Acute rheumatic fever and rheumatic heart disease clinical audit protocol

2013 Release

31 January 2013
Acknowledgments

One21seventy would like to acknowledge and thank the members of the ARF/RHD audit tool review working group: Michele Clark, Cynthia Croft, Marea Fittock, Meg Naughtin, Amy Parry, Carol Reeve, Amanda Thomas, Dale Thompson.
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**Clinical Audit Protocol**

**2013 Release**

**January 2013 iv**

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Abbreviations

ARF  acute rheumatic fever
DMO  district medical officer
EPDS  Edinburgh postnatal depression scale
EHR  Electronic Health Record
GP  general practitioner
INR  international normalised ratio
K5  Kessler 5
K6  Kessler 6
K10  Kessler 10
LDL  low density lipoprotein
MBS  Medicare Benefits Scheme
NACCHO  National Aboriginal Community Controlled Health Organisation
NHMRC  National Health and Medical Research Council
PHQ2+  Patient health questionnaire 2
PHQ9  Patient health questionnaire 9
RHD  rheumatic heart disease
RHDA  rheumatic heart disease Australia
SAT  systems assessment tool
SEWB  social and emotional well being
STI  sexually transmissible infections
WHO  World Health Organisation
>  greater than
≥  greater than or equal to
<  less than
≤  less than or equal to
Summary of changes

The changes to this version of the tool have been made due to either a change in best practice and/or changes in current guidelines and endorsed by the Acute Rheumatic Fever/Rheumatic Heart Disease audit tool working group.

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<td>Introduction</td>
<td>Added more accurate description of audit preparation</td>
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<tr>
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<tr>
<td>Section 2 -5</td>
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<tr>
<td>Previously 2.2</td>
<td>‘Location of record of last attendance’ removed as most services are now moving towards using electronic records.</td>
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<tr>
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<td>Added comprehensive description of health workers by role</td>
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<td>3.1</td>
<td>Terminology change ‘Health Summary Sheet’ to ‘health summary’, to reflect the increased use of electronic records</td>
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</tr>
<tr>
<td>3.4</td>
<td>Terminology change ‘high risk’ to ‘priority 1’, ‘medium risk’ to ‘priority 2’, ‘low risk’ to ‘priority 3’.</td>
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<tr>
<td>Previously 3.5</td>
<td>Question requiring auditor to classify client according to guidelines removed. Audit report should reflect only what is documented in client record.</td>
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</tr>
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<td>4.3</td>
<td>Description of ‘pharmaceutical’ prescription more detailed to distinguish from ‘prescribed benzathine penicillin injections’</td>
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<td>‘Paper’ and ‘Computer’ removed as most services are now moving towards using electronic records</td>
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<td>Section 4</td>
<td>Added more comprehensive description of ‘clinic masterchart’</td>
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<td>4.11</td>
<td>Added minimum number of injections necessary to receive 80% of planned injections</td>
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<tr>
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<td>‘Paper’ and ‘Computer’ removed as most services are now moving towards using electronic records</td>
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Version control

<table>
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<th>Version</th>
<th>Release date</th>
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<tr>
<td>6.4</td>
<td>30/11/2008</td>
<td></td>
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<td>6.5</td>
<td>31/5/2010</td>
<td></td>
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<tr>
<td>2013 release</td>
<td>25/2/2013</td>
<td>Minor changes to reflect 2012 guidelines</td>
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Introduction

This protocol should be used in conjunction with Improving the quality of primary health care: A training manual for the One21seventy CQI cycle (version 2.0)

Using the rheumatic heart disease clinical audit tool and protocol

This protocol provides:
- the rationale behind the questions in the audit tool and how they relate to best practice or current guidelines
- the questions to ask and a description of what to look for in client records, including timeframes around when certain services are scheduled
- an explanation of the options for selection

This protocol should be followed closely. The data collected on each question are validated when entered on the One21seventy website. Invalid entries will prevent progression to the next section.

Eligibility

To be eligible for inclusion in the acute ARF/RHD clinical audit, a client must:
- have a history of definite or suspected diagnosis of either acute rheumatic fever or rheumatic heart disease
- have been a resident in the community for 6 months or more of the last twelve months.

Clients classified as priority 4 - inactive (clients with a history of ARF (no RHD) for whom secondary prophylaxis has been ceased) should not be included in the eligible population, as they do not require the care necessary for ARF/RHD for which this audit is intended.

Sample size and confidence interval

Refer to Improving the quality of primary health care: A training manual for the One21seventy cycle, Section 5, for more information on determining the sample size with regard to the population size for this audit, and the confidence interval required for the reported indicators.

