



Messenger

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Reports of New Findings

Neisseria meningitidis Urethritis

Although long recognized as a causative agent of meningitis and a destructive septicemia, *Neisseria meningitidis* (Nm) has also recently been the subject of a report describing urethritis in a large group of predominantly black, heterosexual men in Columbus, Ohio (Clin Infect Dis 65:92-99,2017).

This group of 75 cases of Nm urethritis was discovered because culture was performed as part of the CDC-sponsored Gonococcal Isolate Surveillance Project (GISP). Tests of urine specimens collected from this group of men using an *N. gonorrhoeae* nucleic acid amplification test (NAAT) were negative, indicating that Nm urethral infections are not likely to be detected by NAAT-based screening programs.

Ancient Microbe Now a Pathogen?

In the past thirty years, a phylogenetically distinct group of microbes, Archea, has been shown to occupy unique niches in the environment. With bizarre biochemical capabilities that distinguish them from bacteria, Archeal species were initially considered extremophiles, able to thrive in hot springs and salt lakes. Continued studies have shown Archea can be found in a broad array of habitats, now including human specimens.

While often requiring an anaerobic environment, Archea now can claim human infection as a capability. French researchers report the presence of methane-producing Archea in brain abscesses (Clin Infect Dis 65:1-5,2017). Using Archea-specific PCR and whole genome sequencing, the investigators show that Archea such as *Methanobrevibacter oralis* can be found in as many as 50% of all brain abscesses studied. This unusual microbe has escaped detection as clinical laboratory microbiologic methods have been insufficient to allow culture.

Vaccination for Ebola Virus

The West African outbreak of 2013-15 claimed over 11,000 lives and has disappeared from headlines. But a new outbreak of Ebola virus with 52 cases has appeared in the Democratic Republic of Congo (DRC) with a different response—vaccination. The DRC Ministry of Health approved use of the new vaccine on May 29, 2017. The newly developed vaccine that studies have shown to be highly

effective is being administered to citizens of the central African nation. The vaccine, developed by Merck, is based on a vesicular stomatitis virus/Ebola hybrid (rVSV-EBOV) and has been shown in some studies to be 100% effective. It promises to be the first truly powerful weapon to end Ebola outbreaks. Smallpox virus was eventually eliminated worldwide by the “ring strategy”—vaccinating known contacts of cases, and then vaccinating contacts of contacts. An effective vaccine now makes this strategy a possibility for Ebola.
