

EPI Update for Friday July 14, 2006
Center For Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- ***E. coli* O157:H7 cases count rises in Iowa**

- **Special Olympics update**
- **Syphilis cluster grows**
- **Highlights from the revised AHA Dietary and Lifestyle Recommendations**
- **Announcements and training opportunities**

***E. coli* O157:H7 cases count rises in Iowa**

There have been 27 cases of *E. coli* O157:H7 reported to CADE in the last six weeks. Three cases of Hemolytic Uremic Syndrome have been reported to CADE. Though these numbers are consistent with previous years, several cases are epidemiologically linked (have a similar exposure). These cases are concentrated in central Iowa. Most cases are between ages 1-8 and all attend child care. Common exposures for these cases include contact or consumption of raw or undercooked ground beef and visits to petting zoos with no hand-washing facilities.

Bacteria Description and Complications

E. coli O157:H7 is part of the enterohemorrhagic group (EHEC) of *E. coli* that produces a shiga toxin that is similar to the toxin produced by *Shigella*. This toxin is responsible for bloody diarrhea. The other potential serious complications of these infections include hemolytic uremic syndrome (HUS) and thrombotic thrombocytopenia (TTP). *E. coli* isolates received at UHL will be tested for O157:H7. Stool specimens received for *E. coli* testing will be tested for shiga toxin. If found the specimen will then be cultured to identify specific *E. coli*.

Clinical description

E. coli O157:H7 illness can be characterized by severe abdominal cramping and diarrhea which is initially watery but becomes bloody. Occasionally vomiting occurs. Fever is either low-grade or absent. The illness usually lasts for an average of 8 days. Some individuals exhibit watery diarrhea only. There is no carrier state for *E. coli* O157:H7, though anyone with the disease can spread it, including those that are asymptomatic or mildly symptomatic. The incubation period is 2 to 10 days but averages 3 to 4 days.

Additional information

Food handlers and children attending child care who have *E. coli* O157:H7 must have two consecutive negative stool samples (taken no less than 24 hours apart) before returning to food handling duties or child care.

E. coli O157:H7 and other related diseases (HUS and TTP) are reportable under IAC [641] chapter 1.

Special Olympics update

The cause of the gastroenteritis that occurred at the Special Olympics games has been identified as norovirus genotype 1. CADE is continuing to contact the head of delegates for each of the state teams to get an overall description of each team's experience in regard to illness. More information will follow.

The Centers for Disease Control and Prevention (CDC) estimates that 23 million cases of acute gastroenteritis are due to norovirus infection; it is now thought that at least 50 percent of all food-borne outbreaks of gastroenteritis can be attributed to noroviruses.

Among the 232 outbreaks of norovirus illness reported to CDC from July 1997 to June 2000, 57 percent were food borne, 16 percent were due to person-to-person spread, and 3 percent were water borne; in 23 percent of outbreaks, the cause of transmission was not determined. In this study, common settings for outbreaks include restaurants and catered meals (36 percent), nursing homes (23 percent), schools (13 percent), and vacation settings or cruise ships (10 percent).

Syphilis cluster grows

A cluster of primary and secondary syphilis cases in Iowa were detected in June. A second cluster in the same area has now also been detected while the original cluster remains under investigation and continues to expand. The cases involve heterosexual transmission among drug users, sex workers and their partners. There is significant travel associated with several cases; including several partners who live out of state.

Long-acting penicillin G, administered parenterally, is the recommended drug for all stages of syphilis, although late stages require increased dosage and longer periods of treatment. The currently available long-acting penicillin G is Bicillin L-A. Any other form of penicillin G contains only half of the dose of penicillin needed to treat syphilis infection and should not be used. Sexual partners exposed within the 90 days preceding the diagnosis of primary, secondary, or early latent syphilis should be treated presumptively, even if seronegative. For persons at risk for or positive for syphilis, an HIV test is also recommended.

Highlights from the revised American Heart Association (AHA) Dietary and Lifestyle Recommendations

In June, the AHA revised their dietary and lifestyle recommendations aimed at preventing cardiovascular disease. These recommendations go beyond a healthy dietary pattern and now include the concept of a healthy lifestyle pattern. The 2006 recommendations are:

- Consume an overall healthy diet.
- To maintain a healthy body weight, balance calories consumed with calories burned.
- Increase awareness of daily caloric requirements along with calorie content of foods for portions typically consumed.
- Set a goal of at least 30 minutes of physical activity daily.

- Consume a diet rich in a wide variety of fruits and vegetables (not fruit juices), especially those that are deeply colored (spinach, carrots, peaches and berries).
- Prepare fruits and vegetables with little added saturated or *trans* fat, salt and sugar.
- Choose whole-grain, high fiber foods.
- Consume 2 servings of fish, especially those relatively high in omega-3 fatty-acids (i.e., salmon, trout and herring) at least twice weekly.
- Children and pregnant women should follow Food and Drug Administration's guidelines for avoiding mercury-contaminated fish (i.e., shark, swordfish, king mackerel and tilefish).
- Limit intake of saturated fat, *trans* fat, and cholesterol by choosing lean meats, vegetable alternatives, and fat-free (skim) and low-fat (1 percent fat) dairy products, and minimize intake of partially hydrogenated fats.
- Minimize intake of beverages and foods with added sugars.
- Consume no more than 2300 mg of sodium daily; choose and prepare foods with little or no salt. Middle-aged and older adults, African Americans, and those with hypertension should consume no more than 1500 mg of sodium daily.
- Limit alcohol intake to not more than 1 drink per day for women and 2 drinks per day for men (1 drink = 12 oz. of beer, 4 oz. of wine, 1.5 oz. of 80-proof distilled spirits, or 1 oz. of 100 proof spirits).
- When eating out, be aware of portion size; select vegetables and fruits; and avoid foods prepared with added saturated or *trans* fat, salt, and sugar.

Meeting announcements and training opportunities

None.

Have a healthy and happy week!

Center for Acute Disease Epidemiology

Iowa Department of Public Health

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