

# DSEN ABSTRACT

## Systemic Corticosteroid Treatment of COVID-19 Outpatients in Canada (CDM Q21-02)

A study conducted by the Canadian Network for Observational Drug Effect Studies (CNODES)

### Summary

- This population-based study of COVID-19 outpatients in three Canadian provinces, demonstrated that use of systemic corticosteroid therapy as a treatment for COVID-19 was limited during the first year of the pandemic.

### Key messages

- Further research is needed to continue to monitor corticosteroid prescribing in outpatients with mild to moderate COVID-19, and to study its safety, particularly in long-term care settings where it is most frequently prescribed.

### Project Lead & Team

- Paterson M, MSc
- Team members [available here](#).

### Link to publication

- In preparation

### What is the issue?

- National Institutes of Health COVID-19 Treatment Guidelines recommend that systemic dexamethasone not be used in outpatients with mild to moderate COVID-19, or in hospitalized patients not requiring supplemental oxygen. However, a recent US study showed that 15% of outpatients were prescribed systemic corticosteroids (CS) within 14 days of COVID-19 infection.

### What was the aim of the study?

- Our main objective was to describe the clinical and demographic characteristics and outcomes of Canadians infected with SARS-CoV-2 as outpatients, according to whether they initiated outpatient systemic CS therapy during the 14 days following diagnosis with COVID-19.

### How was the study conducted?

- This was a population-based cohort study using administrative health data from three Canadian provinces (British Columbia, BC; Manitoba, MB; and Ontario, ON [over age 65]) during the first year of the pandemic: April 1, 2020, to January 31, 2021.
- The cohort included residents with a first instance of COVID-19 (positive SARS-CoV-2 nucleic acid laboratory test) in an outpatient setting.
- Follow-up was 30 days from the date of the positive test or date of dispensing of a systemic CS during the 14 days following COVID-19 diagnosis. Patients were censored if they died or were hospitalized during the 14-day exposure ascertainment window.
- We determined the percentage of patients newly dispensed systemic CS therapy by province, overall and by month; the demographic and clinical characteristics of patients; and the 30-day rates of hospitalization, COVID-19-related hospitalization, and death according to whether patients initiated CS therapy, overall and by long-term care (LTC) residence.

### What did the study find?

- We studied 108,338 eligible COVID-19 outpatients: 50,869 in BC; 23,545 in MB; and 33,924 in ON.
  - Mean age: 40 years in MB and BC; 70 years in ON
  - LTC residents: 5% in MB and BC; 39% in ON
- Newly prescribed CS: 1.8% of MB and BC; 6% in ON
  - CS recipients were older and more likely to reside in LTC, had a greater prevalence of comorbidities and concomitant medications, and were more likely to use health services than non-recipients.
  - CS recipients had higher 30-day rates of hospitalization, COVID-19-related hospitalization, and death, compared with non-recipients.

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For more information, please contact [info@cnodes.ca](mailto:info@cnodes.ca).