Heinz Holling, Walailuck Böhning and Dankmar Böhning:

Meta-Analysis of Diagnostic Studies based upon SROC-Curves

Appendix A: Meta-analytic diagnostic studies with primarily psychological background

Table A1: Meta-Analysis of Diagnostic Accuracy of Operating Characteristics of PET for comparison of control subjects with Alzheimer Disease

Study	Author	Disease		Non-disease		sensitivity	specificity
		TP	FN	FP	TN		
1	Azari et al., 1993	18	1	1	20	0.947	0.952
2	Burdette et al., 1996	33	6	5	35	0.846	0.875
3	Duara et al., 1989	44	6	10	19	0.880	0.655
4	Duara et al., 1989	44	6	19	22	0.880	0.537
5	Fazekas et al., 1989	27	1	4	21	0.964	0.840
6	Grady et al., 1990	20	13	0	41	0.606	1.000
7	Herholz, 1990	19	0	0	19	1.000	1.000
8	Herholz et al., 1993	33	4	5	28	0.892	0.848
9	Higuchi et al., 2000	10	1	7	3	0.909	0.300
10	Ishii et al., 1998	11	1	10	2	0.917	0.167
11	Kippenphan et al., 1992	37	4	15	35	0.902	0.700
12	Messa et al., 1994	21	0	1	9	1.000	0.900
13	Ohyama et al., 2000	18	3	1	9	0.857	0.900
14	Szelies et al., 1994	18	6	5	10	0.750	0.667

Reference:

Meenal B. Patwardhan, Douglas C. McCrory, David B. Matchar, Olivier T. Rutschmann
Alzheimer Disease: Operating Characteristics of PET--A Meta-Analysis
Radiology; April 2004, 231, 73-80

Table A2: Meta-Analysis of Diagnostic Accuracy of the Beck Hopeless Scale (BHS) to predict a pre-eminent risk factor for suicide and non-fatal self-harm.

Study	Author	Outcome	Disease		Healthy		sens	spec
			TP	FN	FP	TN		
1	Beck et al., 1985	suicide	10	1	75	79	0.91	0.51
2	Beck et al., 1990		16	1	1145	796	0.94	0.41
3	Nimeus et al., 1997		10	3	115	84	0.77	0.42
4	Suominen et al., 2004		10	7	99	108	0.6	0.52
5	Colman et al., 2004	self-harm	65	27	127	150	0.71	0.54
6	Goldston et al., 2001		38	7	69	66	0.84	0.49
7	Hawton., 2003		26	8	54	23	0.77	0.3
8	Keller & Wolfersdorf., 1993		8	2	36	15	0.8	0.29
9	Sidley et al., 1999		19	6	26	14	0.75	0.36
10	Tyrer et al., 2003		148	35	178	69	0.81	0.28

Reference:

Dean McMillan, Simon Gilbody, Emma Beresford and Liz Neilly
Can we predict suicide and non-fatal self-harm with the Beck Hopelessness Scale? A meta-analysis
Psychological Medicine, 2007, 37, 769-778

Table A3: Meta-Analysis of Diagnostic Accuracy of simple verbal questions for depression in cancer

study	Author	question	depressed		non-depressed		sens	spec
			TP	FN	FP	TN		
1	Akechi et al., 2006	depressed	11	3	16	179	0.79	0.92
2	Payne et al., 2007		30	13	24	100	0.7	0.81
3	Chochinov et al., 1997		24	0	0	173	1	1
4	Lloyd-Williams et al., 2003		11	9	14	40	0.55	0.74
5	Jefford et al., 2004		8	4	26	62	0.67	0.7
6	Ohno et al., 2006		50	4	73	33	0.93	0.31
7	Meyer et al., 2003		6	11	7	21	0.35	0.75
8	Baker-Glenn et al., 2008		10	5	7	133	0.67	0.95
9	Kawase et al., 2006		10	14	36	222	0.42	0.86
10	Payne et al., 2007	interest	34	9	33	91	0.79	0.73
11	Baker-Glenn et al., 2008		13	2	15	125	0.87	0.89
12	Akechi et al., 2006		13	1	16	179	0.93	0.92
13	Payne et al., 2007	combination	39	4	40	84	0.91	0.68
14	Akechi et al., 2006		14	0	27	168	1	0.86
15	Baker-Glenn et al., 2008		15	0	18	122	1	0.87
16	Gessler et al., 2007		34	9	16	101	0.79	0.86
17	Chochinov et al., 1997		36	0	3	170	1	0.98

Reference:

AJ Mitchell
Are one or two simple questions sufficient to detect depression in cancer and palliative care?
A Bayesian meta-analysis
British Journal of Cancer (2008) 98, 1934-1943

Table A4: Meta-Analysis of Diagnostic Accuracy of the four primary care studies that used the algorithmic threshold to define a positive result of the PHQ-9

Study	Author	Depressive disorder		no disorder		sens	spec
		TP	FN	FP	TN		
1	Corapcioglu and Ozer, 2004	65	26	105	1191	0.714	0.919
2	Grafe et al., 2004	19	3	20	315	0.864	0.940
3	Lowe et al., 2004	55	11	43	392	0.833	0.901
4	Spitzer et al., 1999	85	31	10	459	0.733	0.979

Reference:

Karin A. Wittkampf, Leonie Naeije, Aart H. Schene, Jochanan Huyser, Henk C. van Weet
Diagnostic accuracy of the mood module of the patient health questionnaire : a systematic review
General Hospital Psychiatry 29 (2007) 388-395

Table A5: Meta-Analysis of Diagnostic Accuracy of Duplex Doppler Ultrasound using Angiography as the standard

Study	Author	Carotid artery Disease		No disease		sens	spec
		TP	FN	FP	TN		
1	Mendel et al., 1987	26	4	2	83	0.867	0.976
2	Rush et al., 1985	11	1	2	5	0.917	0.714
3	Leahy et al., 1987	68	3	8	34	0.958	0.810
4	Londrey et al., 1991	74	12	0	111	0.860	1.000
5	Fell et al., 1981	84	20	13	99	0.808	0.884
6	Eikelboom et al., 1983	40	3	7	41	0.930	0.854
7	Roussel et al., 1988	16	1	9	109	0.941	0.924
8	Martin et al., 1990	96	20	15	206	0.828	0.932
9	Hames et al., 1985	11	2	2	57	0.846	0.966
10	Kenagy et al., 1985	91	5	5	57	0.948	0.919
11	Ackerstoff et al., 1982	46	9	3	42	0.836	0.933
12	Bone et al., 1988	15	1	2	93	0.938	0.979
13	Poindexter et al., 1991	58	10	16	121	0.853	0.883
14	Jacobs et al., 1985	26	4	1	74	0.867	0.987

Reference:

Hasselblad V., Hedges L.V.

Meta-analysis of Screening and Diagnostic Tests

Psychological Bulletin 1995;117;167-78.

Table A6: Meta-Analysis of Diagnostic Accuracy of MAST Test compared with other definitions of alcohol problems.

Study	Author	Alcoholism		Non-alcoholic		sens	spec
		TP	FN	TN	FP		
1	Moore etal., 1972	125	3	192	31	0.977	0.861
2	McAuley et al.,1978	14	1	35	25	0.933	0.583
3	Zung et al., 1980	9	1	29	52	0.900	0.358
4	Zung et al., 1982	21	3	48	48	0.875	0.500
5	Searles et al.,1990	36	5	9	20	0.878	0.310
6	Benussi et al., 1982	56	0	45	3	1.000	0.938
7	Yersin et al., 1989	38	16	197	17	0.704	0.921
8	Selzer et al., 1971	114	2	98	5	0.983	0.951
9	Breietenbucher et al.,1976	60	10	138	44	0.857	0.758
10	Rounsaville et al., 1983	79	60	216	30	0.568	0.878
11	Magruder-Habib et al., 1983	63	29	222	55	0.685	0.801
12	Mischke et al., 1987	23	20	43	4	0.535	0.915
13	Garzotto et al., 1988	72	3	69	8	0.960	0.896
14	Sokol et al., 1989	15	27	892	37	0.357	0.960
15	Ross et al., 1990	240	5	146	110	0.980	0.570
16	Zung et al., 1982	20	4	62	34	0.833	0.646
17	Zung et al., 1982	20	4	66	30	0.833	0.688
18	Zung et al., 1982	20	4	72	24	0.833	0.750
19	Rounsaville et al., 1983	50	10	267	58	0.833	0.822

Storgaard H., Nielsen S.H., and Glund, C.

The Validity of The Michigan Alcoholism Screening Test (MAST).

Alcohol & Alcoholism, 29, 493-502.1994

Table A7: Meta-Analysis of Diagnostic Accuracy of second-trimester ultrasound to detecting Down syndrome in fetuses.

Study	Author	Ultrasound	Down Syndrome cases		Unaffected Fetuses	
			TP	FN	FP	TN
1	Bahado-Singh et al., 1996	composite score	19	21	275	1913
2	Benacerraf et al., 1987		21	7	4	188
3	Benacerraf et al., 1991		18	6	25	375
4	Benacerraf et al., 1992		26	6	26	562
5	Benacerraf et al., 1994		33	12	4	102
6	Bromley et al., 1997		44	9	31	146
7	DeVore and Alfi, 1995		28	16	441	3233
8	Dicke et al., 1989		24	8	60	1940
9	Drugan et al., 1996		6	5	56	1077
10	Ginsberg et al., 1990		9	3	14	198
11	Hill et al., 1989		10	12	22	264
12	Lockwood et al., 1993		21	21	242	4707
13	Nedel et al., 1995		59	12	88	606
14	Nyberg et al., 1995		9	9	24	208
15	Nyberg et al., 1998		97	45	116	814
16	Verdin and Economides, 1998		9	2	44	405
17	Vegani et al., 1999		13	9	48	850
18	Vintzileos et al., 1997		20	3	39	542
19	Boyd et al., 1998	choroid plexus cyst	5	47	62	15019
20	Chan et al., 1989		0	9	13	491
21	Dicke et al., 1989		1	31	42	1958
22	Gray et al., 1996		7	9	201	18644
23	Nicolaides et al., 1992		33	268	87	1698
24	Verdin and Economides, 1998		0	11	27	422
25	Vegani et al., 1999		1	21	24	874
26	Benacerraf et al., 1994	echogenic bowel	7	38	1	105
27	Boyd et al., 1998		1	25	30	10562
28	Bromley et al., 1997		13	40	4	173
29	DeVore and Alfi, 1995		5	29	73	3601
30	Dicke et al., 1989		6	26	31	1969
31	Nyberg et al., 1995		1	17	5	227
32	Nyberg et al., 1998		28	114	8	922
33	Verdin and Economides, 1998		2	9	5	444
34	Vegani et al., 1999		0	22	7	891
35	Bromley et al., 1995	EIF	4	18	62	1250
36	Bromley et al., 1997		16	37	8	169

