

Communicable Disease Advisory:

Vibrio parahaemolyticus Outbreak

From the office of the Medical Officer of Health

Date: August 14, 2015

Context:

Alberta public health officials are investigating a large outbreak of lab-confirmed cases of *Vibrio parahaemolyticus* with symptom onset dates between June 2 and July 31, 2015. To date, there have been 19 cases in Alberta, ranging in age from 18-70 years, with 74% male. Calgary Zone has reported 9 cases. These cases all report consumption of raw oysters from the west coast in the four days prior to illness onset at a number of locations – Alberta food establishments, Alberta grocery stores, in BC at restaurants or self-harvested at BC beaches. BC is also reporting an unprecedented number of shellfish-related illnesses this summer, with more than 40 cases this year, with 91% of them lab-confirmed *Vibrio parahaemolyticus*; the majority of them have a history of raw oyster consumption sourced in BC.

Vibrio parahaemolyticus is a naturally-occurring bacterium in marine coastal waters that is also present in bivalve shellfish such as oysters, clams, mussels, scallops and cockles in varying concentrations; in the summer months when water temperatures rise, higher levels of *V. parahaemolyticus* are expected. Water temperatures have been unseasonably high this year, likely contributing to the early and large increase in illnesses. Foodborne illness may occur when highly contaminated shellfish are eaten raw or undercooked.

Please watch for patients presenting with gastrointestinal illness who have a history of consuming raw or undercooked shellfish in the four days before symptom onset, and take the recommended actions below.

Clinical symptoms:

Clinical illness symptoms include:

- watery diarrhea (rarely with blood and mucous) and abdominal cramps,
- nausea, vomiting, fever and headache

generally occurring between 12 and 24 hours of ingestion of contaminated shellfish, but may range between four and 30 hours. Generally the illness is self-limited and of moderate severity, lasting 1-7 days.

Actions:

1. For patients with gastroenteritis symptoms above, obtain a food history including shellfish consumption, especially raw or undercooked oysters.
2. Order appropriate laboratory testing for *Vibrio* species on stool specimens (see below).
3. Contact the Medical Officer of Health at (403) 264-5615 to report suspect cases (clinical illness, with history of shellfish consumption within 4 days prior to onset).
4. Treatment is supportive. Antibiotics are not indicated in most cases. Tetracycline or cefotaxime may be considered for those with severe diarrhea.

Laboratory Tests:

Culture of stool for *Vibrio* species is not routinely done and must be requested. In addition to routine enteric culture, order **stool culture for *Vibrio* species** on lab requisition, and clearly indicate **history of coastal water exposure/ingestion of shellfish (especially oysters)**.

Infection Control Recommendations:

Contact precautions are recommended until the causative agent is confirmed. *V. parahaemolyticus* is not transmitted person to person.

Additional References:

- Alberta Health. Public Health Notifiable Disease Management Guidelines. *Vibrio* para-haemolyticus. August 2011. www.health.alberta.ca/documents/Guidelines-Vibrio-Parahaemolyticus-2011.pdf
- Public Health Agency of Canada. *Vibrio parahaemolyticus*. Pathogen Safety Data Sheet – Infectious Substances. www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/vibrio-parahaemolyticus-eng.php

Medical Officer of Health advisories and alerts are posted at www.albertahealthservices.ca/7082.asp.