IOWA | Health and Human Services

Epi Update for Friday, March 22, 2024

CENTER FOR ACUTE DISEASE EPIDEMIOLOGY (CADE)

Iowa Department of Health and Human Services

Items for this week's Epi Update include

- **Biofilm pathogens such as *Legionella* a major cause of US waterborne outbreaks**
- **Morel mushroom food safety**
- **Infographic: Think measles**
- **Meeting announcements and training opportunities**

Biofilm pathogens such as *Legionella* a major cause of US waterborne outbreaks

A recently published MMWR article summarizes data from 214 waterborne outbreaks associated with public or private potable water systems (safe for drinking, but also used for other purposes such as showers) from 2015 - 2020. Of the outbreaks associated with potable water, 87% were attributed to biofilm pathogens vs. only 11% attributed to enteric pathogens. *Legionella* accounted for 98% of biofilm-related outbreaks, and three pathogens (norovirus, *Shigella*, and *Campylobacter*) were associated with 94% of enteric pathogen outbreaks. While enteric pathogens accounted for over 60% of illnesses from all potable water outbreaks, *Legionella* was implicated in 97% of hospitalizations and 98% of deaths.

Legionella-associated outbreaks generally increased nationally from 2007 through 2020. A number of contributing factors were identified in biofilm-related outbreaks ranging from inadequate temperatures and disinfectant levels to interruptions in water flow for reasons such as construction, repair, and infrequent use. The increase in illnesses, the frequency of hospitalizations and deaths, and the complexity of contributing factors implicated in *Legionella*-associated outbreaks highlight the need for surveillance and prevention efforts from public health, regulators, and utility partners.

It should be noted that the act of drinking water is not a common cause of legionellosis, but improper storage and treatment of water followed by inhaling aerosolized water is a risk factor.

To view the full MMWR, visit
www.cdc.gov/mmwr/volumes/73/ss/ss7301a1.htm?s_cid=ss7301a1_w.

Morel mushroom food safety

A recent CDC MMWR highlights that although morel mushrooms are generally considered edible, rare cases of illness have been reported after consumption. In spring 2023, 51 individuals reported gastrointestinal illness associated with eating morel mushrooms at a restaurant in Bozeman, Montana. The outbreak resulted in multiple severe outcomes, including three hospitalizations and two deaths. Consumption of raw morel mushrooms was more strongly associated with illness than consumption of morels that were at least partially cooked.

Although the toxins in morel mushrooms that might cause illness are not fully understood, proper preparation procedures, including thorough cooking, might help to reduce toxin levels and limit adverse health effects. Morels should be refrigerated at a temperature of ≤40°F in breathable type packaging, such as a paper bag. Morels should be cooked thoroughly before consumption.

To view the full MMWR, visit www.cdc.gov/mmwr/volumes/73/wr/mm7310a1.htm?s_cid=mm7310a1_w.

Infographic: Think measles

To view in full size, visit downloads.aap.org/AAP/PDF/ThinkMeasles-final.pdf.

Meeting announcements and training opportunities

Join Iowa HHS and ECRI for a webinar, *Clinical Microbiology 101 for Frontline Health Care Workers*, on April 10 at 12 noon. Preventing infections and stopping the spread of germs are essential roles for health care providers. Antimicrobial resistance is a growing problem because some germs have developed the ability to defeat the drugs designed to kill them. Understanding microbiology culture and sensitivity reports and how germs are spread are keys to preventing health care-associated infections. At the conclusion of this webinar, the participants should be better able to: identify gram-positive and gram-negative bacteria, explain Kirby-Bauer sensitivity testing, discuss drug resistance and emerging pathogens, recognize the key elements of infection transmission, and discuss how infection can lead to sepsis. Continuing education credits are available. To register, visit ecri.zoom.us/webinar/register/WN_ipPQDLdlRRqCaWh225WL4w#.

Have a healthy and happy week!

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