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

Virginia Department of Health Tuberculosis Program

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| Purpose |  Monitoring | Frequency | Number of specimens | Comments |
| Determine infectiousness**and**Confirmation of TB disease | Initial contact with client | Collect 3 consecutive specimens | Minimum of 3 samples, with one collected in the early morning.If diagnosis was **confirmed** before the client was reported, collect 3 additional specimens to determine if infectious. | At least one specimen collection should be observed/coached by HD staff. At minimum, samples should be at least 8 hours apart.[Guidance for high quality sputum collection.](https://www.aphl.org/programs/infectious_disease/tuberculosis/Documents/April_2018_Guidelines%20for%20Submission%20of%20Sputum%20Specimens%20for%20Tuberculosis%20Testing.pdf)Submit specimens to the lab as soon as possible. Do not hold and submit specimens in a batch.  |
| Establish the earliest date a client can be considered non-infectious and can be removed from isolation | Smear conversion or smear improvement\* | Collect one specimen every 7–10 days; with maximum of 3/monthOne specimen should be collected 55-60 days after treatment initiationIf 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 7 days, not every 10 days | Single specimens should be observed by HD staff when feasible.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](https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5412a1.htm),” 11/4/2005, Vol. 54, No. RR- 12, Page 9, Box 3 |
| Monitor for response to treatment**and** Determine need for extension of treatment | Culture conversion | Collect one sample every 7-10 days, with maximum of 3/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; HIV+ | Until 2 consecutive sputum cultures are negative with no positive culture results thereafter. | Single specimens should be observed by HD staff when feasible.If unable to produce sputa spontaneously, several 20 minute induction attempts on different days, including early AM, should be undertaken before deciding that a client can no longer produce sputum. |

\*A smear result from DCLS that indicates ‘**1-2 AFB seen’**, is not classified as negative or positive. The result includes language that recommends collection of another specimen. Prior to collecting another specimen, consider the case at hand, and whether a case management decision needs to be made based on this result.  Do not hesitate to reach out to the TB Program or treating clinician to discuss the result and decide on next steps.

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