

Supplemental Digital Content 1: Study participant inclusion flow-chart.

Supplemental Digital Content 2: MLR cutoffs identifying TB confirmed patients with corresponding sensitivity, specificity, positive predictive value, negative predictive value and area under curve values. The optimal MLR cutoff above 0.378 had sensitivity 78.6%, specificity 77.4%, positive predictive value 23.9%, and negative predictive value 97.6%.

MLR Distribution Percentile	MLR Cutoff Value	Sensitivity (%), 95% CI	Specificity (%), 95% CI	Positive Predictive Value (%), 95% CI	Negative Predictive Value (%), 95% CI	Area Under Curve, 95% CI
5 th	0.069	100 (77.2, 100)	4.8 (2.4, 9.6)	8.6 (5.1, 14.2)	100 (64.6, 100)	0.52 (0.51, 0.54)
10 th	0.094	92.3 (66.7, 98.6)	9.7 (5.8, 15.6)	8.4 (4.9, 14.1)	93.3 (70.2, 98.8)	0.51 (0.43, 0.59)
25 th	0.148	92.3 (66.7, 98.6)	26.2 (19.7, 33.9)	10.1 (5.9, 16.8)	97.4 (86.8, 99.6)	0.59 (0.51, 0.68)
50 th	0.214	84.6 (57.8, 95.7)	53.1 (45.0, 61.0)	13.9 (8.0, 23.2)	97.5 (91.2, 99.3)	0.69 (0.58, 0.80)
73.4 th	0.378*	76.9 (49.7, 91.8)	77.9 (70.5, 83.9)	23.8 (13.5, 38.5)	97.4 (92.7, 99.1)	0.74 (0.58, 0.89)
95 th	1.043	15.4 (4.3, 42.2)	95.9 (91.3, 98.1)	25.0 (7.1, 59.1)	92.7 (87.4, 95.9)	0.56 (0.45, 0.66)
< 5 th and > 95 th	-	15.4 (4.3, 42.2)	91.0 (85.3, 94.7)	13.3 (3.7, 37.9)	92.3 (86.8, 95.7)	0.53 (0.43, 0.64)

*Optimal MLR cut-off value defined by the maximum value of Youden's index, J, where $J = \text{sensitivity} + \text{specificity} - 1$.

Supplemental Digital Content 3A: Median blood monocyte count by visit week and TB classification.

Time from Enrollment (weeks)	Overall median (IQR ^a), n	TB Confirmed median (IQR), n	TB Unconfirmed median (IQR), n	TB Unlikely median (IQR), n	TB Confirmed p-value ^b	TB Unconfirmed p-value ^b
0	1.10 (0.64 - 1.87), 158	1.68 (1.14 - 2.19), 13	0.89 (0.61 - 1.79), 66	1.09 (0.65 - 1.86), 79	0.07	0.58
4	0.66 (0.43 - 1.12), 124	0.94 (0.54 - 1.11), 9	0.72 (0.43 - 1.51), 54	0.62 (0.36 - 0.88), 61	0.18	0.11
12	0.57 (0.33 - 0.93), 118	0.58 (0.34 - 1.66), 5	0.50 (0.33 - 0.90), 52	0.61 (0.32 - 0.91), 61	0.78	0.79
24	0.44 (0.30 - 0.76), 116	0.61 (0.26 - 0.96), 6	0.41 (0.29 - 0.75), 50	0.48 (0.33 - 0.72), 60	0.86	0.54

Supplemental Digital Content 3B: Median blood lymphocyte count by visit week and TB classification.

Time from Enrollment (weeks)	Overall median (IQR ^a), n	TB Confirmed median (IQR), n	TB Unconfirmed median (IQR), n	TB Unlikely median (IQR), n	TB Confirmed p-value ^b	TB Unconfirmed p-value ^b
0	5.15 (3.09 - 7.85), 159	3.85 (2.19 - 6.88), 13	4.86 (3.10 - 8.82), 67	5.49 (3.05 - 7.85), 79	0.28	0.91
4	5.71 (3.08 - 8.80), 124	4.03 (1.59 - 5.55), 9	5.02 (3.07 - 8.91), 54	6.53 (3.70 - 9.40), 61	0.02	0.4
12	6.24 (3.42 - 8.70), 118	3.29 (3.02 - 4.87), 5	6.02 (3.20 - 7.94), 52	6.73 (4.02 - 9.08), 61	0.07	0.21
24	5.48 (3.62 - 8.61), 116	3.55 (2.56 - 5.41), 6	5.10 (3.61 - 9.81), 50	6.05 (4.00 - 8.61), 60	0.1	0.57

^aInterquartile range.

