

Supplementary Table 1. Study characteristics of the included literature

Study	Population	No. of patients, disease type	Age, yr	Female sex	Concomitant medication	BCG vaccination, %	Mean disease duration, yr	Country setting	Comparison	Outcome: (1) positivity, (2) agreement
Low to moderate TB endemic region										
Shovman et al. (2009) [21]	35 RA patients	35 RA patients	60	23 (66)	MTX: 71% Prednisone: 60% Hydroxychloroquine: 42%	74	7.1	Israel	QFT-G vs. TST (>5 mm)	(1) 48% in TST, 11.4% in QFT-G (2) 56% b/w TST and QFT-G
Minguez et al. (2012) [16]	53 Patients with rheumatic diseases (RA 34%, AS 24.5%, PsA 17%, others 24.5%)	53 All rheumatic patients	49.6 ± 13.0	35 (66)	Previous steroid use: 39.6% Previous DMARDs: 73.6% Anakinra: 3 patients	6 (36 unknown)	8.8	Spain	QFT-GIT vs. TST (>5 mm), T-SPOT vs. TST	(1) 13.2% in TST, 17% in QFT-GIT, 20.8% in T-SPOT (2) 77.4% b/w TST and T-SPOT and QFT-GIT
	18 RA patients	18 RA patients	56.5 ± 8.6	16 (89)	DMARDs: 11 patients Steroids: 14 patients	NR	10.4	Spain		(1) 16.7% in TST, 22.2% in QFT-GIT, 22.2% in T-SPOT (2) 83.3% b/w TST and T-SPOT, 77.7% b/w TST and QFT-GIT
Mariette et al. (2012) [14]	392 Patients (128 RA, 178 SpA, 91 CD)	392 All rheumatic patients	45 (34–56)	162 (41)	Previous corticosteroid: 65.7% 35.7% Previous corticosteroid or immunosuppressant: 59.7%	65.7	NR	France	QFT-GIT vs. TST, TSPOT vs. TSPOT (>5 mm)	(1) 35.2% in TST, 9.9% in QFT-GIT, 15.1% in T-SPOT (2) 33.3% b/w TST and T-SPOT, 31.1% b/w TST and QFT-GIT
Vassilopoulos et al. (2011) [23]	155 Patients (74 RA, 35 PsA, 31 AS, 13 other SpA, 2 other)	155 All rheumatic patients	52 ± 16	90 (58)	DMARDs and/or steroids: 63% DMARDs: 52% Steroids: 43%	76	NR	Greece	TST (>5 mm) vs. T-SPOT, TST vs. QFT-GIT	(1) 37% in TST, 25% in T-SPOT, 21% in QFT-GIT (2) 71% b/w TST and T-SPOT, 54% TST and QFT-GIT
Vassilopoulos et al. (2008) [22]	70 Patients (32 RA, 18 AS, 12 PsA, 8 others)	70 All rheumatic patients	50.9 ± 16.9	37 (53)	DMARDs: 55.7% Steroids: 41.4%	40 (37.1 unknown)	NR	Greece	T-SPOT vs. TST (>5 mm)	(1) 38.6% in TST, 22.8% in T-SPOT (2) 72.9% b/w TST and T-SPOT
Saidenberg-Kermanac'h et al. (2012) [19]	123 Rheumatic patients (46 RA, 53 AS, 15 PsA, 9 others)	123 All rheumatic patients	50.4 ± 11.9	66 (54)	DMARDs: 47.9% DMARDs and corticosteroids: 28.5% Corticosteroids: 38.2%	56.1	NR	France	TST (≥6 mm) vs. QFT-GIT	(1) 47.2% in TST, 17.9% in QFT-GIT (2) 57% b/w TST and QFT-GIT

