

COVID-19 in patients taking DMARDs or other antirheumatic medications

Key Points:

- Data to date are scarce; it is unclear how DMARDs (conventional synthetic, biologic or targeted synthetic) affect patients' COVID-19 risk profile.
- Several DMARDs (e.g., baricitinib, hydroxychloroquine, tocilizumab) are being investigated for potential use in the management of COVID-19; preliminary reports are conflicting.
- Patients should not attempt to modify their therapeutic regimen without the supervision of the treating physician.

Background:

To date (May 11, 2020), data on COVID-19 in patients with rheumatic and inflammatory disease taking disease-modifying antirheumatic drugs (DMARDs) are scarce.

While patients with inflammatory arthritis are generally at higher risk of infections,¹ experience with previous coronavirus outbreaks suggests that the use of DMARDs is not associated with worse outcomes.² As with previous coronavirus outbreaks, preliminary reports suggest that compared with the general population, patients taking DMARDs are not at increased risk of worse outcomes with COVID-19.^{3,4,5} Risk factors in this population include age and comorbidities (e.g., cardiovascular disease, chronic respiratory disease, diabetes, obesity).^{3,4,5} Larger studies are required to confirm such findings; patients taking DMARDs should therefore follow necessary preventive measures against COVID-19 (e.g., physical distancing, frequent handwashing).^{6,7,8}

Because SARS-CoV-2 may induce a cytokine storm that is thought to be associated with worse outcomes,⁹ several immunomodulators are being investigated for a potential role in the management of COVID-19.¹⁰ Additionally, some DMARDs have potential direct antiviral activity against SARS-CoV-2 (e.g., baricitinib, hydroxychloroquine).¹¹ Of note, patients taking hydroxychloroquine for chronic inflammatory diseases do not seem to be protected against COVID-19 (or COVID-19-related complications).^{12,13}

Any change in therapy should consider the individual patient's profile (e.g., risk of exposure, disease activity, drug regimen) and should weigh the risk of an infection against the risk of disease flare.⁷ It should therefore be done only under the supervision of the treating physician.^{7,8,9}

Recommendation:

As there is currently no evidence to support either an increased risk or a protective role for DMARDs against COVID-19 in patients with inflammatory disease, pharmacists must advise their patients to follow recommended preventive measures (e.g., physical distancing, handwashing).

Patients should also be prompted to report any change in their disease activity, risk of exposure or signs of an infection to their treating physician. While it is generally recommended to **temporarily** withhold DMARDs when patients develop symptoms of an infection, patients should consult with their rheumatologist before withholding DMARDs or anti-inflammatory drugs (including corticosteroids).

The COVID-19 situation is evolving, and data collection is ongoing. The evidence regarding the risk of infection with COVID-19 in patients taking DMARDs will be reviewed as it becomes available and this statement will be updated accordingly.

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Updated to reflect evolving evidence:

11 May 2020 to include references 1, 2, 3, 4, 5, 6, 9, 10, 11, 12 and 13

References

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