Study	Author	Ultrasound	Down Syndrome cases		Unaffected Fetuses	
			TP	FN	FP	TN
37	Manning et al.,		2	14	21	863
38	Nyberg et al., 1998		24	118	33	897
39	Vibhakar et al., 1999		22	62	246	2082
40	Benacerraf et al., 1987	femur shortening	7	13	28	681
41	Benacerraf et al., 1991	femur shortening	10	14	40	360
42	Benacerraf et al., 1992		23	9	63	525
43	Benacerraf et al., 1994		20	25	4	102
44	Biagotti et al., 1994		13	14	60	440
45	Bromley et al., 1997		25	28	14	163
46	Brumfield et al., 1989		6	9	1	44
47	Campbell et al., 1994		2	3	20	244
48	Cuckle et al., 1989		20	63	84	1276
49	Dicke et al., 1989		5	28	18	159
50	Ginsberg et al., 1990		5	6	14	198
51	Grandjean and Sarramon, 1995		15	480	34	2729
52	Grist et al., 1990		3	3	25	403
53	Hill et al., 1989		4	18	6	280
54	Johnson et al., 1993		10	4	31	300
55	Johnson et al., 1995		15	21	127	667
56	Lafolletle et al., 1989		4	26	27	202
57	Lockwood et al., 1987		18	17	24	325
58	Lockwood et al., 1993		6	36	163	4786
59	Lynch et al., 1989		5	4	5	4
60	Marquette et al., 1990		3	28	14	141
61	Nyberg et al., 1990		7	42	35	537
62	Nyberg et al., 1993		11	34	44	898
63	Nyberg et al., 1995		5	13	14	218
64	Nyberg et al., 1998		7	135	33	897
65	Rodis et al., 1991		2	9	95	1795
66	Shan et al., 1990		3	14	1	16
67	Verdin and Economides, 1998		6	5	5	444
68	Vintzileos et al., 1996		5	17	50	443
69	Benacerraf et al., 1991	humerus shortening	12	12	25	375
70	Benacerraf et al., 1992		17	15	34	554
71	Benacerraf et al., 1994		20	17	3	31
72	Biagotti et al., 1994		15	12	73	427
73	Bromley et al., 1997		19	27	5	144
74	Johnson et al., 1995		8	25	24	462
75	Lockwood et al., 1993		12	30	198	4751
76	Nyberg et al., 1993		11	34	42	900
77	Nyberg et al., 1998		4	138	2	928
78	Rodis et al., 1991		7	4	95	1795

Study	Author	Ultrasound	Down Syndrome cases		Unaffected Fetuses	
			TP	FN	FP	TN
79	Vintzileos et al., 1997		10	12	49	444
80	Bahado-Singh et al., 1995	nuchal fold thickening	3	4	9	638
81	Benacerraf et al., 1985		2	4	1	897
82	Benacerraf et al., 1987		2	6	3	2108
83	Benacerraf et al., 1987	nuchal fold thickening	21	7	4	188
84	Benacerraf et al., 1989		8	12	10	3470
85	Benacerraf et al., 1991		12	12	0	400
86	Benacerraf et al., 1992		22	10	2	586
87	Benacerraf et al., 1994		19	26	0	106
88	Borrell et al., 1997		10	14	2	1363
89	Boyd et al., 1998		5	65	105	33201
90	Bromley et al., 1997		27	26	1	176
91	Crane and Gray, 1991		12	4	35	3287
92	Deren et al., 1998		5	39	22	3652
93	DeVore and Alfi, 1995		4	28	13	1987
94	Donnenfeld et al., 1994		1	12	16	1330
95	D'Ottavio et al., 1997		1	9	8	3496
96	Ginsberg et al., 1990		5	7	0	212
97	Grandjean and Sarramon, 1995		17	127	273	2932
98	Gray and Crane, 1994		14	18	81	8025
99	Lockwood et al., 1993		21	21	242	4707
100	Lynch et al., 1989		5	4	0	9
101	Nyberg et al., 1990		53	248	91	1694
102	Nyberg et al., 1995		4	21	10	3490
103	Nyberg et al., 1998		3	15	1	231
104	Vintzileos et al., 1996		33	109	4	926
105	Watson et al., 1994		7	7	27	1426
106	Benacerraf et al., 1994	renal pyelectasis	11	34	0	106
107	Deren et al., 1998		1	43	22	3652
108	DeVore and Alfi, 1995		6	26	26	1974
109	D'Ottavio et al., 1997		0	10	24	3480
110	Nyberg et al., 1995		3	15	5	227
111	Nyberg et al., 1998		18	124	27	903
112	Verdin and Economides, 1998		5	6	10	439
113	Vegani et al., 1999		4	18	18	880
114	Wickstrom et al., 1996		1	18	115	342

Reference:

Second-trimester ultrasound to detect fetuses with Down syndrome: A Meta-analysis
Rebecca Smith-Bindman; Wylie Hosmer; Vickie A. Feldstein; et al.
JAMA. 2001;285(8);1044-1055

Table 8: Meta-Analysis of Diagnostic Accuracy of the alcohol use identification test (AUDIT) for detecting at-risk drinking.

Study	Author	Alcohol-use disorder		no disorder		sens	spec
		TP	FN	FP	TN		
1	Gual et al., 2002	54	10	19	172	0.844	0.901
2	Contel et al., 1999	9	1	33	145	0.900	0.815
3	Gomez et al., 2001	41	5	31	423	0.891	0.932
4	Rumpf et al., 2002	219	62	621	2649	0.779	0.810
5	Gordon et al., 2001	681	73	936	5264	0.903	0.849
6	Taj et al., 1998	50	25	8	18	0.667	0.692
7	Daeppen et al., 2000	56	21	18	237	0.727	0.929
8	MacKenzie et al., 1996	26	2	13	198	0.929	0.938
9	Neumann et al., 2004	199	61	292	1375	0.765	0.825
10	Kokotailo et al., 2004	80	8	86	128	0.909	0.598
11	Bradley et al., 1998	91	14	47	109	0.867	0.699
12	Philpot et al., 2003	12	6	4	106	0.667	0.964
13	Skipsey et al., 1997	30	1	16	35	0.968	0.686
14	Hiro et al., 1996	21	2	15	55	0.913	0.786
15	Piccinelli et al., 1997	59	11	41	371	0.843	0.900
16	Bradley et al., 2003	62	27	43	261	0.697	0.859

Reference:

Berner M.M., Kriston L., Bentele m., & Haerter M. (2007)
The Alcohol Use Disorders Identification Test for Detecting at-risk Drinking: A Systematic Review and Meta-analysis.
Journal of Studies on Alcohol and Drugs, 68, 1-13.

Table A9: Meta-Analysis of Diagnostic Accuracy of the CAGE in each study (primary care)

Study	Author	score	Alcohol abuse		without alcohol abuse		sens	spec
			TP	FN	FP	TN		
1	Saitz et al., 1999	1	8	1	7	19	0.92	0.73
		2	15	4	0	6	0.8	0.93
		3	12	9	0	2	0.55	0.98
		4	6	15	0	1	0.27	0.99
2	McQuade et al., 1999	1	10	1	6	25	0.87	0.8
		2	8	4	1	16	0.66	0.92
		3	6	7	0	2	0.43	0.99
		4	2	8	0	0	0.19	1
3	Brown et al., 1995	1	5	1	1	4	0.79	0.77
		2	8	3	1	5	0.7	0.85
		3	8	8	0	2	0.52	0.95
		4	5	12	0	1	0.27	0.98
4	Chan, 1994	1	4	0	3	6	0.96	0.68
		2	13	2	1	6	0.87	0.84
		3	6	4	0	2	0.56	0.96
		4	6	11	0	0	0.34	1
5	Aertgeerts et al., 2001	1	16	11	18	122	0.61	0.87
		2	17	21	3	62	0.46	0.95
		3	5	17	0	23	0.24	0.98
		4	2	18	0	7	0.11	0.99
6	Buchsbaum et al., 1991	1	40	5	10	44	0.89	0.81
		2	63	23	3	31	0.73	0.91
		3	33	41	0	10	0.44	0.98
		4	11	45	0	1	0.19	0.99
7	Joseph et al., 1995	1	9	0	2	7	0.98	0.75
		2	14	3	0	4	0.82	0.9
		3	4	3	0	2	0.53	0.97
		4	9	14	0	0	0.4	1
8	Bradley et al., 2001	1	14	6	14	19	0.71	0.59
		2	15	13	2	11	0.53	0.87
		3	5	15	0	1	0.27	0.98
		4	1	9	0	1	0.09	0.99
9	Jones et al., 1993	1	9	1	2	13	0.88	0.88
		2	3	3	0	1	0.48	0.99
		3	1	3	0	0	0.24	1
		4	0	2	0	0	0.08	1

10	Indran et al., 1995	1	4	0	76	44	1	0.37
		2	22	2	48	78	0.92	0.62
		3	9	10	6	47	0.46	0.88
		4	1	5	0	5	0.1	0.99

Aertgeerts B., Buntinx F., Kester A., (2004)
The value of the CAGE in screening for alcohol abuse and alcohol dependence in general clinical populations: a diagnostic meta-analysis
Journal of Clinical Epidemiology 57 (2004) 30-39

Table A10: Meta-Analysis of Diagnostic Accuracy of brief screening tools for autism in pre-school children.

study	Author	screen	Diagnosis	risk	autism		normal		sens	spec
					TP	FN	FP	TN		
1	Baron-Cohen et al., 1992		Autistic spectrum		4	0	0	87	100	100
2	Baird et al., 2000	1b	Childhood autism	H	10	39	32	16,154	20	99.8
2	Baird et al., 2000	1b	Childhood autism	M	19	30	388	15,798	38	97.6
2	Baird et al., 2000	2	Childhood autism	H	9	40	0	16,186	18	100
2	Baird et al., 2000	2	Childhood autism	M	10	39	16	16,170	20	99.9
2	Baird et al., 2000	1	Autistic spectrum	H	11	83	32	16,109	12	99.8
2	Baird et al., 2000	1	Autistic spectrum	M	33	61	371	15,770	35	97.7
2	Baird et al., 2000	2	Autistic spectrum	H	10	84	0	16,141	11	100
2	Baird et al., 2000	2	Autistic spectrum	M	20	74	16	16,125	21	99.9
3	Robin's et al., 2001		Autistic spectrum		0	39	25	1,229		98
4	Robin and Lee, 2003		Autistic spectrum		15	0	10	512	100	98

Reference:

Elizabeth Mawle, Peter Griffiths

Screening for autism in pre-school children in primary care: Systematic review of English Language tools

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Table A11: Meta-Analysis of Diagnostic Accuracy of SPECT in Parkinsonian Syndromes

