

**Position Statement:  
Recommended Length of Exclusion for  
Cases Associated with *Norovirus*  
Outbreaks and When to Declare  
*Norovirus* Outbreaks Over**

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September 2010

## **ACKNOWLEDGEMENTS**

The Ministry of Health and Long-Term Care would like to acknowledge the contribution of the Expert Panel that developed *Position Statement: Recommended Length of Exclusion for Cases Associated with Norovirus Outbreaks and When to Declare Norovirus Outbreaks Over*.

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## **BACKGROUND TO ISSUE**

Over the past few years, the Ministry of Health and Long-Term Care (MOHLTC) has received numerous requests from local public health units regarding extending the exclusion period for ill staff of high-risk settings suspected of having *Norovirus* from 48 to 72 hours after symptom resolution. Likewise, the MOHLTC has been requested to clarify the time required to declare outbreaks of *Norovirus* over.

While *Norovirus* is generally a mild and self-limited disease, deaths and other complications have occurred as a consequence of *Norovirus* infection. The greatest burden of illness occurs in the institutionalized elderly. This emphasizes the need for a consistent approach to *Norovirus* outbreak management.

## **CURRENT STATUS**

Currently, most jurisdictions rely on evidence in the scientific literature and working groups' decisions to inform their guidelines and best practice recommendations for *Norovirus*. The exclusion period currently used by many health units in Ontario is 48 hours. Criteria for declaring outbreaks over vary among Ontario jurisdictions with a range of 2 to 6 days after cessation of symptoms in the last resident case. These discussions and varying criteria highlight the need for a review of recommendations by the MOHLTC along with the development of a policy statement that can be applied consistently across Ontario.

## **PERIOD OF EXCLUSION**

### **Summary of the Literature and Jurisdictional Scan**

The majority of pre-1994 literature indicate *Norovirus* shedding occurs up to 48-72 hours after recovery (cessation of symptoms), including 24-48 hours,<sup>3</sup> 48 hours,<sup>4,5</sup> and 48-72 hours<sup>6</sup>. Based on

this research, the standard exclusion period for cases in high-risk settings of Norovirus has been 48 hours after cessation of symptoms.<sup>7,8</sup> High-risk settings include hospitals, nursing homes, food service establishments, and day nurseries.

Post-1994 literature indicates that Norovirus shedding occurs past the traditional 48-72 hour period, including 10 days<sup>9</sup> and approximately 14 days, primarily because more sensitive laboratory testing methods became available.<sup>10</sup> In a study authored by Robert L. Atmar et. al, using reverse transcription-PCR testing after experimental human infection, virus particles were detected in fecal samples 18 hours after inoculation and lasted a median of 4 weeks up to 8 weeks.<sup>11</sup> While viral shedding can occur for extended periods especially in immuno-compromised individuals, peak viral load in stool is highest in the first 25 to 72 hours post inoculation.<sup>12</sup> However the relationship between the amount of viral shedding and transmissibility has not been established. The relationship between shedding and transmissibility requires further study<sup>13</sup>.

The majority of jurisdictions examined employ a 48-hour exclusion policy. The policy is accepted across Canada including British Columbia and Newfoundland. Exclusion policies vary in the USA: 24 hours in California, 48 hours in Wisconsin, and 72 hours in Florida. Countries using a 48-hour exclusion policy include: Australia, Ireland, New Zealand, and the United Kingdom. While most jurisdictions use the 48-hour policy, very few base their policies on the scientific literature.

## **Recommendation: Period of Exclusion**

Symptomatic staff associated with a *Norovirus* outbreak should be excluded for a **minimum** of 48 hours after symptom resolution.

**Staff** – Anyone conducting activities within an institution that will bring him/her into contact with residents. This includes all health care providers, support services such as housekeeping, food handlers, volunteers, and contract workers.

## **DECLARING A NOROVIRUS OUTBREAK OVER**

### **Summary of the Literature and Jurisdictional Scan**

The literature regarding when to declare a *Norovirus* outbreak over is scant, with very few recommendations based on scientific literature. Recommendations made by most jurisdictions are presumably based upon the advice of their respective expert and working groups. The World Health Organization recommends to "...declare the outbreak over when the number of new cases has returned to background levels."<sup>14</sup>

The decision of when to declare a *Norovirus* outbreak over varies greatly across jurisdictions. Health units in Ontario use time periods of 2 to 6 days. In British Columbia, Fraser Health and the BC Provincial Infection Control Network declare a *Norovirus* outbreak over after 3 days have elapsed since the last resident case has resolved.

## Recommendations: Declaring a Norovirus Outbreak Over

Traditionally, for other disease outbreaks, the outbreak is declared over when one incubation plus one period of communicability have passed with no new cases identified. Following this process, outbreaks of *Norovirus* can be declared over when there are no new cases after five days (one incubation period (2 days) plus one period of communicability (3 days)). Criteria for declaring a *Norovirus* outbreak over may be modified by the health unit in collaboration with the Outbreak Management Team where applicable.

**Note:** It is the responsibility of the Medical Officer of Health or his/her designate to declare a *Norovirus* outbreak over. Declaring the outbreak over should be based on epidemiology of the outbreak in conjunction with conducting a risk assessment. Epidemiological evidence should indicate that the outbreak is under control, infection prevention and control measures have been appropriately applied and adhered to, and that the number of cases has diminished to baseline levels. Further, the risk assessment supports that decreasing some of the control measures will not prolong the outbreak nor compromise the well-being of the residents/patients, visitors or staff. For *Norovirus* outbreaks in long-term care homes, the decision to declare an outbreak over must be consistent with the recommendations outlined in *A Guide to the Control of Gastroenteritis Outbreaks in Long-Term Care and Retirement Home Settings* (MOHLTC 2010, pending publication). The occurrence of a single case with symptoms of gastroenteritis within the 5 day period should be investigated to determine if this is a single sporadic case, or linked with others.

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