The ‘eligible population’ referred to in this protocol is the number of clients who fit the ‘eligibility of clients’ criteria as above.

Recommendations for sample size

- For services with up to 100 clients in the eligible population, we recommend a sample size of at least 30 clients per audit. This sample should provide an adequate estimate (for quality improvement purposes) of the proportion of clients receiving specific services.
- Health services with large eligible populations may wish to increase the sample size to improve the confidence intervals around the sample estimates. Health services with smaller eligible populations (30 or fewer) should audit all eligible client records, and be cautious when using and comparing reported data.
- Be aware of the confidence interval for your results — this is important when interpreting the data in the reports.

One21seventy recommend the audit tool be used in association with a systems assessment tool. The systems assessment tool focuses on health centre systems to support best practice in rheumatic fever prevention. It is designed to improve understanding of how service systems can enhance, or present barriers to, delivering best practice services, and of how systems can be improved to encourage best practice. The systems assessment tool is therefore useful for developing strategies for improving practice.
Section 1 General information

1.1 Client ID
Assign a unique three-digit identification (ID) number for each client audited. At data input, this three-digit number will be automatically prefixed with the tool and health centre IDs.
For each participating health service, the auditor will prepare a master list of participants that contains the participant name, date of birth, and participant number (client ID). This list will be marked ‘confidential’ and stored securely to prevent inappropriate identification of client records.

Medicare
The Medicare Australia Act 1973 states that government funded Health Services should be provided to people with a valid Medicare card.
Much of the funding for community controlled health services is via Medicare (general practitioners or allied health). If the Medicare number is not on file or has expired then the claim for the service may be rejected. It is important to have up to date Medicare numbers on file to ensure claims are processed quickly.

1.2 Medicare number recorded
Is the client’s current Medicare number documented in the medical record?
Indicate 1-Yes or 0-No.

1.3 Date of birth
Record the client’s date of birth.
Record as dd/mm/yyyy.

1.4 Age at date of audit
Record the client’s age (in years), on the audit date.

1.5 Gender
Indicate the gender (sex) of client as documented in the client record
Indicate 1-Male or 2-Female

1.6 Indigenous status
Record the client’s Indigenous status as documented in their medical record.
Select one of the following:
1-Aboriginal
2-Torres Strait Islander
3-Both (client is both Aboriginal and Torres Strait Islander)
4-Neither (client is neither Aboriginal nor Torres Strait Islander)
5-Not stated (there is no clear record of the client’s Indigenous status)
1.7 Auditor’s initial and surname

Record the initial and surname of the person doing the audit. You may want to make a stamp if you are a regular auditor (eg. J. Smith).

1.8 Audit date

You may wish to use a date stamp. Record as dd/mm/yyyy.

NOTE that the audit date will be the same for all client records being audited in this cycle. Even if all ARF/RHD auditing cannot be completed on this date, continue to use the same audit date for all client records and audit the medical records retrospectively from this date.
Section 2 Attendance at health service

Attendance
By attending a health service, Aboriginal and Torres Strait Islander people can help to ensure they receive primary health care that is matched to their needs, and encourages early detection, diagnosis and intervention for common and treatable conditions such as chronic diseases.

Time since last attendance is a useful measure of the level of client engagement with the health centre. Studies show that advice from health professionals to Aboriginal clients is often the key reason the clients change their risky behaviours. The health centre is often the major source of health advice, particularly in remote areas (Couzos and Murray 2008).

2.1 Date last attended
A record of attendance includes a record that the client was seen by a health professional (refer to question 2.4 for types of health professionals). If the client made a visit to the health service but left without an assessment by a health worker, this should not be recorded as having attended the health centre.

If a regular service is being provided e.g. home visits for community nurses attending to medication or education in the home, then this can be included as attendance/a visit. When completing the systems assessment tool, (SAT) it should be documented in the appropriate component/item that this service is provided.

Record the date the client last attended the health service for care. Record as dd/mm/yyyy.