Author	Methology	Radiotracer	Disease		Healthy		sens	spec
			TP	FN	FP	TN		
Asenbaum,1998	Early parkinson's	**Presynaptic**	23	6	30	0	0.793	0.000
Haapanimie, 2001	Disease	**Presynaptic**	16	13	21	0	0.552	0.000
Huang, 2001	VS	**Presynaptic**	32	2	17	0	0.941	0.000
Muller, 1998	Normalcy	**Presynaptic**	14	10	15	0	0.583	0.000
Schwarz, 2000		**Presynaptic**	28	0	9	0	1.000	0.000
V.Laere(FP-CIT), 2004		**Presynaptic**	15	24	10	0	0.385	0.000
V.Laere(TRODAT), 2004		**Presynaptic**	3	34	10	0	0.081	0.000
Booij, 2000	Parkinson's	**Presynaptic**	7	1	5	0	0.875	0.000
Benamer, 2000	Disease	**Presynaptic**	127	3	25	2	0.977	0.074
Plotkin, 2005	VS	**Presynaptic**	24	1	11	0	0.960	0.000
Eerola, 2005	Essential tremor	**Presynaptic**	92	0	16	0	1.000	0.000
Vlaar, 2006		**Presynaptic**	90	22	20	1	0.804	0.048
Lokkegaard, 2002		**Presynaptic**	44	1	8	0	0.978	0.000
Asenbaum, 1998		**Presynaptic**	23	6	32	0	0.793	0.000
Lee, 1999		**Presynaptic**	10	1	12	3	0.909	0.200
Vlaar, 2006		**Postsynaptic**	48	33	6	7	0.593	0.538
Plotkin, 2005		**Postsynaptic**	25	0	0	11	1.000	1.000
Vlaar, 2006	Parkinson's	**Presynaptic**	90	22	14	0	0.804	0.000
Booij, 2000	Disease	**Presynaptic**	7	1	4	0	0.875	0.000
Eerola, 2005	VS	**Presynaptic**	92	0	11	4	1.000	0.267
Lokkegaard, 2002	Vascular	**Presynaptic**	44	1	3	1	0.978	0.250
Gerschlager, 2002	parkinsonism	**Presynaptic**	18	2	12	1	0.900	0.077
Vlaar, 2006		**Postsynaptic**	65	16	8	4	0.802	0.333
Booij, 2000	Parkinson's	**Presynaptic**	7	1	1	2	0.875	0.667
Benamer, 2000	Disease	**Presynaptic**	127	3	1	27	0.977	0.964
Plotkin, 2005	VS	**Presynaptic**	24	1	3	18	0.960	0.857
Eerola, 2005	Atypical	**Presynaptic**	92	0	1	11	1.000	0.917
Stoffers, 2005	Parkinsonian	**Presynaptic**	30	32	2	6	0.484	0.750
Lokkegaard, 2002	syndromes	**Presynaptic**	44	1	2	13	0.978	0.867
Kim, 2002		**Presynaptic**	18	0	1	12	1.000	0.923
Lu, 2004		**Presynaptic**	36	0	6	43	1.000	0.878
Messa, 1998		**Presynaptic**	13	0	0	5	1.000	1.000
Pirker, 2002		**Presynaptic**	26	10	3	7	0.722	0.700
Vlaar, 2006		**Presynaptic**	90	22	4	13	0.804	0.765
Schwarz, 1993		**Postsynaptic**	45	2	9	6	0.957	0.400
Schwarz, 1997		**Postsynaptic**	30	4	8	1	0.882	0.111
Schwarz, 1998		**Postsynaptic**	53	5	5	2	0.914	0.286
Buck, 1995		**Postsynaptic**	17	0	3	3	1.000	0.500
Kim, 2002		**Postsynaptic**	18	0	5	8	1.000	0.615
Oertel, 1993		**Postsynaptic**	49	12	6	0	0.803	0.000
Oyanagu, 2002		**Postsynaptic**	7	0	2	4	1.000	0.667
Pirker, 1997		**Postsynaptic**	9	0	0	10	1.000	1.000
Plotkin, 2005		**Postsynaptic**	25	0	9	12	1.000	0.571

Author	Methology	Radiotracer	Disease		Healthy		sens	spec
			TP	FN	FP	TN		
Schwarz, 1994		**Postsynaptic**	19	0	1	1	1.000	0.500
Seppi, 2004		**Postsynaptic**	12	5	13	2	0.706	0.133
Tatsch, 1991		**Postsynaptic**	18	0	20	4	1.000	0.167
Schelovsky, 1993		**Postsynaptic**	30	0	8	6	1.000	0.429
Vlaar, 2006		**Postsynaptic**	65	16	16	10	0.802	0.385
Vlaar, 2006	Multisystem	**Presynaptic**	19	0	1	9	1.000	0.900
Plotkin, 2005	Atrophy	**Presynaptic**	7	0	1	5	1.000	0.833
Pirker, 1997	VS	**Presynaptic**	7	2	2	4	0.778	0.667
Pirker, 2002	Progressive	**Presynaptic**	18	0	1	9	1.000	0.900
Kim, 2002	Supranuclear	**Presynaptic**	11	2	1	7	0.846	0.875
Benamer, 2000	Palsy	**Presynaptic**	4	1	0	2	0.800	1.000
Buck, 1995		**Postsynaptic**	5	2	6	0	0.714	0.000
Kim, 2002		**Postsynaptic**	1	1	2	2	0.500	0.500
Plotkin, 2005		**Postsynaptic**	7	6	6	2	0.538	0.250
Vlaar, 2006		**Postsynaptic**	10	4	3	6	0.714	0.667
Royen, 1993		**Postsynaptic**	13	4	1	3	0.765	0.750

Reference:

Annemarie MM Vlaar, Marinus JPG van Kroonenburgh, Alfons GH Kessels and Wim EJ Weber
Meta-analysis of the literature on diagnostic accuracy of SPECT in parkinsonian syndromes.
BMC Neurology 2007, 7:27

Table A12: Meta-Analysis of Diagnostic Accuracy of the mini-mental state examination (MMSE)

study	Author	MMSE	condition		no condition		sens	spec
			TP	FN	FP	TN		
1	Belle et al., 2000	Dementia	65	3	240	870	95.6	78.4
2	Borson et al., 2000		117	12	10	110	90.7	91.7
3	Borson et al., 2003		48	19	63	989	71	94
4	Borson et al., 2005		134	8	28	152	94.6	84.3
5	Brayne and Calloway, 1989		24	5	44	292	82.8	86.9
6	Brodaty et al., 2002		67	15	48	153	81.7	76.1
7	Brooke and Bullock, 1999		64	17	0	71	78.9	100
8	Callahan et al., 2002		281	64	20	286	81.4	93.5
9	Callahan et al., 2002		13	1	44	286	93.3	86.6
10	Chopard et al., 2007		262	20	29	177	92.9	85.9
11	Clarke et al., 1991		143	18	29	123	88.8	80.9
12	Flicker et al., 1997		183	33	33	51	84.7	60.2
13	Fountoulakis et al., 1998		22	0	152	140	100	47.9
14	Gagnon et al., 1990		112	0	590	2091	100	78
15	Ganguli., 1993		152	81	126	1009	65.2	88.9
16	Grober et al., 2008		29	26	26	236	52.7	90.1
17	Heum et al., 1998		31	6	3	247	83.8	98.8
18	Hooijer et al., 1992		10	3	12	333	76.9	96.5
19	Huppert et al., 2005		707	88	1438	10447	88.9	87.9
20	Kalbe et al., 2003		181	108	17	184	62.6	91.5
21	Kalbe et al., 2004		59	29	23	74	67	76.3
22	Kalida et al., 2005		74	23	16	143	76	90
23	Kay et al., 1985		27	12	26	209	69.2	88.9
24	Kirby et al., 2001		40	6	75	528	87.8	87.6
25	McDowell et al., 1997		317	52	173	578	85.9	77
26	Mendiondo et al., 2003		387	116	16	54	76.9	77.1
27	Meulen et al., 2004		118	65	1	44	64.7	96.8
28	O'Connoe et al., 1989		44	7	34	396	86.3	92.1
29	Narasimhalu et al., 2008		123	46	98	309	72.8	76
30	Schultz-Larsen et al., 2007		25	43	3	171	36.8	98.3
31	Tangalos et al., 1996		73	32	2	225	69.2	99.1
32	Tariq et al., 2006		37	45	0	440	45.5	100
33	Wind et al., 1997		78	34	45	376	69.3	89.3
34	Xu et al., 2002	MCI	72	12	53	214	85.7	80.1
35	Tang-Wai et al., 2003		106	23	410	379	82.2	48
36	Borson et al., 2005		37	36	22	118	50.7	84.3
37	Kalbe et al., 2004		67	30	22	75	69.1	77.3
38	Nasreddine et al., 2005		17	77	0	90	18.1	100

Reference:

Alex J. Mitchell
A meta-analysis of the accuracy of the mini-mental state examination in the detection of dementia and mild cognitive impairment. Journal of Psychiatric Research 43 (2009) 411-431

Table A13: Meta-Analysis of Diagnostic Accuracy of 26 published studies on biochemical validation of self-reported smoking

Author	Method	smoking		not smoking		sens	spec
		TP	FN	FP	TN		
Fortman et al, 1984	IAQ	379	37	9	854	91	99
Fortman et al, 1984		479	72	45	1078	87	96
Pierce et al, 1987		312	24	45	594	93	93
Prignot, 1987		28	3	2	164	90	99
Saloojee et al, 1982		346	3	13	77	99	86
Saloojee et al, 1982		336	3	25	75	99	75
Slattery et al, 1989		149	8	15	370	95	96
Stookey et al, 1987		213	47	2	76	82	97
Stookey et al, 1987		206	28	9	95	88	91
Stookey et al, 1987		214	0	2	20	100	91
Stookey et al, 1987		187	6	29	14	97	33
Stookey et al, 1987		207	0	9	20	100	69
Van Vunakis, 1989		126	11	0	181	92	100
Van Vunakis, 1989		115	7	2	179	94	99
Vogt et al, 1977		77	2	1	43	97	98
Vogt et al, 1977		83	2	11	43	98	80
Vogt et al, 1977		71	3	7	42	96	86
Vogt et al, 1977		76	3	18	42	96	70
Wagenknecht et al, 1990		1357	185	68	3322	88	98
Wald et al, 1981		1649	17	423	6632	99	94
Bauman & Dent, 1982	SAQ	21	15	28	324	58	92
Bauman & Dent, 1982		90	10	120	969	90	89
Bauman & Dent, 1982		104	8	26	232	93	90
Bauman & Dent, 1982		333	18	92	673	95	88
Bauman et al, 1982		3	0	2	77	100	97
Bauman & Koch, 1983		437	23	78	901	95	92
Bauman & Koch, 1983		23	13	18	333	64	95
Cohen & Bartsch, 1980		350	35	77	155	91	67
Cohen & Bartsch, 1980		397	34	32	154	92	83
Gillies et al, 1982		3	45	6	198	6	97
Haddow et al, 1986		59	5	5	227	92	98
Luepker et al, 1981		27	47	25	1233	37	98
Luepker et al, 1989		81	7	5	170	92	97

