CAHAN San Diego
California HEALTH ALERT NETWORK

Date: August 1, 2019
To: CAHAN San Diego Participants
From: Tuberculosis Control and Refugee Health Branch, Public Health Services

Nationwide Shortage of Tuberculin Skin Test Antigens: San Diego Recommendations for Patient Care and Public Health Practice

This health advisory informs healthcare providers that the Centers for Disease Control and Prevention (CDC) has issued an advisory that they are expecting a 3- to 10-month nationwide shortage of APLISOL®, one of two purified-protein derivative (PPD) tuberculin antigens licensed by the United States Food and Drug Administration (FDA) to perform tuberculin skin tests (TSTs). It also contains resource links and recommendations for local providers to avoid a decrease in tuberculosis (TB) testing capacity, including use of interferon-gamma release assay (IGRA) blood tests for those 2 years and older.

Key Points

- CDC is expecting a 3- to 10-month nationwide shortage of APLISOL®, one of two PPD tuberculin antigens licensed by the FDA to perform TSTs.
- The timeline of the potential shortage is subject to change by the manufacturer and status of the shortage can be monitored on the FDA's Current Shortages webpage.
- San Diego County Health and Human Services Agency recommends use of IGRA blood tests as a substitute for TSTs for those 2 years and older. Note that clinicians who use IGRAs should be aware of different test interpretation criteria for IGRAs as compared to TSTs.
- Prioritize allocation of IGRAs or TSTs in those at higher risk for TB using the San Diego TB Risk Assessment Tool and other resources found on sandiegoTBcontrol.org. IGRA testing is available via commercial laboratories.
- Individuals requiring an assessment for pre-K, K-12, and community college entry, employment, or volunteering may meet criteria for TB clearance using a TB risk assessment. If no risks are identified, no TB test is required. The risk assessment and certificate for this purpose may be accessed on the CDPH website.
- Healthcare personnel in California are still required to undergo annual TB testing as mandated in California Code of Regulations Title 8, Section 5199 (Aerosol Transmissible Diseases Standard) and Title 22, Division 5.
- Clinical consultation for latent and/or active TB diagnosis and treatment is available by contacting the County TB Control and Refugee Health Branch via email or by calling 619-692-5565.

Resources

Federal / National

- CDC Health Alert: "Nationwide Shortage of Tuberculin Skin Test Antigens: CDC Recommendations for Patient Care and Public Health Practice" weblink: https://emergency.cdc.gov/han/HAN00420.asp
- FDA's "Center for Biologics Evaluation and Research (CBER)-Regulated Products: Current Shortages" webpage: https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/cber-regulated-products-current-shortages
- Official American Thoracic Society/Infectious Diseases Society of America/Centers for Disease Control and Prevention Clinical Practice Guidelines: Diagnosis of Tuberculosis in Adults and Children (2017): https://academic.oup.com/cid/article/64/2/e1/2629583
- Red Book®: 2018-2021 Report of the Committee on Infectious Disease: Tuberculosis: [requires subscription] https://redbook.solutions.aap.org/chapter.aspx?sectionid=192296204&bookid=2205

State

- California Department of Public Health risk assessment tools for adults, children and for school and university entry: https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Risk-Assessment.aspx

Local

- San Diego TB Risk Assessment Tool for adults and children
- sandiegoTBcontrol.org – contains multiple provider and consumer resources
- Clinical consultation for Latent and/or active TB diagnosis and treatment is available by contacting the County TB Control and Refugee Health Branch via email or by calling 619-692-5565.

Thank you for your participation.

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This is an official

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Nationwide Shortage of Tuberculin Skin Test Antigens: CDC Recommendations for Patient Care and Public Health Practice

Summary
The Centers for Disease Control and Prevention (CDC) is expecting a 3 to 10 month nationwide shortage of APLISOL®, a product of Par Pharmaceuticals. APLISOL® is one of two purified-protein derivative (PPD) tuberculin antigens that are licensed by the United States Food and Drug Administration (FDA) for use in performing tuberculin skin tests. The manufacturer notified CDC that they anticipate a supply interruption of APLISOL® 5 mL (50 tests) beginning in June 2019, followed by a supply interruption of APLISOL® 1 mL (10 tests) in November 2019. The expected shortage of APLISOL® 1 mL (10 tests) could occur before November 2019, if demand increases before then. The 3-10 month timeframe for the nationwide shortage is the manufacturer's current estimate and is subject to change.

To monitor the status of this supply interruption, visit FDA's "Center for Biologics Evaluation and Research (CBER)-Regulated Products: Current Shortages" webpage: https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/cber-regulated-products-current-shortages.

Background
Two types of immunological methods are used for detecting *Mycobacterium tuberculosis* infection: tuberculin skin tests (TSTs) and interferon-gamma release assay (IGRA) blood tests. TSTs and IGRAs are used for diagnosing latent TB infection and may aid in diagnosing TB disease. Additional evaluation and testing is necessary to distinguish between latent TB infection and TB disease, and to determine the correct treatment (1). When findings, such as chest radiography and mycobacterial cultures, are sufficient for confirming or excluding the TB diagnosis, the results from a TST or an IGRA blood test might not be needed (1). Most TB cases in the United States are diagnosed with a set of findings including results from one of these tests.

Two FDA-approved PPD tuberculin antigens are available in the United States for use in performing TSTs: TUBERSOL® and APLISOL®. In controlled studies, the concordance between the two products is high (2).

When TB disease is strongly suspected, specific treatment should be started regardless of results from TST or an IGRA blood test (3,4).

Recommendations
CDC recommends three general approaches to prevent a decrease in TB testing capability because of the expected shortage of APLISOL®.

- Substitute IGRA blood tests for TSTs. Clinicians who use the IGRA blood tests should be aware that the criteria for test interpretation are different from the criteria for interpreting TSTs (3).
- Substitute TUBERSOL® for APLISOL® for skin testing. In cross-sectional studies, the two skin test products give similar results for most patients.

- Prioritize allocation of TSTs, in consultation with state and local public health authorities. Prioritization might require the deferment of testing some persons. CDC recommends testing only for persons who are at risk of TB (5-7). High-risk groups for TB infection include:
    - People who are recent contacts exposed to persons with TB disease;
    - People born in or who frequently travel to countries where TB disease is common;
    - People who currently or used to live in large group settings, such as homeless shelters or correctional facilities;
    - People with weaker immune systems, such as those with certain health conditions or taking certain medications that may alter immunity; and
    - Children, especially those under age 5, if they are in one of the risk groups noted above.

While overall test concordance is high, switching between PPD skin test products or between TSTs and blood tests in serial testing may cause apparent conversions of results from negative to positive or reversions from positive to negative. This may be due to inherent inter-product or inter-method discordance, rather than change in *M. tuberculosis* infection status (3,8). Clinicians should assess test results based on the person's likelihood of infection and risk of progression to TB disease, if infected (1).

In settings with a low likelihood of TB exposure, the deferment of routine serial testing should be considered in consultation with public health and occupational health authorities. Annual TB testing of health care personnel is not recommended unless there is a known exposure or ongoing transmission (8).

References

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Health Alert	Requires immediate action or attention; highest level of importance
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Health Update	Unlikely to require immediate action; provides updated information regarding an incident or situation
HAN Info Service	Does not require immediate action; provides general public health information

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##