New Virus Meningitis/Encephalitis Panel and discontinuation of virus culture for CSF.

New Qualitative PCR for varicella zoster virus in CSF

To: Clients of UR Medicine Labs

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On 7/5/2016, the Clinical Virology Lab will begin in-house PCR testing of cerebrospinal fluid (CSF) specimens for varicella zoster virus (VZV). The real-time PCR assay is in-house developed and New York State Department of Health (NYS DOH) approved. With the addition of the VZV PCR from CSF to our in-house menu, we now offer a new panel in eRecord: Virus Meningitis/Encephalitis Panel consisting of herpes simplex virus (HSV) PCR, enterovirus (EV) PCR and VZV PCR.

PCR, and to a lesser extent other forms of nucleic acid amplification testing (NAAT), are now a standard part of the diagnostic evaluation of viral meningitis and meningoencephalitis. PCR is more sensitive than culture for detecting the most common viruses that cause meningitis and meningoencephalitis in children and adults: herpes simplex virus (HSV), VZV (varicella-zoster virus) and enteroviruses (EV) in CSF samples. PCR also provides more rapid results that can facilitate more timely initiation of therapy. However, despite extensive clinical and laboratory data supporting the use of NAAT for CSF samples, providers often still request viral culture, presumably thinking that viruses not specifically targeted by molecular tests might be recovered. Unfortunately, the viruses that cause viral meningitis and meningoencephalitis often are not recovered in culture. For this reason, viral culture of CSF will be eliminated and will be replaced by the Virus meningitis/encephalitis panel (HSV, VZV and enterovirus).

While not as comprehensive as the NY State encephalitis panel the virus meningitis/encephalitis panel includes the most common viruses found in CSF and results will be reported within 24-48 hours. The NY State panel includes a longer list of pathogens, most notably arboviruses, but results often take weeks to a month for completion. CSF specimens are archived in our laboratory so that initially ordering the virus meningitis/encephalitis panel and following up with add on tests if the initial results are negative is an option if enough CSF specimen remains.

If you have any questions please contact Kim Handley, Virology Supervisor, at (585) 275-7801 or e-mail: Kimberly_Handley@urmc.rochester.edu or Dr. Marilyn Menegus at (585) 275-7735 or e-mail: Marilyn_Menegus@urmc.rochester.edu.