Author	Method	smoking		not smoking		sens	spec
		TP	FN	FP	TN		
Luepker et al, 1989		103	5	13	169	95	93
Luepker et al, 1989		81	24	7	213	77	97
Luepker et al, 1989		103	8	11	209	93	95
McNeill et al, 1987	SAQ	120	5	54	329	96	86
Murray et al, 1987		21	25	22	177	46	89
Murray et al, 1987		15	0	35	198	100	85
Murray et al, 1987		17	2	27	200	89	88
Noland et al, 1988		120	1	39	148	99	79
Pechacek, 1984		132	52	110	889	72	89
Pechacek, 1984		158	8	95	960	95	91
Petitti et al, 1981		55	0	32	180	100	85
Petitti et al, 1981		57	1	29	180	98	86
Pojer et al, 1984		163	3	24	178	98	88
Pojer et al, 1984		177	4	9	178	98	95
Pojer et al, 1984		141	3	45	180	98	80
Sillett et al, 1978		25	11	3	40	69	93
Sillett et al, 1978		56	33	2	49	63	96
Williams et al, 1979		19	2	1	96	90	99

Reference:
Donald L. Patrick, Allen Cheadle, Diane C. Thompson, Paula Diehr, Thomas Koepsell and Susan Kinne
The Validity of Self-Reported Smoking: A Review and Meta-Analysis
American Journal of Public Health, July 1994, Volume 84, No.7

Appendix B: Meta-analytic diagnostic studies with primarily medical background

Table B1: Meta-Analysis of Diagnostic Accuracy of alarm symptoms for upper gastrointestinal malignancy

Author	alarm symptoms	Upper GI malignancy		without disease		sens	spec
		TP	**FN**	**FP**	**TN**		
Sung et al., 2001	Dysphagia	1	22	28	2576	0.043	0.989
Numans et al., 2001	Dysphagia	13	8	28	615	0.619	0.956
Adang et al., 1995	Dysphagia	14	56	169	2611	0.200	0.939
Sung et al., 2001	Weight loss	3	20	16	2588	0.130	0.994
Numans et al., 2001	Weight loss	14	7	195	645	0.667	0.768
Adang et al., 1995	Weight loss	17	53	126	2654	0.243	0.955
Johannessen et al., 1990	Weight loss	7	3	244	683	0.700	0.737
Boldys et al., 2003	Weight loss	9	74	1	776	0.108	0.999
Sung et al., 2001	Bleeding and/or anaemia	1	22	79	2525	0.043	0.970
Numans et al., 2001	Bleeding and/or anaemia	3	16	62	732	0.158	0.922
Boldys et al., 2003	Bleeding and/or anaemia	15	68	60	717	0.181	0.923
Adang et al., 1995	Bleeding and/or anaemia	15	55	511	2269	0.214	0.816
Boldys et al., 2003	Nausea/ vomiting	20	63	145	612	0.241	0.808
Numans et al., 2001	Nausea/ vomiting	8	13	199	614	0.381	0.755
Melleney and Willoughby, 2002	Any alarm symptoms	5	1	37	41	0.833	0.526
Manes et al., 2002	Any alarm symptoms	4	2	34	666	0.667	0.951
Boldys et al., 2003	Any alarm symptoms	61	22	334	443	0.735	0.570
Voutilainen et al., 2003	Any alarm symptoms	12	5	1092	2269	0.706	0.675
Sung et al., 2001	Any alarm symptoms	19	4	109	2495	0.826	0.958
Wallace et al., 2001	Age>45,male.anemia or bleeding	74	7	2866	868	0.914	0.232

Reference:

Fransen G.A.I., Janssen M.J.R., Muris J.W.M., Laheit R.J.F. and Jansen j.b.m.j.
Meta-analysis: the diagnostic value of alarm symptoms for upper gastrointestinal malignancy.
Aliment Pharmacol Ther 2004: 20: 1045-1052

Table B2: Meta-Analysis of Diagnostic Accuracy of magnetic resonance imaging for the early diagnosis of multiple sclerosis (MS) with suspected diseases.

Study	Author	Criteria	Multiple sclerosis (MS)		Suspected disease	
			TP	FN	FP	TN
1	Lee, 1991	>=1 lesions	52	3	66	63
		Paty	46	9	48	81
2	Ford, 1992	>=1 non-clinical lesions	11	1	2	2
3	Reese, 1986	>=1 T2 lesions	28	4	2	13
4	Frederiksen, 1989	>=1 non-clinical lesions	12	0	27	21
5	Brex, 2002	>=1 non-clinical T2 lesions	44	4	6	17
		>=4 non-clinical T2 lesions	28	20	4	19
		>10 non-clinical T2 lesions	15	33	2	21
6	Filippi, 1994	Initial lesion load >1.23 cm3	18	16	9	42
7	Miller, 1988	>=1 non-clinical T2 lesions	12	3	22	16
	Miller, 1989	>=1 non-clinical T2 lesions	15	2	15	24
		>=1 non-clinical T2 lesions	20	0	22	15
8	Sharief, 1999	Paty	17	5	7	16
9	Brex, 2001	>=1 non-clinical T2 lesions	16	2	32	18
		>=4 non-clinical T2 lesions	14	4	23	27
		>=9 non-clinical T2 lesions	11	7	14	36
		>=1 non-clinical enchancing lesions	11	7	10	40
		>=1 enchanting lesions	7	11	3	47
		>=1 non-clinical T2 lesions	15	3	12	38
		>=1 non-clinical T2 lesions	10	3	11	26
		>=1 non-clinical enchating lesions	2	11	3	34
10	Dalton, 2002	New T2 lesion at 3 months	16	3	4	33
		McDonaid 2001 criteria at 3 months	11	8	2	35
		McDonaid 2001 criteria or new T2 lesion	14	5	3	34
	Dalton, 2002	>=1 non-clinical lesions	19	0	20	11
		Barkhof (brain or spinal cord MRI)	15	4	7	24
		Barkhof (brain MRI only)	12	7	7	24
		McDonaid 2001MRI at 3 months	11	8	2	29
		McDonaid 2001MRI at 12 months	16	3	5	26
		McDonaid 2001 criteria at 3 months	12	7	2	29
		McDonaid 2001 criteria at 12 months	18	1	5	26
11	Barkhof, 1997	>=1 T2 lesions	32	1	29	12
		Barkhof	27	6	9	32
		Kazekas	29	4	19	22
12	Ghezzi, 1999	>=1 white matter lesions	29	4	19	22
		Paty	37	0	34	31
13	Di Legge, 2002	McDonaid 2001 criteria at 3 months	32	5	29	36
14	Paolino, 1996	>=3 multifocal lesions	17	2	11	23
15	Filippi, 1994	>=1 MS-like abnormalities	18	12	4	10
		Paty	27	1	30	24
16	Saatre-Garriga,	Barkhof	25	15	34	79

Study	Author	Criteria	Multiple sclerosis (MS)		Suspected disease	
			TP	FN	FP	TN
	2004					
		Barkhof	18	16	32	87
		Barkhof	42	12	39	61
	Saatre-Garriga, 2003	>=1 lesions	17	1	29	4
		>=1 non-clinical lesions	17	1	19	14
		Fazekas	16	2	17	16
		Paty	16	2	16	17
		Fazekas	20	6	42	44
		Paty	20	6	42	44
17	Tintore, 2003	McDonaid 2001 criteria at 12 months	28	10	7	41
18	Rio, 1997	>=1 T2 lesions	7	0	9	19
19	Soderstrom, 1998	>=1 lesions	51	9	30	56
20	Beer, 1995	>=1 non-clinical lesions	119	23	18	29
		Fazekas	85	57	6	41
21	Beck, 2003	>=1 non-clinical T2 lesions	98	46	78	166
		>=2 T2 lesions	73	70	56	188
		>=5 T2 lesions	46	98	27	218
		>=9 T2 lesions	17	126	15	230
22	Tumani, 1998	>=2 lesions	10	7	3	8
23	Jacobs, 1997	>=1 lesions	16	5	26	27
24	Mushine, 1993	Paty	95	69	13	127
		3 lesions	123	41	32	107
		Multiple white matter	59	105	1	138

Reference:

Penny Whiting, Roger Harbord, Caroline Main, Jonathan J Deeks, Graziella Filippini, Martthias Egger and Jonathan A C Sterne

Accuracy of magnetic resonance imaging for the diagnosis of multiple sclerosis: systematic review

BMJ 2006;332;875-884

Table B3: Meta-Analysis of Diagnostic Accuracy of phage-based tests for the direct detection of Mycobacterium tuberculosis in clinical specimens

Study	Author	Mycobacterium tuberculosis		no disease		sens	spec
		TP	FN	FP	TN		
1	Albay, 2003	56	8	4	124	0.88	0.97
2	Albert, 2002	149	58	14	1397	0.72	0.99
3	Alcaide, 2003	84	60	19	1885	0.58	0.99
4	Bellen, 2003	32	71	14	89	0.31	0.86
5	Butt, 2004	46	14	4	96	0.77	0.96
6	Cavusoglu, 2002	10	23	1	29	0.3	0.97
7	Marei, 2003	46	14	4	96	0.77	0.96
8	Mbulo, 2004	6	23	8	78	0.21	0.91
9	Muzaffar, 2002	84	19	22	1084	0.82	0.98
10	Shenai, 2002	47	15	0	28	0.76	1
11	Shenai, 2004	97	6	4	22	0.94	0.83
12	McNerney, 2004	97	123	22	254	0.44	0.92
13	Mbulo, 2004	110	135	13	256	0.45	0.95

Reference:

Shriprakash Kalantri, Madhukar Pai, Lisa Pascopella, Lee Riley and Arthur Reingold
Bacteriophage- based tests for the detection of Mycobacterium tuberculosis in clinical specimens: a systematic review and meta-analysis
BMC Infectious Diseases 2005, 5:59

Table B4: Meta-Analysis of Diagnostic Accuracy of Inouye and Sox CT-scan data

Study	Mediastinal metastases		absence		sens	spec
	TP	FN	FP	TN		
1	11	7	6	26	0.611	0.813
2	2	5	15	13	0.286	0.464
3	15	2	2	32	0.882	0.941
4	4	1	4	13	0.800	0.765
5	22	21	1	6	0.512	0.857
6	17	1	9	15	0.944	0.625
7	29	10	1	54	0.744	0.982
8	8	6	4	23	0.571	0.852
9	7	6	12	25	0.538	0.676
10	20	1	10	18	0.952	0.643
11	19	1	9	19	0.950	0.679
12	18	6	8	65	0.750	0.890
13	18	1	9	13	0.947	0.591
14	17	3	6	49	0.850	0.891

Reference:

Moses L.E; Shapiro D; and Littenberg B.
Combining independent studies of a diagnostic test into a summary ROC curve: data-analytic approaches and additional considerations.
Statistics in medicine. Vol.12. 1293-1316 (1993)

Table B5: Meta-Analysis of Diagnostic Accuracy of comparing bronchial hyperresponsiveness test results with self-report of physician diagnosed asthma.

