SLO Public Health Laboratory Bulletin

January 2010

***Burkholderia pseudomallei*, recovery and confirmation, January 2010.**

This month a local clinical laboratory and the San Luis Obispo Public Health Laboratory (SLO PHL) collaborated on the recovery and identification of a very unusual bacterium, ***Burkholderia pseudomallei***, a select agent and recognized agent of bioterrorism.

The isolate was recovered from a finger abscess of an otherwise healthy young woman and rapidly determined by the sentinel laboratory testing algorithm that it could not be ruled out as a Burkholderia species, not was it the often-identified ***B.cepacia***. Quickly referred to the SLO PHL, the isolate was identified by polymerase chain reaction (PCR) testing to be ***B pseudomallei***.

B pseudomallei. (Bp) is the agent of Melioidosis, an illness that can manifest as a pneumonia, sepsis, cutaneous abscesses or abscesses of internal organs. The incubation period can vary from days to years after exposure. Illness has been called "Viet Nam time-bomb" because members of the armed forces who served in South East Asia were documented with an explosive sepsis, months or years after returning to US. A case is on record of man who served in Pacific in World War II and became ill after over six decades after exposure.

Bp is an intracellular parasite with a pronounced tendency to assume a latent state, and to cause illness long after exposure. Exposures usually occur in tropical zones, especially South East Asia and northern Australia. But the organism can recovered from soil in tropical zones around the world. Travel to these areas is usually discovered in cases of Bp infection in US residents

Bp a tropical soil saprophyte. In the laboratory, it often exhibits wrinkled colonies on solid medium, is motile, oxidase–positive, weakly catalase positive, and arginine dihydrolase positive. On gram stain, bipolar staining may be observed. Rapid Identification systems may give an incorrect identification (example Emerging Infectious Diseases 15:799) while the preparation of samples for such a rapid ID system may result in an occupational exposure to this pathogen.

Clinical laboratory staff reported that this isolate grew quickly, behaving like many faster-growing gram-negative bacilli and in contrast to slower-growing Brucella, Yersinia pestis and Franciscella species and cited the wet workshop training on bacterial agents of bioterrorism held at Cuesta College in 2008 as particularly helpful to prepare to recognize this organism.

Pandemic H1N1 2009 Influenza virus

Transmission of the pandemic H1N1 2009 influenza virus continues, but at a very reduced rate. Seasonal H1 and H3 Type A virus are yet to be detected by the SLO Public Health Laboratory this year.

Packaging and Shipping Training—2010 Save that date information!

A workshop presented by nationally-recognized CDC expert Pat Payne, has been scheduled for MAY 20 in San Luis Obispo. This one-day program provides a comprehensive overview of regulations applicable to Packaging and Shipping human and animal specimens for laboratory testing.

FAA regulations require that individuals who perform packaging and shipping receive training **every three years**. The FAA is notable for on-site, unannounced inspections of laboratories requesting the shipping and training records for all staff assigned these duties.

If you intend to register when on-line registration becomes available through the National Laboratory Training Network (NLTN) call Trudy Hodge at 805-781-5507 or thodge@co.slo.ca.us and indicate the desired location for your attendance.

What else does a public health laboratory do besides flu testing?

The SLO PHL has recently detected two outbreaks of Norovirus in institutional settings. The RT-PCR assay performed by the SLO PHL will detect the virus in stool, but not food or water at the present time. The type of Norovirus group detected is been consistently Group 2 Norovirus.