

Online supplementary tables:

Table S 1 Odds ratios of single risk factors as calculated by univariate regression analyses.

	Risk factors	Odds ratio	95% CI	p-value
Patients tested with TST (n=1524)*				
TST	Prior TB	7.55	3.77 – 15.10	< 0.001
	Contact	5.03	3.10 – 8.18	< 0.001
	CXR	10.63	4.89 – 23.12	< 0.001
Patients tested with QFT and TST (n=683)*				
QFT	Prior TB	7.76	2.95 – 20.47	< 0.001
	Contact	1.28	0.38 – 4.36	0.689
	CXR	5.73	1.43 – 22.87	0.050
TST	Prior TB	5.56	2.24 – 13.82	< 0.001
	Contact	3.96	1.88 – 8.35	< 0.001
	CXR	4.33	1.20 – 15.66	0.015
Patients tested with TSPOT and TST (n=841)*				
TSPOT	Prior TB	16.74	5.62 – 49.81	< 0.001
	Contact	3.77	1.83 – 7.77	< 0.001
	CXR	105.3	23.47 – 472.1	< 0.001
TST	Prior TB	10.49	3.58 – 30.73	< 0.001
	Contact	6.47	3.39 – 12.33	< 0.001
	CXR	20.46	7.34 – 57.04	< 0.001

*5 patients with missing prior TB/contact results were excluded, 2 in the QFT/TST group and 3 in the TSPOT/TST group.

Table S 2 Multivariate analysis of the influence of CRF and BCG vaccination on test results by rheumatic disease.

Disease and test	n*	Risk factor	Odds ratio	95% CI	p-value
RA (n = 852)					
TST	837	CRF	8.44	4.71 – 15.14	< 0.001
	837	BCG	2.78	1.44 – 5.38	0.004
QFT	354	CRF	0.60	0.08 – 4.66	0.625
	354	BCG	0.37	0.05 – 2.86	0.373
TSPOT	483	CRF	10.69	5.01 – 22.81	< 0.001
	483	BCG	0.78	0.24 – 2.60	0.689
PsA (n = 215)					
TST	211	CRF	1.98	0.61 – 6.38	0.253
	211	BCG	3.78	1.56 – 9.15	0.003
QFT	110	CRF	0 [†]		
	110	BCG	0 [†]		
TSPOT	101	CRF	3.54	0.56 – 22.33	0.179
	101	BCG	1.01	0.09 – 10.78	0.689
AS and undifferentiated SpA (n = 385)					
TST	380	CRF	7.88	3.44 – 18.05	< 0.001
	380	BCG	2.08	1.10 – 3.93	0.024
QFT	178	CRF	14.90	4.00 – 55.20	< 0.001
	178	BCG	0.31	0.08 – 1.20	0.089
TSPOT	202	CRF	5.22	1.34 – 20.40	0.017
	202	BCG	2.45	0.65 – 9.28	0.188

*Patients with missing CRF or BCG data were excluded (15 RA patients, 4 PsA patients, and 5 AS/SpA patients)

[†]Unable to calculate due to absence of patients with positive QFT and positive CRF or BCG status

Table S 3 Distribution and concordance of test results by disease groups.

Population	TST	IGRA		Concordance	Cohen's Kappa	p-value
		positive	negative			
Total (n=1,529)	positive	4.3% (66)	6.9% (106)	89.5%	0.396	< 0.001
	negative	3.5 (54)	85.2% (1302)			
RA (n=852)	positive	3.5% (30)	4.8% (41)	91.1%	0.393	< 0.001
	negative	4.1% (35)	87.6% (746)			
PsA (n=214)	positive	1.4% (3)	11.7% (25)	83.6%	0.069	0.270
	negative	4.7% (10)	82.2% (176)			
AS and SpA (n=386)	positive	7.3% (28)	9.3% (36)	88.4%	0.493	< 0.001
	negative	2.3% (9)	81.1% (313)			

Table S 4 Odds ratios for negative or indeterminate test results depending on prednisone dose or lymphocyte count in a subgroup of 507 patients.

Risk factor	Prednisone dose / Lymphocyte count	Odds ratio	95% CI	p-value
Patients tested with TST (n = 507)				
Prednisone	> 0 – 7.4 mg/day	0.62	0.34 – 1.13	0.157
	≥ 7.5 mg/day	0.66	0.33 – 1.34	0.324
Lymphocytes	< 1000/μl	1.35	0.65 – 2.86	0.556
	< 1500/μl	0.93	0.51 – 1.69	0.943
Patients tested with QFT and TST (n = 202)				
Prednisone	> 0 – 7.4 mg/day	0.47	0.15 – 1.49	0.307
	≥ 7.5 mg/day	0.99	0.26 – 3.75	0.748
Lymphocytes	< 1000/μl	2.56	0.73 – 9.09	0.259
	< 1500/μl	2.45	0.76 – 7.69	0.210
Patients tested with TSPOT and TST (n = 305)				
Prednisone	> 0 – 7.4 mg/day	2.74	0.90 – 8.30	0.107
	≥ 7.5 mg/day	1.62	0.68 – 3.89	0.390
Lymphocytes	< 1000/μl	1.89	0.70 – 5.00	0.328
	< 1500/μl	1.89	0.78 – 4.55	0.232