



# County of Erie

CHRIS COLLINS  
COUNTY EXECUTIVE

DEPARTMENT OF HEALTH

ANTHONY J. BILLITTIER IV, M.D., FACEP  
COMMISSIONER OF HEALTH

**HEALTH ADVISORY #287**

**September 30, 2011**

## **Health Advisory: Listeriosis and Cantaloupe Consumption**

*Please distribute to Emergency Departments, Infection Control Departments, Employee Health Services, Infectious Disease Departments, Pediatrics, Director of Nursing, Medical Director, Pharmacy, Laboratory Director and all patient care areas.*

### **SUMMARY**

- The Centers for Disease Control and Prevention (CDC) is investigating a multi-state outbreak of *Listeria monocytogenes* linked to Rocky Ford cantaloupes from Jensen Farms in Colorado.
- No outbreak linked cases of listeriosis have been reported in Erie County as of September 30, 2011.
- The Erie County Department of Health (ECDOH) was notified on September 30, 2011 that potentially contaminated cantaloupes have been distributed to Erie County retailers in the form of cut fruit and cut fruit used in prepared fruit salad. At this time, no known distribution of whole cantaloupes occurred in Erie County.
- The incubation period for listeriosis ranges from 3-70 days, with a median of 3 weeks.
- Persons at highest risk for infection include pregnant women, neonates, persons over 60 years of age, and persons with compromised immune systems.
- Clinicians are encouraged to consider listeriosis in the differential diagnosis of patients with a history of cantaloupe consumption and symptoms including diarrhea, nausea, vomiting, fever and/or headache.
- Consumers in possession of Rocky Ford cantaloupes or cantaloupes of unknown origin are advised to discard them immediately.
- Suspected and confirmed cases of listeriosis should be promptly reported to the ECDOH at 858-7697.

## **BACKGROUND**

The CDC is investigating a multi-state outbreak of *Listeria monocytogenes* linked to Rocky Ford cantaloupes from Jensen Farms in Colorado. As of 11am EDT on September 29, 2011, a total of 84 persons infected with any of the four outbreak-associated strains of *Listeria monocytogenes* have been reported from 19 states. All illnesses started on or after July 31, 2011. The number of infected persons identified in each state is as follows: Alabama (1), Arkansas (1), California (1), Colorado (17), Illinois (1), Indiana (2), Kansas (5), Maryland (1), Missouri (3), Montana (1), Nebraska (6), New Mexico (13), North Dakota (1), Oklahoma (11), Texas (14), Virginia (1), West Virginia (1), Wisconsin (2), and Wyoming (2). Fifteen deaths have been reported: 3 in Colorado, 1 in Kansas, 1 in Maryland, 1 in Missouri, 1 in Nebraska, 5 in New Mexico, 1 in Oklahoma, and 2 in Texas. No outbreak associated cases of listeriosis have been reported in Erie County to date. It is anticipated that due to the prolonged incubation period for *L. Monocytogenes* of 3-70 days, diagnosis of infections related to the outbreak can be expected to occur in the coming weeks despite affected products having been removed from commercial circulation.

On September 14<sup>th</sup>, 2011, Jensen Farms issued a voluntary recall of affected cantaloupes. It is anticipated that due to the prolonged incubation period for *L. Monocytogenes* of 3-70 days, diagnosis of infections related to the outbreak can be expected to occur in the coming weeks despite affected products having been removed from commercial circulation. The ECDOH has been advised that distribution of potentially contaminated Jensen Farm cantaloupes occurred in Erie County in the form of cut fruit sold by area retailers. Products of concern may include: Cantaloupe Chunks and Cantaloupe Slices, Gourmet Fruit Salad, Fruit Trays, Small Fruit Salads, Large and Small Fruit Salads with Pineapple, and Fruit Salad with Kiwi. At this time, no known distribution of whole cantaloupes occurred in Erie County.

## **CLINICAL, DIAGNOSTIC AND TREATMENT INFORMATION**

Ingestion of foods contaminated with *L. monocytogenes* can cause symptoms ranging from mild non-invasive gastroenteritis to severe illness (invasive listeriosis), with overall mortality rates of 20%. Patients with listerial bacteremia or central nervous system infection typically have gastrointestinal symptoms (diarrhea, nausea, and vomiting) with fever and headache. Persons at greatest risk for severe infection include: neonates, persons over 60 years of age, and person with compromised immune systems. In pregnant women, listeria can cause miscarriage and serious illness in newborns, although the mother may not be seriously ill.

Listeriosis should be considered in the differential diagnosis of patients with compatible symptoms, particularly those who report possible exposure to the recalled cantaloupe. Diagnosis requires isolation of *Listeria* by culture from blood or CSF. Routine stool cultures are not considered a reliable screening tool for *Listeria*. Antimicrobial treatment is not indicated for non-invasive gastroenteritis in healthy, non-high risk persons. However, suspected invasive infections should be treated empirically with antimicrobials.

ECDOH would like the medical community to be aware of recent clinical guidance from CDC to assist with medical management of persons at elevated risk of invasive listeriosis who report possible exposure to *Listeria*. These guidelines are attached for your review.