2.2 Reason for last attendance
The reason for last attendance can shed light on the client’s level of engagement in the ongoing management of their condition, as well as identify opportunities for routine checks and tests that might arise in the context of other visits to the health centre.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Acute care</td>
<td>Infections, trauma</td>
</tr>
<tr>
<td>2-Benzathine penicillin injection</td>
<td>The client presented for a penicillin injection, but may have had opportunistic treatment/investigations.</td>
</tr>
<tr>
<td>3-ARF/RHD prophylaxis with oral medication</td>
<td>The client presented for oral prophylaxis of ARF/RHD</td>
</tr>
<tr>
<td>4-Well person’s check</td>
<td>The client presented for a well person’s check, but may have had opportunistic treatment/investigations.</td>
</tr>
<tr>
<td>5-Specialist review</td>
<td>The client presented to see a specialist (eg paediatrician, physician, cardiologist)</td>
</tr>
<tr>
<td>6-Other</td>
<td>Blood tests, echocardiogram, social issues</td>
</tr>
</tbody>
</table>

Indicate the reason the client last attended the health service.
If ‘Other’, provide a brief description of reason for last attendance.
2.3 First seen by

Identifying which staff member was the first point of contact for the client at their most recent attendance is a measure of Aboriginal and Torres Strait Islander health worker engagement with program delivery and clinic processes. Some health services may have a clear policy on which type of health worker should be the first to see clients. It is acknowledged that sometimes a health professional will meet more than one criterion, eg an Aboriginal nurse. Audit staff will need to decide how to consistently record these details. Local interpretation of the ARF/RHD audit report is important for usefulness of the information collected.

<table>
<thead>
<tr>
<th>Type of health worker</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Aboriginal or Torres Strait Islander health worker</td>
<td>Aboriginal and/or Torres Strait Islander health workers working in tertiary institutions, local hospitals, health centres or any primary health care services. Depending on the area of work, some health workers may need to obtain a licence or registration from their local authority in the state or territory where they wish to work.</td>
</tr>
<tr>
<td>2-Nurse</td>
<td>Registered nurses, enrolled nurses and/or endorsed nurses who are registered/enrolled and/or endorsed by the Australian Health Practitioner Regulation Agency (AHPRA)</td>
</tr>
<tr>
<td>3-General practitioner</td>
<td>Doctors registered with the Royal Australian College of General Practitioners</td>
</tr>
<tr>
<td>4-Specialist</td>
<td>A doctor who has specialised in a particular field (e.g. cardiology, paediatrics) and is registered with the appropriate specialist college (e.g. an ophthalmologist registered with the Royal Australian and New Zealand College of Ophthalmologists (RANZCO))</td>
</tr>
<tr>
<td>5-Allied health professional</td>
<td>Audiologists, chiropractors, dieticians, occupational therapists, podiatrists, psychologists, radiographers, radiation technicians, sonographers, social workers, speech pathologists, physiotherapists, diabetes educators, cardiac rehabilitation therapists, pathologists</td>
</tr>
<tr>
<td>6-Other</td>
<td>Any health professional not identified above</td>
</tr>
<tr>
<td>7-Not stated</td>
<td>No record of which health professional the client first saw at the last visit</td>
</tr>
</tbody>
</table>

When the client last attended the health service, which health worker did the client see first?

2.4 Unsuccessful follow-up attempt

Care of clients with RHD should extend beyond the community boundaries (RHDA 2012). Health services may have a system in place to remind staff when a client is due to be seen again. If the system is active, or if there is documentation to show that the client has been notified of an appointment, but has not presented to any health service, this is classified as an unsuccessful follow up attempt.

If client not seen in the last 12 months, is there any record of unsuccessful follow-up attempt since last attendance?

Indicate 1-Yes or 0-No

Indicate 9-N/A if the date last attended is within 12 months of audit date.
Section 3 Key information in client medical record summaries

Best Practice standards (NACCHO, RACGP, 2010) suggest that medical summaries are useful for having important client information available quickly. For the purpose of this audit, health summary refers to any paper or electronic record of a client summary, health summary, medical summary or problem list that summarises the client’s current health related issues.

Diagnoses dates provide information about the onset of illness which is essential for management of care.

3.1 Diagnosis of definite or suspected ARF on the health summary

Definite or suspected acute rheumatic fever (first episode) refers to the first definite or suspected episode of acute rheumatic fever, usually diagnosed in hospital, or by a visiting specialist or experienced medical practitioner. Sometimes the diagnosis of rheumatic fever is uncertain, in which case the client may have “suspected” or “possible” rheumatic fever recorded in the medical record. A client may have more than one of the above diagnoses: eg. A client may have had definite acute rheumatic fever as well as rheumatic heart disease.

On the health summary, is there a documented diagnosis of definite or suspected acute rheumatic fever (first episode)?

Indicate 1-Yes or 0-No

Record the date (dd/mm/yyyy) of diagnosis that is documented on the health summary only

Diagnosis of recurrent or suspected recurrent ARF on the health summary

Recurrent rheumatic fever occurs in a client who has had acute rheumatic fever in the past and experiences another episode. This may happen multiple times. Sometimes the diagnosis of rheumatic fever is uncertain, in which case the client may have “suspected” or “possible” rheumatic fever recorded in their file. This may also happen multiple times.

