COVID-19 Clinical Guidance for Pediatric Patients with Rheumatic Disease

Developed by the ACR COVID-19 Pediatric Rheumatology Clinical Guidance Task Force

This draft summary was approved by the ACR Board of Directors on June 17, 2020. A full paper was published on July 23, 2020.

Purpose
The purpose of this document is to provide clinical guidance to rheumatology providers who treat children with pediatric rheumatic disease (PRD) (up to age 18) in the context of the COVID-19 pandemic. These recommendations have been generated to help guide management and to support shared decision making between providers and individual patients and families. They should be used to supplement clinical judgement. Multiple factors must be taken into consideration when interpreting these guidance statements including individual patient characteristics, underlying rheumatic disease, current disease activity, geography and current level of SARS-CoV-2 community transmission, duration and proximity of exposure to SARS-CoV-2 and severity of COVID-19 infection. This guidance is presented as a “living document,” recognizing that the current literature on COVID-19 is rapidly evolving. The ACR anticipates that these guidance statements will be updated as scientific evidence accumulates.

Methods
The North American Pediatric Rheumatology Clinical Guidance Task Force consisting of 7 pediatric rheumatologists, 2 pediatric infectious disease physicians, one adult rheumatologist and one pediatric nurse practitioner was convened on May 21, 2020. Clinical questions were drafted based on review of commonly encountered queries posed by patients, families, and rheumatology providers of children with PRD during the COVID-19 pandemic. An evidence report was generated based on a comprehensive review of the literature, and guidance statements were subsequently developed. Initial questions and subsequent statements were voted on anonymously in three separate rounds using a modified Delphi approach. The panel convened in three webinars to augment discussion throughout this process and reach consensus. Voting was completed using a 9-point numeric scoring system with predefined levels of agreement (“disagreement”; “uncertain”; “agreement”) and consensus. To be approved as a guidance statement, median votes were required to fall into the highest tertile for agreement with “moderate” (M) to “high” (H) levels of consensus, indicating minimal dispersion in voting results.

Recommendations

General guidance regarding patients with PRD:

- Children and families of children with PRD should be counseled on general preventative measures, including social distancing, hand washing and masking/face covering, to limit potential exposure to SARS-CoV-2 infection (H).
- Rheumatology providers should be aware that caregivers of children with PRD may be at risk of occupational exposure to SARS-CoV-2 infection and should be counseled on Centers for Disease Control (CDC) health and safety practices in the workplace (H).
- Clinical assessment and treatment via telemedicine should be considered to ensure access to care during periods of increased community transmission of SARS-CoV-2 (H).
- Routine ophthalmologic surveillance of patients with PRD at high risk for chronic uveitis or with a history of uveitis should continue on schedule via in-person visits with slit lamp examination (H).
- Children with PRD should continue routine childhood vaccinations (unless contraindicated due to DMARD therapy), including the annual influenza vaccine (H).
Rheumatology providers should be aware that children and caregivers of children with PRD may be at risk of mental health problems, anxiety and depression due to quarantine and other events surrounding COVID-19 (M).

At this time, in children with PRD, similar to the general population, SARS-CoV-2 antibody testing is not useful in informing on the history of infection or risk of re-infection (H).

**Ongoing treatment of patients with PRD in the absence of SARS-CoV-2 exposure or infection:**

- NSAIDs, HCO, ACEi/ARBs, colchicine, cDMARDs, bDMARDs and tsDMARDs may be continued or initiated to control underlying disease (H).
- Glucocorticoids may be continued or initiated, using the lowest dose possible to control underlying disease (H).
- For patients with PRD with life and/or organ threatening manifestations, high dose oral or intravenous “pulse” glucocorticoids may be initiated to control underlying disease* (H).
- For patients with PRD with life and/or organ threatening manifestations, cyclophosphamide may be initiated or continued to control underlying disease (H).
- For patients with PRD with active arthritis, intra-articular glucocorticoid injections may be administered (H).
- For patients with stable PRD, previously stable laboratory markers, on stable doses of cDMARDs, bDMARDs and/or tsDMARDs, extending the laboratory testing interval for monitoring medication toxicity may be considered to reduce potential exposure to SARS-CoV-2 during periods of increased community transmission (H).
- Laboratory monitoring for disease activity should be continued as per standard practice to ensure adequate assessment and control of underlying disease (H).
- De-escalation of therapy may be continued as planned in patients with PRD after considering the potential risks of disease flare and barriers to follow up during the pandemic (H).

**Ongoing treatment of patients with PRD with close/household exposure to COVID-19**:

- For patients with close/household exposure to COVID-19, general preventative measures, such as social distancing, hand washing and masking/face covering, are of utmost importance to reduce risk of infection with SARS-CoV-2 (H).
- NSAIDs, HCO, colchicine, cDMARDs, bDMARDs, tsDMARDs may be continued or initiated, if necessary, to control underlying disease (M).
- Glucocorticoids may be continued, using the lowest dose possible to control underlying disease (H).
- For patients with non-life and/or organ threatening PRD, initiation of high dose oral or intravenous glucocorticoids should be delayed for 1-2 weeks, if deemed safe by the treating provider* (H).
- For patients with PRD with life and/or organ threatening manifestations PRD, initiation of high dose oral or intravenous glucocorticoids should not be delayed* (H).

**Ongoing treatment of patients with PRD and asymptomatic COVID-19 infection**:

- NSAIDs, HCO, colchicine, cDMARDs, bDMARDs, tsDMARDs may be continued, if necessary, to control underlying disease (H).
- Cyclophosphamide or rituximab may be continued, if necessary, to control underlying disease (M).
- Glucocorticoids should be continued, using the lowest dose possible to control underlying disease and avoid adrenal insufficiency (M).
Ongoing treatment of patients with PRD and probable or confirmed symptomatic COVID-19 infection:

- NSAIDs, HCQ and colchicine may be continued, if necessary, to control underlying disease (H).
- cDMARDs, bDMARDs (except IL-1 and IL-6 inhibitors), and tsDMARDs should be temporarily delayed or withheld (H).
- IL-1 and IL-6 inhibitors may be continued, if necessary, to control underlying disease (H).
- Glucocorticoids should be continued, with an effort to reduce the dose to the lowest dose possible to control underlying disease and avoid adrenal insufficiency (H).

*Updated July 23, 2020*

+How to cite this article:

NSAIDs – non-steroidal anti-inflammatory drugs, HCQ – hydroxychloroquine, ACEi – angiotensin-converting enzyme inhibitor, ARB – angiotensin II receptor blocker, DMARDs – disease modifying anti-rheumatic drugs, cDMARDs – conventional DMARDs, bDMARDs – biologic DMARDs, tsDMARDs – targeted synthetic DMARDs

*High dose oral glucocorticoids (>2 mg/kg/day prednisone equivalent) or intravenous “pulse” glucocorticoids (>10 mg/kg/day methylprednisolone equivalent)
**Defined as an interaction with a person known to have COVID-19 for more than 15 minutes at a distance of less than 6 feet without masking of both parties
***Defined as detection of SARS-CoV-2 RNA by nasopharyngeal PCR in the absence of any clinical manifestations of infection