Kawasaki Disease (KD) Care Guideline

Inclusion Criteria:

- Patients < 18 years old, with prolonged fever for at least 3 days plus 2-3 clinical features of KD
  - Clinical Features of KD
    - Conjunctivitis
    - Mucous membrane changes
    - Rash
    - Extremity changes
    - Cervical lymphadenopathy (at least one lymph node > 1.5cm)
- Infants ≤ 6 months with ≥ 7 days of unexplained fever

Exclusion Criteria: Patients ≥ 18 years old; Complicated/existing diagnoses (i.e. – Immunologic, Rheumatologic disease, Major chronic inflammatory diseases, Significant congenital heart disease)

Assessment
- History of physical examination

Interventions
- CBC, CRP, ESR, CMP, Urinalysis (bag or clean catch)
- Consider RP-PCR or rapid strep/culture, CXR if clinically indicated

Complete KD
Fever ≥ 5 days with
≥ 4 clinical features

- Admit to medicine
- Consult Infectious Disease
- Consult Cardiology
- Echocardiogram

Incomplete KD
Fever ≥ 5 days with
2 – 3 clinical features

Lab findings
- Anemia for age
- Platelet count > 450,000 after day 7 of fever
- Albumin < 3 g/dL
- Elevated LFT
- WBC count > 15,000/mm_3
- Urine ≥ 10 WBC/hpf

Or

- Abnormal echo

- ESR > 40 mm/hr
  and/or
- CRP >3 mg/dL

→
- Admit to medicine
- Consult Infectious Disease

- ESR < 40 mm/hr
  and
- CRP < 3 mg/dL

→
- Treat as indicated
- Serial and clinical/lab re-evaluation if fever persists
- Scheduled PCP follow up

Inconsistent with KD
1 clinical feature

- Evaluate as clinically indicated

Continue to Page 2 for Initial Treatment

Approved Evidence Based Medicine Committee
Original: 7/17/2024

Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

Kawasaki Disease (KD) Care Guideline

Initial Treatment

≤ 6 months

- IV Infliximab 5mg/kg - given first
- IVIG 2gm/kg over 10-12 hours (Premedicated with Acetaminophen and Diphenhydramine)
  - PO Acetaminophen 15 mg/kg, one time PRN premed
  - IV Diphenhydramine 1 mg/kg PRN premed
- PO Aspirin 30-50 mg/kg/day divided q6hours

> 6 months

- IVIG 2gm/kg over 10-12 hours (Premedicate with Acetaminophen and Diphenhydramine)
  - PO Acetaminophen 15 mg/kg, one time PRN premed
  - IV Diphenhydramine 1 mg/kg PRN premed
- PO Aspirin 30-50 mg/kg/day divided q6hours
- Infliximab IV 5mg/kg can be given in patients with coronary involvement at discretion of ID.
  - If given as part of primary therapy, should be given before IVIG

- Patients will be watched for 24 hours from time of IVIG completion
- If afebrile and clinically improved, will be candidate for discharge

- Any fever in first 24 hours after completion of IVIG will require an additional 24 hours of inpatient observation and consideration for retreatment if fevers persist beyond 36 hours post IVIG completion
- If fever at 36 hours, will need repeat labs:
  - CBC with diff, CRP, CMP and repeat echo

Retreatment Options

- IV Infliximab: 10 mg/kg (if not given as part of initial treatment)
- IV Cyclosporine: 3 mg/kg/day divided q12hours

- Switch to PO Cyclosporine once afebrile > 24 hours (if already afebrile at start of therapy, then start with oral therapy)
  - PO Cyclosporine (10mg/mL liquid formulation): 4 - 6 mg/kg/day by mouth divided every 12 hours (we start with 5 mg/kg/day and that usually achieves good levels).

Discharge Criteria

- Afebrile for at least 24 hours after IVIG completed with improvement of clinical signs
- If received Infliximab, will watch for 48 hours post Infliximab.
- All patients with abnormal coronaries (Z-score > 2) will need repeat echo prior to discharge to document stabilization of coronaries.
- Patients will be discharged on low dose aspirin with echo follow ups in 2 and 6 weeks and f/u with ID and Cardiology.
  - More frequent follow up may be arranged if abnormal Z-scores, at the discretion of Cardiology.

Patient and Family Education

- Kids Health
  - Kawasaki Disease for Parents
- Lexicomp
  - Kawasaki Disease
  - Kawasaki Disease Discharge Instructions

Kawasaki Disease (KD) Care Guideline
References

Burns, J. C., Roberts, S. C., Tremoulet, A. H., He, F., Printz, B. F., Ashouri, N., . . . Jain, S. (2021). Infliximab versus second intravenous immunoglobulin for treatment of resistant Kawasaki disease in the USA (KIDCARE: a randomized, multicentre comparative effectiveness trial. *The Lancet. Child & Adolescent Health*, *5*(12), 852-861. https://doi.org/10.1016/S2352-4642(21)00270-4 (Level II)

McCrindle, B. W., Rowley, A. H., Newburger, J. W., Burns, J. C., Bolger, A. F., Gewitz, M., . . . Pahl, E. (2017). Diagnosis, Treatment, and Long-Term Management of Kawasaki Disease: A Scientific Statement for Health Professionals From the American Heart Association. *Circulation*, *135*(17), e927-e999. https://doi.org/10.1161/CIR.0000000000000484 (Level V)

Vande Casteele, N., Oyamada, J., Shimizu, C., Best, B. M., Capparelli, E. V., Tremoulet, A. H., & Burns, J. C. (2018). Infliximab Pharmacokinetics are Influenced by Intravenous Immunoglobulin Administration in Patients with Kawasaki Disease. *Clinical Pharmacokinetics*, *57*(12), 1593-1601. https://doi.org/10.1007/s40262-018-0653-6 (Level I)