Study	Study	Challenge	Test	asthmatics		nonasthmatics		sens	spec
				TP	FN	FP	TN		
1	Salmone, 1987	histamine		163	144	267	1789	0.531	0.870
2	Pattemore, 1990	histamine		149	138	177	1589	0.519	0.900
3	Backer, 1991	histamine	PC6	30	0	121	344	1.000	0.740
4	Backer, 1991	histamine	PC12	22	8	33	432	0.733	0.929
5	Backer, 1991	histamine	PC20	17	13	9	456	0.567	0.981
6	Forastiere, 1991	methacholine	64 mg/ml	89	35	793	860	0.718	0.520
7	Forastiere, 1991	methacholine	4 mg/ml	53	71	215	1438	0.427	0.870
8	Forastiere, 1991	methacholine	1 mg/ml	27	97	66	1587	0.218	0.960
9	Frischer, 1992	distilled water		5	8	35	398	0.385	0.919
10	Nicola, 1993	cold air		141	315	629	4612	0.309	0.880
11	Haby, 1994	histamine		7	23	4	60	0.233	0.938
12	Haby, 1994	exercise		8	22	3	61	0.267	0.953
13	Burr, 1994	exercise	New-Zealand	52	96	58	662	0.351	0.919
14	Burr, 1994	exercise	Wales	96	69	25	820	0.582	0.970
15	Burr, 1994	exercise	South Africa	32	109	21	1012	0.227	0.980
16	Burr, 1994	exercise	Sweden	6	44	34	1176	0.120	0.972
17	Jones, 1994	exercise		33	52	60	804	0.388	0.931
18	Ponsoby, 1996	exercise		25	30	30	106	0.455	0.779
19	Woolcock, 1987	histamine		39	43	67	767	0.476	0.920
20	Cockcroft,1992	histamine		15	14	40	415	0.517	0.912

Reference:

Pekkanen J. and Pearce N.
Defining asthma in epidemiological studies.
Eur Respir J 1999; 14: 951-967

Table B6: Meta-Analysis of Diagnostic Accuracy of Multi-detector computed tomographic angiography (MDCTA) in the acute setting.

Study	Author	Coronary artery		no disease		sens	spec
		TP	FN	FP	TN		
1	White, 2005	10	2	55	2	0.833	0.965
2	Gallagher, 2007	6	1	72	6	0.857	0.923
3	Hoffman, 2006	5	0	26	9	1.000	0.743
4	Hoffman, 2006	14	0	73	16	1.000	0.820
5	Olivetti, 2006	15	3	13	0	0.833	1.000
6	Sato, 2005	21	1	8	4	0.955	0.667
7	Goldstein, 2007	8	0	88	3	1.000	0.967
8	Meijboom, 2007	28	0	4	1	1.000	0.800
9	Rubinshtein, 2007	20	0	35	3	1.000	0.921

Reference:

Piet K Vanhoenacker, Isabel Decramer, Olivier Bladt, Giovanna Sarno, Charlotte Bevernage and William Wijns
Detection of non-ST-elevation myocardial infraction and unstable angina in the acute setting: meta-analysis of diagnostic performance of multi-detector computed tomographic angiography
BMC Cardiovascular Disorders 2007, 7:39

Table B7: Meta-Analysis of Diagnostic Accuracy of Doppler echography in patency assessment of internal thoracic artery graft

Study	Author	stenotic graft		non-stenotic graft		sens	spec
		TP	FN	FP	TN		
1	Gupta et al, 1998	2	0	0	7	1.000	1.000
2	Katz et al, 1999	2	0	0	42	1.000	1.000
3	Fukata et al, 1999	8	0	0	19	1.000	1.000
4	Takagi etal, 1993	10	0	9	36	1.000	0.800
5		9	1	0	45	0.900	1.000
6	Hirata et al, 2003	6	0	0	25	1.000	1.000
7	Arruda et al, 1997	4	0	1	6	1.000	0.857
8	Sualis et al, 1999	8	0	2	15	1.000	0.882
9	Crowley et al, 1995	10	0	0	25	1.000	1.000
10		10	0	4	21	1.000	0.840
11	De Simone et al, 2003	6	0	5	12	1.000	0.706
12	Pezzano et al, 1999	1	0	0	49	1.000	1.000
13	Goto et al, 1993	5	2	0	29	0.714	1.000
14	El Masry et al, 2002	8	0	0	14	1.000	1.000
15		8	0	1	13	1.000	0.929
16	Lisboa et al, 2002	1	1	2	61	0.500	0.968
17	Chiritlo et al, 2001	5	0	0	96	1.000	1.000
18		5	0	2	94	1.000	0.979
19	Nasu et al, 1990	6	1	0	30	0.857	1.000
20		7	0	4	26	1.000	0.867
21	Kyo et al, 1990	4	0	15	22	1.000	0.595
22	Kamiya et al, 1994	7	3	12	126	0.700	0.913
23		7	3	6	132	0.700	0.957
24	Izumi et al, 2004	5	1	1	54	0.833	0.982
25	Song et al, 2004	2	0	0	58	1.000	1.000
26	Mauric et al, 1994	5	0	0	9	1.000	1.000

Reference:
Catherine M. Jones, Thanos Athanasiou, Paris P. Tekkis, Vitali Malinovski, Sanjay Purkayastha, Ahmed Haq, John Kokotsaki and Ara Darzi
Does Doppler echography have a diagnostic role in patency assessment of internal thoracic artery grafts?
Eur J Cardiothorac Surg 2005;28:692-700

Table B8: Meta-Analysis of comparing the diagnostic performance of exercise echocardiography (ECHO) and exercise single-photon emission computed tomography (SPECT).

Study	Author	performance method	coronary artery disease		no disease		sens	spec
			TP	FN	FP	TN		
1	Belesin et al., 1994	ECHO	105	14	3	14	0.882	0.824
2	Bjornstad et al., 1995		26	5	2	4	0.839	0.667
3	Cohen et al., 1993		29	8	2	13	0.784	0.867
4	Crouse et al., 1991		170	5	19	34	0.971	0.642
5	Dagianti et al., 1995		19	6	2	33	0.760	0.943
6	Galanti et al., 1991		25	2	1	25	0.926	0.962
7	Jun et al., 1996		28	4	1	14	0.875	0.933
8	Luotoahti et al., 1996		101	7	3	7	0.935	0.700
9	Marangelli et al., 1994		42	5	3	30	0.894	0.909
10	Marwick et al., 1992		96	18	5	31	0.842	0.861
11	Marwick et al., 1995		47	12	19	83	0.797	0.814
12	Marwick et al., 1995		44	18	8	77	0.710	0.906
13	Roger et al., 1994		50	10	34	56	0.833	0.622
14	Roger et al., 1997		151	43	28	22	0.778	0.440
15	Roger et al., 1997		46	12	24	14	0.793	0.368
16	Ryan et al., 1993		193	18	22	76	0.915	0.776
17	Tawa et al., 1996		31	2	2	10	0.939	0.833
18	William et al., 1994		29	4	6	31	0.879	0.838
19	Berman et al.,1993	SPECT	50	5	2	6	0.909	0.750
20	Chae et al., 1993		116	47	28	52	0.712	0.650
21	Christian et al., 1992		527	51	80	30	0.912	0.273
22	Fleming et al., 1991		16	1	2	6	0.941	0.750
23	Gupta et al., 1992		62	14	3	14	0.816	0.824
24	Hambye et al., 1996		75	16	9	28	0.824	0.757
25	Heiba et al., 1997		28	2	2	2	0.933	0.500
26	Ho et al., 1997		29	9	3	10	0.763	0.769
27	Kiat et al., 1990		45	3	1	4	0.938	0.800
28	Mahmarian et al., 1990		192	29	10	65	0.869	0.867
29	Minoves et al., 1993		27	3	2	22	0.900	0.917
30	Nguyen et al., 1990		19	6	0	5	0.760	1.000
31	Oguzhan et al., 1997		47	2	6	15	0.959	0.714
32	Palmas et al., 1995		60	6	1	3	0.909	0.750
33	Rubello et al., 1995		100	7	5	8	0.935	0.615
34	Solot et al., 1993		87	3	11	27	0.967	0.711
35	Sylven et al., 1994		41	16	5	5	0.719	0.500
36	Taillefer et al., 1997		23	9	3	13	0.719	0.813
37	Van Train et al., 1994		91	11	14	8	0.892	0.364
38	Van Train et al., 1993		28	1	5	4	0.966	0.444
39	Van Train et al., 1990		290	17	32	32	0.945	0.500

Reference:

Fleischmann K E; Hunink M G M; Kuntz K M; et al.
Exercise Echocardiography or Exercise SPECT Imaging? A Meta-analysis of Diagnostic Test Performance
JAMA. 1998;280(10);913-920

Table B9: Meta-Analysis of Diagnostic Accuracy of a 5 mm cutpoint for detecting endometrial cancer by endovaginal ultrasound.

