



IDAHO DEPARTMENT OF
HEALTH & WELFARE

Disease Bulletin

- *Listeria monocytogenes* Outbreak
- New Options for Influenza Vaccine
- Syphilis Outbreak in Treasure Valley

VOLUME 18 NUMBER 4 • DECEMBER 2011

Idaho Part of Nationwide *Listeria monocytogenes* Outbreak

Cantaloupe has been implicated as the food vehicle responsible for a nationwide outbreak of *Listeria monocytogenes*. As of December 9, 2011, two Idaho cases, one with a history of cutting up cantaloupe, have been confirmed with the outbreak strain. On September 2, 2011 the Colorado Department of Public Health and Environment first alerted the Centers for Disease Control and Prevention (CDC) of a cluster of seven *L. monocytogenes* cases that were reported over a five day period.¹ As of December 8, 2011, there are 146 reported cases associated with the outbreak from 28 states, including 30 deaths.² Evaluation of detailed food histories from early cases identified cantaloupe consumption as a common risk factor. Traceback of implicated cantaloupe sold under a variety of names identified Jensen Farms in Colorado as the producer. *L. monocytogenes* strains have been cultured from human cases and cut and whole

cantaloupe. As part of the FDA traceforward and a local public health investigation, it was determined that approximately 43,000 pounds of Jensen Farms cantaloupe was distributed to communities in Southeastern Idaho between August 30, 2011 and September 2, 2011. On September 14, 2011 Jensen Farms issued a voluntary recall of their cantaloupe.

Listeria basics

L. monocytogenes is a non-spore forming, toxin producing, hardy bacterium that can multiply at refrigerator temperatures. It is commonly found in soil and water and can be carried by asymptomatic animals. Four of 14 known serotypes (1/2a, 1/2b, 1/2c, and 4b) account for 95% of human infections. Serotypes 1/2a and 1/2b are implicated in the current outbreak. *L. monocytogenes* has been isolated from mammalian, avian, and aquatic species, soil, silage, and other environmental sources.³

CONTINUED ON NEXT PAGE

New Options This Year for Influenza Vaccine—More Than You Think!

Many healthcare providers might think there is nothing much new to learn this year with influenza vaccine—after all, the strain formulation is exactly the same as last year, and now everyone aged six months or older without specific contraindications is recommended to get the vaccine. But there is news! Some new vaccination options are available this year, and some may appeal to patients who have been resistant to influenza vaccination in the past. Not all of these options are widely available yet, but if successful, these formulations and delivery devices will certainly be more widely available in the future. In addition, the supply of influenza vaccine appears to be adequate this year. The Centers for Disease

Control and Prevention recommends that influenza vaccination begin as soon as 2011–2012 flu vaccine becomes available and continue throughout the flu season.

High dose vaccine

The Advisory Committee on Immunization Practices (ACIP) included Fluzone High-Dose® vaccine for adults aged 65 years and older in its recommendations for the 2010–2011 and the 2011–2012 influenza seasons. There is no preferential recommendation between the high dose flu vaccine and other inactivated seasonal flu vaccines. In a recent preliminary evaluation of adverse event

CONTINUED ON NEXT PAGE

OFFICE OF EPIDEMIOLOGY, FOOD PROTECTION, AND IMMUNIZATION

Idaho Department of Health and Welfare

P.O. Box 83720
450 W. State Street,
4th Floor
Boise, Idaho 83720-0036
WWW.IDB.DHW.IDAHO.GOV

IDAHO DISEASE BULLETIN CONTRIBUTING STAFF

CHRISTINE G. HAHN, MD
State Epidemiologist

**LESLIE TENGESEN, PhD,
DVM**
Deputy State Epidemiologist

JARED BARTSCHI, MHE
Epidemiology Program
Specialist

CARLA BRITTON, PhD, MS
Epidemic Intelligence Service
Officer

KRIS CARTER, DVM, MPVM
Career Epidemiology Field
Officer

PATRICK GUZZLE, MPH
Food Protection Program
Manager

MITCHELL SCOGGINS, MPH
Immunization Program
Manager

**KATHRYN TURNER, PhD,
MPH**
Epidemiologic Data and
Surveillance Program Manager

**ELLEN ZAGER HILL, MS,
DLSHTM**
Epidemiology Program
Specialist

**LISTERIA OUTBREAK CONTINUED FROM FIRST PAGE**

Most human infections are associated with consumption of contaminated animal products, fruits or vegetables contaminated in the field, or ready-to-eat products contaminated during processing. Outbreaks have been associated with hot dogs, turkey deli meats, unpasteurized soft cheeses, and alfalfa sprouts. This is the first known melon-associated outbreak. Asymptomatic, mild gastrointestinal, or flu-like illness can occur; however, invasive disease and a case-fatality rate approaching 20% can be seen in persons at high risk. High-risk groups include the immunocompromised, the elderly, pregnant women and their newborn infants, and those with other underlying medical conditions. Invasive disease can

