Recommended Sputum Sample Collection Schedule for Monitoring Smear and Culture Conversion in Suspected Pulmonary TB

Washington State Department of Health

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Purpose	Monitoring	Frequency	Number of specimens	Comments
DIAGNOSIS: Determine infectiousness **and** Confirmation of TB disease	Initial contact with the client	Collect 3 consecutive specimens	Minimum of 3 samples, with 1 collected early morning. If diagnosis was **confirmed** before the client is reported, collect 3 additional specimens to determine if infectious. *	At least 1 specimen collection should be observed. 3 samples for AFB smear and culture and 1 or 2 should also be sent for NAAT. At minimum, samples should be at least 8 hours apart.
FOLLOW-UP: Establish the earliest date a client can be considered non-infectious and can be removed from isolation	Smear conversion or smear improvement	Collect one sputum specimen every 7–10 days; with maximum of 3/month One specimen should be collected 55-60 days after treatment initiation If it is urgent to remove from isolation, upon the first negative smear follow with collecting one every other day. If any have a positive smear resume 7-10 day frequency	Total number of specimens will vary from client to client. When there is evidence of increasing difficulty with spontaneous sputum production collect a specimen every 10 days, not every 7 days. *	Collecting a specimen 55 – 60 days after treatment initiation provides valuable information about treatment response **Additional criteria to release from isolation** "Controlling Tuberculosis in the United States," 11/4/2005, Vol. 54, No. RR- 12, Page 9, Box 3
THERAPY RESPONSE: Monitor for response to treatment **and** Determine the need for extension of treatment	Culture conversion	One sample every 7 – 10 days, with maximum of 3 per month, until 2 consecutive sputum cultures are negative with no positive culture results thereafter. **Continue monthly collection until treatment completion for:** Rifamycin resistance MDR/XDR-TB and could also include HIV+	Until 2 consecutive sputum cultures are negative with no positive culture results thereafter.	If unable to produce sputa spontaneously then attempt induction. This should be undertaken before deciding that a client can no longer produce sputum.

* If unable to produce spontaneous sputum sample then attempt sputum induction.

https://www.cdc.gov/tb/publications/guidelines/pdf/Clin-Infect-Dis.-2016-Nahid-cid_ciw376.pdf

AFB Smear Results

Number of AFB found Fluorescent Microscopy 250x	450x	Reported as
0	0	No AFB seen
1-2 /30 fields	1-2 /70 fields	Exact count*
1-9/10 fields	2-18/50 fields	1+ Rare
1-9/ field	4-36/10 fields	2+ Few
10-90/field	4-36/field	3+ Moderate
>90/field	>36/field	4+ Many

*Recommend repeat specimen