Supplementary Table 1. Continued

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Martin et al. (2010) [15]	150 Patients (87 RA, 37 PsA, 22 AS, 2 JIA, 2 others)	150 All rheumatic patients	50.1 (17-88)	91 (61)	DMARDs: 80.5%	82 (9.7 uncertain)	11.6	Ireland	QFT-GIT vs. TST, T-SPOT vs. TST (>5 mm)	(1) 18% in TST, 9.2% in T-SPOT, 7.1% in QFT-GIT (2) 81.1% b/w TST and T-SPOT, 82.9% b/w TST and QFT-GIT
Scrivero et al. (2012) [20]	119 Patients (61 RA, 40 PsA, 13 AS, 5 Behcet's disease)	119 All rheumatic patients	47 (18-80)	82 (69)	DMARDs: 16% DMARDs and glucocorticoids: 54.6% Glucocorticoids: 10.1% No immunosuppressant: 19.3%	5.8	NR	Italy	QFT-GIT vs. TST (>5 mm)	(1) 11.7% in TST, 4% in QFT-GIT GIT (2) 85.7% b/w TST and QFT-GIT
Klein et al. (2013) [11]	305 Patients (117 RA, 110 AS, 6 PsA, 72 JIA)	161 All rheumatic patients (pre-treatment patients number for both TST and QFT-G test)	44.18 ± 14.77	165 (54)	Glucocorticoids: RA 67.6%, AS 11.8%, PsA 83.3%, JIA 45.8% MTX: RA 63.2%, AS 14.5%, PsA 33.3%, JIA 58.3% Leflunomide: RA 14.5%, AS 1.8%, PsA 16.6%, JIA 12.5% Sulfasalazine: RA 5.9%, AS 25.4%, PsA 33.3%, JIA 12.5% No DMARDs/GC therapy: RA 11.1%, AS 65.4%, PsA 0%, JIA 18.1%	NR	NR	Czech	QFT-GIT vs. TST (>5 mm)	(1) 3.9% in QFT-GIT, 4.2% in TST (2) 66% b/w TST and QFT-GIT
Ringrose et al. (2011) [18]	91 Patients (not detailed demographic information provided for total population)	91 All rheumatic patients	55.7 (31-81)	7 (58) for only 12 positive population	NR	5 (3 uncertain) for only 12 positive population	NR	Canada	QFT-GIT vs. TST (≥10 mm)	(1) 26.4% in TST, 6.6% in QFT-GIT GIT (2) κ Coefficient 0.180 b/w TST and QFT-GIT (it was inverted to agreement % in analysis)

Supplementary Table 1. Continued

Study	Population	No. of patients, disease type	Age, yr	Female sex	Concomitant medication	BCG vaccination, %	Mean disease duration, yr	Country setting	Comparison	Outcome: (1) positivity, (2) agreement
High TB endemic region										
Chang et al. (2011) [6]	107 Patients (61 AS, 46 RA)	46 RA patients	52	45 (98)	Glucocorticoids: 67% MTX: 85%	BCG scars 21 patients (46)	NR	Korea	QFT-GIT vs. TST (> 10 mm)	(1) 20% in TST, 37% in QFT-GIT (2) 76% b/w TST and QFT-GIT
	61 AS patients	31	5 (8)	5 (8)	Glucocorticoids: 10% MTX: 5%	BCG scars 42 patients (69)	NR	Korea		(1) 44% in TST, 31% in QFT-GIT (2) 60% b/w TST and QFT-GIT
Marques et al. (2009) [13]	48 RA Patients	48 RA patients	49.71 ± 12.41	43	MTX: 62.5% Prednisone: 12.7 ± 6.7 mg/day (only dosage reported for prednisone)	100	10.2	Brazil	T-SPOT vs. TST (> 5 mm in RA)	(1) 1.4% in TST, 25% in T-SPOT (2) 89.6% b/w TST and T-SPOT (calculated from PPV, NPV, sensitivity, specificity in the paper)
Camlar et al. (2011) [5]	39 Patients with JIA	39 JIA patients	11.1 ± 4.2	21 (54)	MTX + steroid: 7.5% Steroid: 5% Sulfasalazine + steroid: 7.5% Sulfasalazine: 20%	33	NR	Turkey	QFT-GIT, TST (> 10 mm)	(1) 2.8% in TST, 5% in QFT-GIT (2) 66.7% b/w TST and QFT-GIT
Kim et al. (2013) [12]	724 Patients (497 RA, 198 AS, 29 JIA; detailed demography available for each disease group)	497 RA patients	54	425 (85.5)	MTX: 60.6% Glucocorticoids: 75.1% Prior TNF inhibitor: 6.8%	NR	NR	Korea	QFT-GIT vs. TST (> 5 mm)	(1) 28.2% in TST, 30.2% in QFT-GIT (2) 71.8% b/w TST and QFT-GIT
	198 AS patients	33.5	57 (28.8)	57 (28.8)	MTX: 23.7% Glucocorticoids: 47.0% Prior TNF inhibitor: 9.1%	NR	NR	Korea		(1) 45.5% in TST, 16.2% in QFT-GIT (2) 64.7% b/w TST and QFT-GIT

