



Messenger

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Infectious Disease: Worldwide View, Local Readiness

The growing ability of clinical, public health and university-based laboratories to identify and characterize emerging pathogens is re-writing the world map of infectious agents.

Even when newly discovered agents elude efforts to be grown in a laboratory setting, molecular techniques that sequence genetic material bring a greater understanding of pathogenesis of newly recognized agents and place them in the panoply of known agents.

Travelers need to be informed, as the hazards posed by these agents are often associated with relatively restricted geographic areas and certain activities within those areas. These agents include:

Antibiotic resistant *Enterobacter* species: Researchers in China report the characterization of *Enterobacter huaxiensis* and *E. chuandaensis*, newly recognized agents of septicemia that are highly resistant to beta-lactam antibiotics. (Int J Syst Evol Microbiol online, Jan 7, 2019.)

MERS Coronavirus: Identified in 2012, this close relative of the SARS Coronavirus continues to cause infections primarily in Saudi Arabia, with a total of 2279 laboratory-confirmed cases and a case fatality rate of 35%. (ProMED Mail, Jan 11, 2019.)

Medical Tourism Infections: U.S. residents have returned from surgery in Mexico with infections caused by VIM-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA). (CDC alert, Jan 9, 2019.)

Influenza A H7N9: Public health authorities have reported a total of 1,567 cases and a fatality rate of 39.3% for influenza A H7N9 infections in humans since its discovery in 2013, largely for individuals who have contact with live poultry or poultry markets in China. (Food and Agriculture Organization of the United Nations, Jan 9, 2019).

Ebola virus: In 2018, health authorities responded to two separate outbreaks of Ebola virus in the Democratic Republic of the Congo. Fortunately, vaccine is now available to contain outbreaks. However, the conditions remain for a globe-threatening outbreak such as occurred in West Africa in 2014-15.

Polio virus: While the number of cases detected indicate that the virus might be eliminated from the planet in the near future, new cases continue to appear

in Pakistan and Nigeria.

Influenza A H5N1: Though human cases were detected in 1997, a dramatic spread of this strain in 2003 throughout Asia and Africa brought worldwide attention to this dangerous virus. With a mortality rate of 60%, the strain has settled into a smoldering endemic mode in Indonesia, Vietnam, Egypt, Bangladesh, India and China, causing infrequent human cases usually associated with contact with poultry.

The County of San Luis Obispo Public Health Laboratory remains prepared to stand up any assay for which a need is identified to deal with any of these agents.

Mycoplasma genitalium Testing Now Available at SLO Public Health Laboratory

The Public Health Laboratory announces the availability of the *M. genitalium* (Mgen) amplification test (test # 2870), employing the APTIMA transcription-mediated amplification technology.

The indications for testing are similar to that of chlamydia and gonorrhea, and Mgen can infect asymptotically. However, refractory urethritis or epididymitis in males and cervicitis or PID in females should prompt a suspicion of Mgen infection.

Through February 28, 2019, Mgen testing (test #2870) will be performed without a charge for non-profit providers.

This will help the laboratory gain a better understanding of the disease burden caused by this emerging pathogen. Non-profit providers, please mark requisitions: "NO CHARGE MGEN SURVEILLANCE."

Please note that two APTIMA urine collection tubes are requested if chlamydia, *N. gonorrhoeae* or trichomoniasis amplification tests are ordered together with an Mgen amplification test.

For collection supplies, contact the laboratory at 805-781-5507.

Holiday Hours

The County of San Luis Obispo Public Health Laboratory will be closed:

- Tuesday, February 12, George Washington Day
- Monday, February 18, Presidents' Day

Our courier pick-up will resume on the next scheduled business day.

Questions? Please contact the Laboratory Director at 805-781-5512 or jbeebe@co.slo.ca.us.