## **REPORTING OF CONFIRMED OR SUSPECT CASES**

All suspect and confirmed listeriosis cases must be reported to the local health department in the county in which the individual resides. For Erie County residents, please call the Erie County Department of Health at **(716) 858-7697** (Monday – Friday 8:30 AM – 4:30 PM).

## **ADDITIONAL INFORMATION**

For information on the outbreak from the CDC:

<http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/093011/index.html>

### **Health Category Definitions:**

**Health Alert FLASH:** conveys the highest level of importance due to a large-scale, catastrophic public health emergency; warrants immediate action or attention

**Health Alert Priority:** conveys the highest level of importance; warrants immediate action or attention to a health problem or situation

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action

**Health Update:** provides updated information regarding an incident or situation; no immediate action necessary

The Erie County Department of Health does not provide medical advice. The information provided on the Erie County Department of Health website is not an attempt to practice medicine and is not intended as a substitute for professional medical advice, diagnosis, or treatment. It is for informational purposes only. Always seek the advice of your personal physician or other qualified health provider with any questions you may have regarding a medical condition or issue. Never disregard professional medical advice or delay in seeking it because of the content found on the Erie County Department of Health website or this correspondence.

The ECDOH Health Alert & Advisory System is an e-mail notification system designed to alert community partners about important health related information. **You can sign up to receive alerts & advisories at [www.erie.gov/health/services/health\\_professionals.asp](http://www.erie.gov/health/services/health_professionals.asp).**



Public Health Service  
DEPARTMENT OF HEALTH & HUMAN SERVICES  
Centers for Disease Control and Prevention (CDC)

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## MEMORANDUM

Date: September 19, 2011

From: Enteric Diseases Epidemiology Branch  
Division of Foodborne, Waterborne, and Environmental Diseases  
National Center for Emerging and Zoonotic Infectious Diseases  
Centers for Disease Control and Prevention

Subject: Suggested framework for medical management of persons at elevated risk for invasive listeriosis who are exposed to *Listeria monocytogenes*

To: The Record

### Purpose

Outbreak investigations or routine monitoring of food production and processing facilities may lead to identification and recall of a food contaminated with *Listeria monocytogenes*. In these situations, persons at elevated risk for invasive listeriosis may seek medical care because of concern that they have been exposed to *L. monocytogenes*. This document provides a suggested framework for medical management of these persons. It is not intended either as a practice guideline or as a modification of existing guidelines or practices in managing patients with confirmed or suspected listeriosis.

### Introductory notes

- Invasive listeriosis—illness with isolation of *Listeria monocytogenes* from a normally sterile site, typically blood or cerebrospinal fluid—is very rare, with an incidence rate of ~0.3/100,000 in the general population and ~3/100,000 in population subgroups at elevated risk.
- Groups at elevated risk for invasive disease include pregnant women, persons with immunocompromising conditions, and older adults. Risk increases with increasing age over 50 years.
- Pregnancy-associated listeriosis can lead to fetal loss, preterm delivery, and neonatal sepsis and meningitis. In most, but not all, cases of fetal or neonatal infection, the mother has a history of symptoms consistent with listeriosis.
- The risk of invasive listeriosis after exposure to *L. monocytogenes* is very low; exposure is common, but disease is rare.
- When a specific food is recalled (for example, melon grown at a specific farm) because of *L. monocytogenes* contamination, persons seeking medical care may know that they ate that general class of food (ie, melon) but may not know if it was the specific type or brand that was recalled. In this situation the likelihood of exposure to *L. monocytogenes* will depend on the commercial distribution of the specific implicated or recalled food product.
- Little scientific evidence is available to inform decisions regarding management of persons at elevated risk of invasive listeriosis who have been exposed to *L. monocytogenes* and who are either asymptomatic or mildly symptomatic. Therefore, this suggested framework is based to a large extent on expert professional opinion.

- Patient management decisions for asymptomatic or mildly symptomatic persons are appropriately made on a case-by-case basis, informed by clinical judgment and the likelihood of exposure of the patient. Consultation with a specialist in infectious disease may be considered
- The suggested framework discusses stool culture for *L. monocytogenes*, but stool culture has not been evaluated as a screening tool. It may have low sensitivity unless enrichment procedures are performed and, in many areas, may not be available routinely.

### Suggested framework for medical management

#### Pregnant women

##### 1. Exposed, asymptomatic:

Most experts believe that no testing or treatment is indicated for an asymptomatic pregnant woman who ate a product recalled because of *L. monocytogenes* contamination. Such a patient should be instructed to return if she develops symptoms of listeriosis within 2 months of eating the recalled product. Symptoms may include fever and myalgias, often preceded by diarrhea or other gastrointestinal symptoms.