Study	Author	endometrial cancer		no cancer		sens	spec
		TP	FN	FP	TN		
1	Abu Himeidan et al.	81	5	273	186	0.942	0.405
2	Austender et al.	16	0	90	48	1.000	0.348
3	Botsis et al.	8	0	98	14	1.000	0.125
4	Cacciatore et al.	4	0	11	30	1.000	0.732
5	Chan et al.	15	2	35	15	0.882	0.300
6	Dorum et al.	12	3	51	34	0.800	0.400
7	Goldstein et al.	1	0	9	16	1.000	0.640
8	Granberg et al.	18	0	125	32	1.000	0.204
9	Hanggi et al.	18	3	55	13	0.857	0.191
10	Karlsson et al.	112	3	601	414	0.974	0.408
11	Karlsson et al.	14	2	57	33	0.875	0.367
12	Klug et al.	7	1	127	44	0.875	0.257
13	Malinova et al.	57	1	35	26	0.983	0.426
14	Nasri et al.	7	0	38	14	1.000	0.269
15	Nasri et al.	6	0	59	24	1.000	0.289
16	Perti et al.	18	1	35	96	0.947	0.733
17	Teviani et al.	2	0	21	18	1.000	0.462
18	Vamer et al.	1	1	9	4	0.500	0.308
19	Weigel et al.	37	0	72	91	1.000	0.558
20	Wolman et al.	4	0	32	18	1.000	0.360

Reference:

Matthias Egger, George Davey Smith and Douglas G Altman
Systematic Reviews in Health Care
Meta-analysis in context

Table B10: Meta-Analysis of Diagnostic Accuracy of Multidetector computed tomography (MDTA) for assessment of in-sent restenosis in the coronary arteries

Center	Author	coronary artery		no disease		sens	spec
		TP	FN	FP	TN		
1	Schuijf JD, 2004	7	2	15	41	0.778	0.732
2	Cademartri, 2005	5	1	1	67	0.833	0.985
3	Gilard M, 2005	2	0	2	25	1.000	0.926
4	Gasper T, 2005	14	8	11	78	0.636	0.876
5	Chabbert V, 2006	21	2	28	57	0.913	0.671
6	Gilard M, 2006	10	4	0	108	0.714	1.000
7	Ohnuki K, 2006	3	1	2	14	0.750	0.875
8	Watanabe M, 2006	6	0	2	27	1.000	0.931
9	Van Mieghem CA, 2006	10	0	5	55	1.000	0.917
10	Rist C, 2006	6	2	3	34	0.750	0.919
11	Rixe J, 2006	6	6	39	51	0.500	0.567
12	Kefer JM, 2007	12	6	1	50	0.667	0.980
13	Ehara M, 2007	22	2	19	82	0.917	0.812
14	Oncel D, 2007	17	2	1	19	0.895	0.950

Reference:

Vanhoenacker PK, Decramer I, Bladt O, Sarno G, Van Hul E, Wijns W and Dwamena B.
Multidetector computed tomography for assessment of in-sent restenosis: meta-analysis of diagnostic performance
BMC Medical Imaging 2008, 8: 14

Table B11: Meta-Analysis of Diagnostic Accuracy of 11 studies of computed tomographic angiography (CTA) for assessing the carotid artery in stroke patients.

study	Author	method	patient with carotid stenosis		without carotid stenosis		sens	spec
			TP	FN	FP	TN		
1	Bonig 2000	DUS	34	3	10	34	0.919	0.773
2	Borisch 2003		16	1	4	17	0.941	0.810
3	Knudsen 2002		24	1	7	34	0.960	0.829
4	Link 1997		7	1	1	21	0.875	0.955
5	Nederkoorn 2002		127	18	42	129	0.876	0.754
6	Patel MR 1995		20	5	8	47	0.800	0.855
7	Sitzer 1993		48	1	2	7	0.980	0.778
8	Vanninen 1995		7	1	3	36	0.875	0.923
9	Alvarez-Linera 2003	CTA	14	4	1	23	0.778	0.958
10	Anderson 2000		5	2	3	29	0.714	0.906
11	Cumming 1994		9	1	1	27	0.900	0.964
12	Dillon 1993		8	2	2	16	0.800	0.889
13	Leclerc 1995		7	1	1	13	0.875	0.929
14	Leclerc 1998/1999		3	2	1	19	0.600	0.950
15	Link 1995/1996		10	5	2	26	0.667	0.929
16	Link 1997		8	1	1	21	0.889	0.955
17	Magarelli 1998		4	1	1	18	0.800	0.947
18	Patel S 2002		14	8	1	15	0.636	0.938
19	Simeone 1997		6	1	1	34	0.857	0.971
20	Dadachanji 1995	MRA	3	1	1	18	0.750	0.947
21	Elgersma 1999/2000		5	3	4	10	0.625	0.714
22	Levi 1996		11	1	9	28	0.917	0.757
23	Magarelli 1998		4	1	1	18	0.800	0.947
24	Nederkoorn 2002		120	11	40	116	0.916	0.744
25	Patel M 1995		26	2	9	49	0.929	0.845
26	Patel S 2002		21	1	7	9	0.955	0.563
27	Sardanelli 1999		9	1	6	17	0.900	0.739
28	Scarabino 1998		8	1	1	57	0.889	0.983
29	Sitzer 1993		18	7	5	24	0.720	0.828
30	Uehara 1995		7	2	1	33	0.778	0.971
31	Vanninen 1995		7	1	3	37	0.875	0.925
32	Alvarez-Linera 2003	CEMRA	18	1	2	22	0.947	0.917
33	Borisch 2003		16	2	5	17	0.889	0.773
34	Catalano 2001		11	1	1	27	0.917	0.964
35	Cosottini 2003		33	1	3	59	0.971	0.952

36	Remonda 1998		9	1	1	12	0.900	0.923
37	Sardanelli 1999		8	1	1	24	0.889	0.960
38	Scarabino 1998		6	1	1	18	0.857	0.947
39	Scarabino 1998		8	1	3	57	0.889	0.950
40	Turnipseed 1993		10	1	2	8	0.909	0.800

Techniques of Doppler ultrasound (DUS), computed tomographic angiography (CTA), magnetic resonance angiography (MRA), and contrast-enhanced MRA (CEMRA)

Reference:

J M Wardlaw, F M Chappell, J J K Best, K Wartolowska, E Berry,
Non-invasive imaging compared with intra-arterial angiography in the diagnosis of symptomatic carotid stenosis: a meta-analysis

Lancet 2006;367:1503-1512

Table B12: Meta-Analysis of Diagnostic Accuracy of Nucleic acid amplification tests in the diagnosis of tuberculous pleuritis

Study	Author	Test	tuberculosis		without tuberculosis		sens	spec
			TP	FN	FP	TN		
1	D'Amarto et al, 1996	AMPLICOR	2	1	89	0	0.667	1.000
2	Mitarai et al, 2000		9	24	41	1	0.273	0.976
3	Reischl et al, 1998		2	1	65	1	0.667	0.985
4	Shah et al, 1998		4	4	367	0	0.500	1.000
5	Morcillo et al, 2001	LCx	11	5	179	7	0.688	0.962
6	Palacios et al, 1998		13	2	168	3	0.867	0.982
7	Rantakokko-Jalava, 2001		2	3	141	1	0.400	0.993
8	Gracia et al, 1999		3	0	12	0	1.000	1.000
9	Artiles et al, 2001	MTD	1	4	94	2	0.200	0.979
10	Ehlers et al, 1996		3	0	32	0	1.000	1.000
11	Gamboa et al, 1997		13	0	36	0	1.000	1.000
12	Gamboa et al, 1997		13	0	28	0	1.000	1.000
13	Pfyffer et al, 1996		2	2	58	3	0.500	0.951
14	Vlaspolder et al, 1995		1	4	54	2	0.200	0.964
15	Abanto et al, 2000	PCR	25	3	17	0	0.893	1.000
16	Almeda et al, 2000		8	1	16	0	0.889	1.000
17	Chan et al, 1996		11	14	75	1	0.440	0.987
18	Dar et al, 1998		17	11	15	1	0.607	0.938
19	de Lassence et al, 1992		9	6	10	0	0.600	1.000
20	de Lassence et al, 1992		3	12	10	0	0.200	1.000
21	de Wit et al, 1992		41	9	24	7	0.820	0.774
22	de Wit et al, 1990		11	0	5	0	1.000	1.000
23	Gunisha et al, 2001		1	3	25	1	0.250	0.962
24	Kaltwasser et al, 1993		14	1	11	0	0.933	1.000
25	Laniado-Laborin et al, 2001		1	2	10	2	0.333	0.833
26	Manglapan et al, 1996		13	4	25	0	0.765	1.000
27	Martins et al, 2000		13	6	10	1	0.684	0.909
28	Miyazaki et al, 1993		4	1	98	7	0.800	0.933
29	Nagesh et al, 2001		14	6	40	0	0.700	1.000
30	Pao et al, 1990		11	0	29	8	1.000	0.784
31	Parandaman et al, 2000		30	0	14	6	1.000	0.700
32	Portillo-Gomez et al, 2000		16	1	56	0	0.941	1.000
33	Quero et al, 1995		17	4	84	2	0.810	0.977
34	Reechaipichikul et al, 2000		26	10	33	29	0.722	0.532
35	Tan et al, 1995		7	3	13	0	0.700	1.000
36	Tan et al, 1995		7	3	13	0	0.700	1.000
37	Tan et al, 1997		16	0	43	6	1.000	0.878
38	Verma et al, 1995		24	14	27	2	0.632	0.931
39	Villegas et al, 2000		31	11	63	7	0.738	0.900
40	Villena et al, 1998		14	19	97	1	0.424	0.990

Type of test: Amplicor (Roche Molecular Systems, Branchburg, NJ); MTD (Gen-Probe Inc, San Diego, CA); LCx (Abbott Laboratories, Abbott Park, IL); PCR (polymerase chain reaction)

Reference:

Madhukar Pai, Laura L Flores, Alan Hubbard, Lee W Riley and John M Colford Jr
Nucleic acid amplification tests in the diagnosis of tuberculous pleuritis: a systematic review and meta-analysis
BMC Infectious Diseases 2004, 4:6

Table B13: Meta-Analysis of Diagnostic Accuracy of enzyme-linked immunosorbent assays (ELISA) for antibodies against Tissue Transglutaminase (tTG) of various origins in celiac disease

Study	Author	tTG type	Celiac disease		no disease		sens	spec
			TP	FN	FP	TN		
1	Sugal, 2000	gp	73	6	1	41	92	98
2	Martini, 2002	rh	84	17	15	175	83	92
3		rh	97	4	34	156	96	82
4		rh	67	34	17	173	66	91
5		rh	81	20	2	188	80	99
6		gp	77	24	13	177	76	93
7	Burgin-Wolf, 2002	rh	200	8	2	155	96	99
8	Basso, 2001	rh	34	4	0	34	89	100
9		gp	32	6	0	34	84	100
10		ph	32	6	0	34	84	100
11		ph	29	9	0	34	76	100
12	Tesei, 2003	rh	233	18	9	167	93	95
13	Carroccio, 2002	rh	24	0	5	178	100	97
14		gp	24	0	15	168	100	92
15	Wong, 2002	rh	35	14	0	34	71	100
16		rh	48	1	3	31	98	91
17		rh	47	2	4	30	96	88
18		ph	48	1	0	34	98	100
19		ph	49	0	5	29	100	85
20		rh	49	0	0	34	100	100
21		gp	43	6	3	31	88	91
22		gp	48	1	22	12	98	35
23		gp	47	2	8	26	96	77
24		gp	45	4	8	26	92	77
25		gp	49	0	30	4	100	12
26		gp	42	7	0	34	86	100
27		gp	48	1	16	18	98	53
28	Hansson, 2000	ph	22	0	1	44	100	98
29		gp	20	2	1	44	91	98
30	Sblattero, 2000	rh	59	6	2	168	91	99
31		gp	53	12	3	167	82	98
32	Hansson, 2002	rh	25	0	2	51	100	96
33	Trevisiol	rh	140	0	0	200	100	100
34	Blackwell, 2002	rh	32	0	6	32	100	84
35		rh	29	3	1	37	91	97
36		ph	28	4	5	33	88	87
37		ph	30	2	3	35	94	92
38		gp	16	16	24	14	50	38
39	Johnston, 2003	gp	25	4	10	53	86	84
40	Fabiani, 2001	gp	359	40	17	415	90	96
41	Vitoria, 1999	gp	27	0	2	32	100	94
42	Scoglio, 2003	gp	133	1	16	31	99	66