^bWilcoxon two-sample test t approximation reported. Reference group is TB Unlikely.

Sensitivity Analysis 4: MLR trends including subjects who completed the study[#] and excluding subjects who did not complete the study[&].

[#]N=117 completed study

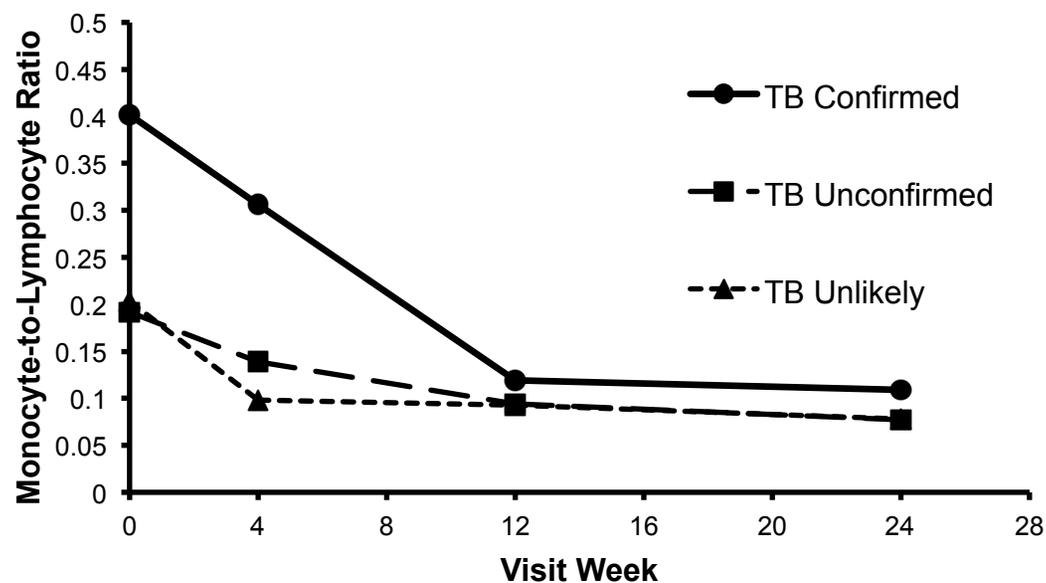
[&]N=44 (30 died, 7 refused further participation, 1 relocated, 5 lost to follow-up)

Supplemental Digital Content 4.1: Median blood monocyte to lymphocyte ratio (MLR) by visit week and TB classification among participants who completed the study, excluding those who died or were lost to follow-up.

Time from Enrollment (weeks)	Overall <i>median (IQR)^a, n</i>	TB Confirmed <i>median (IQR), n</i>	TB Unconfirmed <i>median (IQR), n</i>	TB Unlikely <i>median (IQR), n</i>	TB Confirmed p-value ^b	TB Unconfirmed p-value ^b
0	0.204 (0.140 - 0.353), 115	0.402 (0.378 - 0.825), 6	0.192 (0.142 - 0.314), 49	0.203 (0.136 - 0.332), 60	0.03	0.8
4	0.114 (0.080 - 0.206), 114	0.306 (0.108 - 0.581), 6	0.139 (0.093 - 0.217), 50	0.098 (0.074 - 0.151), 58	0.04	0.01
12	0.095 (0.065 - 0.145), 115	0.119 (0.115 - 0.532), 5	0.094 (0.065 - 0.141), 50	0.093 (0.051 - 0.146), 60	0.22	0.71
24	0.078 (0.055 - 0.121), 116	0.109 (0.048 - 0.348), 6	0.077 (0.054 - 0.119), 50	0.078 (0.057 - 0.119), 60	0.51	0.79

^aInterquartile range. ^bWilcoxon two-sample test t approximation reported. Reference group is TB Unlikely.

