

Multisystem Inflammatory Syndrome (MIS-C)

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In news- Recently, WHO has issued guidelines on the treatment of children with multisystem inflammatory syndrome associated with COVID-19 (MIS-C).

About MIS-C-

- Multisystem inflammatory syndrome (MIS) can affect children (MIS-C) and adults (MIS-A).
- **MIS-C is a rare but serious condition where children with COVID-19 develop inflammation** affecting different organs of the body, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs.
- In **children who go on to develop MIS-C, some organs and tissues become severely inflamed.**
- The cause of inflammation underlying MIS-C is not well understood.
- **Patients with MIS-C were initially reported to show features similar to Kawasaki disease,** which causes swelling (inflammation) in the walls of medium-sized arteries, particularly the coronary arteries in children.
- **However, children with MIS-C are generally older (mostly school-aged) than patients with Kawasaki disease** (mostly younger than five years of age) and presented with intestinal involvement and heart attack.
- Since there is no diagnostic test, **the conditions are defined by fever and elevated inflammatory markers in children** with current or recent SARS-CoV-2 infection or COVID exposure within four weeks before the onset of symptoms.
- **Clinical presentation for organ dysfunction includes** abdominal pain, vomiting, diarrhoea, skin rash, conjunctivitis, red cracked lips and, in severe cases,

hypotension (low blood pressure) and shock.

- WHO first described this condition in May 2020, and provided a preliminary clinical definition.
- **WHO's updated guidelines recommend the use of corticosteroids in hospitalized children** (aged 0-18 years) with this condition, in addition to supportive treatment and care.

Corticosteroids are a class of steroid hormones that are produced in the adrenal cortex of vertebrates, as well as the synthetic analogues of these hormones. **There are two kinds of corticosteroids** : glucocorticoids and mineralocorticoids. They have various metabolic functions and some are used to treat inflammation.