PAEDIATRIC ACUTE CARE GUIDELINE	
Kawasaki Disease	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
http://kidshealthwa.com/about/disclaimer/

Kawasaki Disease

Background

- Kawasaki disease is a common vasculitis of childhood especially in < 5 year olds
- Aetiology is unknown
- Is a self limiting condition, with fever and manifestations of acute inflammation lasting an average 12 days without therapy, however, early treatment is necessary to prevent complications

Complications

- Coronary artery aneurysms
  - Infants under 12 months at increased risk of coronary artery aneurysm
  - Delay of treatment (after 10 days) increases risk of coronary artery aneurysm by five times
- Depressed myocardial contractility & heart failure
- Myocardial infarction
- Arrhythmias
- Peripheral arterial occlusion

Assessment

Diagnostic Criteria

Kawasaki Disease is a clinical diagnosis with no diagnostic laboratory test.

Presence of prolonged unexplained fever ≥ 5 days (fever > 38.5°C) with at least 4 of the

following criteria:

1. Bilateral non-exudative conjunctivitis
2. Polymorphous rash
3. Cervical lymphadenopathy (at least 1 lymph node >1.5cm in diameter)
4. Mucositis – cracked red lips, injected pharynx or strawberry tongue
5. Extremity changes – erythema of palms/soles, oedema of hands/feet (acute phase), and periungual desquamation (convalescent phase)

Associated non-specific symptoms

- Diarrhoea, vomiting, or abdominal pain
- Irritability
- Cough or rhinorrhea
- Joint pain
- Weakness

Incomplete (Atypical) Kawasaki Disease

- Diagnostic criteria not completely fulfilled (< 4 signs of mucocutaneous inflammation) but otherwise similar clinical picture to that of “classic” Kawasaki Disease
- More likely with children < 12 months old and > 5 years old
- Atypical Kawasaki Disease patients are still at risk of cardiovascular complications
    - If prolonged unexplained fever discuss with ED Consultant/on call General Paediatric Consultant

Laboratory findings (not diagnostic but supportive)

- Elevated acute phase reactants (CRP, ESR)
- Elevated WCC with predominant neutrophilia
- Elevated platelets (after 1 week)
- Normocyctic, normochromic anaemia
- Sterile pyuria (need clean voided specimen)

Investigations

No diagnostic lab tests for Kawasaki Disease but can be supportive or used to exclude other causes of fever.

- CPR, ESR, FBC, ALT, Albumin
- ASOT/AntiDNAse B
- Urinalysis – clean catch or in-out catheter
- Blood culture

Differential diagnoses

- Measles
- Adenovirus
- Epstein Barr Virus
- Scarlet fever
- Toxic Shock Syndrome
- Steven-Johnson Syndrome

Management

All suspected cases should be discussed with the ED Admitting Registrar/Consultant for admission under the on call General Paediatric Consultant

Initial Management

- IV Immunoglobulin (IVIG) 2 grams/kg over 8-12 hours
- Low dose aspirin at 3-5mg/kg daily

Further Management

- Second dose IVIG may be given if incomplete treatment response, particularly in high risk age group and “atypical” Kawasaki Disease
- General Paediatric Team will refer the patient to Cardiology for echocardiogram **only after** the diagnosis of Kawasaki Disease is made/confirmed and treatment instituted
- Many patients (especially if < 3 years old) will require sedation to perform the echocardiogram as the irritability (commonly seen) precludes performing adequate echocardiogram in the acute phase
- Echocardiogram is required at/after initial diagnosis and repeated at 4-8 weeks post treatment
- Echocardiogram plays no role in the diagnosis of Kawasaki Disease
- Referral to the Infectious Disease Consultant is at the discretion of the General Paediatric Consultant

Discharge Treatment

- Continue aspirin (low dose) at 3-5mg/kg daily until the repeat echocardiogram at 4-8 weeks confirms absence of coronary involvement

Nursing

Routine nursing care.

References

1. Sundal R (2014) Kawasaki Disease: Clinical Features and Diagnosis. UpToDate. Accessed at www.uptodate.com
2. Sundal R (2014) Kawasaki Disease: Initial Treatment and Prognosis. UpToDate. Accessed at www.uptodate.com
3. AMH Children's Dosing Companion (online). Adelaide: Australian Medicines Handbook Pty Ltd; 2015 January. Available from: https://childrens-amh-net-au.pklibresources.health.wa.gov.au

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