

# Pediatric Multi-System Inflammatory Syndrome Potentially Associated with COVID-19

## **Summary:**

- Cases compatible with multi-system inflammatory syndrome have been identified in children in the United States and the United Kingdom (UK).
- Characterized by persistent fever and features of Kawasaki disease and/or toxic shock syndrome; abdominal symptoms common, but respiratory symptoms were not present in all cases.
- Cases may require intensive care unit admission for cardiac and/or respiratory support
- Many have tested positive for SARS-CoV-2 infection by RT-PCR, serology, or had exposure to confirmed case with COVID-19.
- Early recognition and specialist referral are essential, including to critical care if warranted.
- Healthcare providers who diagnose pediatric multi-system inflammatory syndrome potentially associated with COVID-19 should immediately report them to the Kansas Department of Health and Environment, Infectious Disease Epidemiology and Response Section by calling 877-427-7317.

# **Description:**

A pediatric multi-system inflammatory syndrome, recently reported by authorities in the United Kingdom, is also being observed among children and young adults in New York and Louisiana. Clinical features vary, depending on the affected organ system, but have been noted to include features of Kawasaki disease or features of shock; however, the full spectrum of disease is not yet known. Inflammatory markers may be elevated, and fever and abdominal symptoms may be prominent. Rash also may be present. Myocarditis and other cardiovascular changes may be seen. Additionally, some patients have developed cardiogenic or vasogenic shock and required intensive care. This inflammatory syndrome may occur days to weeks after acute COVID-19 illness.

### This syndrome may include:

- An individual less than 21 years old presenting with persistent fever, inflammation (e.g. neutrophilia, elevated C- reactive protein and lymphopenia), and evidence of multi-organ dysfunction (shock, cardiac, respiratory, renal, gastrointestinal or neurological disorder).
- This may include meeting full or partial criteria for Kawasaki disease.
- No alternative etiology explains the clinical presentation. (note: patients should be reported regardless of SARS-CoV-2 PCR test results).

#### Reporting:

Consistent with the Kansas Administrative Regulations 28-1-2, which requires reporting of outbreaks and suspected outbreaks of syndromes of known or unknown etiology and of unusual disease or manifestation of illness, patients noted to have this syndrome should immediately be reported to the Kansas Department of Health and Environment by calling the Epidemiology Hotline at 877-427-7317.

#### **Testing:**

For patients presenting with this syndrome consider testing for COVID-19 by PCR or serology if they have not previously been tested or were negative in previous testing.

1 Pediatric Intensive Care Society. PICS Statement: Increased number of reported cases of novel presentation of multisystem inflammatory disease. April 27, 2020. Available at https://picsociety.uk/wp-content/uploads/2020/04/PICS-statementre-novel-KD-C19-presentation-v2-27042020.pdf.