دکترنظری

فوق تخصص قلب کودکان

TABLE 59.6 Differential Diagnosis of Rheumatic Carditis

- Innocent murmur
- Mitral valve prolapse
- Congenital mitral valve disease (with regurgitation)
- Congenital aortic valve disease (with regurgitation)
- Infective endocarditis
- Noninfective endocarditis (autoimmune, other)
- Myocarditis
- Pericarditis

TABLE 59.10 Secondary Prophylaxis after Rheumatic Fever

Benzathine penicillin G

600,000 U intramuscularly every 3–4 wks for those ≤27 Kg (60 lb)

1.2 million U intramuscularly every 3–4 wks for those >27 kg (60 lb)

or

Phenoxymethylpenicillin (penicillin V)

250 mg orally twice daily

or

Sulfadiazine

0.5 g orally once daily for patients ≤27 kg

1 g orally once daily for patients >27 kg

Penicillin- and sulfa-allergic patients

Macrolide or azalide (dose depends on agent and patient size)

Category	Duration
RF with carditis and residual RHD (clinical or echocardiographic)	10 yrs since last episode or until age 40 yrs[a]; possibly lifelong
RF with carditis, but no residual RHD	10 yrs or until age 21 yrs[a]
RF without carditis	5 yrs or until age 21 yrs[a]

TABLE 59.5 Differential Diagnosis of Chorea

- Inherited (Huntington disease, choreoacanthocytosis, neuroacanthocytosis, benign hereditary chorea, spinocerebellar ataxia, mitochondrial disorders, Wilson disease, Friedreich ataxia, ataxia telangiectasia, lysosomal storage disorders, Lesch–Nyhan syndrome, inborn errors of metabolism)
- Acquired
  - Focal abnormality/pathology (cerebrovascular accident, tumor, post-traumatic)
  - Autoimmune (pediatric autoimmune neuropsychiatric disorders associated with streptococcal infection [PANDAS], systemic lupus erythematosus, antiphospholipid antibody syndrome)
  - Endocrine (hyperthyroidism, hypoparathyroidism, chorea gravidarum)
  - Metabolic (hypocalcemia, hyper- and hyponatremia, hypomagnesemia, renal or hepatic encephalopathy)
  - Infectious and post-infectious (Sydenham chorea, encephalitis, Lyme disease, herpes simplex encephalitis, neurosyphilis, HIV)
  - Drugs/Medications: neuroleptics, levodopa, sympathomimetics/stimulants (cocaine, amphetamines, methylphenidate), estrogen-containing contraceptives, lithium, intrathecal methotrexate, some anticonvulsants
  - Toxins (mercury, carbon monoxide)
- Miscellaneous: atypical seizures, cerebral palsy, cardiopulmonary bypass ("post-pump" chorea), tic disorder

TABLE 59.3 Testing for Patients with Suspected Rheumatic Fever

- White blood cell count, erythrocyte sedimentation rate, C-reactive protein
- Electrocardiogram
- Chest radiograph (if clinical carditis)
- Echocardiogram
- Throat culture
- Anti-streptococcal serology
- Consider blood culture

TABLE 59.4 Causes of Polyarthritis and Fever

Diagnoses	Confirmatory Study
Infectious Arthritis	
Bacterial infections	
Septic arthritis	Synovial fluid and blood culture
Bacterial endocarditis	Blood culture
Lyme disease	Serologic studies
Mycobacterial and fungal arthritis	Culture or biopsy
Viral arthritis	Serologic studies
Postinfectious or Reactive Arthritis	
Enteric infection	Culture or serologic studies
Urogenital infection (Reiter syndrome)	Culture
Rheumatic fever	Clinical findings
Inflammatory bowel disease	Clinical findings
Rheumatoid Arthritis and Still Disease	Clinical findings
Systemic Rheumatic Illnesses	
Systemic vasculitis	Biopsy or angiography
Systemic lupus erythematosus	Serologic studies
Crystal-Induced Arthritis	
Gout and pseudogout	Polarizing microscopy of synovial fluid or tophus
Other Diseases	
Familial Mediterranean fever	Clinical findings
Cancers	Biopsy
Sarcoidosis	Biopsy
Mucocutaneous disorders	Biopsy or clinical findings
Dermatomyositis	
Behçet disease	
Henoch-Schönlein purpura	
Kawasaki disease	
Erythema nodosum	
Erythema multiforme	
Pyoderma gangrenosum	
Pustular psoriasis	

