Ontario Long Term Care Clinicians

Tuesday May 12, 2020

COVID-19 REPORT

As of May 10, there are 245 Ontario LTC homes in COVID-19 outbreak and 57 homes have resolved outbreaks. The PHO reports a lower number of outbreaks. An active COVID-19 outbreak indicates that the home has at least one lab confirmed case of COVID-19 in a resident or staff.

	Ont cases	Deaths	LTC cases	LTC deaths	% LTC deaths
PHO Epidemiologic Summary	20,546	1,669	2,895	797	47.8%
Ministry of Health and LTC			2,725	1,235	74.0%

The Public Health Ontario Epidemiologic Summary relies on the most current information available from the integrated Public Health Information System (iPHIS). The results here are as of 4 p.m. on May 10. This data is from local Public Health Units that manually enter information. The Ministry of Health and LTC data is more up-to-date.

	MOH	PHO
Outbreaks in LTC Homes	173	245
Confirmed cases for LTC Residents	2,725	2,895
Confirmed cases for LTC Staff	1,691	1,530
Total confirmed LTC resident deaths	1,235	796

The proportion of COVID-19 deaths in LTC may be reported as between one-half and three-quarters. The latter is likely more reliable.
COVID-19 in Ontario, May 12

Mortality Associated with COVID-10 outbreaks in care homes: early international evidence. This report gives the Ontario mortality rate at 49% but recognizes the lag in data. International evidence shows that people living in care homes are particularly vulnerable to severe COVID-19 infections and experience high rates of mortality. The twofold effect is the overwhelming number of deaths and staffing shortage due to illness and self-isolation. International data is inconsistent because some countries only report the place of death. The three methods to estimate deaths from COVID-19 are:

1. Deaths of people who tested positive for COVID-19. The accuracy of this measure depends on the availability of testing.
2. Deaths of people suspected of having COVID-19. These numbers are currently counted in Belgium, Ireland and Canada. “This approach has the risk of mis-attribution of deaths.” Residents in LTC have limited life expectancy and COVID-19 may be attributed to other natural deaths.
3. Excess deaths during the pandemic compared to previous years. This method compares the deaths over the same weeks or months from the previous years. This is the best approach to assess “excess mortality”

The great majority of COVID-19 deaths in Canada are in Ontario, British Columbia, Alberta and Ontario. At 62%, Canada is reported as having the highest number of LTC home deaths.

COVID-19 International LTC mortality, May 3

Testing. A common question among colleagues is the reliability the COVID-19 test. That is, the incidence of false positive and false negative results. SARS-CoV-2 -- is detected by the reverse-transcription polymerase chain reaction test, or RT-PCR. Because of variables, there are not a consistent answer to this question. The quality of how the sample, transfer, laboratory and stage of infection obtained affect the result. Variability makes it hard to define an accuracy rate. Dr. Michael Patterson comments on a high level of false positives that caused false alarm in Nunavut. Patterson said that variability makes it hard to define a hard-and-fast accuracy rate. "False negatives can occur, certainly up to 30 per cent of the time if we swab people who are asymptomatic and swab them too soon after they've been exposed to COVID-19…False positives depend a lot on the machine itself, but also how much COVID-19 is in a town or community that you're assessing or sampling. And so, it's really hard to nail down a rate that applies to every machine that we use."
False positive COVID-19 tests are rare, CTV News, May 10

Public Health Ontario provides a synopsis about what we know about detection of COVID-19. The ability to detect SARS-CoV-2, the virus that causes COVID-19, may vary by specimen type collected, quality of specimen collection, and timing of collection with respect to symptom onset. In general, nasal swabs are more sensitive compared to throat swabs for collection of upper respiratory tract specimens. Viral load is highest in the first week after symptom onset followed by a gradual decrease. SARSCoV-2 RNA has been detected in specimens collected 3-4 weeks after onset; however, it is not clear how this correlates with infectiousness.
PHO, COVID-19 Viral detection, May 7

Atypical Presentation of COVID-19 in Older Adults. Dr. John Thurairajah is a LTC Medical Director. In the attached video, he outlines ten atypical symptoms of COVID-19 in the frail, elderly. These symptoms and signs are apart from the typical presentation of fever, cough, and dyspnea:

1. Loss of appetite
2. Delirium
3. Dizziness
4. Falls
5. Fatigue/exhaustion
6. Loss of function
7. GI symptoms
8. Hypotension
9. Absence of fever
10. Loss of smell and taste

The elderly patient is more complex because of their age, co-morbities and frailty. Loss of appetite should immediately cause suspicion. Increased confusion or disorientation, i.e. delirium, may be hyperactive or hypoactive. The former may be more common. Hypoactive delirium, where the resident is more apathetic, may be easily missed. The is a “fog-like state”. The patient is unable to filter information coming to the brain. Dizziness or light-headedness contributes to falls. A general loss of function and fatigue can be a presenting symptoms. Gastrointestinal symptoms, like nausea, vomiting and diarrhea, are likely related to how the SARS-Cov-2 virus affects ACE-2 receptors in the GI tract. Low blood pressure, like absence of low-grade fever, indicates the body’s inability to mount an adequate immune response. Loss of smell and taste is felt to be related to how COV-Sars-2 affect neurons going to the brain.
Dr. Thurairajah, Atypical presentation COVID-19 in frail elderly