Supplemental Digital Content 4.2: Median blood monocyte-to-lymphocyte ratio over visit weeks from enrollment by TB classification (TB confirmed, unconfirmed or unlikely) among participants who completed the study.



Sensitivity Analysis 5: Comparison of MLR trends by treatment success or treatment failure/death before completing the study.

Supplemental Digital Content 5.1: Median blood monocyte to lymphocyte ratio (MLR) at enrollment among participants who had treatment success versus treatment failure/death.

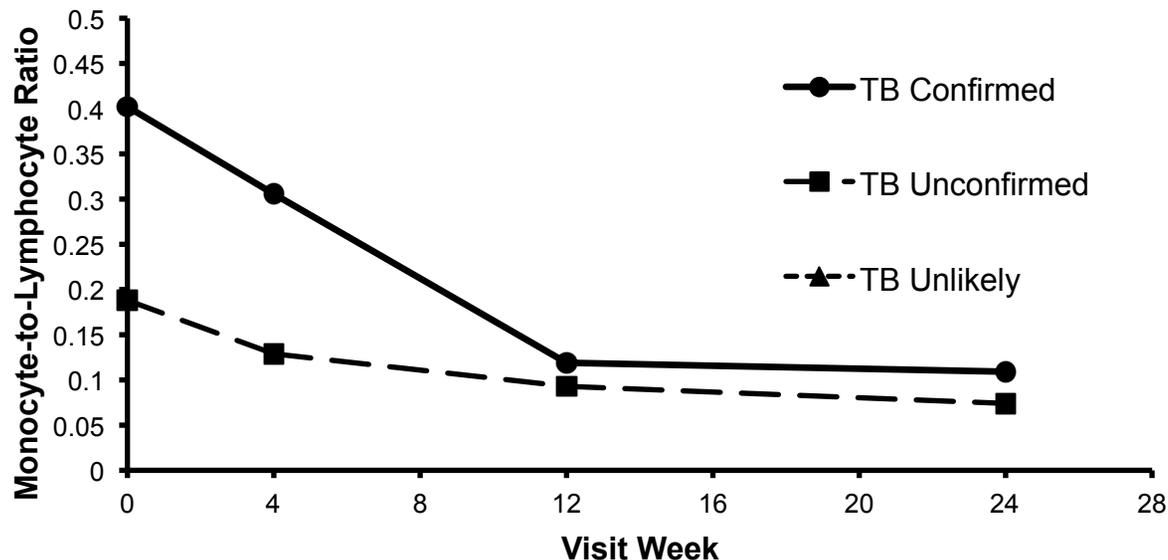
	<i>Median (IQR), n</i>	p-value
Enrollment MLR, treatment success	0.209 (0.147, 0.375), 40	0.06
Enrollment MLR, treatment failure/died	0.346 (0.271, 0.632), 8	
Overall ^a MLR, treatment success	0.119 (0.074, 0.214), 162 ^b	<0.01
Overall ^a MLR, treatment failure/died	0.286 (0.189, 0.589), 14 ^b	

^aMedian MLR over all time points; ^bNumber of timepoints.

Supplemental Digital Content 5.2: Median blood monocyte to lymphocyte ratio (MLR) by visit week and TB classification among participants who had TB treatment success.

Time from Enrollment (weeks)	Overall <i>median (IQR^a), n</i>	TB Confirmed <i>median (IQR), n</i>	TB Unconfirmed <i>median (IQR), n</i>	TB Unlikely <i>median (IQR), n</i>	TB Confirmed p-value ^b	TB Unconfirmed p-value ^b
0	0.209 (0.147 - 0.375), 40	0.402 (0.378 - 0.825), 6	0.188 (0.142 - 0.348), 34	-	-	-
4	0.139 (0.088 - 0.224), 40	0.306 (0.108 - 0.581), 6	0.129 (0.085 - 0.214), 34	-	-	-
12	0.100 (0.065 - 0.128), 38	0.119 (0.115 - 0.532), 5	0.093 (0.065 - 0.121), 33	-	-	-
24	0.076 (0.054 - 0.122), 37	0.109 (0.048 - 0.348), 6	0.074 (0.054 - 0.114), 31	-	-	-

^aInterquartile range; ^bWilcoxon two-sample test t approximation reported. Reference group is TB Unlikely.

