CLINICAL AUDIT

Sore throat management of **at-risk people**

This audit is currently under clinical review and is not recommended for use as the national guidelines for sore throat management were recently changed

RNZCGP endorsed
CQI credits
MOPs
Valid to October 2018

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Background

The incidence of rheumatic fever in New Zealand approximately doubled from 2005 to 2012. Māori and Pacific people aged between three and 45 years who live in lower socioeconomic communities in central and northern regions of the North Island are particularly vulnerable to acute rheumatic fever (ARF). This is due to overcrowding, poverty and decreased access to treatment. Rates of ARF can be significantly reduced through the early detection and treatment of the group A streptococcus (GAS) pharyngitis which causes ARF.

Audit Focus

This audit is based on the National Heart Foundation (NHF) algorithm for sore throat management (see over page) and is relevant to all practices with patients from lower socioeconomic regions of the North Island. The audit objective is to compare the medical management of at-risk people presenting with sore throats against the NHF algorithm, therefore only the left side of the algorithm is applicable.

Audit definitions

At-risk people those people with a personal family or household history of rheumatic fever or who have two or more of the following criteria:

- Māori or Pacific ethnicity
- Live in crowded circumstance or lower socioeconomic area
- Age between three and 35 years

High-risk communities include the following areas with high incidences of ARF:

- Northland
- Auckland
- Waikato
- Bay of plenty/Rotorua
- Gisborne
- Hawke's Bay
- Porirua

Eligible patients are all at-risk individuals from high-risk communities who present with sore throats.

Recommendation

It is recommended that all health professionals be familiar with the incidence of ARF within the communities they are working. In high-risk areas, all Māori, Pacific, or other at-risk people presenting with sore throats, should have a throat swab taken. They should also be assessed for red flags and given empiric antibiotics if any are present. If the decision to treat a sore throat empirically with antibiotics is made, then a throat swab should still be taken.

Red flags are:

- Temperature >38°C
- Swollen, tender anterior cervical lymph nodes
- No cough
- Tonsillar swelling or exudate

Antibiotic treatment *

Oral amoxicillin or phenoxymethlpenicillin (penicllin V) are the first choice antibiotics for the treatment of GAS throat infection. Both antibiotics have similar efficacy, however, patients may be more likely to adhere to treatment with amoxicillin as it requires once daily dosing and can be taken with food. There are several different amoxicillin dosing regimens that can be prescribed:

- Amoxicillin 50 mg/kg, once daily, to a maximum of 1000 mg per day, for ten days
- For patients < 30 kg, amoxicillin 750 mg, once daily, for ten days. For patients ≥ 30 kg, amoxicillin 1000 mg once daily, for ten days.
- Amoxicillin 25 mg/kg, twice daily, to a maximum of 1000 mg per day, for ten days.

Oral penicillin V should be given on an empty stomach. In children < 20 kg give penicillin V, 250 mg, two to three times daily, for ten days. For children > 20 kg and adults give penicillin V, 500 mg, two to three times daily, for ten days. For children > 20 kg and adults give penicillin V, 500 mg, two to three times daily, for ten days.

If adherence to a ten day regimen is likely to be problematic intramuscular benzathine penicillin (BPG) is an alternative. BPG can be given once to children under 30 kg, 600 000 U, or 1 200 000 U in adults or children greater than 30 kg.

* Antibiotic dosing information and definitions of risk have been updated from the original version of this audit to reflect new guidelines from the National Heart Foundation

Guide for sore throat management

Algorithm 4, NHF, available from:
www.heartfoundation.org.nz/shop/product_view/872/algorithm-4-a-guide-for-sore-throat-management

Audit plan

Indicators

New Zealand guidelines recommend that:

- All eligible patients should have a throat swab taken
- The presence or absence of red flags should be noted for all eligible patients
- Empiric antibiotics prescribed to all eligible patients with any red flags

Criteria

Any eligible person presenting with a sore throat should have the following recorded in their notes

- That a throat swab was requested

and

- The presence/absence of red flags:
  - Temperature (>38°C)
  - Cough
  - Swollen, tender anterior cervical lymph nodes
  - Tonsillar swelling or exudate

and, if any red flags are present

- That antibiotics were prescribed empirically

Audit Standards

Discuss within the practice what percentage of eligible patients might realistically be expected to meet the treatment criteria above. Ideally this will be 100%, however, a figure around 90% may be more realistic.

Data

Identifying patients

You will need to have a system of identifying patients who have presented with a sore throat.

There are a range of READ codes that can be used by the 'query builder' for searching the PMS for eligible patients, searches should account for local coding practices.

