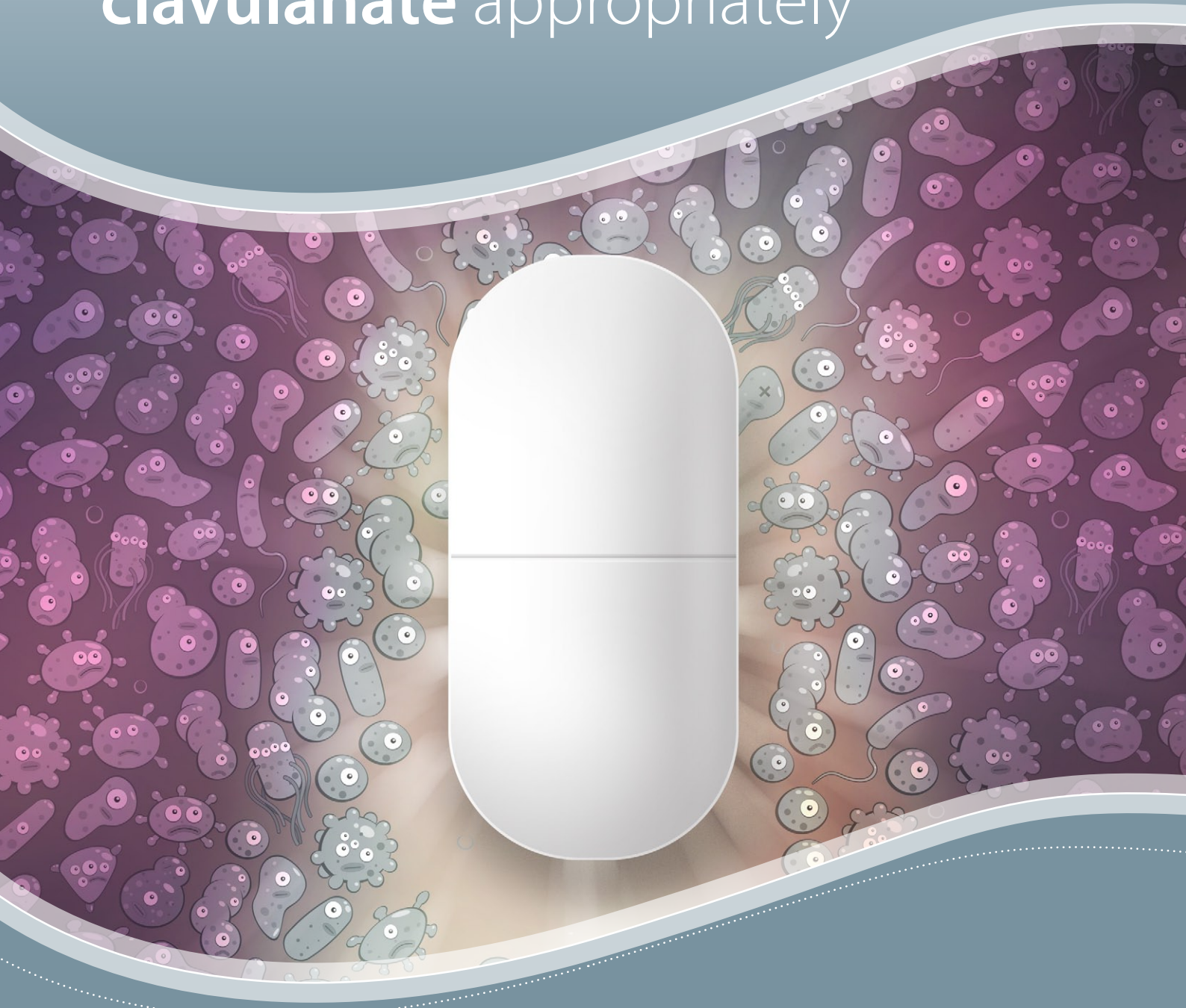


CLINICAL AUDIT

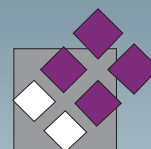
Prescribing **amoxicillin clavulanate** appropriately



