Acute rheumatic fever and rheumatic heart disease clinical audit protocol

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Acknowledgments

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Contents

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.

Section/question	Description of change
Introduction	Added more accurate description of **audit preparation**
Literature	**References and other literature** added to end of protocol
1.5	**Terminology change 'sex' to 'gender'**
Section 2 -5	**Terminology change 'health centre' to 'health service'** to be more encompassing of the variety of One21seventy users
Previously 2.2	**'Location of record of last attendance'** removed as most services are now moving towards using electronic records.
2.3	**Added comprehensive description of health workers by role**
2.4	**Added definition of 'unsuccessful follow up attempt'**
3.1	**Terminology change 'Health Summary Sheet' to 'health summary'**, to reflect the increased use of electronic records
3.1	**'Paper' and 'Computer'** removed as most services are now moving towards using electronic records
3.2	**'Paper' and 'Computer'** removed as most services are now moving towards using electronic records
3.4	**Terminology change 'high risk' to 'priority 1', 'medium risk' to 'priority 2', 'low risk' to 'priority 3'**.
Previously 3.5	Question requiring auditor to classify client according to guidelines removed. Audit report should reflect only what is documented in client record.
3.6	**'Paper' and 'Computer'** removed as most services are now moving towards using electronic records
3.7	**'Location of smoking status'** removed as most services are now moving towards using electronic records
4.1	**Description of 'prescribed Benzathine penicillin injections'** more detailed to distinguish from 'pharmaceutical prescription' (Q4.3)
4.3	**Description of 'pharmaceutical' prescription** more detailed to distinguish from 'prescribed benzathine penicillin injections'
4.3	**'Paper' and 'Computer'** removed as most services are now moving towards using electronic records
Section 4	Added more comprehensive description of '**clinic masterchart**'
4.11	Added minimum number of injections necessary to receive 80% of planned injections
5.3	**'Paper' and 'Computer'** removed as most services are now moving towards using electronic records

Version control

Version	Release date	Description
6.4	30/11/2008	
6.5	31/5/2010	
2013 release	25/2/2013	Minor changes to reflect 2012 guidelines

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.

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

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.

Type of health worker	Example
1-Aboriginal or Torres Strait Islander health worker	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
2-Nurse	Registered nurses, enrolled nurses and/or endorsed nurses who are registered/enrolled and/ or endorsed by the Australian Health Practitioner Regulation Agency (AHPRA)
3-General practitioner	Doctors registered with the Royal Australian College of General Practitioners
4-Specialist	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)
5-Allied health professional	Audiologists, chiropractors, dieticians, occupational therapists, podiatrists, psychologists, radiographers, radiation technicians, sonographers, social workers, speech pathologists, physiotherapists, diabetes educators, cardiac rehabilitation therapists, pathologists
6-Other	Any health professional not identified above
7-Not stated	No record of which health professional the client first saw at the last visit

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.

Frequency and number of planned injections in 12 months	Minimum number of injections in the last 12 months required to make 80% of planned injections
3 Weekly (17)	14
4 Weekly (13)	11
Monthly (12)	10

To calculate the percent of injections received:

(number of injections given/number of injections planned in last 12 months) x 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)

	Priority 1	Priority 2	Priority 3
Doctor Review	3-6 Monthly	6 monthly	Yearly
Cardiologist/Physician/ Paediatrician review	3-6 Monthly	Yearly	As referred with new symptoms
Echocardiogram	3-6 Monthly	Yearly	Children: 2 yearly Adults: 2-3 yearly
Influenza vaccination	Yearly	Yearly	
Dental Review	6 monthly	Yearly	Yearly
Polysaccharide pneumococcal vaccination (pneumovax)	5-Yearly (max 3 doses)	5-Yearly (max 3 doses)	

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

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http://www.racgp.org.au/Content/NavigationMenu/About/Faculties/AboriginalandTorresStraitIslanderHealth/InterpretativeGuide/2010InterpretiveGuide.pdf

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