

# The Impact of the COVID-19 Pandemic on Access to Rheumatology Services and Treatment — Key Findings from Population-based Evaluations



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The COVID-19 pandemic disrupted health systems worldwide, with substantial implications for individuals living with rheumatic diseases. Through a series of population-based studies in Ontario, we explored how the pandemic transformed every stage of rheumatology care—from how services were delivered, to timely access to specialists, to use of COVID-19 antiviral therapies, and downstream consequences such as disability.

In our first study, we used Ontario-wide administrative data to understand how rheumatology care changed during the pandemic. When public health restrictions began in March 2020, in-person outpatient visits dropped by 76% immediately, accompanied by a rapid surge in telemedicine. Telemedicine represented half of all rheumatology encounters throughout 2021, demonstrating a sustained shift in care delivery. New patient consultations were particularly affected, declining by 50% at pandemic onset and never fully returning to pre-pandemic levels over the next two years. These sustained reductions raise concerns about delays in diagnosis and treatment initiation for inflammatory diseases.

Although nirmatrelvir/ritonavir (Paxlovid®) was available at no cost to eligible Canadians, including immunosuppressed individuals, rheumatologists were concerned that patients were not receiving this highly effective therapy to reduce COVID-19 severity. Using a validated population-based rheumatoid arthritis (RA) cohort, we identified all individuals aged 18-plus who received nirmatrelvir/ritonavir between April 2022 and January 2023. Strikingly, only 2.4% of RA patients with a positive SARS-CoV-2 PCR test received treatment. The use of nirmatrelvir/ritonavir was concentrated among older adults with multiple comorbidities, and just 60 prescriptions originated from rheumatologists. We found important sociodemographic inequities: individuals in higher-income and less diverse neighbourhoods were more likely to receive nirmatrelvir/ritonavir, despite more diverse

communities experiencing higher COVID-19 burden. These findings underscore significant gaps in equitable access to antiviral therapy for individuals living with RA.

Our third study—the first to examine this issue at a population level in Ontario—showed a marked rise in disability claims related to RA among working aged individuals, peaking during the first two years of the pandemic. This trend may reflect worsening disease control due to delayed or reduced access to rheumatology care, treatment interruptions, or heightened COVID-19-related risks affecting work capacity.

Taken together, these studies provide a comprehensive, population-level picture of how the pandemic reshaped rheumatology care—from service delivery to the equitable use of COVID-19 therapy, to downstream patient outcomes. The findings underscore the importance of strengthening health-system resilience, closing gaps in access to specialty care and essential treatments, and safeguarding timely, equitable management for people living with rheumatic diseases during future health system disruptions.

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