- Acute laryngitis = H04..
- Acute pharyngitis = H02..
- Acute tonsillitis = H03..
- Ear nose and throat not yet diagnosed= 1C
- Flu like illness = H27Z..11
- Rheumatic fever (acute) = G0..
- Sore throat/sore throat symptoms = 1C9
- Streptococcal sore throat = A340
- Tonsillectomy = 7530.11
- Upper respiratory infection = H05z

An alternative method of patient selection, if READ code searching is problematic, is to examine a series of consultation notes. As this audit is designed for use in high-risk areas, any person with a sore throat who is either of Māori or Pacific ethnicity, or aged between three and 45 years, or with a past history of ARF is eligible for audit inclusion.

Sample size

The number of eligible patients will vary according to your practice demographic. An optimal sample number would between 20 and 30 patients.

Data analysis

Use the data sheet to record your sample. To calculate your results, divide the number of positive results (third column) by the total number of audited patients.

Compare these percentages to the standards set in advance by the practice team.

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 you complete the first part of the Continuous Quality Improvement (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 you complete the remainder of the CQI activity summary sheet.

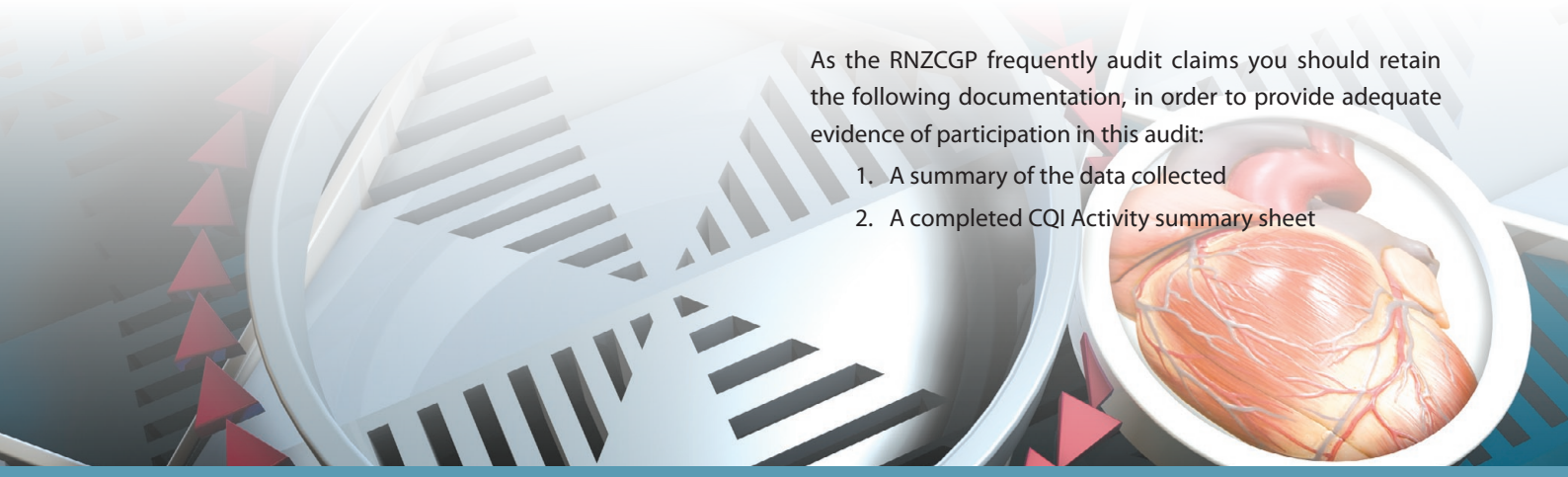
Claiming MOPS credits

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 October, 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.

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 completed CQI Activity summary sheet



bpacnz
10 George Street
PO Box 6032, Dunedin
phone 03 477 5418
free fax 0800 bpac nz

bpac nz
better medicine

www.bpac.org.nz

October 2013

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Data sheet – cycle 1

Audit: Sore throat management of at-risk people

Patient	Throat swab requested/ collected (yes/no)	Empiric antibiotic prescribed if red flags present (yes/no/no red flags)	Positive result if "yes/yes" or "yes/no red flags"
1			
2			
3			
4			
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24			
25			
26			
27			
28			
29			
30			
Total			
%			

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

Data sheet – cycle 2

Audit: Sore throat management of at-risk people

Patient	Throat swab requested/ collected (yes/no)	Empiric antibiotic prescribed if red flags present (yes/no/no red flags)	Positive result if "yes/yes" or "yes/no red flags"
1			
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30			
Total			
%			

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

RNZCGP CQI Activity – Summary Sheet

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	**Sore throat management of at-risk 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?

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: ▪ 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