



Epi Update for Friday, May 28, 2021

**Office of the Public Health Medical Director
Center for Acute Disease Epidemiology (CADE)
Bureau of HIV, STD, and Hepatitis**

Iowa Department of Public Health (IDPH)

Items for this week's Epi Update include:

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- **Syphilis: epidemiology and treatment**
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First West Nile virus case of the season

The first West Nile virus infection case in 2021 was reported in an older adult (aged 61 years to 80 years) from Montgomery County. The case was confirmed by the State Hygienic Laboratory.

About 20 percent of people infected with West Nile virus will have mild to moderate symptoms such as fever, headache, body aches and vomiting. Less than one percent of people infected become seriously ill and rarely, someone dies.

Please advise patients to take the following measures to prevent mosquito bites:

- Use insect repellent with DEET, Picaridin, oil of lemon eucalyptus or IR3535.
 - o Always read the repellent label and consult with a health care provider if you have questions when using these types of products for children.
 - o For example, oil of lemon eucalyptus should not be used on children under 3 years of age and DEET should not be used on children less than 2 months of age.
- Avoid outdoor activities between dusk and dawn, when mosquitoes are most active.
- Wear long-sleeved shirts, pants, shoes and socks outdoors whenever possible.
- Eliminate standing water around the home because that's where mosquitoes lay eggs.
 - o Empty water from buckets, cans, pool covers and pet water dishes.
 - o Change water in bird baths every three to four days.

For more information, visit idph.iowa.gov/cade/disease-information/west-nile-virus.

Syphilis: epidemiology and treatment

Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum* subsp. *pallidum*. It is a complex STI that occurs in stages. The primary (characterized by a painless chancre or sore) and secondary (often characterized by a rash) are the most infectious stages. It is possible for persons to transmit the infection during the third stage (early, non-primary, non-secondary) as well. Later stages of syphilis cannot be transmitted sexually. However, pregnant persons can transmit the bacteria to the fetus. Untreated syphilis of any stage may lead to severe health consequences for the individual.

Syphilis cases have been steadily increasing in Iowa. When examining the early stages of syphilis in Iowa, the number of cases increased to 357 in 2020 (an increase of 52.6 percent from 2019). When examining all stages of syphilis, the number increased to 500 in 2020 (an increase of 38.9 percent from 2019). Gay men and other men who have sex with men (MSM) are disproportionately impacted by syphilis in Iowa. However, cases among women have been steadily increasing as well, which is of particular concern due to the risk of congenital syphilis (in which the fetus or newborn acquires the infection).

Syphilis is most commonly diagnosed by serology testing through detection of antibodies in the blood. A minimum of two tests are required for diagnosis (at least one non-treponemal and one treponemal test). The quantitative titer of reactive non-treponemal tests are very important in monitoring success of treatment and assessing re-infection in the future.

Uncomplicated syphilis can be easily treated and cured. Early diagnosis and treatment prevents long-term negative health outcomes. The recommended treatment for syphilis is an intramuscular injection of 2.4 million units of benzathine penicillin G (aka Bicillin L-A). For late stages of syphilis, three doses are recommended (2.4 million units once a week for three weeks).

For additional information about syphilis, visit: www.cdc.gov/std/syphilis/default.htm.

A concise guide for clinicians may be found here: www.cdc.gov/std/syphilis/Syphilis-Pocket-Guide-FINAL-508.pdf.

More information about syphilis testing algorithms can be found here: www.aphl.org/aboutAPHL/publications/Documents/ID-2020Aug-Syphilis-Reporting-Language.pdf.

Recreational water safety

Memorial Day often marks the beginning of boating and swimming season in Iowa. The Iowa Department of Public Health Swimming Pools and Spas program reminds you to keep the following in mind as you venture out into recreational water this summer:

- Keep young children within arm's reach whenever you are near or in the water.
- Learn to swim.
- Small children and non-swimmers should wear life jackets when they are near water and when swimming.
- Do not swim when ill, especially when you have diarrhea.
- Shower before entering the water.
- Don't swallow the water.

Each day, approximately two children less than 15 years old die from drowning. Drowning is the leading cause of injury-related death for children 1–4 years old. In 2019, among children 1 to 4 years old who died from an unintentional injury, one-third died from drowning. While children are at highest risk, anyone can drown.

Drowning isn't the only hazard known to recreational water. A new CDC report shows that during 2015–2019, more than 200 outbreaks were linked to pools, hot tubs, and water playgrounds. Cryptosporidium is a microscopic parasite which is chlorine-resistant, which means that it can persist in pool water even when chlorine levels are properly maintained. Cryptosporidium can make swimmers sick if they swallow just a mouthful of contaminated water. Although most germs are killed within minutes by chlorine or bromine at recommended levels, Cryptosporidium can survive in properly treated water for more than 7 days.

For more information on drowning prevention, visit www.cdc.gov/HomeandRecreationalSafety/Water-Safety/waterinjuries-factsheet.html.

For more information on recreational water illnesses, visit www.cdc.gov/healthywater/swimming/.

In the news: Subway swabbers find a microbe jungle and thousands of new species
www.nytimes.com/2021/05/26/science/microbes-subway-metasub-mason.html.

In the news: Why deadly 'Black Fungus' is ravaging COVID patients in India
www.scientificamerican.com/article/why-deadly-black-fungus-is-ravaging-covid-patients-in-india/.

Infographic: Mosquito bites can make you sick

MOSQUITO BITES CAN MAKE YOU SICK
Mosquitoes spread germs

Mosquitoes bite day and night.
Mosquitoes that spread viruses bite during the day and night and live indoors and outdoors.

Use insect repellent. It works!
Look for the following active ingredients: DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone.

Wear long-sleeved shirts and long pants.
For extra protection, treat clothing with permethrin.

Mosquito-proof your home.
Use screens on windows and doors. Use air conditioning if available. Keep mosquitoes from laying eggs in or near standing water.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

For more information: www.cdc.gov/mosquitoes

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To view in full size, visit www.cdc.gov/mosquitoes/pdfs/Infographic_MosquitoBites-P.pdf.

Meeting announcements and training opportunities

None

Have a healthy and happy week!

Center for Acute Disease Epidemiology
800-362-2736

Bureau of HIV, STD, and Hepatitis
515-281-6801