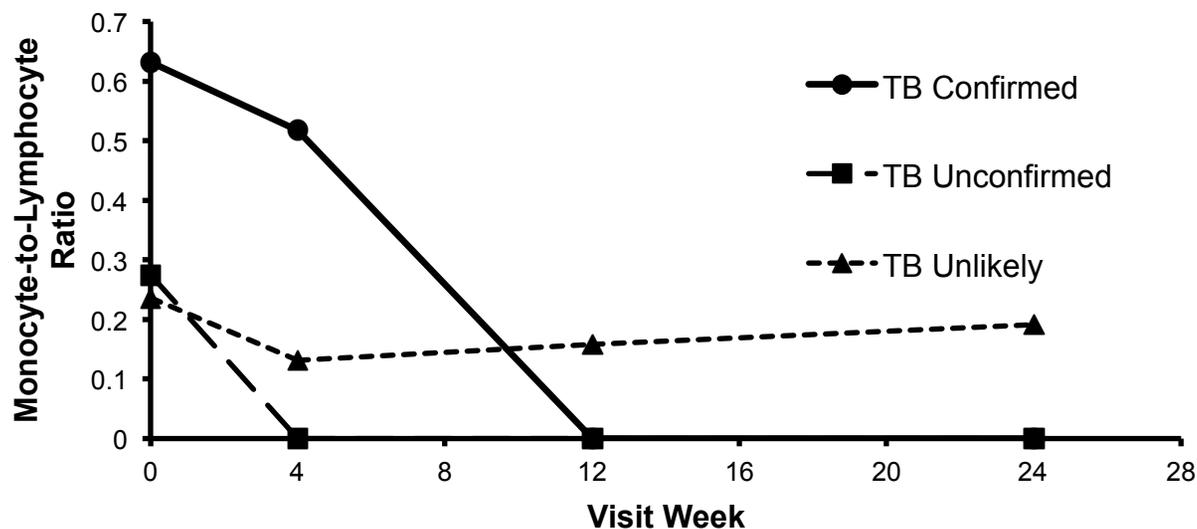


Supplemental Digital Content 5.3: Median blood monocyte-to-lymphocyte ratio over visit weeks from enrollment by TB classification (TB confirmed, unconfirmed or unlikely) among participants who had TB treatment success.

Supplemental Digital Content 5.4: Median blood monocyte to lymphocyte ratio (MLR) by visit week and TB classification among participants who had TB treatment failure or who died.

Time from Enrollment (weeks)	Overall median (IQR) ^a , n	TB Confirmed median (IQR), n	TB Unconfirmed median (IQR), n	TB Unlikely median (IQR), n	TB Confirmed p-value ^b	TB Unconfirmed p-value ^b
0	0.346 (0.271 - 0.632), 8	0.632 (0.495 - 1.269), 4	0.275 (0.259 - 0.291), 2	236 (0.189 - 0.282),	0.17	0.72
4	0.340 (0.131 - 0.694), 3	0.517 (0.340 - 0.694), 2	-	131 (0.131 - 0.131),	0.6	-
12	0.158 (0.158 - 0.158), 1	-	-	158 (0.158 - 0.158),	-	-
24	0.191 (0.191 - 0.191), 1	-	-	191 (0.191 - 0.191),	-	-

^aInterquartile range; ^bWilcoxon two-sample test t approximation reported. Reference group is TB Unlikely.



Supplemental Digital Content 5.5: Median blood monocyte-to-lymphocyte ratio over visit weeks from enrollment by TB classification (TB confirmed, unconfirmed or unlikely) among participants who had TB treatment failure or who died.

Supplemental Digital Content 5.6: Association of TB confirmed and TB unconfirmed groups with monocyte-lymphocyte ratio (MLR) over all study intervals among patients who had TB treatment success or had TB treatment failure or died.

		MLR, TB treatment success			MLR, TB treatment failure/death		
		β^a	SE ^b	Model p-value	β	SE	Model p-value
TB Confirmed	<i>Unadjusted model</i>	-	-	-	0.60	0.24	0.01
TB Unconfirmed	<i>Unadjusted model</i>	-	-	-	0.10	0.01	<0.01
TB Unlikely		ref			ref		

^aParameter estimate; ^bStandard error.