Gastrointestinal Illness in Boston

Summary: The Boston Public Health Commission (BPHC) has observed a sharp increase in the number of patients seeking treatment for vomiting or diarrhea at emergency departments (ED) in Boston hospitals over the past week. In addition, increases in gastrointestinal illness have recently been reported in congregate settings such as long-term care and healthcare facilities. This increase in gastrointestinal illness is often observed in Boston during this time of the year, and is often due to norovirus. Healthcare providers in Boston are reminded that all cases of calicivirus (including norovirus) and any outbreak or cluster of illness must be reported to the Boston Public Health Commission at (617) 534-5611.

EPIDEMIOLOGY: For the week ending January 23, 2016 (MMWR week 3), acute gastroenteritis (defined as vomiting or diarrhea) ED visits accounted for 308 visits (5.4% of all ED visits) compared to 81 visits (4.5% of all ED visits) at the beginning of the year (MMWR week 1). This also represents a sharp increase from the same period last year (MMWR week 3 of 2015) when acute gastroenteritis ED visits represented 4.6% of all ED visits.

Figure 1. Weekly Percentage of Acute GI Syndrome Visits to Boston EDs* Aug 1, 2015 - Jan 23, 2016

SYMPTOMS AND DIAGNOSIS: Norovirus-like illness is characterized by moderate to severe nausea, vomiting, and diarrhea. Symptoms usually begin 1-2 days after exposure and last about 24-48 hours. Transmission is person-to-person; virus is passed in the stool and vomitus of infected people from onset of illness until at least several days after symptoms resolve. Most persons recover without sequelae, however very young children, the elderly, and people with other medical conditions may be at an increased risk for complications associated with dehydration.

Etiologic diagnosis of norovirus-like illness is often not made because laboratory testing is not done due to the short duration of symptoms; however, any clusters of illness (whether or not an etiologic agent has been identified) must be reported to BPHC. Testing of clinical specimens in outbreak situations can be arranged by contacting BPHC.
PREVENTION: Healthcare providers should emphasize hand hygiene using soap and water. Alcohol-based hand sanitizers are less effective than soap and water in removing norovirus. Hand sanitizers should not be substituted for handwashing, but they can be used after to handwashing with soap and water. Ill persons should be advised to stay home and increase fluid intake to prevent dehydration until their symptoms have resolved regardless of whether a specific etiologic agent has been identified. Those with confirmed norovirus should be reminded that they may still be contagious for at least 3 days after symptoms subside.

State regulations require that food handlers with norovirus (including healthcare providers who perform services that bring them into contact with patients' mouths, e.g. administer oral medication, etc.) refrain from work for at least 72 hours after symptoms have resolved. Regardless of whether a specific etiology has been identified, foodhandlers should not work while they are ill. Increased frequency of cleaning in high traffic areas in institutional settings, particularly restrooms, can help reduce the potential for transmission.

The EPA has a comprehensive list (List G) of recommended products for disinfecting surfaces. The list can be found here. Wearing masks (disposable surgical masks) should be considered for persons who clean areas substantially contaminated by feces or vomitus.

REPORTING: City and State regulations require that healthcare providers and institutions report any case of food poisoning or calicivirus (including norovirus) diagnosed in Boston to BPHC. Any outbreak or cluster of illness is also reportable. Laboratories in Boston must report the result of any laboratory test positive for calicivirus to BPHC.

Reporting forms for healthcare providers and for laboratories are available at: http://www.bphc.org/cdc