Study	Author	tTG type	Celiac disease		no disease		sens	spec
			TP	FN	FP	TN		
43	Llorente, 2004	rh	62	0	3	61	100	95
44	Wolters, 2002	rh	51	1	0	49	99	99
45		gp	49	3	4	45	95	92
46	Leon, 2001	rh	85	1	2	150	99	99
47		gp	82	4	12	140	95	92
48	Osman, 2002	ph	35	0	2	135	100	98.6
49		gp	30	5	1	136	85.7	99.3
50	Kumar, 2001	gp	31	3	8	259	91	97

Reference:

Elias Zintzaras and Anastasios E. Germenis
Performance of Antibodies against Tissue Transglutaminase for the Diagnosis of Celiac Disease: Meta-Analysis
CLINICAL AND VACCINE IMMUNOLOGY, Feb. 2006, p. 187-192

Table B14.1: Meta-Analysis of Diagnostic Accuracy of single serum progesterone measurement in the diagnosis of pregnancy failure versus viable intrauterine pregnancy (IUP).

Study	Author	pregnancy failure		viable IUP		sens	spec
		TP	FN	FP	TN		
1	Al-Sebai et al., 1995	187	23	34	235	0.890	0.874
2	Daily et al., 1994	7	9	5	53	0.438	0.914
3	Hahlin et al., 1991	181	53	1	72	0.774	0.986
4	Hubinont et al., 1987	54	30	64	514	0.643	0.889
5	Isaacs et al., 1994	29	20	3	64	0.592	0.955
6	O'Leary et al., 1996	22	41	0	47	0.349	1.000
7	Lower and Yovich, 1992	205	80	156	234	0.719	0.600
8	Ledger et al., 1994	69	77	0	35	0.473	1.000
9	Mesrogli et al., 1988	89	11	5	34	0.890	0.872
10	Riss et al., 1989	44	4	8	15	0.917	0.652
11	Stern et al., 1993	34	62	17	225	0.354	0.930
12	Stovall et al., 1989	181	14	96	291	0.928	0.752
13	Yeko et al., 1987	45	1	0	24	0.978	1.000
14	Buck et al., 1988	103	13	4	73	0.888	0.948
15	Darai et al., 1996	34	26	3	27	0.567	0.900
16	Peterson et al., 1992	63	0	6	16	1.000	0.727
17	Choe et al., 1992	91	31	0	72	0.746	1.000
18	Gelder et al., 1991	23	49	1	53	0.319	0.981
19	Grosskinky et al., 1993	48	17	3	27	0.738	0.900
20	Joupilla et al., 1980	67	28	6	78	0.705	0.929
21	McCord et al., 1996	1439	389	128	1298	0.787	0.910
22	Sauer etal., 1989	33	11	0	21	0.750	1.000
23	Stewart etal., 1995	49	7	7	14	0.875	0.667
24	Williams et al., 1992	80	45	5	44	0.640	0.898
25	Witt et al., 1990	69	21	8	123	0.767	0.939
26	Guillaume et al., 1990	64	62	0	69	0.508	1.000
27	Guengoer et al., 1995	49	1	0	55	0.980	1.000

Table B14.2: Meta-Analysis of Diagnostic Accuracy of single serum progesterone measurement in the diagnosis of ectopic pregnancy (EP) versus all other pregnancies.

Study	Author	ectopic pregnancy		non-ectopic pregnancy		sens	spec
		TP	FN	FP	TN		
1	Al-Sebai et al., 1995	34	1	187	257	0.971	0.579
2	Hahlin et al., 1991	120	39	62	86	0.755	0.581
3	Hubinont et al., 1987	9	2	109	542	0.818	0.833
4	O'Leary et al., 1996	4	20	18	68	0.167	0.791
5	Ledger et al., 1994	13	25	56	87	0.342	0.608
6	Mesrogli et al., 1988	63	7	31	38	0.900	0.551
7	Riss et al., 1989	14	0	38	19	1.000	0.333
8	Stern et al., 1993	11	4	40	283	0.733	0.876
9	Yeko et al., 1987	28	0	17	25	1.000	0.595
10	Buck et al., 1988	11	19	26	34	0.367	0.567
11	Darai et al., 1996	42	0	27	16	1.000	0.372
12	Peterson et al., 1992	20	11	71	92	0.645	0.564
13	Choe et al., 1992	19	27	5	75	0.413	0.938
14	Gelder et al., 1991	9	2	42	42	0.818	0.500
15	Grosskinky et al., 1993	7	1	66	105	0.875	0.614
16	Joupilla et al., 1980	300	110	1267	1577	0.732	0.555
17	McCord et al., 1996	20	7	13	25	0.741	0.658
18	Sauer etal., 1989	34	3	22	18	0.919	0.450
19	Stewart etal., 1995	33	18	52	71	0.647	0.577
20	Williams et al., 1992	24	8	53	136	0.750	0.720
21	Witt et al., 1990	64	389	128	1298	0.141	0.910
22	Guillaume et al., 1990	33	11	0	21	0.750	1.000

Reference:

Mol B W., Lijmer J G., Ankum W M., Van der Veen F., Bossuyt P M M.
The accuracy of single serum progesterone measurement in the diagnosis of ectopic pregnancy: meta-analysis
Human Reproduction vol.13 no.11 pp.3220-3227, 1998

Table B15: Meta-Analysis of Diagnostic Accuracy of three different radiological methods of lymphangiography (LAG), computed tomography (CT), and magnetic resonance (MR) imaging for the diagnosis of lymph node metastasis in patients with cervical cancer.

Study	Author	method	cervical cancer		no cervical cancer		sens	spec
			TP	FN	FP	TN		
1	Grumbine, 1981	CT	0	6	1	17	0.000	0.944
2	Walsh, 1981		12	3	3	7	0.800	0.700
3	Brenner, 1982		4	2	1	7	0.667	0.875
4	Villatsana, 1983		10	3	4	25	0.769	0.862
5	van Engelshoven, 1984		3	4	1	12	0.429	0.923
6	Bandy, 1985		9	3	3	29	0.750	0.906
7	Vas, 1985		20	8	4	31	0.714	0.886
8	King, 1986		17	7	5	21	0.708	0.808
9	Feigen, 1987		2	9	0	32	0.182	1.000
10	Camilien, 1988		3	9	1	38	0.250	0.974
11	Janus, 1989		1	2	1	18	0.333	0.947
12	Matsukuma, 1989		5	2	2	61	0.714	0.968
13	Heller, 1990		21	40	8	184	0.344	0.958
14	Kim, 1990		4	9	3	42	0.308	0.933
15	Ho, 1992		0	5	0	15	0.000	1.000
16	Kim, 1993		7	22	11	158	0.241	0.935
17	Subak, 1995		3	2	3	29	0.600	0.906
18	Kindermann, 1970	LAG	19	10	1	81	0.655	0.988
19	Lecart, 1971		8	2	9	13	0.800	0.591
20	Piver, 1971		41	12	1	49	0.774	0.980
21	Piver, 1973		5	2	1	18	0.714	0.947
22	Kolbenstvedt, 1975		45	32	58	165	0.584	0.740
23	Leman Jr, 1975		8	2	6	32	0.800	0.842
24	Brown, 1979		5	1	8	7	0.833	0.467
25	Lagasse, 1979		15	11	17	52	0.577	0.754
26	Kjorstad, 1980		16	8	11	24	0.667	0.686
27	Ashraf, 1982		4	2	8	25	0.667	0.758
28	de Muylder, 1984		8	10	12	70	0.444	0.854
29	Smales, 1986		10	4	4	55	0.714	0.932
30	Feigen, 1987		2	6	5	23	0.250	0.821
31	Swart, 1989		7	7	10	30	0.500	0.750
32	Heller, 1990		44	12	50	135	0.786	0.730
33	Lafianza, 1990		8	1	3	37	0.889	0.925
34	Stellato, 1992		4	0	3	14	1.000	0.824
35	Hricak, 1988	MRI	9	2	2	44	0.818	0.957
36	Greco, 1989		3	5	6	32	0.375	0.842
37	Janus, 1989		3	1	2	16	0.750	0.889
38	Kim, 1990		3	12	1	44	0.200	0.978
39	Ho, 1992		0	5	0	15	0.000	1.000
40	Kim, 1993		7	22	2	167	0.241	0.988
41	Hawnaur, 1994		12	4	4	29	0.750	0.879
42	Kim, 1994		23	14	5	230	0.622	0.979
43	Subak, 1995		8	5	5	53	0.615	0.914
44	Heuck, 1997		16	2	2	22	0.889	0.917

Reference:

Scheidler J, Hricak H, Yu KK, Subak L, Segal MR.
Radiological evaluation of lymph node metastases in patients with cervical cancer. A meta-analysis.
Journal of the American Medical Association, 1997,278, 1096-1101.

Table B16: Meta-Analysis of Diagnostic Accuracy of commercial antibody detection tests for the diagnosis of pulmonary tuberculosis.

