



Bureau of Public Health Laboratories (BPHL) Jacksonville - Miami - Tampa

Tuberculosis Testing

Tuberculosis (TB) is an infectious disease caused by the bacterium *Mycobacterium tuberculosis* complex (MTBC). TB is primarily spread through the air from people that have active infections in their lungs but infection can also occur in other parts of the body. Worldwide, the incidence of TB is estimated at 10 million (range, 8.9 – 11.0 million). In 2021, there were 7,860 new cases of TB reported in the United States. Four states (California, Texas, New York and Florida) made up half of these cases, with Florida reporting 499 cases. If left untreated, transmission can occur to other people and TB infection can be fatal. However, with accurate diagnosis patients can receive the treatment they need and make a full recovery and ultimately prevent spread to other individuals. The mycobacteriology laboratory at the Florida Department of Health (DOH) Bureau of Public Health Laboratories (BPHL) performs state-of-the-art testing and provides reference and diagnostic testing that supports county health departments, hospital and private laboratories across the state.

Highlights/Specialties

- BPHL provides TB/mycobacteriology testing services Monday through Saturday and receives a high volume of specimens, performing a range of tests – 16,000 specimens or isolates received in 2021.
- BPHL performs essential molecular testing directly on the clinical sample for fast and accurate results. Molecular testing includes:

- Nucleic Acid Amplification Test (NAAT) for detection of TB, performed directly on the specimen of first-time TB-suspect patients and reported within 48 hours of receipt in the laboratory
- “Multi-Drug Resistance (MDR) Screen” for detection of drug resistance in specimens that are positive for TB by the NAAT, reported within 96 hours



- BPHL performs drug susceptibility testing to 12 different anti-TB drugs by a growth-based method. Since TB is a slow-growing bacterium, this can take several weeks, highlighting the importance of molecular testing for drug resistance (the MDR Screen) that give clinicians preliminary information quickly regarding best treatment for the patient and strategy for contact investigation.



- BPHL is a leader in TB diagnostics and provides training to Medical Laboratory Science students, clinical and public health laboratorians, medical residents and DOH staff. BPHL collaborates with TB experts in the U.S. and abroad, sharing best practices and research on advanced diagnostic testing methodologies. BPHL works closely with the Southeastern National TB Center at UF's Emerging Pathogens Institute in Gainesville.

**Contributing to a Healthier Florida
One Test at a Time**