

Acute Rheumatic Fever and Rheumatic Heart Disease

Education Framework



Recognition statement

Queensland Health respectfully acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional and Cultural Custodians of the lands on which we live and work to deliver healthcare to all Queenslanders and recognises the continuation of First Nations peoples' cultures and connection to the lands, waters and communities across Queensland.

Throughout the project documents, the terms 'First Nations peoples' and 'Aboriginal and Torres Strait Islander peoples' are used interchangeably rather than 'Indigenous'. Acknowledging First Nations peoples' right to self-determination, Queensland Health respects the choice of Aboriginal and Torres Strait Islander peoples to describe their own cultural identities which may include these or other terms, including particular sovereign peoples or traditional place names.

Acknowledgements

This document aligns with the Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (V3.2), March 2022.

Acknowledgements go to all stakeholders who have contributed their time and expertise in preparing this framework.

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Health Protection and Regulation Branch

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Contents

Recognition statement	2
Acknowledgements	2
Overview	4
Health issue	4
High Risk Populations	4
Clinical Education Framework	5
Guiding principles for the development of clinical education	6
Clinical education structure to support prevention and management of ARF and RHD	6
Table 1. Recommended education for all health care professionals working directly with high risk populations	9
Table 2. Targeted education for health professionals working with risk population by stream	11

Document History

Document History		
Version	Date	Comments
0.1	29.04.2024	Initial draft
1.0	05.07.2024	First Version

Document Review

This document will be reviewed annually by the Queensland RHD Program to ensure information and links remain current. Next review date June 2025.

Overview

Health issue

Acute rheumatic fever (ARF) is a notifiable disease that can occur following an infection caused by the Group A Streptococcus bacterium (Strep). If untreated, a Strep infection (i.e a 'strep throat' or skin infection) can lead to inflammation in other parts of the body, particularly the joints, brain and heart. Without regular antibiotic treatment, further episodes of ARF can lead to serious damage of the heart valves. This is known as rheumatic heart disease (RHD)¹.

There is no single test that can be used to diagnose ARF. Diagnosis of suspected and confirmed cases is based on evaluation of clinical features, individual history, laboratory evidence and pre-existing risk². Early and accurate diagnosis and treatment is vital to prevent recurrent episodes of ARF and the development of RHD. Regular and consistent administration of antibiotics (secondary prophylaxis) is the preferred treatment to prevent recurrent episodes of ARF and the development of, or worsening of RHD³. RHD is diagnosed by echocardiogram (ultrasound) and people with RHD require ongoing medical care, antibiotic treatment and possibly surgery to repair or replace their heart valves.

In Queensland and in other jurisdictions, both ARF and RHD are more common in females than males⁴. Previously undiagnosed RHD may be identified during pregnancy due to clinical symptoms presenting as a result of added stress on the heart. Therefore, careful coordinated health care is required to safely optimise management of RHD, including echocardiographic screening, for at-risk women who are considering and who are pregnant⁵.

Despite being preventable, high rates of ARF and RHD persist across many countries, where social and cultural determinants of health are not addressed. In Australia, Aboriginal and Torres Strait Islander people experience some of the highest rates of RHD in the world⁶ and it is the greatest cause of cardiovascular inequity between First Nations peoples and other Australians. ARF and RHD is also seen at high rates in Māori populations, and migrants from Pacific nations.

The *Ending Rheumatic Heart Disease: Queensland First Nations Strategy 2021-2024* (Queensland Government, 2021) states that it is estimated that without further action, at least 2,730 Aboriginal and Torres Strait Islander peoples will develop acute rheumatic fever (ARF) or RHD by 2031. Of these, 637 will have severe RHD and 146 will die, with \$86.8 million required to be spent on acute medical care alone⁷.

High Risk Populations

As there is currently no single diagnostic laboratory test for ARF, a person's risk level becomes an important factor when determining a clinical diagnosis. As such clinicians need to be aware of which population and sub-population groups are at high risk.

