

Supporting table 1: Smear result by HIV infection status (culture as reference standard, per-specimen) (N=575*)

Smear Method	Culture results (n) ³			Sensitivity (95% CI) ¹	P-value ²	Specificity (95% CI) ¹	P-value ²	PPV	NPV
	MTB not detected	MTB detected	Contaminated						
HIV Uninfected (N=98)									
	(n=75)	(n=17)	(n=0)	(n=17)		(n=81)			
Direct smear positive	1	14	0	14 82.4% (56.8-100%)	1.000	80 98.8% (96.3-100%)	1.000	14/15 93.3%	80/83 96.4%
Concentrated smear positive	2	14	0	14 82.4% (56.8-100%)	1.000	79 97.5% (95.0-100%)	1.000	14/16 87.5%	79/82 96.3%
SMF smear positive	1	13	0	13 76.5% (44.4-100%)		80 98.8% (96.4-100%)		13/14 92.9%	80/84 95.2%
HIV Infected (N=477)									
	(n=318)	(n=151)	(n=8)	(n=151)		(n=318)			
Direct smear positive	6	88	0	88 58.3% (47.5-69.0%)	0.0003	312 97.4% (94.9-98.9%)	0.0625	88/94 93.6%	312/375 83.2%

Concentrated smear positive	9	92	0	92 60.9% (50.0-71.8%)	<0.0001	309 96.4% (93.7-98.2%)	0.0078	92/99 91.1%	309/368 84.0%
SMF smear positive	1	68	0	68 45.0% (32.6-57.5%)		317 98.7% (96.7-99.6%)		68/69 98.6%	317/400 79.3%

* Two patients did not have HIV results available; one provided three sputum specimens and the other one specimen (total missing n=4)

MTB= Mycobacterium tuberculosis; CI= Confidence interval; PPV= Positive predictive value; NPV= Negative predictive value

¹ Ratio estimators used to adjust confidence intervals for specimen clustering resulting from multiple specimens per participant

² P-values calculated using McNemar's test. All comparisons are against SMF smear method

³ Includes any culture-positive (MGIT or Lowenstein-Jensen media) result for same specimen