On the health summary, is there a documented diagnosis of recurrent, or suspected recurrent acute rheumatic fever?

Indicate 1-Yes or 0-No

Record the date (dd/mm/yyyy) of each diagnosis that is documented on the health summary only

Diagnosis of RHD on the health summary

Rheumatic heart disease: Rheumatic heart disease usually involves damage to the heart valves and may be recorded as a specific heart valve problem, such as “mitral regurgitation”, “mitral incompetence” or “aortic regurgitation”. A diagnosis of RHD may have been made in hospital, or by a visiting specialist or experienced medical practitioner.

On the health summary, is there a documented diagnosis of rheumatic heart disease?

Indicate 1-Yes or 0-No

Record the date (dd/mm/yyyy) of each diagnosis that is documented on the health summary only.
3.2 Diagnosis of definite or suspected ARF elsewhere in the medical record

Major diagnoses (described above) not recorded on a health summary, may be found elsewhere in the paper and/or computer medical record (e.g. care plan, hospital discharge summary or letters from specialists in the correspondence section).

A client may have more than one of the above diagnoses: eg. A client may have had definite acute rheumatic fever as well as rheumatic heart disease.

Elsewhere in the medical record, is there a documented diagnosis of definite or suspected acute rheumatic fever (first episode)?

Indicate 1-Yes if the diagnosis is documented in the medical record, but not on the health summary
Indicate 0-No if there is no diagnosis documented
Indicate 9-N/A if the diagnosis is documented in the health summary

Record the date (dd/mm/yyyy) of diagnosis that is documented elsewhere in the medical record only

Diagnosis of recurrent or suspected recurrent ARF elsewhere in the medical record

Elsewhere in the medical record is there a documented diagnosis of recurrent or suspected recurrent acute rheumatic fever?

Indicate 1-Yes if the diagnosis is documented in the medical record, but not on the health summary
Indicate 0-No if there is no diagnosis recorded
Indicate 9-N/A if the diagnosis is documented in the health summary

Record the date (dd/mm/yyyy) of each diagnosis that is documented elsewhere in the medical record only

Diagnosis of RHD elsewhere in medical the record

Elsewhere in the medical record is there a documented diagnosis of rheumatic heart disease?

Indicate 1-Yes if the diagnosis is documented in the medical record, but not on the health summary
Indicate 0-No if there is no diagnosis recorded
Indicate 9-N/A if the diagnosis is documented in the health summary

Record the date (dd/mm/yyyy) of diagnosis that is documented elsewhere in the medical record only
RHD classification

Classification of RHD is a key determinant of care for clients with ARF/RHD and should be clearly documented. There are 4 classifications:

**Priority 1**

**Severe RHD** – Severe valvular disease or moderate/severe valvular lesion with symptoms or mechanical prosthetic valves, tissue prosthetic valve repairs including balloon valvuloplasty

**Priority 2**

**Moderate RHD** – Any moderate valve lesion in the absence of symptoms and with normal left ventricular function or mechanical prosthetic or mechanical prosthetic valves

**Priority 3**

**ARF (no RHD) Mild RHD** – ARF with no evidence of RHD, or Trivial to mild valvular disease

**Priority 4**

**Inactive** – Patients with a history of ARF (no RHD) for who secondary prophylaxis has been ceased (not included in One21seventy ARF/RHD clinical audit)

RHDA (2012)

### 3.3 RHD classification recorded on health summary

RHD classification may be complex to determine. For the purposes of this audit, if ‘unable to determine’, or there is evidence that a classification cannot be made due to client condition, is clearly documented in the client’s record, then ‘unable to determine’ is the classification. Is the client’s classification (according to the RHD register) clearly documented on the health summary?

Indicate 1-Yes if documented on health summary

Indicate 0-No if documented elsewhere in medical record, or RHD classification is not recorded.

### 3.4 RHD classification

Record the RHD classification based on the Australian guideline of prevention, diagnosis and management of acute rheumatic fever and rheumatic health disease (2nd edition) as documented in the medical record. Indicate one of the following:

1-Priority 1 Severe RHD
2-Priority 2 Moderate RHD
3-Priority 3 ARF (no RHD). Mild RHD,
4-Unable to determine if classification is documented as unable to determine, despite complete investigations
9-Not recorded if priority classification is not documented in the client’s medical record.

