

Multisystem Inflammatory Syndrome in Children and Adolescents temporally related to Covid-19

Global collaborative effort



**World Health
Organization**

Multisystem Inflammatory Syndrome in Children and Adolescents

- An alert was issued by NHS England about cases of multisystem inflammatory syndrome in children, some of whom tested positive for SARS-Cov2
- Information about similar cases was shared on WHO clinical management network from other European countries and the US.
- A working group of experts was set up by WHO to follow the evolving situation



Ongoing WHO Response

- The working group developed a preliminary working case definition and a case report form (CRF)
- A scientific brief was issued by WHO on 15th May:
<https://www.who.int/news-room/commentaries/detail/multisystem-inflammatory-syndrome-in-children-and-adolescents-with-covid-19>
- A Case Report Form was developed as part of the WHO COVID-19 Clinical Data Platform
 - **Module 1:** to be completed when a case is suspected, with any available results of laboratory tests.
 - **Module 2:** to be completed at discharge or death.



Preliminary case definition

Children 0-19 years of age with Fever ≥ 3 days

AND two or more of the following:

1. Rash or bilateral non-purulent conjunctivitis or muco-cutaneous inflammation signs (oral, hands or feet)
2. Hypotension or shock
3. Features of myocardial dysfunction, pericarditis, valvulitis, coronary abnormalities (including ECHO findings or elevated Troponin/ NT-proBNP)
4. evidence of coagulopathy (PT, PTT, elevated d-Dimers)
5. Acute gastrointestinal problems (diarrhoea, vomiting, or abdominal pain)

AND

Elevated markers of inflammation such as ESR, CRP, or procalcitonin)

AND

No other obvious microbial cause of inflammation, including bacterial sepsis, staphylococcal or streptococcal shock syndromes

AND

Evidence of COVID (RT-PCR test or serology positive), or likely contact with patients with COVID



<https://www.who.int/news-room/commentaries/detail/multisystem-inflammatory-syndrome-in-children-and-adolescents-with-covid-19>



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Global COVID-19 Clinical Data Platform

- Clinical data platform is now live. Case Report Form is available at:

https://www.who.int/docs/default-source/coronaviruse/final--misc-crf-18-may-2020-who.pdf?sfvrsn=8839181a_4

- How to become a contributor: please email COVID_ClinPlatform@who.int and request log-in credentials. You will receive instructions for data entry and will be assigned you a 5-digit site code.
 - Note: Contributors will retain control of their data and health facilities will have access to their dataset in an analyzable format.
- Contacts:
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Update

- Working group expanded for increasing representation. In addition to global experts and WHO and UNICEF secretariat, US CDC and European CDC are also represented.
- Expanded WG met on 25 May 2020
 - Approximately 600 cases globally since mid April: mainly from UK, USA, France, Spain, also small # in Canada, Brazil, Ecuador, Mexico, Pakistan.
 - UK and Europe cases peaked end April, now decreasing
 - At least 5 deaths
 - Clinical features still similar, perhaps less severe due to earlier identification and treatment
 - IVIG commonly used, steroids or other immunomodulatory agents also used, some children recovered without specific treatment.



Next steps

- ❖ WG will review case definition in 2 weeks
- ❖ We request all paediatricians to remain vigilant and report suspected cases to WHO clinical data platform, including LMICs
- ❖ Research on response to different treatments needs to be prioritized: based on clinical outcomes, and/or change in inflammatory markers