Vibrio Illness Strikes After Hurricane Katrina

BY PATRICE WENDLING
Chicago Bureau

In the wake of hurricane Katrina, 22 new cases of Vibrio illness with five deaths were identified during August 29 to September 11, according to government health sources. The illnesses were caused by Vibrio vulnificus, V. parahaemolyticus, and nontoxigenic V. cholerae. (MMWR 2005;54:928-31.) These organisms are acquired from the environment and are unlikely to cause outbreaks from person-to-person transmission.

No cases of toxigenic V. cholerae serogroups O1 or O139, the agents that cause cholera, were identified.

No confirmed cases of illness have been identified with onset after Sept. 5, although additional cases were under investigation at press time.

Of the 22 confirmed cases, 18 were wound-associated Vibrio cases reported in residents or displaced persons from Mississippi or Louisiana.

Five patients (28%) with wound-associated Vibrio infections died, according to an investigation by state and local health departments and the Centers for Disease Control and Prevention. Three of the deaths were associated with V. vulnificus infection and two with V. parahaemolyticus infection.

Whether acquired through wound infection or ingestion, V. vulnificus typically causes a severe and life-threatening illness characterized by fever, chills, decreased blood pressure, and blood-tinged blistering skin lesions.

V. parahaemolyticus typically causes gastroenteritis after consumption of contaminated shellfish. Wound infections are less common from this organism and are generally less severe.

Nontoxigenic V. cholerae causes primarily gastroenteritis and has rarely been reported to cause wound infections.

All three organisms can result in more severe infections in patients with liver disease or who are immunocompromised.

An underlying condition that might have increased the risk for severe Vibrio illness was reported in 13 (72%) of the patients with wounds.

Vibrio infections are diagnosed by culture of wound, blood, or stool specimens. For stool samples, health officials recommend a selective media of thiosulfate-citrate-bile salts-sucrose agar. Clinical laboratories are advised to send all Vibrio isolates to state public health laboratories for confirmation.

Nationwide, an average of 412 cases from Vibrio species other than toxigenic V. cholerae O1 or O139 were reported each year during 2000 to 2004, including an average of 146 cases reported in the five Gulf Coast states.

In areas where floodwaters have receded and surfaces are dry, Vibrio should not be a concern, because the organism is killed rapidly by drying.