### 3.5 ARF/RHD management plan

A structured plan of care should be developed and recorded in the primary health care record of all persons with a history of ARF, or with established RHD (RHDA 2012). For the purposes of this audit, a management plan is any current, structured plan of care that is aligned with best practice guidelines and is documented in the client record.

Is there a current and completed ARF/RHD management plan (as described above) in the client’s medical record?

Indicate 1-Yes if there is a current and completed management plan in the medical record

Indicate 0-No if the management plan is incomplete, not present, or out of date.
3.6 **Smoking status**

What is the client’s smoking status as documented in the medical record in the last 12 months?

Indicate 1-Smoker, 2-Non-smoker or 4-Not recorded.

**Alcohol**

It is acknowledged that discussion about recorded alcohol use is difficult to assess in some populations.

To define a client’s level of risk for alcohol consumption, it is suggested that health personnel ask and record a description of the client’s stated general alcohol consumption. This can then be measured against the NHMRC (2009) guidelines.

3.7 **Alcohol use**

For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol related disease or injury. (NHMRC 2009)

What is the client’s current use of alcohol, as documented in the medical record in the last 12 months?

Indicate 1-Higher risk if documented as **more than two standard drinks in any one day**.

Indicate 2-Low risk if documented as **two standard drinks or less in any one day**.

Indicate 3-Alcohol use but risk level not stated if alcohol use is recorded but **amount of alcohol is not stated**.

Indicate 4-No alcohol use if documented that client **does not use alcohol**.

Indicate 9-Not recorded if there is no record of the client’s alcohol use.

3.8 **Cardiac surgery**

The client may have had cardiac surgery, especially if they have RHD classification priority 1. Information about this could be located in the specialist letter, progress notes, discharge letters or appointment notifications. Most likely surgery includes heart valve repair or replacement.

If the client’s RHD classification is priority 1, is there documentation in the medical record that indicates that the client has had cardiac surgery?

Indicate 1-Yes or 0-No

Indicate N/A if the client is not priority 1

3.9 **Waiting for surgery**

Information about this could be located in the specialist letters, progress notes, discharge letters or appointment notification. If the client’s RHD classification is priority 1, is there documentation in the medical record that indicates that the client is waiting for cardiac surgery?

Indicate Yes or 0-No

Indicate 9-N/A if the client’s RHD classification is not priority 1 or surgery is not indicated

3.10 **Warfarin**

Warfarin may be a necessary medication, especially if the RHD classification is priority1 or 2.

If the client’s RHD classification is priority 1 or priority 2, is there documentation in the medical record that indicates the client is currently prescribed Warfarin?

Indicate 1-Yes or 0-No

Indicate 9-N/A if RHD classification is not priority 1 or 2.
3.11 Most recent INR

Results of INR tests should be located in the lab reports or warfarin dosage chart within the medical record/s. Regular INR tests are necessary to check the effectiveness of warfarin therapy.

Indicate 1-Yes if INR result is documented

Indicate 2-No if INR result is not documented

Indicate 9-N/A if the client is not prescribed Warfarin or RHD classification is not priority1 or priority 2.

Record the result and date of the two most recent INR tests.

Enter the most recent INR reading first.
Section 4 Penicillin use and recurrent rheumatic fever

Medications

It is recommended that all clients diagnosed with ARF/RHD receive secondary prophylaxis treatment with Benzathine penicillin (BPG) injections 3-4 weekly, (RHDA 2012)

Current prescriptions and recording of injections are evidence of best practice and are a measure of the robustness of the administrative processes supporting care.

Definition: Clinic Master Chart

For the purposes of this audit, clinic master chart refers to any electronic or paper system used for planning injections for multiple clients. It may be presented in a variety of forms, for example, chart, table, spreadsheet, whiteboard or calendar. It is held at the health service for the purpose of systematically planning and recording Benzathine injections for clients with ARF/RHD.

4.1 Benzathine penicillin injections

This information can be recorded in the client’s medical record or on a clinic master chart for ARF/RHD clients. For the purpose of this audit question, prescribed means that the client is supposed to receive Benzathine penicillin injections. The prescription (or instruction) should include a dosage frequency detailing how often the injection is to be given.

Is the client prescribed regular Benzathine penicillin injections?

Indicate 1-Yes if there is a current prescription (or instructions) for penicillin injections

Indicate 0-No if there is no evidence of a current prescription (or instructions) for penicillin injections

4.2 Oral antibiotic prophylaxis

This information can be recorded in the client’s medical record or on a clinic master chart for ARF/RHD clients (definition at top of page). In extreme circumstances, oral antibiotic prophylaxis may be prescribed as an alternative to IM injections. This treatment should be carefully monitored (RHDA 2012). The prescription (or instruction) should include a dosage frequency detailing how often the injection is to be given.

