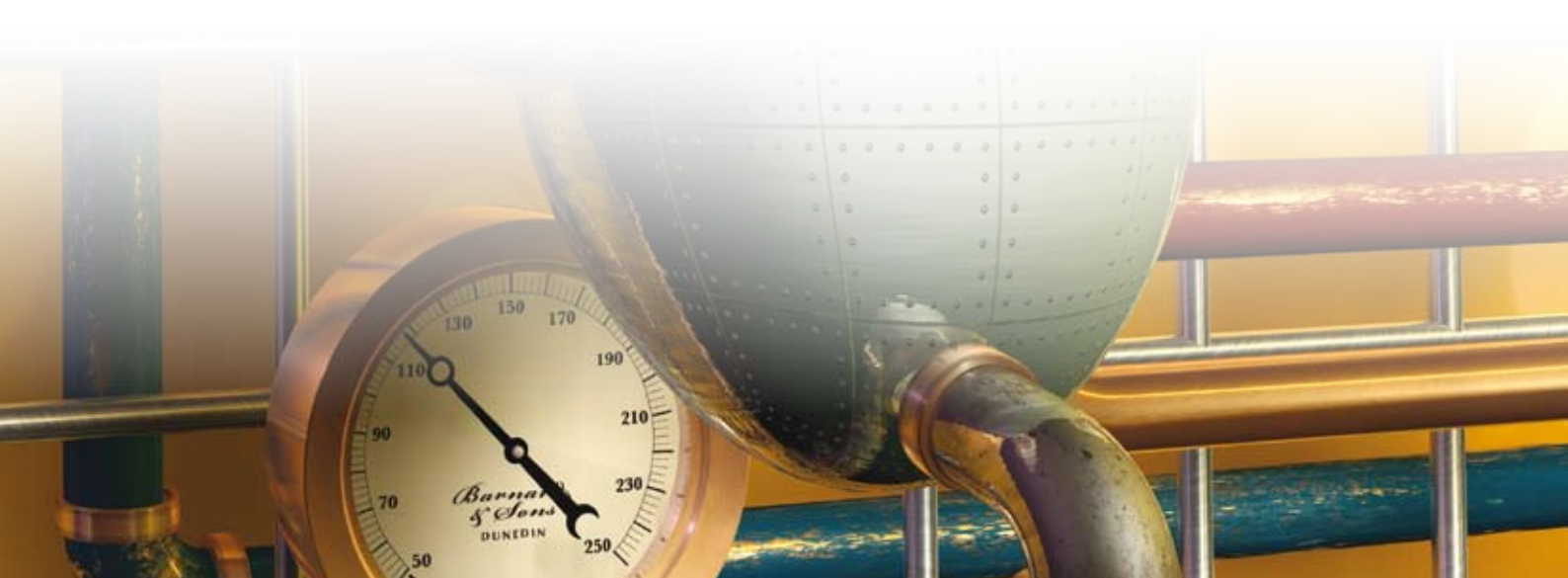
Claiming MOPS credits

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 **December 2018**.

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



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Data sheet – cycle 1

Audit: The laboratory investigation of UTI in females in primary care

	A	B	C
Patient	Was a urine culture requested? (Yes/No)	Do the patient notes indicate that the UTI was complicated? (Yes/No)	Positive result? (Yes/Yes or No/No)
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Total Positive Results:

$$\frac{\boxed{}}{\boxed{}} \times 100 = \boxed{} \%$$

Total Positive Results
Total No. Patients

Please retain this sheet for your records to provide evidence of participation in this audit

Data sheet – cycle 2

Audit: The laboratory investigation of UTI in females in primary care

	A	B	C
Patient	Was a urine culture requested? (Yes/No)	Do the patient notes indicate that the UTI was complicated? (Yes/No)	Positive result (Yes/Yes or No/No)
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Total Positive Results:

	/		× 100 =		%
Total Positive Results		Total No. Patients			

Please retain this sheet for your records to provide evidence of participation in this audit:

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)
- Individual (self)

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TOPIC

The laboratory investigation of UTI in females in primary care

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?

Please retain this sheet for your records to provide evidence of participation in this audit:

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	

Please retain this sheet for your records to provide evidence of participation in this audit: