

SYNOPSIS

03/11/2020

Review of “What can early Canadian experience screening for COVID-19 teach us about how to prepare for a pandemic?”

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One-Minute Summary

- This study examines the early experiences investigating coronavirus disease 2019 (COVID-19) among persons under investigation (PUI) in eight emergency departments in the Greater Toronto Area (GTA), Ontario from January 20–February 19, 2020 with the goal of identifying drivers of emergency department visits to inform future handling of the COVID-19 outbreak.
- 135 PUI for COVID-19 were tested at the eight emergency departments (representing 28% of Ontario tests):
 - **95% (N=128) of PUI emergency department visits did not require emergency services** and were sent home for self-isolation pending COVID-19 results, under public health supervision.
 - **Most common clinical features:** 82% (N=111) cough or shortness of breath 65% (N=48) subjective or measured fever ($\geq 38.0^{\circ}\text{C}$), 40% (N=30) sore throat
 - 5% (N=7) were hospitalized, 2% (N=3) required supplemental oxygen
 - Airborne-droplet-contact precautions use was high (n=134, 99%).
 - **One COVID-19 case was confirmed.**
- In two of the eight hospitals, an additional 74 patients were assessed as possible PUI, but not tested because they did not meet the provincial PUI case definition.
- The authors suggest that using alternative community-based assessment and testing approaches for COVID-19 PUI that are not acutely ill can prevent overcrowding in the emergency department and reduce unnecessary exposures to health care workers, hospital staff and other patients

Additional Information

- Anonymized data available on PUI included: date of assessment, demographic characteristics (age and sex), clinical information, epidemiologic risk factors, laboratory and radiographic results, COVID-19 test results and whether the patient was admitted or discharged home.

- **Among those tested, 111 (82%) met the provincial PUI definition (as of Feb. 7, 2020).** The authors further outline epidemiological risk categories for those tested (not mutually exclusive) as follows: 82% (N=111) travelled from China <14 days, 19% (N=14) close contact with probable or confirmed case, 9% (N=7) close contact with person with respiratory symptoms who travelled to China <14 days, 8% (N=11) returning from travel destination other than China.
- Tested patients are similar in age/sex distribution of PUI recently described in the United States.
- Compared to COVID-19 patients in China, where the median age was much older (56 years), signs, symptoms and admission rate (5%) were similar to PUI assessed across Toronto hospitals.

PHO Reviewer’s Comments

- The main aims of the analysis were to present the barriers to COVID-19 assessment and testing in community settings that are likely contributing to avoidable emergency department visits. The authors argue that COVID-19 preparedness must extend outside hospitals to minimize the effects of emergency department overcrowding, health care worker infection and risks to acutely ill patients.
- Figure 1 presents distribution map of PUI cases across the eight Toronto hospitals (N=135).
- **Infographic available** at: www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.200305/-/DC1

Citation

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