Is the client prescribed oral antibiotic prophylaxis for rheumatic fever in place of Benzathine penicillin injections?

Indicate 1-Yes if there is a current prescription (or instructions) for oral antibiotic prophylaxis

Indicate 0-No if there is no evidence of a current prescription (or instructions) for oral antibiotic prophylaxis

Indicate 9-N/A if the client is prescribed regular Benzathine penicillin injections

4.3 Current pharmaceutical prescription

A current pharmaceutical prescription is dated within 12 months of audit date and is specific to the client, unlike the master chart. If the client is receiving Benzathine penicillin injections, is there a current pharmaceutical prescription for Benzathine penicillin injections?

Indicate 1-Yes if there is a current prescription (pharmaceutical) for penicillin injections

Indicate 0-No if there is no evidence of a current prescription (pharmaceutical) for penicillin injections

Indicate 9-N/A if client is not receiving benzathine penicillin injections.
4.4 Planned frequency of injections

Where in the medical record is the planned frequency of injection recorded?
Indicate 1-Current prescription, if the frequency of injections is recorded on a current prescription
Indicate 2-Non-current prescription, if the frequency of injections is recorded on a prescription that is out of date or not valid for another reason
Indicate 3-Elsewhere in medical record, if the frequency of injections is recorded anywhere in the medical record, but not on a prescription
Indicate 4-not recorded if there is no record of planned frequency of injections in the client’s medical record OR if the planned frequency of injections is recorded only on the clinic master chart (definition at beginning of section 4).
Indicate 9-N/A if client is not receiving Benzathine penicillin injections.

4.5 Planned frequency of injections recorded on a clinic master chart

Indicate if the planned frequency of injections is recorded systematically, (either electronically, paper-based or on a wall based chart), for example, in a clinic master chart (definition at beginning of section 4).
Is the planned frequency of injections recorded in a clinic master chart?
Indicate 1-Yes or 0-No
Indicate 9-N/A if the planned frequency of injections is recorded in the client’s medical record OR if the client is not receiving Benzathine penicillin injections.

4.6 Medical record and clinic master chart consistent

If planned injections are recorded in the client’s medical record as well as on a clinic master chart, check if both records contain consistent information. If injections are recorded in both the client’s medical record and the clinic master chart, are the two records consistent?
Indicate 1-Yes or 0-No
Indicate 9-N/A if not recorded in both places or if client is not receiving Benzathine penicillin injections.

4.7 Current record

If planned injections are recorded in the client’s medical record and a clinic master chart, and these records are not consistent, indicate which record is currently used.
Indicate 1-Medical record or 2-Clinic master chart.
Indicate 9-N/A if not recorded in both places or if client is not receiving Benzathine penicillin injections.
4.8 Planned frequency of injections

Indicate the frequency of planned injections as documented in the client’s medical record or clinic master chart for the last 12 months (whichever is currently used). You may need to refer to previous records if the current record does not go back far enough.

A client on **monthly** injections should have **12** injections in 12 months.
A client on **4 weekly** injections should have **13** injections in 12 months;
A client on **3 weekly** injections should have **17** injections every 12 months;

Indicate the frequency of planned injections as recorded in the client’s medical record or clinic master chart for the last 12 months.
Indicate **1-monthly** if 12 injections were planned,
Indicate **2-4 weekly** if 13 injections were planned,
Indicate **3-3 weekly** if 17 injections were planned.
Indicate **4-other** if another schedule of injections were planned.
Indicate **5-no record** if there is no record of planned injections.
Indicate **9-N/A** if client is not receiving benzathine penicillin injections.

4.9 Number of injections given

You may need to refer to previous records if the current one does not go back far enough. If the client started on benzathine penicillin less than 12 months ago, record the number of injections given since commencing.

Count and record the number of injections recorded as given on the client’s medical record or clinic master chart (whichever is currently used) in the last 12 months.
If there is no record of the client receiving injections enter 0.

4.10 Injections commenced in the last 12 months

If the client started on benzathine penicillin less than 12 months ago, record the date of the first injection.
Record as dd/mm/yyyy.
If injections commenced more than 12 months ago or the client is not receiving injections, leave blank.
4.11 Percent of prescribed injections

If a client has received less than 80% of their scheduled/planned benzathine penicillin injections in the last 12 months, this is regarded as poor delivery.

<table>
<thead>
<tr>
<th>Frequency and number of planned injections in 12 months</th>
<th>Minimum number of injections in the last 12 months required to make 80% of planned injections</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Weekly (17)</td>
<td>14</td>
</tr>
<tr>
<td>4 Weekly (13)</td>
<td>11</td>
</tr>
<tr>
<td>Monthly (12)</td>
<td>10</td>
</tr>
</tbody>
</table>

To calculate the percent of injections received:

\[
\text{Percent of injections received} = \left( \frac{\text{number of injections given}}{\text{number of injections planned in last 12 months}} \right) \times 100.
\]

Enter the percent of prescribed injections received in the last 12 months. Record as a whole number without decimal places or “%” sign.

Enter 0 if the client is not receiving injections.

4.12 Follow up of poor delivery

If the client has received less than 80% of planned Benzathine penicillin injections in the last 12 months, indicate if any of the following actions are recorded.

- Active recall includes any or all of phone call, letter of recall, and/or a home visit from clinic staff. Is there a record of an attempt at active recall?
- Is there an attempt to contact the relevant health centre to arrange for Benzathine penicillin injections to be given if the client is known to be out of the community?
- Advice is providing information to the client about the importance of preventing recurrent ARF. Is there a record of advice on the importance of preventing recurrent ARF? (with 1 or more family members/guardians)
- A family meeting with 1 or more family members or guardians to encourage ARF/RHD prophylaxis.
- An action plan is an attempt to identify and implement strategies to reduce the barriers to Benzathine penicillin injection administration. The goal is to improve the administration of Benzathine penicillin injections. Is there a record of an action plan being made?
- Other appropriate action: Is there a record of other actions that may have been implemented to improve the administration of Benzathine penicillin injections? (include details of this action)

Indicate 1-Yes or 0-No for each of the follow up actions

Indicate 9-N/A for all follow up actions if more than 80% of injections were received, or client is not receiving injections.

4.13 Number of episodes of recurrent rheumatic fever

Episodes of ARF need to be documented because recurrences can cause further cardiac valve damage so RHD worsens in people who have recurrences of ARF (RHDA, 2012).

Indicate the number of documented episodes of recurrent rheumatic fever the client has had during the last 12 months.

Indicate >4 if more than 4 episodes were documented.
4.14 Recurrent rheumatic fever follow up

If 1 or more episodes of recurrent rheumatic fever were recorded in the last 12 months, despite good delivery of Benzathine penicillin, (80% or more of scheduled injections given), indicate if any of the following actions are documented.

- A change to more frequent Benzathine penicillin injections
- Advice on role of throat and skin infections in the leading to ARF
- Advice on the role of overcrowding in predisposing to ARF
- An action plan made
- Referral to support services may include environmental health, housing services or other departments in the community or another area.
- Other appropriate actions to reduce the number of ARF episodes
- If other appropriate action has been taken, record details.

Indicate **1-Yes** or **0-No**

Indicate **9-N/A** if no episodes of recurrent rheumatic fever were documented or less than 80% of BPG injections were received in the last 12 months, or client is not receiving Benzathine penicillin injections.
### Section 5 Scheduled services

**Recommended routine review and management plan (RHDA, 2012)**

<table>
<thead>
<tr>
<th>Service</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor Review</td>
<td>3-6 Monthly</td>
<td>6 monthly</td>
<td>Yearly</td>
</tr>
<tr>
<td>Cardiologist/Physician/Paediatrician review</td>
<td>3-6 Monthly</td>
<td>Yearly</td>
<td>As referred with new symptoms</td>
</tr>
<tr>
<td>Echocardiogram</td>
<td>3-6 Monthly</td>
<td>Yearly</td>
<td>Children: 2 yearly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adults: 2-3 yearly</td>
</tr>
<tr>
<td>Influenza vaccination</td>
<td>Yearly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental Review</td>
<td>6 monthly</td>
<td>Yearly</td>
<td>Yearly</td>
</tr>
<tr>
<td>Polysaccharide pneumococcal vaccination</td>
<td>5-Yearly (max 3 doses)</td>
<td>5-Yearly (max 3 doses)</td>
<td></td>
</tr>
</tbody>
</table>

For the purposes of this audit, record the date that the service was provided, whether it was a scheduled review or opportunistic review.

#### 5.1 Scheduled services provided

Scheduled services are those services that should be provided to all clients, depending on their diagnosis and RHD classification. Indicate if the following services are documented in the medical record.

- **Is there documentation that the client has been seen by a doctor** (including local GP, visiting DMO, GP registrar or junior doctor) in the last 2 years?
  
  Indicate 1-Yes or 0-No.
  
  Record the date (dd/mm/yyyy) of the most recent review, or leave blank if service not recorded.

- **Is there documentation of the client being reviewed by a specialist** (cardiologist, physician, paediatrician or specialist registrar) in the last 2 years?
  
  Indicate 1-Yes or 0-No to indicate if a Cardiologist/physician/paediatrician review has been provided (even if the service is not scheduled for the client’s RHD classification).
  
  Record the date (dd/mm/yyyy) of the most recent review or leave blank if service not recorded.
  
  Indicate 9-N/A if the client’s RHD classification is priority 3 or unable to determine and the client has not received this service.

- **Is there documentation of the client having an echocardiogram** in the last 3 years?
  
  Indicate 1-Yes or 0-No.
  
  Record the date (dd/mm/yyyy) of the most recent service or leave blank if service not recorded.
• Is there documentation of the client having an influenza vaccination (‘Fluvax’) in the last 2 years? This is often recorded in/on an immunisation record sheet near the front of the medical record. Indicate 1-Yes or 0-No to indicate if service has been provided (even if the service is not scheduled for the client’s RHD classification). Indicate 9-N/A if the client’s RHD classification is priority 3 or unable to determine and the client has not received this service. Record the date (dd/mm/yyyy) of the most recent service or leave blank if service not recorded.

• Is there documentation of the client seeing a dentist in the last 2 years? For example, a letter may be filed in correspondence section of client’s medical record. Indicate 1-Yes or 0-No to indicate if review has been provided. Indicate 9-N/A if the client’s RHD classification is priority 3 or unable to determine and the client has not received this service. Record the date (dd/mm/yyyy) of the most recent review or leave blank if service not recorded.

• Polysaccharide pneumococcal vaccination/s (‘Pneumovax’ or ‘Pneumovax 23’) are scheduled for all Aboriginal and Torres Strait Islander people diagnosed with a chronic disease. Record the client’s most recent documented polysaccharide pneumococcal vaccination/s (‘Pneumovax’ or ‘Pneumovax 23’). This may be documented in an immunisation record sheet near the front of the notes. If client is:
  - less than 15 years of age record the 3 most recent vaccinations, most recent date first.
  - 15 to 49 years of age record the 3 most recent vaccinations, most recent date first. The most recent should be since age 15.
  - 50 to 64 years of age record the 3 most recent vaccinations, most recent date first. The most recent should be since age 50.
  - 65 years of age or older record the 3 most recent vaccinations, most recent date first. The most recent should be since age 65.

Is there documentation that the client has had any pneumovax injections? Indicate 1-Yes or 0-No. Record the date (s)(dd/mm/yyyy) of the 3 most recent vaccination(s).

5.2 Education
Indicate if there is documentation of rheumatic fever education being provided and the format in which this education was delivered.
  - Is there documentation that the client watched a DVD or video about rheumatic fever?
  - Is there documentation that client was given written materials about rheumatic fever?
Indicate 1-Yes or 0-No for each.
Brief interventions that address smoking, nutrition, alcohol intake and physical activity are recommended for all clients as part of routine care (CARPA, 2009). These actions should be documented in the client’s record.

5.3 Brief intervention (smoking, nutrition, alcohol, physical activity)

- For the purpose of the audit, documentation of a brief intervention for smoking should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their use of tobacco and their intentions or interest in quitting.

Is there documentation that the client has received a brief intervention for smoking in the last 12 months?  
Indicate **1-Yes** or **0-No**
Indicate **9-N/A** if the client is a non-smoker or smoking status is not documented

- For the purpose of the audit, the documentation of brief interventions for improving nutrition should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their diet and their intentions or interest in improving or maintaining good nutrition.

Is there documentation that the client has received a brief intervention for nutrition in the last 12 months?  
Indicate **1-Yes** or **0-No.**

- For the purpose of the audit, the documentation of brief interventions for reducing alcohol related harm should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their use of alcohol and their intentions or interest in reducing their alcohol consumption.

Is there documentation that the client has received a brief intervention for higher risk alcohol use in the last 12 months?  
Indicate **1-Yes** or **0-No.**
Indicate **9-N/A** if the client’s alcohol use is not documented as higher risk or alcohol use is not documented.

- For the purpose of the audit, the documentation of brief interventions for increasing physical activity should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their physical activity and their intentions or interest in improving or maintaining physical activity.

Is there documentation that the client has received a brief intervention for physical activity within the last 12 months?  
Indicate **1-Yes** or **0-No.**
References


RHD Australia (ARF/RHD writing group), National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand. *Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (2nd edition).* 2012

Literature with information about ARF/RHD


Other publications