In Australia, populations at high risk include⁵:

- People living in an ARF-endemic setting;
- Aboriginal and/or Torres Strait Islander peoples living in rural or remote settings;
- Aboriginal and/or Torres Strait Islander peoples, and Māori and/or Pacific Islander peoples living in metropolitan households affected by crowding and/or lower socioeconomic status.
- Personal history of ARF/RHD and aged <40 years.

Populations who may be at high risk:

- Migrant or refugee from low-or middle-income country and their children.
- Family or household recent history of ARF/RHD.
- Household overcrowding (2 or more people per bedroom) or low socioeconomic status.
- Prior residence in or frequent recent travel to a high ARF risk setting.
- Aged 5 to 20 years (peak years for ARF).

Clinical Education Framework

This framework guides the delivery of clinical education and training to support the prevention, identification, treatment and management of ARF and RHD. It is relevant to all those who deliver and are responsible for the provision of clinical education and training.

Clinical education needs to be embedded into service delivery at all levels within health service providers across Queensland and embrace all six elements of best practice clinical learning (BPCL)⁸.



Figure 1 Adapted from the Best Practice Clinical Learning Environment (BPCL), Department of Health and Human Services, Victoria 2016

Guiding principles for the development of clinical education

The individual, family and community should be placed in the centre of programs and activities to support primordial, primary, secondary and tertiary prevention of ARF and RHD.

Guiding principles include:

Holistic and patient-centred care

ARF and RHD influence, and are influenced by, a range of social, economic, cultural, environmental and health factors. To ensure actions to address ARF and RHD are responsive and appropriate, education needs to be holistic in its approach, with an understanding of the interaction of the patient as an individual, family and community member within the wider spectrum of health determinants and outcomes.

Collaborative local partnerships

Responding to ARF and RHD requires strong relationships between individuals, families and communities, and the different parts of the health system. Partnerships include local hospital and health services such as community health and public health units, Aboriginal community controlled health services, general practices, other primary care service providers, government departments, local government and non-government organisations.

Empowerment of patients, families and communities

ARF and RHD education needs to acknowledge and build upon the strength, experience and positive health actions of individuals, families, and communities. Education needs to foster greater self-determination and empowerment of Aboriginal and Torres Strait Islander communities in improving their overall health status.

Clinical education structure to support prevention and management of ARF and RHD

Clinical Education needs to address each level of prevention -

Primordial prevention: to reduce the risk of group A streptococcal infections: community education to improve awareness of ARF and RHD, how to reduce the risk of Strep A exposure, infection and transmission, and how to reduce environmental risk factors. Education and training activities should engage multiple stakeholder groups to target socio-economic determinants of health.

Primary prevention: Engage communities and raise awareness of how, when and where to seek care for sore throats and skin sores. Active identification and reduction of barriers to seeking care. Provide clinicians with evidence-based approaches to the treatment and management of sore throats and skin infections.

Secondary prevention: Promotion of early diagnosis of ARF and provision of secondary prophylaxis to reduce the risk of secondary Strep A infections and recurrent ARF, reduce the risk of disease progression from ARF to RHD and deterioration caused by worsening RHD.

Access to educational resources to support best practice delivery of antibiotic prophylaxis including promoting sites for administration, accurate injection technique and principles of therapeutic Bicillin administration.

Successful secondary prevention in Queensland is supported by the Queensland RHD Register that records patient care plans and sends out bicillin recalls to health service providers to support the long term delivery of secondary prophylaxis.

Education needs to actively promote the importance of notifying the Queensland RHD Register when antibiotic prophylaxis is given and the results of echocardiograms and changes that affect patient management plans in order improve the accuracy of patient recalls coordinated through the RHD Register.

Access to educational resources for primary care providers to support best practice delivery of antibiotic prophylaxis including promoting sites for administration, accurate injection technique and strategies to best manage pain and distress.

Tertiary care: ensures clients with existing RHD have access to long-term care, follow-up and specialist services to slow the progression of RHD, maintain quality of life and prevent premature death. Knowledge of evidence based clinical management guidelines, and culturally safe models of care and clinical pathways for timely access to specialist services.

