Diagnosis and Management of Rheumatic Heart Disease (RHD)

Standard Operating Procedure (SOP)

Special Region (1)

Union of Myanmar

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Approved by: Internal Medicine Unit

1. Purpose

To provide a standardized, evidence-based approach for the diagnosis, management, and prevention of Rheumatic Heart Disease (RHD).

2. Definition

Rheumatic Heart Disease is chronic valvular heart damage resulting from acute rheumatic fever following infection with Streptococcus pyogenes.

3. Epidemiology

Common in children and young adults (5–25 years), associated with overcrowding and poor access to antibiotics.

4. Pathophysiology

Untreated streptococcal infection → autoimmune response → recurrent inflammation → valvular damage.

5. Common Valvular Lesions

Valve	Lesion	Frequency
Mitral	Mitral stenosis	Most common
Mitral	Mitral regurgitation	Early
Aortic	Aortic regurgitation	Second
Multiple	Mixed	Advanced

6. Clinical Presentation

Symptoms: Dyspnea, orthopnea, palpitations, chest pain, hemoptysis, fatigue.

7. Diagnosis

Investigation	Role
Echocardiography	Gold standard
ECG	AF, LA enlargement
Chest X-ray	Cardiomegaly
ASO titer	Streptococcus evidence

8. Severity (NYHA)

Class	Description
I	No limitation
II	Mild
III	Marked
IV	At rest

9. Complications

Heart failure, AF, stroke, infective endocarditis, pulmonary hypertension.

10. Management

Treat HF, arrhythmia, valve disease; prevent recurrence.

Heart Failure Treatment

Drug	Dose
Furosemide	20–80 mg
Spironolactone	25–50 mg
Enalapril	2.5–10 mg BD

Atrial Fibrillation

Treatment	Regimen
Rate control	Beta-blocker/Digoxin
Anticoagulation	Warfarin (INR 2–3)

11. Surgical interventions for rheumatic heart disease

Valve Disease	Indications for Intervention	Preferred Procedure
Mitral Stenosis (MS)	• Symptomatic (NYHA II–IV) + valve area ≤1.5 cm^2 • Pulmonary HTN (PASP >50 mmHg) • New AF • Before pregnancy	• Percutaneous Balloon Mitral Valvotomy (PBMV) (if suitable) • If LA thrombus / MR → Valve Replacement
Mitral Regurgitation (MR)	• Symptomatic severe MR • LVEF ≤60% OR LVESD ≥40 mm • Pulmonary HTN • New AF	• Valve Repair (preferred) • If not feasible → Valve Replacement
Aortic Regurgitation (AR)	• Symptomatic severe AR • LVEF ≤55% • LVESD >50 mm	Aortic Valve Replacement (AVR)
Aortic Stenosis (AS)	• Symptomatic severe AS • LVEF <50%	Aortic Valve Replacement (AVR)
Mixed Valve Disease	• Severe + symptomatic • LV dysfunction • Pulmonary HTN	• Treat dominant lesion • Usually Valve Replacement (± multiple valves)
Any Valve (Special Situations)	• Recurrent HF • Embolism despite anticoagulation • Infective endocarditis with valve damage • Planned pregnancy (severe disease)	Early Surgical Intervention (Repair/Replacement based on valve)

12. Secondary Prevention

Dosage for secondary prophylaxis

Dose
Benzathine penicillin G - 1.2 million IU IM 3–4 weekly
Oral Pen V 250 BD
Erythromycin 250 BD (if penicillin allergic)

When to stop secondary prophylaxis

Clinical Scenario	**When to Stop**
RHD (persistent valvular disease)	Consider stopping at ≥40 years if stable
Severe RHD / post valve surgery	Often lifelong

13. References

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