

Public Service Advisory

Update on investigation into COVID-19 outbreak at QEII Halifax Infirmiry, May 2021

October 6, 2021

On May 12, 2021, an outbreak of COVID-19 was declared after a second inpatient in a non-COVID unit at the QEII Health Sciences Centre's Halifax Infirmiry site tested positive for COVID-19. The first patient, although admitted with respiratory symptoms, had tested negative at the time of admission a few days prior. Containment measures were put in place.

Subsequent testing found that 19 other patients on the same unit were also positive for COVID-19. The last positive result was recorded on May 25. The outbreak was declared over on June 22 when two incubation periods had passed with no new cases.

Immediate outbreak measures that were implemented included, but were not limited to:

- The unit was closed to admissions and patients who were ready for discharge were sent home with public health follow up,
- Patients who tested positive for COVID-19 were transferred to the COVID unit,
- All patients remaining on the outbreak unit and any who had previously been transferred to other units/hospitals were put on contact and droplet precautions,
- All patients who had been on the unit in the two weeks before the outbreak were tested at regular intervals to promptly identify new cases.
- Facility-wide re-education on the importance of not over-relying on a negative COVID-19 test to remove precautions on symptomatic patients, keeping patients to their room/bedspace, and having patients maintain physical distancing and wear a mask when outside their room/bedspace.
- Facility-wide testing did not reveal any additional cases outside of the outbreak unit.

An investigation into the cause of the outbreak began while the outbreak was still active. This included a review of patient charts, room placements, and staffing assignments; staff testing for COVID-19; and molecular analysis of viruses that were isolated from patients and health care workers. This information was analyzed to identify factors that contributed to the outbreak. When the results of the molecular analysis returned in July, the infection prevention and control team was able to confirm hypotheses that were formed during the initial investigation.

- Of the 21 people on the unit who tested positive for COVID-19, two were community-acquired cases that were not linked to the outbreak and did not transmit to any other inpatients. There were two patients in whom typing of their COVID-19 strain could not be done for laboratory-related technical reasons.

- The remaining 17 patients all belonged to one of two groupings of genetically linked viruses. In each of these two groupings, there was a patient who had been admitted with respiratory symptoms, but initially tested negative for COVID-19, and who was likely the source of infection for the other patients in the molecular grouping.
- Three patients died because of COVID-19, including one of the community-acquired cases. Three more of those 21 died with COVID, but other health factors were responsible for their deaths.
- Most of the patients on the unit were unvaccinated at the time of the outbreak and had at least one co-morbidity that made them vulnerable to infection and severe illness from infection.
- Sharing a room with a patient who developed COVID-19 or with a patient who had wandering behaviours was a risk for infection during the outbreak

What we learned or relearned

- A negative lab result for SARS CoV-2 should not, in itself, be reason to remove a symptomatic patient from contact and droplet precautions.
- Shared rooms are a risk factor for infection transmission.
- [All inpatient units should be appropriately resourced to implement strategies to manage wandering patients that are commonly used in settings that care for persons with dementia and other conditions that impede infection prevention and control practices.](#)
- Vaccination, use of masks, and physical distancing remain critical measures to prevent the spread of COVID-19, including in acute care facilities.

What actions we are taking

- A province-wide re-education program and reinforcement of learned/relearned best practices for our acute-care facilities.
- Review of policies and inclusion of learned best practices into COVID-19 infection prevention and control and patient-care protocols.
- Recommendation for single-patient rooms as the standard for new or renovated hospital builds

Health care-associated outbreaks of COVID-19, including in hospitals, have been common during the COVID-19 pandemic, and could continue to occur if preventive efforts do not remain at the forefront. Indeed, we have long recognized the occurrence of outbreaks of other respiratory and gastrointestinal pathogens in hospitals. Infection prevention and control measures must remain at the centre of all we do in order to keep our patients, visitors, and health care workers safe. We all have a role to play in these efforts and look to our patients and their families assisting us as we work to prevent the spread of infection in our facilities.