##### 2. Exposed, afebrile, mild symptoms:

A pregnant woman who ate a product recalled because of *L. monocytogenes* contamination who is afebrile and has signs and symptoms consistent with a minor gastro-intestinal or flu-like illness, such as mild myalgias or mild nausea, vomiting, or diarrhea, could be managed expectantly (as for an exposed, asymptomatic woman); this is a reasonable approach to limit low-yield testing and supports judicious use of antimicrobial agents. Alternatively, such a patient could be tested with blood culture and/or stool culture for *Listeria*, where such testing is available. If diagnostic testing is performed, some experts would withhold antibiotic therapy unless at least a culture yielded *Listeria monocytogenes*. Others would initiate antibiotic therapy while culture results were pending, and then stop treatment if culture(s) were negative. The antibiotic regimen could consist of oral ampicillin or amoxicillin, although it is important that both the clinician and the patient know that no effectiveness data exist for this scenario. If stool culture is positive, therapy could continue for 10-14 days.

##### 3. Exposed, fever and symptoms consistent with invasive listeriosis:

An exposed pregnant woman with fever (>100.6° F, >38.1° C) and signs and symptoms consistent with invasive listeriosis, for whom no other cause of illness is known should be tested and treated for presumptive listeriosis. The febrile illness may be accompanied by myalgias and headache, and may have been preceded by diarrhea or other gastrointestinal symptoms.

- a) Diagnostic testing should include blood culture and other tests, such as culture of cerebrospinal fluid, as indicated by the clinical presentation.
- b) The antimicrobial regimen should be the standard therapy for listeriosis, typically including IV ampicillin and gentamicin for 14 to 21 days for nonallergic patients.
- c) If blood culture is negative and symptoms resolve, antibiotic therapy may be discontinued.

##### 4. Exposed, history of symptoms in past 4 weeks, currently asymptomatic:

Most experts believe that no testing or treatment is indicated for an asymptomatic pregnant woman who ate a product recalled because of *L. monocytogenes* contamination and who experienced symptoms that have resolved. Any such patient should be instructed to return for medical care if she develops symptoms of listeriosis within 2 months of eating the recalled product. Diagnostic testing, such as culture of blood or amniotic fluid, has been considered in such patients, depending on the clinical scenario.

### **Other Persons with Elevated Risk of Invasive Listeriosis** (older adults, immunocompromised persons)

#### **1. Exposed, asymptomatic:**

Most experts believe that no testing or treatment is indicated for an asymptomatic person with elevated risk of invasive listeriosis who ate a product recalled because of *L. monocytogenes* contamination. Such a patient should be instructed to return if he or she develops symptoms of listeriosis within 2 months of eating the recalled product. Symptoms may include fever and myalgias, often preceded by diarrhea or other gastrointestinal symptoms. In older adults and immunocompromised persons, symptoms of listeriosis not infrequently include headache, stiff neck, confusion, loss of balance, and/or convulsions.

#### **2. Exposed, afebrile, mild symptoms:**

A person with elevated risk of invasive listeriosis who ate a product recalled because of *L. monocytogenes* contamination who is afebrile and has signs and symptoms consistent with a minor gastro-intestinal or flu-like illness, such as mild myalgias or mild nausea, vomiting, or diarrhea, could be managed expectantly (as for an exposed, asymptomatic person); this is a reasonable approach to limit low-yield testing and support judicious use of antimicrobial agents. Alternatively, such a patient could be tested with stool culture and/or with blood culture for *Listeria*, where such testing is available. If diagnostic tests are performed, some experts would withhold antibiotic therapy unless cultures yielded *Listeria monocytogenes*. Others would initiate antibiotic therapy while culture results were pending and then stop treatment if the cultures were negative. The antibiotic regimen could consist of oral ampicillin or amoxicillin, although it is important that both the clinician and the patient know that no effectiveness data exist for this scenario. If stool culture is positive, therapy could continue for 10-14 days.

#### **3. Exposed, fever and symptoms consistent with invasive listeriosis:**

An exposed person with elevated risk of invasive listeriosis with fever ( $>100.6^{\circ}\text{F}$ ,  $>38.1^{\circ}\text{C}$ ) and signs and symptoms consistent with listeriosis, for whom no other cause of illness is known should be tested and treated for presumptive listeriosis. The febrile illness may be accompanied by myalgias, often preceded by diarrhea or other gastrointestinal symptoms, and, in older adults and immunocompromised persons, not infrequently include headache, stiff neck, confusion, loss of balance, and/or convulsions, as stated above.

- a. Diagnostic testing should include blood culture and other tests, such as culture of cerebrospinal fluid, as indicated by the clinical presentation.
- b. The antimicrobial regimen should be the standard therapy for listeriosis, typically including IV ampicillin and gentamicin for 14 to 21 days for nonallergic patients.
- c. If blood culture is negative and symptoms resolved, antibiotic therapy may be discontinued.

**4. Exposed, history of symptoms in past 4 weeks, currently asymptomatic:**

Most experts believe that no testing or treatment is indicated for an asymptomatic person with elevated risk of invasive listeriosis who ate a product recalled because of *L. monocytogenes* contamination and experienced symptoms that have resolved. Any such patient should be instructed to return for medical care if he or she develops symptoms of listeriosis within 2 months of eating the recalled product.