



June 14, 2006

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TECHNICAL BULLETIN

NEW TEST ANNOUNCEMENT

***Mycobacterium tuberculosis* (TB) Culture by MGIT™ and (AFB) Smear**

An estimated one-third of the world's human population have been infected by *M. tuberculosis* and each year about nine million people become seriously ill with and two million people die of active TB. In 2004, the State of Hawaii reported new TB cases at the rate of 9.2 new cases per 100,000 people – highest in the nation and almost double the U.S. rate of 4.9 new cases per 100,000 population. In one study of non-U.S.-born individuals at a local TB clinic, 50% of individuals tested positive for latent TB infection. This suggests a high infection rate among certain immigrant populations.

Certain co-morbid conditions may result in decreased individual immune states that permit latent infections to become active disease. Patients may then experience unexplained weight loss, loss of appetite, night sweats, fever and fatigue. Respiratory symptoms include coughing that lasts three weeks or more that results in chest pain and bloody sputum expectorated.

Patients with active tuberculosis may produce sputum bearing live *M. tuberculosis* organisms. When properly processed and concentrated positive sputum specimens may yield organisms that demonstrate characteristic (acid-fast) staining properties and form slow-growing colonies when planted on the appropriate selective media. Presence of the organism confirms its causative role in the active disease.

Specimens will be inoculated into BD non-radiometric Mycobacteria Growth Indicator Tubes (MGIT™). Tubes are then monitored for mycobacterial growth by a BD Bactec™ instrument.

Please see back page for further information or contact any of our client services representatives:

Oahu	677-7998
Hawaii	961-5812
Kona	322-4126
Kauai	245-7775
Maui	244-5567

(Over for more information)

NEW TEST INFORMATION

***Mycobacterium tuberculosis* (TB) Culture by MGIT and (AFB) Smear**

<i>Specimen Requirements</i>	<i>5-10 mL sputum, tracheal or bronchial aspirates, spinal fluid, other non-serum body fluids or urine. First morning specimens preferred for sputum and urine. Tissue may also be tested. Submit in leak-proof, sterile container</i>
<i>Specimen Stability</i>	<i>Ambient: Two hours Refrigerated: Four days Frozen (-20°C): Not acceptable</i>
<i>Effective Date</i>	<i>July 25, 2006</i>
<i>Testing Site</i>	<i>St. Francis Medical Center – West Microbiology Laboratory</i>
<i>Reference Range</i>	<i>Culture: Culture negative for Acid-fast bacilli (after eight weeks) Smear: No Acid-fast bacilli seen</i>
<i>Testing Schedule</i>	<i>Culture and smear done daily</i>

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