Indiana Department of Health

Long-term Care NEWSLETTER

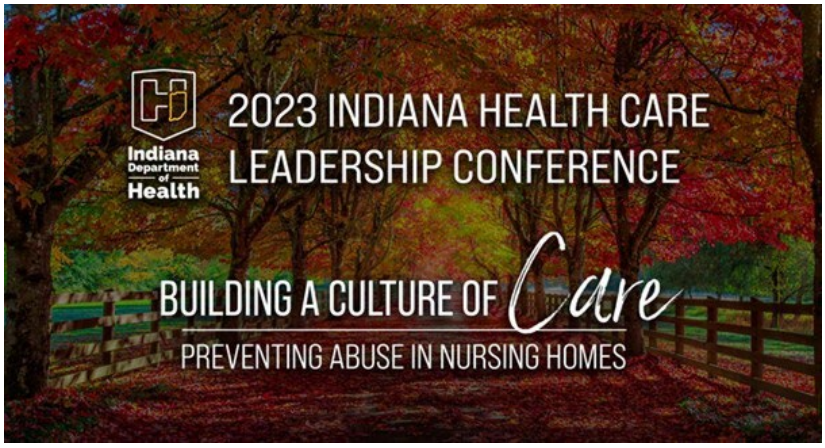
LTC Newsletter 2023-16
July 27, 2023

LTC Update:

- **IDOH Health Care Leadership Conference – Registration Open**
- **What YOU Need to Know about Infection Prevention – Earn a Certificate**
- **Standard of Care for Urinary Tract Infections Testing**

IDOH Health Care Leadership Conference – Registration Open

The 2023 IDOH Health Care Leadership Conference "Building a Culture of Care – Preventing Abuse in Nursing Homes" will be Tuesday, Oct. 17, in person at the Biltwell Event Center in Indianapolis. The conference will also be offered virtually. Licensed comprehensive care facilities, and representatives from long-term care provider organizations and interest groups are invited to attend. All IDOH long-term care surveyors will also attend. Registration is open at CultureOfCare2023.com. **Early bird pricing ends July 31!**



What YOU Need to Know about Infection Prevention – Earn a Certificate

"What YOU Need to Know about Infection Prevention" is a cost-free, online five-module course addressing various aspects of infection prevention and control. The course was made possible by a collaboration between the Indiana Department of Health, the Centers for Disease Control and Prevention's Project Firstline, and the University of Indianapolis Center for Aging & Community.

The five modules, developed with input from Indiana healthcare workers on their desire for further education in infection prevention, are:

- How Does Science Work?
- How Do I Know What Guidelines to Listen To?
- Using Clinical Guidelines Beyond the Clinic
- Recognize Infection Risks in Healthcare
- *Candida auris*: Stopping the Spread

Earn a certificate from the Indiana Department of Health by completing all five modules and passing a final exam. To register for the course, click What YOU Need to Know About Infection Prevention.

Standard of Care for Urinary Tract Infections Testing

Summary:
Urine dip, urinalysis, and culture remain the standard of care for diagnosing and treating urinary tract infections. There are new urine PCR tests on the market that have specific narrow uses and should not be used to replace traditional tests for testing and treatment. More studies are needed before adopting urine PCR as an initial test instead of using traditional urine tests.

Background:
Urinary tract infection (UTI) is a common condition and is treated with antibiotics. UTI is diagnosed based on symptoms, clinical findings and tests, such as urinalysis, microscopy and culture. When the clinical evaluation suggests UTI, empiric antibiotic therapy is started and if needed, the therapy is modified based on urine culture results. The selection of antibiotics and the duration is determined depending on the symptoms, severity and underlying medical conditions.

Testing for UTI should be initiated based on systemic indications, like fever and localizing urinary symptoms, such as urinary urgency, frequency, dysuria, flank pain, etc. Symptoms such as foul-smelling urine or concentrated urine in the absence of other urinary symptoms/SIRS, or change in mental status without urinary symptoms/SIRS should trigger an evaluation for other possible reasons also, especially in someone without an indwelling catheter.

About 3-7% of healthy women and 25-50% of women in nursing facilities have bacteria in their urine without symptoms, called asymptomatic bacteriuria. Asymptomatic bacteriuria does not require antibiotic therapy other than in certain situations such as pregnancy or prior to urologic procedures. Antibiotic overuse is common in hospitals and nursing homes and can cause harm including side effects and C. difficile infections. Inappropriate antibiotic also use can promote antibiotic resistance, so antibiotic stewardship is essential.

Newer diagnostic tests such as urine Polymerase Chain Reaction (PCR) can yield results much faster than urine culture. However, PCR does not provide information on sensitivities to guide therapy. While PCR could sometimes identify the presence of more kinds of bacterial DNA, it does not necessarily indicate whether each of them represents a UTI. PCR detects DNA but does not mean the presence of live organisms. The PCR test could stay positive after an infection was treated recently as non-viable DNA can continue to be detected.

Additionally, PCR could be substantially more expensive than standard urine tests. Like urine culture, urine PCR cannot differentiate asymptomatic bacteriuria from symptomatic infection. The urine PCR might have utility in select clinical scenarios. Even in these conditions, urine culture likely is still needed for sensitivity information.

Recommendations:

- Use traditional urine tests most of the time.
- Avoid using urine PCR routinely for diagnosing a UTI.
- Do not order this test in asymptomatic individuals.
- More studies are needed comparing the outcomes of using urine culture vs. urine PCR before PCR can be used as a starting test.
- Urine PCR may be used in specific circumstances in consultation with specialists

References:

- Urinary Tract Infection | Antibiotic Use | CDC
- Core Elements of Antibiotic Stewardship for Nursing Homes | Antibiotic Use | CDC
- A New Gold Rush: A Review of Current and Developing Diagnostic Tools for Urinary Tract Infections - PubMed (nih.gov)
- Duration of antibiotic treatment for acute pyelonephritis and septic urinary tract infection-- 7 days or less versus longer treatment: systematic review and meta-analysis of randomized controlled trials - PubMed (nih.gov) • Optimal duration of antibiotic therapy for uncomplicated urinary tract infection in older women: a double-blind randomized controlled trial - PubMed (nih.gov)
- rochesterpatientsafety.com/Images_Content/Site1/Files/Pages/Nursing Homes/UTI Treatment Guidelines.pdf
- The scientific evidence for a potential link between confusion and urinary tract infection in the elderly is still confusing - a systematic literature review | BMC Geriatrics | Full Text (biomedcentral.com)
- UTI Guideline-6.9.21.pdf (mi-hms.org)
- Diagnosis and management of urinary tract infection in older adults - PubMed (nih.gov)

- Bacteria in Urine Doesn’t Always Indicate Infection (idsociety.org)
- Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by the Infectious Diseases Society of America (idsociety.org)
- Diagnosing UTIs with Urine PCR | Clinical Lab Products (clpmag.com)