TABLE 59.7 Treatment of Acute Rheumatic Fever

- **General management**
  - Primary prophylaxis (see Table 59.9)
  - Initiate secondary prophylaxis (see Table 59.10)
- **Carditis**
  - Restricted activity for up to 4–6 wks
  - Moderate-to-severe carditis: consider salt and fluid restriction, diuretics, afterload reduction as temporizing measures; surgery for intractable heart failure
  - Severe carditis: some recommend corticosteroids (prednisone or equivalent 2 mg/kg/day × 2 wks, followed by taper; see text for discussion)
- **Joint symptoms**
  - Restricted activity based on symptoms
  - Salicylates or other nonsteroidal anti-inflammatory agent
- **Chorea**
  - Conservative management without pharmacologic treatment for most
  - Severe symptoms: may consider corticosteroids, valproic acid, carbamazepine
  - No role for aspirin
- **Erythema marginatum and subcutaneous nodules**
  - No specific treatment

TABLE 59.1 2015 Jones Criteria for Diagnosis of Rheumatic Fever

Criteria	Population	Manifestations
Major	Low risk[a]	Carditis (clinical or subclinical[b]) Arthritis (polyarthritis only) Chorea Erythema marginatum Subcutaneous nodules
	Moderate and high risk	Carditis (clinical or subclinical[b]) Arthritis (polyarthritis, monoarthritis, or polyarthralgia[c]) Chorea Erythema marginatum Subcutaneous nodules
Minor	Low risk[a]	Polyarthralgia Fever (≥38.5°C) ESR ≥ 60 mm/hr and/or CRP ≥ 3.0 mg/dL Prolonged PR interval for age (unless carditis is a major criterion)
	Moderate and high risk	Monoarthralgia Fever (≥38.0°C) ESR ≥ 30 mm/hr and/or CRP ≥ 3.0 mg/dL Prolonged PR interval for age (unless carditis is a major criterion)

TABLE 59.9 Treatment of Streptococcal Pharyngitis (Primary Prophylaxis)

Benzathine penicillin G
600,000 U intramuscularly once for children ≤27 kg
1.2 million U intramuscularly once for patients >27 kg

or

Phenoxymethylpenicillin (penicillin V)
250 mg orally BID or TID for 10 days for children ≤27 kg
500 mg orally BID or TID for 10 days for patients >27 kg

Or

Amoxicillin 50 mg/kg orally once daily for 10 days (max 1 g/dose)

Penicillin-Allergic Patients

Cephalosporin (narrow-spectrum): dosage regimen depends on agent[a], oral for 10 days
Clindamycin: 20 mg/kg/day orally divided in 3 doses for 10 days (max 1.8 g/day)
Azithromycin[b]: 12 mg/kg orally once daily for 10 days (max 500 mg)
Clarithromycin[b]: 15 mg/kg/day orally divided in 2 doses for 10 days (max 250 mg per dose)

TABLE 59.2 Echocardiographic Criteria for Carditis (Subclinical)

Pathologic Mitral Regurgitation
(All four Doppler echocardiographic criteria must be met)

- Jet seen in at least 2 planes
- Jet length ≥2 cm in at least 1 view[a]
- Velocity ≥3 m/s
- Pan-systolic in at least 1 envelope

Pathologic Aortic Regurgitation
(All four Doppler echocardiographic criteria must be met)

- Jet seen in at least 2 planes
- Jet length ≥1 cm in at least 1 view[a]
- Velocity ≥3 m/s
- Pan-diastolic in at least 1 envelope

[a]A regurgitant jet length should be measured from the vena contracta to the last pixel of regurgitant color (blue or red).

Reprinted with permission from Gewitz MH, Baltimore RS, Tani LY, et al. Revision of the Jones Criteria for the diagnosis of acute rheumatic fever in the era of Doppler echocardiography: A scientific statement from the American Heart Association. Circulation. 2015;131(20):1806–1818.

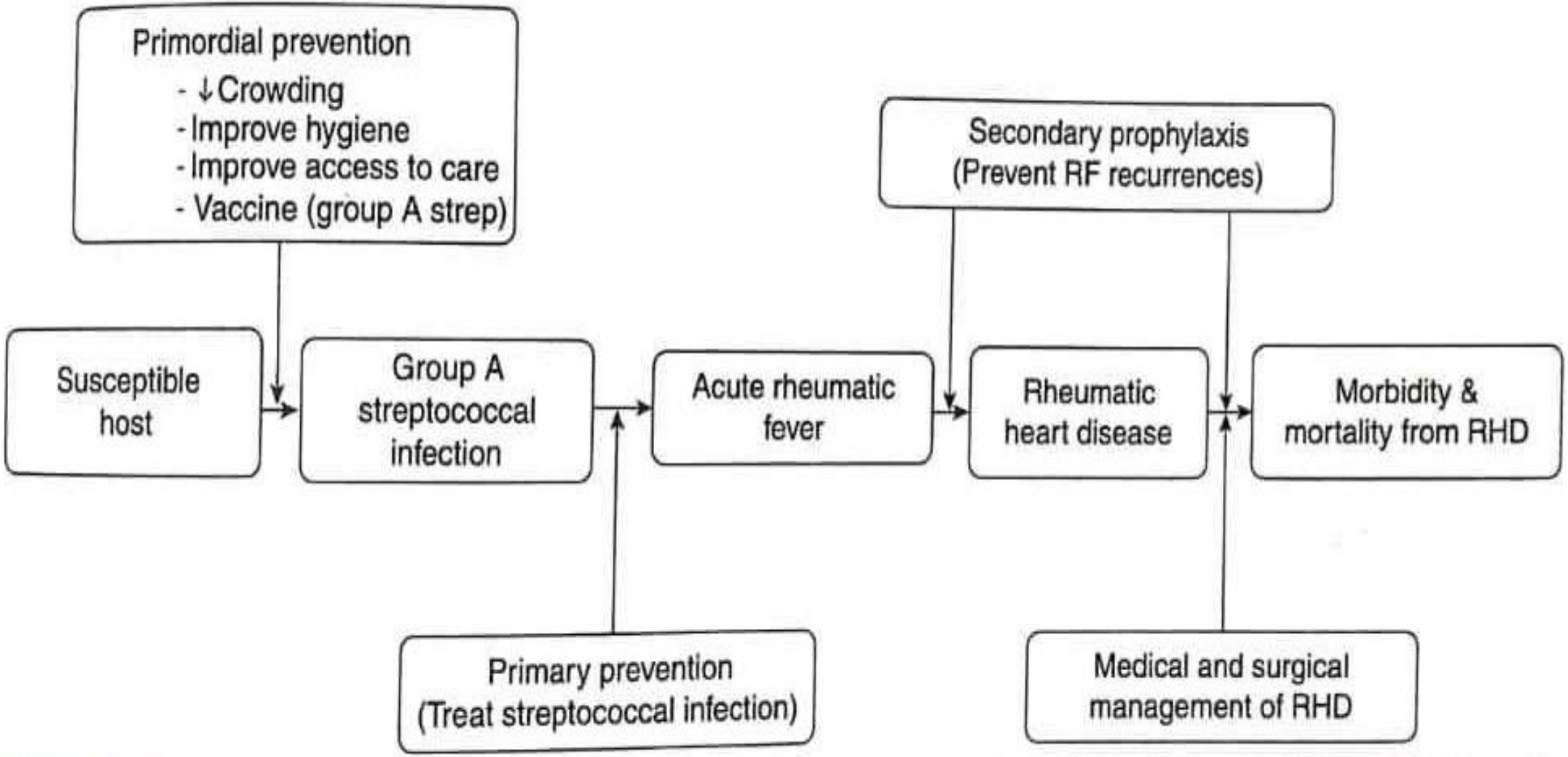

Figure 59.8 Prevention (and management) of acute rheumatic fever and rheumatic heart disease. RF, rheumatic fever; RHD, rheumatic heart disease.

با تشکر از توجه شما