

# Clinical and Epidemiological Features and Severity Markers in Children Admitted with Multisystem Inflammatory Syndrome in Children (MISC) in a Tertiary Care Center in UAE

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## Abstract

**Background:** Multisystem Inflammatory Syndrome in Children (MISC) is a phenomenon that appeared in children infected with or exposed to SARS-CoV-2. The typical onset of MISC is 4-6 weeks following SARS-CoV-2 infection and is formulated to be due to an immune response. **Methods:** Our study retrospectively analyzed data from a tertiary center in UAE of MISC patients who were admitted to either general pediatric wards or pediatric intensive care (PICU) or who came exclusively for follow-up (post PICU admission) from May 2020 to August 2021. **Results:** The total sample size is 50 patients and the study included a comparison of PICU admissions with none PICU admissions. The PICU sample size was 18 patients, 50% females, with mean age of 8.3 years all were previously healthy. PICU patients had deranged blood counts with a lower hemoglobin count, a more pronounced lymphopenia and thrombocytopenia along with hypoalbuminemia. PICU patients presented with relatively higher inflammatory markers: CRP, PCT, ferritin and D-dimer. Immunological studies were significantly higher for IL-6 levels in PICU patients. On echocardiography, higher myocardial dysfunction was more notable in patients admitted to PICU. Children admitted in PICU were provided with more extensive therapy. As part of our study course, we re-evaluated our PICU patients twice, once at 48 hours post PICU admission and again 4-6 weeks after discharge from the hospital. No deaths have been recorded in the cohort. **Conclusion:** This study evaluated risk factors of MISC and potential severity features. Follow up of patients on discharge showed improvement across all domains.

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Final Tables 1-5 MISC PICU.docx available at <https://authorea.com/users/483039/articles/569349-clinical-and-epidemiological-features-and-severity-markers-in-children-admitted-with-multisystem-inflammatory-syndrome-in-children-misc-in-a-tertiary-care-center-in-uae>