Table 1. Examines each level of prevention and care and provides recommended education for health care professionals working with high risk populations that require a comprehensive understanding of ARF and RHD.

Table 2. Examines by stream targeted education for health care professionals that work with high risk populations.

Queensland Health's RHD Program is a recognised reference point for educational resources for ARF and RHD across the state. Its aim is to add value to and build capacity within, existing structures, systems and services to support sustainable and best practice care across the healthcare system.

Queensland Health's RHD Program works with its stakeholders to ensure current and consistent educational resources are available and provides support to local education strategies. The RHD Program engages with its stakeholders on and through this framework for a structured and collaborative approach to ARF and RHD education across Queensland.

Through consultation with its stakeholders and consistent with national guidelines and Queensland strategic priorities, the ARF and RHD Education Framework has been developed as tool for health service providers in Queensland to use when developing internal education and training programs for its health workforce and local health service partners.

Regular workforce education on ARF and RHD should be provided to health professionals working indirectly or directly with high risk populations through existing organisation education and training such as:

- Employee orientation, inductions and onboarding
- Mandatory training requirements
- In-services or Grand rounds
- Conferences and events

References

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Table 1. Recommended education for all health care professionals working directly with high risk populations

Content	Method	Resources
Primordial Prevention <ul style="list-style-type: none"> Awareness of ARF and RHD <ul style="list-style-type: none"> What is ARF and RHD and pathway from a Strep A infection to RHD High risk populations Understanding of Strep A infection prevention <ul style="list-style-type: none"> The circumstances in which people live affect the risk of Strep A infections, ARF and RHD Healthy Living Practices to reduce the development of Strep A Importance of providing locally and culturally appropriate community and household education on the risk of Strep A infections in the population and practical information for reducing risk factors for Strep A infections. Awareness of referral pathways to/from local services i.e. environmental health, primary health and housing 	☒ eLearning (guidelines)	National ARF and RHD Guidelines <ul style="list-style-type: none"> Primordial prevention and social determinants of ARF 2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3.2 edition, March 2022).
	☒ eLearning (videos)	Accredited eLearning <ul style="list-style-type: none"> Introduction to ARF and RHD Prevention of ARF and RHD RHD for Community-based Workers Content has been developed by Australian experts and is consistent with the 2020 Australian guideline for the prevention, diagnosis, and management of ARF and RHD (3rd edition).
	☒ eLearning (webpage)	Healthy Living Practices Safety and the 9 Healthy Living Practices » Healthhabitat
	☒ Face to Face	Certificate III in Indigenous Environmental Health (Health Protection and Regulation Branch) <under development 2024>
Primary Prevention <ul style="list-style-type: none"> Clinical awareness of ARF and RHD including high risk populations Understand the causation and epidemiology of ARF and RHD, including role of Strep A and opportunities to intervene on the pathway from an acute Strep A infection to ARF and RHD Understand the health impact of skin infections and sore throats and evidence-based approaches to treatment and management Treating the family for contagious/carriers of group A strep infections (e.g., scabies) Importance of providing locally and culturally appropriate patient, family and community education on the risk of Strep A infections, ARF and RHD and when to go to the local health service for a check-up. Awareness of referral pathways to/from local services i.e. environmental health, primary health and housing Knowledge of evidence-based resources to support delivery of primary health care to high risk populations 	☒ eLearning (guidelines)	National ARF and RHD Guidelines <ul style="list-style-type: none"> Primary Prevention 2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3.2 edition, March 2022).
	☒ eLearning (guidelines)	National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people RACGP - National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people
	☒ eLearning (videos)	Accredited eLearning <ul style="list-style-type: none"> Introduction to ARF and RHD Prevention of ARF and RHD Michael's Story – for Aboriginal & Torres Strait Islander Health Workers Women and Girls with RHD Women and girls with RHD – Pregnancy Focus Content has been developed by Australian experts and is consistent with the 2020 Australian guideline for the prevention, diagnosis, and management of ARF and RHD (3rd edition).
	☒ eLearning (guidelines)	National Healthy Skin Guidelines National Healthy Skin Guideline: for the Prevention, Treatment and Public Health Control of Impetigo, Scabies, Crusted Scabies and Tinea for Indigenous Populations and Communities in Australia
	☒ Resource (handbook)	Healthy Skin handbook <under development 2024>
	☒ eLearning (manual)	Primary Clinical Care Manual (PCCM) <ul style="list-style-type: none"> Skin problems Sore throat The online Primary Clinical Care Manual (PCCM) is the controlled version