RNZCGP endorsed
CQI credits

 **MOPs**

Valid to September 2018



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better medicine

Background

Amoxicillin clavulanate is a broad spectrum antibiotic used in primary care in New Zealand. While amoxicillin clavulanate and other broader spectrum antibiotics (quinolones and cephalosporins) are highly effective, their use should be avoided when an antibiotic with a narrower spectrum will cover the most likely infective microorganism. Amoxicillin clavulanate is best reserved for clinical situations where cover for potential polymicrobial infections is required. The over-use of broad-spectrum antibiotics increases the risk of *Clostridium difficile*, MRSA and other resistant infections.

In addition, as with many broad spectrum antibiotics, amoxicillin clavulanate is associated with an increased risk of adverse effects, beyond those commonly seen with other antibiotics, such as cholestatic jaundice, a form of acute liver toxicity.


Amoxicillin clavulanate is an appropriate first-line antibiotic for a few limited conditions, including:

- Mammalian bites and closed-fist wounds
- Diabetic foot infections
- Acute pyelonephritis*
- Mastitis in males and non-lactating females

* Amoxicillin clavulanate is now considered a second-line option for acute pyelonephritis (first line is co-trimoxazole)

Second-line indications for amoxicillin clavulanate include:

- Epidiymo-orchitis – if UTI pathogens are suspected and there is a contraindication to quinolones (First-line: ciprofloxacin)
- Urinary tract infection in a child – (First-line: co-trimoxazole, Alternative: cefaclor)
- Sinusitis – if antibiotics were indicated and symptoms persist despite treatment with a narrow-spectrum antibiotic (First-line: amoxicillin)

 For further information, see: "Antibiotics Guide, Choices for common infections", Supplement to BPJ 54 (Jul, 2013).

Recommendations for this audit

Amoxicillin clavulanate should only be used for a limited range of conditions (as above).

Audit plan

Indicators

All patients that have been prescribed amoxicillin clavulanate in the past year can be audited to see whether the reason they were prescribed amoxicillin clavulanate, rather than another antibiotic, was valid and appropriate.

Criteria for a positive outcome

The patient received amoxicillin clavulanate and an appropriate indication for the medicine is recorded in their patient notes or in the PMS

Audit standards

By the end of the second audit cycle, the number of amoxicillin clavulanate prescriptions for which there was an appropriate indication identified should ideally be over 85%.

Data

Eligible people

Any patient that has received a prescription for amoxicillin clavulanate in the previous 12 months is eligible for this report.

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 PMS system. We suggest you identify all patients in the previous 12 months who have had a prescription for amoxicillin clavulanate.

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 30 patients whose notes you will audit (or the first 30 results returned).

Data analysis

Use the data sheets provided to record your first and second cycles. In each data set, calculate the number of “positives” by dividing the total number of patients who received amoxicillin clavulanate, by the number of “Yes” results in the appropriate indication column.

The recording of the indication should be used to help evaluate future practice and identify any areas of amoxicillin clavulanate prescription that could be improved within the practice.

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

- 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.

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 **1st September, 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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10 George Street
PO Box 6032, Dunedin
phone 03 477 5418
free fax 0800 bpac nz



www.bpac.org.nz

Data sheet – cycle 1

Audit: Prescribing amoxicillin clavulanate appropriately

	1. What was the reason for prescribing amoxicillin clavulanate? 2. Was this a clinically appropriate indication for amoxicillin clavulanate (as per this audit)? YES/NO	
Patient	Clinical reason for use of amoxicillin clavulanate	YES / NO
1		
2		
3		
4		
5		
6		
7		
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10		
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29		
30		
Total		
%		

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

Data sheet – cycle 2

Audit: Prescribing amoxicillin clavulanate appropriately

	1. What was the reason for prescribing amoxicillin clavulanate? 2. Was this a clinically appropriate indication for amoxicillin clavulanate (as per this audit)? YES/NO	
Patient	Clinical reason for use of amoxicillin clavulanate	YES / NO
1		
2		
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30		
Total		
%		

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

Prescribing amoxicillin clavulanate appropriately

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	