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COVID-19 Clinical Guidance for Pediatric Patients with Rheumatic Disease – Version 2

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

This summary was initially approved by the ACR Board of Directors on June 17, 2020.
A full paper (Version 1) was published in the November 2020 issue of Arthritis & Rheumatology.[+]

New recommendations regarding in-person schooling, COVID-19 vaccination, the use of monoclonal antibodies for treatment of COVID-19 and reinitiating therapy after symptomatic COVID-19 infection were added to this summary on March 8, 2021 and were added to the full paper (Version 2), which was published in Arthritis & Rheumatology on June 10, 2021. [++]

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).
- Telemedicine can serve as an important adjunct to the care of patients with rheumatic diseases. Its use may be especially important 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 (H).
- At this time, in children with PRD, similar to the general population, SARS-CoV-2 antibody testing may be useful in informing on the history of infection but cannot be used to assess the risk of re-infection (M).
- Given the benefits of in-person schooling, attending in-person school may be considered for youth with PRD, if the school is adhering to local public health safety guidelines to prevent viral transmission. This decision should be made by individual families in consultation with their pediatric rheumatologist (H).
- When available, COVID-19 vaccination should be offered to children with PRD in accordance with FDA, CDC, and local recommendations for distribution (H).

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

- NSAIDs, HCQ, ACEi/ARBs, colchicine, cDMARD, 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, HCQ, colchicine, cDMARDs, bDMARDs, tsDMARDs may be continued or initiated, if necessary, to control underlying disease (H).
- 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, HCQ, 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 and colchicine may be continued to control underlying disease (H).
- HCQ may be continued, if necessary, to control underlying disease. Avoid other medications that may contribute to QT prolongation and ensure appropriate cardiac monitoring in patients who require hospitalization (H).
- cDMARDs, bDMARDs (except IL-1 inhibitors), and tsDMARDs should be temporarily delayed or withheld (H).
- Cyclophosphamide and rituximab should be temporarily delayed or withheld (M).
- IL-1 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).
- In uncomplicated COVID-19 infection, cDMARDs, bDMARDs, and tsDMARDs may be restarted 7-14 days after resolution of fever and respiratory symptoms. Reinitiating medications in severe cases of COVID-19 should be determined on a case-by-case basis (H).
- If available, administration of monoclonal antibody therapy for COVID-19 may be considered in children (over 12 years old) with PRD and additional risk factors for severe COVID-19 infection (M).

Recommendations updated March 8, 2021

Recommendations modified on May 25, 2021 to remove specific age range for offering COVID-19 vaccination to children with PRD

Link to Version 2 manuscript added June 25, 2021

[+] *How to cite this article:*
Wahezi DW, Lo MS, Rubinstein TB, Ringold S, Ardoin SP, Downes KJ, et al. American College of Rheumatology Guidance for the Management of Children with Pediatric Rheumatic Disease During the COVID-19 Pandemic: Version 1. Arthritis Rheumatol 2020; 72; 1809-19. doi: https://onlinelibrary.wiley.com/doi/10.1002/art.41455.

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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