<p>Secondary Prevention</p> <ul style="list-style-type: none"> • Knowledge of ARF symptoms, criteria for ARF diagnosis and resources to assist early detection. • Knowledge of requirement for doctors to notify cases of ARF and RHD under the <i>Public Health Regulation 2018</i>, where to locate notification forms, mandatory investigations, and diagnosis tools. • Importance of providing locally and culturally appropriate patient and family education to reduce risk of recurrent episodes, remain engaged in long term care and achieve the best health outcomes. • Understand the recommended long term management of ARF and RHD. • Understand the value and role of the QLD Health RHD Program (Register) in the long-term clinical management and follow-up of patients living with ARF and RHD and monitoring of health outcomes in Queensland. • Importance of timely and regular notifications to the Queensland Health RHD Register for dates of Bicillin administration. • Clinical skills training and competence in evidence based, best-practice therapeutic administration of Intramuscular Bicillin L-A to manage pain and distress • Understand the role of echocardiography and specialist monitoring for disease progression • Understanding the pre and post-surgery requirements for patients including medications, mental health and wellbeing. • Knowledge of the risks for infective endocarditis and antibiotic prophylaxis prevention, for example, prior to dental surgery. • Knowledge of resources that support evidence-based clinical and culturally safe management of people living with ARF and RHD 	<input checked="" type="checkbox"/> eLearning (guidelines)	<p>National ARF and RHD Guidelines</p> <ul style="list-style-type: none"> - Diagnosis of ARF - Management of ARF - Secondary Prophylaxis - Management of RHD - Women and girls with RHD <p>2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3.2 edition, March 2022).</p>
	<input checked="" type="checkbox"/> eLearning (tool)	<p>Clinical Support Applications</p> <ul style="list-style-type: none"> - ARF Diagnosis Calculator
	<input checked="" type="checkbox"/> eLearning (manual)	<p>Primary Clinical Care Manual (PCCM)</p> <ul style="list-style-type: none"> - Injection Pain - Ventrogluteal Injection - Acute Rheumatic Fever - Secondary prophylaxis for acute rheumatic fever (ARF) - Acutely swollen/painful joint <p>The online Primary Clinical Care Manual (PCCM) is the controlled version</p>
	<input checked="" type="checkbox"/> eLearning (videos)	<p>Accredited eLearning</p> <ul style="list-style-type: none"> - Administering Bicillin - Women and Girls with RHD - Women and girls with RHD – Pregnancy Focus <p>Content has been developed by Australian experts and is consistent with the 2020 Australian guideline for the prevention, diagnosis, and management of ARF and RHD (3rd edition).</p>
<p>Tertiary Care</p> <ul style="list-style-type: none"> • Understand the role of echocardiography and specialist monitoring for disease progression • Understand the medical and surgical management of RHD • Recognise importance of continuing Bicillin L-A after valvular surgery (if previously commenced) • Understanding the pre and post-surgery requirements for patients including medications and mental health and wellbeing. <ul style="list-style-type: none"> • Women and girls with RHD <ul style="list-style-type: none"> - Understand the whole of life approach for women and girls with RHD, acknowledging need for increased monitoring of pregnant women with RHD and coordinated care approach. - Understand need to raise discussions around contraception early to females with ARF and RHD, as pre-conception diagnosis of RHD enables for optimal of care planning, including surgical management and discussions of safe birthing locations. - Recognise importance of continuing Bicillin L-A during pregnancy (if previously commenced) - Understand the care required for women with RHD during pregnancy, care pathways for pregnant women with RHD, risk of complications in pregnancy and treatment options. - Recognise a pregnant or post-partum woman previously diagnosed with or high-risk of RHD presenting with breathlessness, wheeze or worsening fatigue should have an echocardiogram to investigate cardiac function. 	<input checked="" type="checkbox"/> eLearning (guidelines)	<p>National ARF and RHD Guidelines</p> <ul style="list-style-type: none"> - Diagnosis of ARF - Management of ARF - Diagnosis of RHD - Secondary Prophylaxis - Management of RHD - Women and girls with RHD <p>2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3.2 edition, March 2022).</p>
	<input checked="" type="checkbox"/> eLearning (tool)	<p>Clinical Support Applications</p> <ul style="list-style-type: none"> - ARF Diagnosis Calculator
	<input checked="" type="checkbox"/> eLearning (guidelines)	<p>2023 World Heart Federation</p> <p>guidelines for the echocardiographic diagnosis of rheumatic heart disease</p>
	<input checked="" type="checkbox"/> eLearning (videos)	<p>Accredited eLearning</p> <ul style="list-style-type: none"> - Womens and girls with RHD – Pregnancy Focus <p>Content has been developed by Australian experts and is consistent with the 2020 Australian guideline for the prevention, diagnosis, and management of ARF and RHD (3rd edition).</p>
	<input checked="" type="checkbox"/> eLearning (guide)	<p>Queensland Health, Clinical Excellence Queensland</p> <ul style="list-style-type: none"> - RHD and Pregnancy <p>Short guide: Rheumatic heart disease and pregnancy (health.qld.gov.au)</p>

