Mycobacterium tuberculosis Laboratory Testing Practices—Connecticut, January 2014–June 2015

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Background: *Mycobacterium tuberculosis* continues to cause disease and death in the United States despite being treatable and preventable. Understanding tuberculosis (TB) laboratory capacity and testing practices is important for ensuring timely and appropriate treatment of patients and reporting to public health departments. This study was implemented to determine the capacity of laboratories in Connecticut for TB testing including volume and type of testing performed, patterns of referral for specialized testing and reporting practices for results including timeliness.

Methods: In total, 31 hospital and commercial laboratories and the state public health laboratory (PHL) were surveyed. Information collected included types of tests used for TB diagnosis, volume of testing and staffing, use of the state PHL, and reporting practices to the state health department. Responses from hospital and commercial laboratories were analyzed separately from the state PHL which serves as the TB reference laboratory.

Results: All 30 hospital and commercial laboratories surveyed responded. Seven of the 30 laboratories (23%) indicated that they do not process or test clinical specimens for mycobacterial smear, nucleic acid amplification testing (NAAT) or culture. For the remaining 23 laboratories, the volume of acid fast bacilli specimens processed for an 18-month period ranged from 140 to 1348**.** Of those 23, 18 (78%) routinely sent clinical specimens to another laboratory for more specialized testing and of those 18, 15 (83%) referred specimens to the state PHL. The majority of laboratories culture (solid and broth) for *M. tuberculosis* (61%, 14/23) and of those, 57% (8/14) perform identification of acid-fast isolates. Specialized TB testing has limited availability in the state with 20% (6/30) performing an interferon gamma release assay, 27% (8/30) performing NAAT on clinical specimens, 10% (3/30) performing first-line drug susceptibility testing, and only one laboratory (3.3%) performing any second-line drug susceptibility testing. The three facilities sending specimens to commercial laboratories indicated two major factors for not referring to the state PHL—turn-around time (100%) and having a contract with another laboratory (67%). Approximately 87% (21/24) of laboratories that perform TB testing report *M. tuberculosis* findings to the state health department, and 38% report within one business day.

Conclusion: While the majority of laboratories in Connecticut process or test specimens for TB, including cultures, more specialized testing is only performed at a few laboratories. The results of this survey will be used to target training and improve partnerships between hospital and commercial laboratories and the state PHL.

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