include septicemia, meningitis, perinatal infection and subsequent miscarriage, still-birth, premature delivery, or serious neonatal infection. The incubation period ranges from 3–70 days. According to the CDC, about 1,600 cases and 260 deaths due to *L. monocytogenes* infection are reported annually in the United States. During January 1, 2000 through December 6, 2011 there have been 14 cases reported in Idaho, including one death.

Preventing *Listeria* infection

Persons at high risk for invasive disease should avoid consuming ready-to-eat meats, refrigerated pâtés, uncooked smoked fish, or soft cheeses made from unpasteurized milk.

Raw fruits and vegetables should be washed thoroughly prior to consumption.

For other prevention tips visit the CDC listeriosis website at: www.cdc.gov/listeria/prevention.html.

References

¹ Multistate Outbreak of Listeriosis Associated with Jensen Farms Cantaloupe --- United States, August--September 2011 MMWR October 7, 2011 / 60(39);1357-1358 www.cdc.gov/mmwr/preview/mmwrhtml/mm6039a5.htm?s_cid=mm6039a5_w

² Multistate outbreak of listeriosis linked to whole cantaloupes from Jensen Farms, Colorado www.cdc.gov/listeria/outbreaks/index.html

³ FDA Bad Bug Book: *Listeria monocytogenes* www.fda.gov/food/foodsafety/foodborneillness/foodborneillnessfoodbornepathogensnaturaltoxins/badbugbook/ucm070064.htm

INFLUENZA VACCINE CONTINUED FROM FIRST PAGE

reports following Fluzone High-Dose® vaccination in adults aged 65 years and older, more than 90% of adverse events were not serious and resolved on their own. Among reported adverse events, a higher proportion of vomiting and ocular hyperemia was reported after Fluzone High-Dose® compared with all other inactivated vaccines. When only reports classified as serious were considered, a higher proportion had gastrointestinal diagnoses (usually vomiting) after Fluzone High-Dose® compared with standard dose influenza vaccines; however, for these reports most of the conditions had resolved by the time a report was submitted. Clinical trials to determine if this vaccine offers superior protection to seniors are ongoing.

Intradermal vaccine

In May 2011, the intradermal vaccine Fluzone Intradermal® was licensed for use in adults aged 18–64 years. In clinical trials, the safety of intradermal vaccine was comparable

to the commonly used intramuscular form of vaccine. However, some injection site reactions were more frequent with intradermal administration. These reactions tended to be mild and resolved on their own. Clinical trials have shown that the antibody response to intradermal administration is comparable to the intramuscular formulation.

Needle-free intramuscular vaccination no longer available

According to a press release issued by the company PharmaJet®, a new needle-free injection technique was licensed by the Food and Drug Administration (FDA) earlier this year. The manufacturer states that “PharmaJet® injectors use pressure to create a fine stream of liquid that penetrates the skin, delivering doses to the desired depth, while eliminating needle-stick risk and the burden of sharps waste management.” This option was briefly available at some pharmacies, but in late October, the FDA issued

a statement that “At this time, there are no inactivated influenza vaccines that are approved and specifically labeled by the FDA for administration by jet injector” so this practice has been discontinued. The FDA and CDC believe that persons who received the influenza vaccine by jet injector do not need to be revaccinated.

New guidelines for persons with egg allergies

New recommendations were released this year regarding management of persons with egg allergy. The intent of these new guidelines is to clarify when it is safe to vaccinate such persons, and proper evaluation of those who may be at risk of a reaction to vaccination. Detailed recommendations for vaccination of persons with egg allergy can be found at: www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a3.htm#vaccination_egg_allergy.

Outbreak of Syphilis in the Treasure Valley

During June 1, 2011 through November 30, 2011, 12 early syphilis cases were reported in Southwest (n=1) and Central Public Health Districts (n=11), an area including Boise, Nampa, and Caldwell; 12 cases is 1 more than the number of reported cases in these districts during all of 2010.

Of the 12 infected persons, 8 (67%) had symptoms of primary or secondary

syphilis, 2 (18%) were asymptomatic contacts of a person with primary syphilis, and the remaining 2 (18%) were suspected early syphilis cases based on risk or exposure history, high syphilis titers often indicative of recent infection, and temporal and geographic proximity. Two of the 12 patients also had HIV infection.