Table 2. Targeted education for health professionals working with risk population by stream

Professional Stream	Targeted education
Environmental Health Worker & Environmental Health Officer	<ul style="list-style-type: none"> • Awareness of ARF and RHD and knowledge of high-risk groups for Strep A, ARF and RHD • Healthy Living Practices and their association with Strep A infections, ARF and RHD • Understand the health impact of skin infections and sore throats and how Strep A infections are identified, treated and managed • Awareness of referral pathways to/from local services i.e. health, housing, schools • Importance of providing locally and culturally appropriate community and household education on the risk of Strep A infections in Aboriginal and Torres Strait Islander peoples and practical information for reducing risk factors for Strep A infections.
Aboriginal and Torres Strait Islander Health Worker	<ul style="list-style-type: none"> • Awareness of ARF and RHD and knowledge of high-risk groups for Strep A, ARF and RHD • Understand the health impact of skin infections and sore throats and how Strep A infections are identified, treated and managed • Importance of providing locally and culturally appropriate patient, family, and community education on the risk of Strep A infections, ARF and RHD in Aboriginal and Torres Strait Islander peoples and when to go to the local health service for a check-up or treatment. • Awareness of referral pathways to/from local services i.e. health, housing, schools • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> and escalating concerns of missed notification to appropriate medical officer • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines • Awareness of recommended whole of life approach for women and girls with RHD
<p>Aboriginal and Torres Strait Islander Health Practitioner</p> <p><i>Nationally registered health profession under the Aboriginal and Torres Strait Islander Health Practitioner Board of Australia (ATSIHPBA) and authorised to use scheduled medicines as per the requirements stated in the Medicines and Poisons (Medicines) Regulation 2021 (Qld).</i></p>	<ul style="list-style-type: none"> • Awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Understand the health impact of skin infections and sore throats and evidence-based approaches to treatment and management • Importance of providing locally and culturally appropriate patient, family and community education on the risk of Strep A infections, ARF and RHD in the Aboriginal and Torres Strait Islander population and when to go to the local health service for a check-up. • Awareness of referral pathways to/from local services i.e. health, housing, schools • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> and escalating concerns of missed notification to appropriate medical officer • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines • Clinical skills training and competence in evidence based, best-practice therapeutic administration of Intramuscular Bicillin L-A to manage pain and distress • Importance of notifying the Queensland RHD Register of patient treatment • Awareness of recommended whole of life approach for women and girls with RHD • Understand the individual challenges and risks of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves
Nurse (Primary Care)	<ul style="list-style-type: none"> • Clinical awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Understand the health impact of skin infections and sore throats and evidence-based approaches to treatment and management • Knowledge of ARF symptoms, criteria for diagnosis and guidelines to assist early detection • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> and escalating concerns of missed notification to appropriate medical officer • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines • Clinical skills training and competence in evidence based, best-practice therapeutic administration of Intramuscular Bicillin L-A to manage pain and distress • Importance of notifying the Queensland RHD Register of patient treatment • Awareness of recommended whole of life approach for women and girls with RHD • Understand the individual challenges and risks of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves
Nurse (Tertiary Care)	<ul style="list-style-type: none"> • Clinical awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> and escalating concerns of missed notification to appropriate medical officer • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines including management of RHD during pregnancy and pre/post-surgery • Clinical skills training and competence in evidence based, best-practice therapeutic administration of Intramuscular Bicillin L-A to manage pain and distress • Importance of notifying the Queensland RHD Register of patient treatment • Awareness of recommended whole of life approach for women and girls with RHD • Understand the individual challenges and risks of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves
Midwife	<ul style="list-style-type: none"> • Women and Girls with RHD <ul style="list-style-type: none"> - Understand the whole of life approach for women and girls with RHD, acknowledging need for increased monitoring of pregnant women with RHD and coordinated care approach. - Recognise a pregnant or post-partum woman previously diagnosed with or high-risk of RHD presenting with breathlessness, wheeze or worsening fatigue should have an echocardiogram to investigate cardiac function. - Recognise importance of continuing Bicillin L-A during pregnancy (if previously commenced) - Understand the care required for women with RHD during pregnancy, care pathways for pregnant women with RHD, risk of complications in pregnancy and treatment options.

