

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

Purpose	Monitoring	Frequency	Number of specimens	Comments
<b><u>DIAGNOSIS:</u></b>  Determine infectiousness <b>and</b> 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 <b>confirmed</b> 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.
<b><u>FOLLOW-UP:</u></b>  Establish the <u>earliest date</u> 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  <b>Additional criteria to release from isolation</b> “Controlling Tuberculosis in the United States,” 11/4/2005, Vol. 54, No. RR- 12, Page 9, Box 3
<b><u>THERAPY RESPONSE:</u></b>  Monitor for response to treatment <b>and</b> 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 <u>cultures</u> are negative with no positive culture results thereafter.  <b>Continue monthly collection until treatment completion for:</b> Rifamycin resistance MDR/XDR-TB and could also include HIV+	Until 2 consecutive sputum <u>cultures</u> 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/aboutAPHL/publications/Documents/ID-2018Apr-Guidelines-TB-Sputum-Submission.pdf>

## AFB Smear Results

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

\*Recommend repeat specimen