Supplementary Table 1. Continued

Study	Population	No. of patients, disease type	Age, yr	Female sex	Concomitant medication	BCG vaccination, %	Mean disease duration, yr	Country setting	Comparison	Outcome: (1) positivity, (2) agreement
		29 JIA patients	15-9	20 (69.0)	MTX: 72.4% Glucocorticoids: 51.7% Prior TNF inhibitor: 34.5%	NR	NR	Korea		(1) 17.2% in TST, 3.4% in QFT-GIT (2) 86.2% b/w TST and QFT-GIT
Ponce de Leon et al. (2008) [8]	101 RA patients	101 RA patients	57.6 ± 12.6	91 (90.1)	Prednisolone use: 91.1% MTX: 73.3%	80.2	NR	Peru	QFT-G vs. TST (> 5 mm)	(1) 26.7% in TST, 44.6% in QFT-G (2) 70.3% b/w TST and QFT-G
Chen et al. (2012) [7]	242 RA patients (detailed demography available for each pair of test result)	242 RA patients	54.7	192 (82.4)	MTX: 97.4% Sulfasalazine: 94.4% Daily steroid dose: 5.5 mg	97.9	9.0	Taiwan	QFT-G vs. TST (> 5 mm)	(1) 31.0% in TST, 18.6% in QFT-G (2) 80.3% b/w TST and QFT-G
Paluch-Oles et al. (2013) [17]	90 Patients (81 RA, 9 AS)	90 All rheumatic patients	53.1 (19-82)	67 (74.4)	NR	NR	NR	Poland	QFT-GIT vs. TST (> 5 mm)	(1) 28.9% in TST, 22.2% in QFT-GIT (2) 82% b/w TST and QFT-GIT
Hatemi et al. (2012) [9]	40 RA patients	40 RA patients	52.6 ± 13.5	29 (72.5)	MTX: 31 patients Sulfasalazine: 7 Prednisolone: 33	62.5 (BCG scar)	NR	Turkey	QFT-G vs. TST (> 5 mm)	(1) 22% in TST, 60% in QFT-G (2) 71% b/w TST and QFT-G
Xie et al. (2011) [24]	58 Patients (25 AS, 24 RA, 4 undifferentiated SpA, 3 PsA, 2 reactive arthritis)	58 All rheumatic patients	35.4 (16-71)	25 (43.1)	DMARDs: 58 patients Glucocorticoid: 16	89.7	6.6	China	T-SPOT vs. TST (> 5 mm)	(1) 20.7% in TST, 2.3% in T-SPOT (2) 68.6% b/w TST and T-SPOT

Supplementary Table 1. Continued

Study	Population	No. of patients, disease type	Age, yr	Female sex	Concomitant medication	BCG vaccination, %	Mean disease duration, yr	Country setting	Comparison	Outcome: (1) positivity, (2) agreement
Global region										
Hsia et al. (2012) [10]	2,282 Patients before golimumab treatment (67% RA, 17.6% PsA, 15.5% AS; 20.0% patients used biologics as previous treatment); pooled analysis from 5 phase III clinical trial data	2,282 All rheumatic patients	49.0	1,515 (65.8)	MTX: 1,269 patients DMARDs: 1,771 Corticosteroid: 1,539	34.2	60.8% were more than 3 years	Global (Asia, North/Latin America, Europe)	IGRA vs. TST (> 5 mm)	(1) 9.4% in TST, 7.0% in IGRAs (2) 87.2% b/w TST and IGRAs

Values are presented as number (%), mean ± SD, or median (range).

BCG, Bacille Calmette-Guerin; TB, tuberculosis; RA, rheumatoid arthritis; MTX, methotrexate; QFT-G, QuantiFERON-TB Gold; TST, tuberculin skin test; b/w, between; AS, ankylosing spondylitis; PsA, psoriatic arthritis; DMARDs, disease-modifying antirheumatic drugs; QFT-GIT, QuantiFERON TB-Gold (in tube format; Cellestis Ltd., Carnegie, Australia); T-SPOT.TB (Oxford Immunotec, Inc., Oxford, UK); NR, not reported; SpA, spondyloarthritis; CD, Crohn's disease; JIA, juvenile idiopathic arthritis; GC, glucocorticoid; PPV, positive predictive value; NPV, negative predictive value; TNF, tumor necrosis factor; IGRA, interferon-gamma release assays.