The median age of persons reported was 42.5 years. Ten cases were among males

who had reported sex with other males (MSM), four of whom also had reported sex with females. Two reported only sex with females.

Recommendations for healthcare providers**Identification of syphilis**

Maintain a high index of suspicion for



syphilis when working with patients whose behaviors carry risk for syphilis infection or who report symptoms that might be indicative of syphilis. Syphilis, a systemic disease caused by the bacterium *Treponema pallidum*, progresses through a series of overlapping stages, based on symptomatology and duration of infection, which are used to guide treatment and follow-up. Individuals with early syphilis might seek treatment for signs or symptoms of primary infection (ulcer or chancre at infection site), secondary infection (e.g., skin rash, mucocutaneous lesions [mucous patches], or lymphadenopathy), and neurologic infection (e.g., cranial nerve dysfunction, meningitis, stroke, auditory or ophthalmic abnormalities). Among MSM, the primary lesion, which is usually painless, can sometimes be occult – located in the anal canal, rectum, or oral cavity. Clinicians have observed at least one oral lesion in this outbreak. Persons without symptoms are also considered to have early infections if they are determined by history or other evidence to have acquired syphilis within the past 12 months.

Patient education

Inform patients and clients about the outbreak and provide information about

the signs and symptoms of syphilis and other sexually transmitted diseases (STDs). Emphasize the seriousness of neurosyphilis, especially in discussions with persons who are HIV positive or are at risk of acquiring HIV. Please encourage patients with early syphilis to cooperate with public health investigators so that partner services, which include preventive treatment and serologic testing for syphilis, can be effectively delivered to help prevent the further spread of syphilis.

Screening recommendations

Persons at increased risk for syphilis infection include sexually active MSM, individuals who exchange sex for money or drugs, and adults in correctional facilities.¹ Persons who have had sexual contact with patients who have received a diagnosis of syphilis and persons with signs or symptoms of syphilis, should also be tested for syphilis. Screening intervals should be based on clinical judgment of prevalence and risk behaviors; sexually active MSM should be screened at least annually.¹ All persons with syphilis should be tested for HIV infection.² Women who are pregnant or who have recently delivered must be screened at their first encounter for pregnancy-related care by

HIGHLIGHTS

- 12 new early syphilis cases reported since June 1, 2011; HIV coinfection has been reported
- Be alert for symptoms of syphilis infection
- Presumptively treat persons suspected of being or having been exposed to early syphilis
- Report cases to your public health district or OEFI

state law³ and should be screened again, if at high-risk, in the third trimester to prevent congenital syphilis infection⁴; women should be tested at delivery if no prenatal care was sought.

