March 22, 2011

Vibrio parahaemolyticus Fact Sheet

1. **What is** *Vibrio parahaemolyticus***?** - *V. parahaemolyticus* is a bacterium in the same family as those that cause cholera. It lives in brackish saltwater and causes gastrointestinal illness in humans. *V. parahaemolyticus* naturally inhabits coastal waters in the United States and Canada and is present in higher concentrations during summer; it is a "halophilic," or salt-requiring organism.

2. **What type of illness is caused by** *V. parahaemolyticus***? -** When ingested, *V. parahaemolyticus bacteria* cause watery diarrhea often with abdominal cramping, nausea, vomiting fever and chills. Usually these symptoms occur within 24 hours of ingestion. Illness is usually self-limited and lasts around 3 days. Severe disease is rare and occurs more commonly in persons with weakened immune systems. *V. parahaemolyticus* can also cause an infection of the skin when an open wound is exposed to warm seawater.

3. **How does infection with** *V. parahaemolyticus* **occur?** - Most people become infected by eating raw or undercooked shellfish, particularly oysters. Less commonly, this organism can cause an infection in the skin when an open wound is exposed to warm seawater.

4. **How common is infection with** *V. parahaemolyticus***? -** In Asia, *V. parahaemolyticus* is a common cause of foodborne disease. In the United States, it is less commonly recognized as a cause of illness, partly because clinical laboratories rarely use the right tests to identify this organism. Not all states require that *V. parahemolyticus* infections be reported, but CDC collaborates with the Gulf Coast states of Alabama, Florida, Louisiana, and Texas to monitor the number of cases of Vibrio infection in this region. From those states, about 30-40 cases of *V. parahaemolyticus* infections are reported each year.

5. **How is** *V. parahaemolyticus* **infection diagnosed? -** Vibrio organisms can be isolated from cultures of stool, wound, or blood. For isolation from stool, use of a selective medium that has thiosulfate, citrate, bile salts, and sucrose (TCBS agar) is recommended. If there is clinical suspicion for infection with this organism, the microbiology laboratory should be notified so that they will perform cultures using this medium. A physician should suspect *V. parahaemolyticus* infection if a patient has watery diarrhea and has eaten raw or undercooked seafood, especially oysters, or when a wound infection occurs after exposure to seawater.

6. **How is** *V. parahaemolyticus* **treated? -** Treatment is not necessary in most cases of *V. parahaemolyticus* infection. There is no evidence that antibiotic treatment decreases the severity or the length of the illness. Patients should drink plenty of liquids to replace fluids lost through diarrhea. In severe or prolonged illnesses, antibiotics such as tetracycline, ampicillin or ciprofloxicin can be used. The choice of antibiotics should be based on the results of information from laboratory tests

7. **How do oysters get contaminated with** *V. parahaemolyticus***?** - Vibrio is a naturally occurring organism commonly found in waters where oysters are cultivated. When the

appropriate conditions occur with regard to salt content and temperature, *V. parahaemolyticus* thrives.

8. **How is** *V. parahaemolyticus* **infection prevented?** - Most infections caused by *V. parahaemolyticus* in the United States can be prevented by thoroughly cooking seafood, especially oysters. Wound infections can be prevented by avoiding exposure of open wounds to warm seawater. When an outbreak is traced to an oyster bed, health officials recommend closing the oyster bed until conditions are less favorable for *V. parahaemolyticus*.

9. **For more information about** *V. parahemolyticus***:**
   http://www.cdc.gov/nczved/divisions/dfbmd/diseases/vibriop/

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.