TB and COVID-19: COMPARISONS and Tuberculosis (TB) Testing RECOMMENDATIONS

Common Clinical Features and Symptoms for Both TB Disease and COVID-19:
Cough, fever or chills, difficulty breathing, shortness of breath

Differences in Symptoms:

Tuberculosis (TB) Symptoms	COVID-19 Symptoms
Slow Onset (months) • Months to years = incubation period from exposure to symptoms. • History of exposure to a person with infectious TB could be years ago. (Note: contacts to infectious TB < 2 years from exposure have the greatest risk of TB infection progressing to TB disease.)	**Rapid onset (days)** • 2-14 days = incubation period from exposure to symptoms. • Recent within days from the history of contact with a COVID-19 positive person.
Cough: ≥ 3 weeks • Longer duration history of cough. • Productive cough, usually; sputum with or without blood (hemoptysis). • Cough not associated with smoking, allergy, colds.	**Cough: < 2 weeks** • Short duration history of cough. • Dry cough, generally not productive.
Shortness of breath: **late-onset** • Late-stage symptom of TB disease. • *Months* after the onset of other symptoms.	**Shortness of breath**: **early-onset** • *Soon* after the onset of symptoms (days).

Key differences:
TB has a longer incubation period (years) and slower onset of disease symptoms, weeks to months.
COVID-19 has a short incubation (days) and symptoms are more rapid in onset, 2-14 days.
Radiographic differences: Some radiographic presentations indicate TB (e.g., cavitary lesions) over COVID-19; consult with radiology or local health department TB program for more information on chest x-ray differences.

TB screening for COVID positive patients:
All COVID-19 cases should be screened for TB

- If TB symptoms are present:
  - Cough for > 3 weeks.
  - Fever, persistent for > 2 weeks.
  - Weight loss (significant) without explanation.
  - Night sweats.
- History of contact to infectious TB in the past (could be years in the past):
  - A careful inquiry into the history of exposure to TB in the community, in the family, or even a past episode of TB or latent TB infection in the same patient.
  - History of living in high TB burden country (most countries other than U.S., Canada, Western Europe, New Zealand, Australia).

Testing for TB, whether COVID positive or not, if TB symptoms suggestive of active TB disease:

- IGRA blood test (recommended), QuantiFERON or TSPOT; TST acceptable but consider BCG history.
- Chest X-ray (indicate on CXR order to rule out TB disease).
- Sputums for AFB and Culture (Sputum collection resource, multi-languages, available at CDC NPIN)
  - If symptoms suggestive, don't wait for IGRA blood test/CXR results, get 3 sputums, 8-24 hours apart with 1 collected first thing in the morning (at least 5 ml per sputum specimen);
  - **NAAT** (Nucleic Acid Amplification Test) ordered with *first sputum* – rapid method to detect *M. tb* presence; *minimum 5 ml sputum, > 5 ml preferred* as specimen used for multiple tests.

This publication was supported by the Nevada Department of Health and Human Services through Grant number NU52PS910224 from the the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Department nor the Centers for Disease Control and Prevention.