Medical Officer (Primary Care)	<ul style="list-style-type: none"> • Clinical awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Understand the health impact of skin infections and sore throats and evidence-based approaches to treatment and management to prevent ARF • Knowledge of ARF symptoms, criteria for diagnosis and guidelines to assist early detection • Importance of early detection of ARF and provision of secondary prophylaxis with antibiotics is vital to the prevention of RHD • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> • Importance of notifying the Queensland RHD Register of patient treatment and specialist reviews • Understand the individual challenges and risks of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves
Medical Officer (Tertiary Care)	<ul style="list-style-type: none"> • Clinical awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Knowledge of ARF symptoms, criteria for diagnosis and guidelines to assist early detection • Echocardiographic diagnosis of RHD • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines including during pregnancy and pre/post-surgery • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> • Importance of notifying the Queensland RHD Register of patient treatment and specialist reviews • Understand the individual challenges and risks of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves
Dentists or oral health professionals	<ul style="list-style-type: none"> • Awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Knowledge of the risks for infective endocarditis and antibiotic prophylaxis prevention, for example, prior to dental surgery.
Cardiac Sonographers	<ul style="list-style-type: none"> • Management of Rheumatic Heart Disease <ul style="list-style-type: none"> - Understand the role of echocardiography and specialist monitoring for disease progression - Understand the whole of life approach for women and girls with RHD, acknowledging need for increased monitoring of pregnant women with RHD and coordinated care approach. • Importance of notifying cases of ARF and RHD under the <i>Public Health Regulation 2018</i> • Importance of notifying the Queensland RHD Register of echocardiogram reviews
Pharmacist	<ul style="list-style-type: none"> • Awareness of ARF and RHD and understanding of high-risk groups for Strep A, ARF and RHD • Understand recommended treatment and management plans for people diagnosed with ARF and/or RHD in accordance with national guidelines • Understand the individual challenges of strict lifelong Warfarin/INR monitoring post-surgery with metallic replacement valves, and the risks of non-adherence • Any medicine shortages impacting treatment and management and alternatives for use

Disclaimer: Recommended education in this framework is a guide only. Health service providers and health professionals are to ensure education occurs in accordance with scope of practice and scope of employing health service and facility.