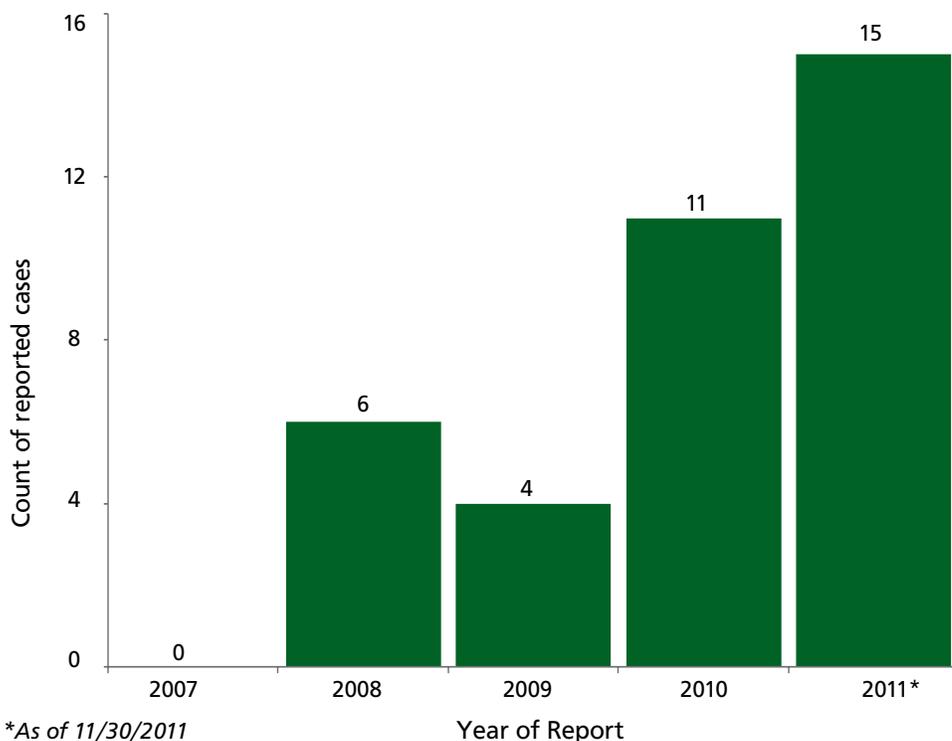
Testing and evaluation

Obtain a serologic specimen for rapid plasma reagin (RPR) or venereal disease research laboratory (VDRL) testing on all suspect early syphilis cases. If positive, the laboratory should provide a quantitative titer result and run a confirmatory test, such as the *Treponema pallidum* particle agglutination (TP-PA) or fluorescent treponemal antibody-absorption (FTA-ABS) test. Patients with signs or symptoms of neurologic or ophthalmic disease might have neurosyphilis and should have an evaluation that includes CSF analysis, ocular slit-lamp ophthalmologic examination, and otologic examination.

Treatment

Treat persons with suspected early syphilis and their sexual contacts with 2.4 million units of benzathine penicillin (Bicillin L-A®) administered intramuscularly, or, if penicillin-intolerant and not pregnant, use doxycycline 100 mg twice daily for 14 days or tetracycline 500 mg four times daily for 14 days. Pregnant women with suspected early syphilis who are penicillin-intolerant must be desensitized and treated with the above dose of benzathine penicillin. Carefully ensure the proper penicillin is being used to treat individuals with syphilis. Inadvertent use

Figure. Early syphilis by year of report—Southwest and Central Public Health Districts, 2007–2011*





Division of Public Health
P.O. Box 83720
Boise, ID 83720-0036

PRSR STD
U.S. Postage
PAID
Permit No. 1
Boise, ID

**ROUTINE 24-Hour
Disease Reporting Line
1.800.632.5927**

**EMERGENCY 24-Hour
Reporting Line
1.800.632.8000**

An electronic version of the Rules and Regulations Governing Idaho Reportable Diseases may be found at <http://adm.idaho.gov/adminrules/rules/idapa16/0210.pdf>.

Current and past issues are archived online at www.idb.dhw.idaho.gov.

OUTBREAK OF SYPHILLIS CONTINUED FROM PAGE 3

of Bicillin C-R®, a mixture of benzathine penicillin G and procaine penicillin G, has been reported in the past⁵ and is inadequate to cure syphilis. Consult the latest version of the CDC's sexually transmitted disease treatment guidelines for guidance in treating syphilis infection of greater than one year duration, congenital infection among infants or children, or infections with neurologic involvement (www.cdc.gov/std/treatment).

HIV infection

Serologic tests for syphilis can be interpreted in the usual manner for most patients with HIV and syphilis coinfection. However, atypical serologic responses have been observed among HIV-infected persons with syphilis infection, usually but not always involving higher than expected non-treponemal titers. Rare instances of false negative serologic test results and delayed seroreactivity have been reported.⁶ Compared with

HIV-negative patients, HIV-positive patients with early syphilis are at higher risk for neurologic complications.²

Follow-up

Persons treated with penicillin should have serologic follow-up 6 and 12 months after treatment to document the response to treatment, which should be a 4-fold or greater decline in RPR or VDRL titer. Because of the greater potential for treatment failure, follow-up for HIV-infected patients should be at least every 3 months after treatment up through 12 months after treatment and include a 24-month test. Follow-up at 3, 9, and 12 months after treatment is also recommended for persons treated with non-penicillin regimens.

Reporting

Report suspected and serologically positive syphilis cases within three working days to your public health district or the

Office of Epidemiology, Food Protection, and Immunization so that public health investigation and identification of contacts can begin.

References

- ¹Centers for Disease Control and Prevention (CDC). Sexually transmitted diseases treatment guidelines, 2006. *MMWR Recomm Rep* 2006; 55:1–94.
- ²Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2010. *MMWR* 2010; 59 (No. RR-12):26–40.
- ³Idaho Code. Title 39 Health and Safety. Chapter 10, §1001 and 1002.
- ⁴U.S. Preventive Services Task Force. Screening for syphilis infection: recommendation statement. *Ann Fam Med*. 2004;2(4):362–365.
- ⁵Centers for Disease Control and Prevention (CDC). Inadvertent use of Bicillin C-R to treat syphilis infection—Los Angeles, California, 1999–2004. *MMWR*. 2005 March 11; 54(9): 217–9. www.cdc.gov/mmwr/preview/mmwrhtml/mm5409a1.htm
- ⁶Kingston AA, Vujevich J, Shapiro M, et al. Seronegative secondary syphilis in 2 patients coinfecting with human immunodeficiency virus. *Arch Dermatol* 2005;141:431–3.