Author	commercial tests	pulmonary tuberculosis		Healthy	
		TP	FN	FP	TN
Al-Hajjaj, 1990	Anda-TB	154	46	8	98
Al-Hajjaj, 1990		102	98	0	106
Al-Hajjaj, 1990		174	26	9	172
Alifano, 1994		35	7	2	92
Alifano, 1996		28	5	2	42
Alifano, 1996		27	6	5	39
Alifano, 1996		23	13	3	41
Alifano, 1996		23	13	5	39
Kalanri, 2005		84	21	0	40
Kalanri, 2005		30	75	0	40
Luh, 1996		52	10	32	261
Luh, 1996		50	20	32	261
Okuda, 2004		28	6	10	101
Okuda, 2004		19	7	10	101
Sachan, 1994		56	10	0	32
Traunmuller, 2005		32	6	21	58
van der Werf, 1992		36	10	4	26
Wu HP, 2004		58	34	4	30
Wu HP, 2004		30	56	4	30
Alifano, 1997	TB Enzyme Immunoassay	24	8	4	24
Alifano, 1997		38	18	4	24
Conde, 2004		30	10	7	24
Conde, 2004		33	7	16	15
Julian, 2000		20	7	19	17
Butt, 2004	Pathozyme TB Complex Plus	60	34	2	88
Imaz, 2004		12	29	0	45
Julian, 2004		9	20	5	30
Wilkinson, 1997		98	27	2	32
Wilkinson, 1997		54	17	2	32
Linuma, 2002	TB Glycolipod Assay	42	5	15	39
Maekura, 2001		148	16	27	153
Maekura, 2001		36	16	180	0
Maekura, 2003		42	28	6	46
Okuda, 2004		26	8	12	99
Okuda, 2004		20	6	12	99
McConkey, 2002	ICT	62	9	13	61
Ongut, 2006		21	32	0	54
Perkins, 2003		77	43	5	29
Antunes, 2002	MycoDot	29	17	18	205
Antunes, 2002		23	11	16	182
Okuda, 2004		26	8	3	108
Okuda, 2004		15	11	3	108
Somi, 1999		10	29	16	86
Butt, 2004	Pathozyme Myco	43	51	6	84
Butt, 2004		63	31	2	88
Imaz, 2004		20	21	0	45

Author	commercial tests	pulmonary tuberculosis		Healthy	
		TP	FN	FP	TN
Imaz, 2004		13	28	3	42
Imaz, 2004		14	27	1	44
Imaz, 2004		26	15	3	42
Imaz, 2004		16	25	1	44
Imaz, 2004		20	21	4	41
Imaz, 2004		28	13	4	41
Julian, 2004		12	17	1	34
Julian, 2004		3	26	1	34
Julian, 2004		6	23	1	34
Butt, 2004	Pathozyme Myco and Pathozyme TB Complex	71	23	6	84
Butt, 2004		77	17	3	87
Butt, 2004		82	12	6	84
Imaz, 2004		24	17	0	45
Imaz, 2004		21	20	3	42
Imaz, 2004		20	21	1	44
Imaz, 2004		27	14	1	44
Imaz, 2004		25	16	4	41
Imaz, 2004		31	10	4	41
Amicosante, 1999	Detect-TB and Kaolin Agglutination Test	45	9	4	146
Amicosante, 1999		30	16	4	146
Chandrase karan, 1990		100	84	29	179
Chandrase karan, 1990		36	30	29	179

Reference:
Karen P. Steingart, Megan Henry, Suman Laal, Philip C. Hopewell, Andrew Ramsay, Dick Menzies, Jane Cunningham, Karin Weldingh, Madhukar Pai
Commercial Serological Antibody Detection Tests for the Diagnosis of Pulmonary Tuberculosis: A Systematic Review
PLoS Medicine, June 2007, Vol 4, Issue 6, e202

Table B17: Meta-Analysis of Diagnostic Accuracy of six diagnostic tests for predicting perioperative cardiac risk in patients undergoing major vascular surgery

Author	Test	coronary astery disease		no disease	
		TP	FN	FP	TN
Ouyoung, 1989	Ambulatory electrocardiograghy	2	0	9	13
Raby, 1989		3	1	143	29
Pastermack, 1989		9	0	73	118
Mangano, 1990		1	5	109	25
Fleischer, 1991		1	2	49	15
McPhail, 1993		5	4	62	29
Kirwin, 1993		1	14	73	8
Fleischer, 1995		2	2	64	18
Cutler, 1981	Exerciseelectrocardiograghy	8	1	79	32
Gardine, 1985		1	0	10	6
von Knorring, 1986		2	1	78	24
Hanson, 1988		1	0	32	41
Leppo, 1987		3	4	44	2
Kaaja, 1993		2	0	44	2
Urbinati, 1994		2	0	93	48
Fiser, 1983	Radionuclide ventriculography	2	0	18	0
Pastermack, 1984		4	4	41	1
Mosley, 1985		3	1	36	1
Pastermack, 1985		6	8	84	1
Kazmers, 1988		1	4	46	9
Franco, 1989		3	12	58	12
McCann, 1989		1	2	83	18
Fletcher, 1989		3	0	62	7
Boucher, 1985	Myocardial perfusion scintigraphy	3	0	20	25
Cutler, 1987		9	0	62	30
Fletcher, 1988		2	0	57	3
Sachs, 1988		2	0	32	12
Lane, 1989		9	0	20	72
Eagle, 1989		13	2	116	69
Younis, 1990		8	0	51	48
McEnroe, 1990		4	2	44	37
Strawn, 1991		1	3	18	31
Watters, 1991		3	0	11	12
Mangano, 1991		2	1	19	38
Hendel, 1992		23	5	155	144
Madsen, 1992		5	0	20	40
McPhail, 1993		6	3	67	24
Bry, 1994		17	0	97	114
baron, 1994		26	16	187	228
Ombrellaro, 1995		2	2	125	33
Erickson, 1996		6	1	55	80
Vanzetto, 1996		11	1	50	72
Klonaris, 1998		7	1	43	116
Huang, 1998		5	0	24	75
de Virgilio, 1998		2	0	27	30
de Virgilio, 2000		3	1	35	41
Tischler, 1991	Dipyridamole stress echocardiography	4	0	100	5

Author	Test	coronary astery disease		no disease	
		TP	FN	FP	TN
Pasquet, 1998	Dipyridamole stress echocardiography	2	3	99	25
Rossi, 1998		4	3	74	22
Sicari, 1999		15	2	419	73
Lalka, 1992	Dobutamine stress echocardiography	8	1	21	30
Davila-Roman, 1993		2	0	68	8
Langan, 1993		3	0	31	40
Poldermans, 1995		5	0	96	30
Eichelberger, 1993		2	0	48	25
Poldermans, 1995		17	0	228	55
Shafritz, 1997		1	0	30	11
Boersma, 2001		29	14	863	187

Reference:

MD Kertai, E Boersma, J J Bax, M H Heijenbrok-Kal, M G M Hunink, G J L'talien, J R T C Roelandt, H van Urk, D Poldermans
A meta-analysis comparing the prognostic accuracy of six diagnostic tests for predicting perioperative cardiac risk in patients undergoing major vascular surgery
Heart 2003;89:1 1327-1334

Table B18: Meta-Analysis of Diagnostic Accuracy of SPECT in parkinsonian syndromes

Author	Methology	Radiotracer	Disease		Healthy		sens	spec
			TP	FN	FP	TN		
Asenbaum,1998	Early parkinson's	**Presynaptic**	23	6	30	0	0.793	0.000
Haapanimie, 2001	Disease	**Presynaptic**	16	13	21	0	0.552	0.000
Huang, 2001	VS	**Presynaptic**	32	2	17	0	0.941	0.000
Muller, 1998	Normalcy	**Presynaptic**	14	10	15	0	0.583	0.000
Schwarz, 2000		**Presynaptic**	28	0	9	0	1.000	0.000
V.Laere(FP-CIT), 2004		**Presynaptic**	15	24	10	0	0.385	0.000
V.Laere(TRODAT), 2004		**Presynaptic**	3	34	10	0	0.081	0.000
Booij, 2000	Parkinson's	**Presynaptic**	7	1	5	0	0.875	0.000
Benamer, 2000	Disease	**Presynaptic**	127	3	25	2	0.977	0.074
Plotkin, 2005	VS	**Presynaptic**	24	1	11	0	0.960	0.000
Eerola, 2005	Essential tremor	**Presynaptic**	92	0	16	0	1.000	0.000
Vlaar, 2006		**Presynaptic**	90	22	20	1	0.804	0.048
Lokkegaard, 2002		**Presynaptic**	44	1	8	0	0.978	0.000
Asenbaum, 1998		**Presynaptic**	23	6	32	0	0.793	0.000
Lee, 1999		**Presynaptic**	10	1	12	3	0.909	0.200
Vlaar, 2006		**Postsynaptic**	48	33	6	7	0.593	0.538
Plotkin, 2005		**Postsynaptic**	25	0	0	11	1.000	1.000
Vlaar, 2006	Parkinson's	**Presynaptic**	90	22	14	0	0.804	0.000
Booij, 2000	Disease	**Presynaptic**	7	1	4	0	0.875	0.000
Eerola, 2005	VS	**Presynaptic**	92	0	11	4	1.000	0.267
Lokkegaard, 2002	Vascular	**Presynaptic**	44	1	3	1	0.978	0.250
Gerschlager, 2002	parkinsonism	**Presynaptic**	18	2	12	1	0.900	0.077
Vlaar, 2006		**Postsynaptic**	65	16	8	4	0.802	0.333
Booij, 2000	Parkinson's	**Presynaptic**	7	1	1	2	0.875	0.667
Benamer, 2000	Disease	**Presynaptic**	127	3	1	27	0.977	0.964
Plotkin, 2005	VS	**Presynaptic**	24	1	3	18	0.960	0.857
Eerola, 2005	Atypical	**Presynaptic**	92	0	1	11	1.000	0.917
Stoffers, 2005	Parkinsonian	**Presynaptic**	30	32	2	6	0.484	0.750
Lokkegaard, 2002	syndromes	**Presynaptic**	44	1	2	13	0.978	0.867
Kim, 2002		**Presynaptic**	18	0	1	12	1.000	0.923
Lu, 2004		**Presynaptic**	36	0	6	43	1.000	0.878
Messa, 1998		**Presynaptic**	13	0	0	5	1.000	1.000
Pirker, 2002		**Presynaptic**	26	10	3	7	0.722	0.700
Vlaar, 2006		**Presynaptic**	90	22	4	13	0.804	0.765
Schwarz, 1993		**Postsynaptic**	45	2	9	6	0.957	0.400
Schwarz, 1997		**Postsynaptic**	30	4	8	1	0.882	0.111
Schwarz, 1998		**Postsynaptic**	53	5	5	2	0.914	0.286
Buck, 1995		**Postsynaptic**	17	0	3	3	1.000	0.500
Kim, 2002		**Postsynaptic**	18	0	5	8	1.000	0.615
Oertel, 1993		**Postsynaptic**	49	12	6	0	0.803	0.000
Oyanagu, 2002		**Postsynaptic**	7	0	2	4	1.000	0.667
Pirker, 1997		**Postsynaptic**	9	0	0	10	1.000	1.000
Plotkin, 2005		**Postsynaptic**	25	0	9	12	1.000	0.571
Schwarz, 1994		**Postsynaptic**	19	0	1	1	1.000	0.500
Seppi, 2004		**Postsynaptic**	12	5	13	2	0.706	0.133
Tatsch, 1991		**Postsynaptic**	18	0	20	4	1.000	0.167
Schelovsky, 1993		**Postsynaptic**	30	0	8	6	1.000	0.429
Vlaar, 2006		**Postsynaptic**	65	16	16	10	0.802	0.385

Author	Methology	Radiotracer	Disease		Healthy		sens	spec
			TP	FN	FP	TN		
Vlaar, 2006	Multisystem Atrophy VS Progressive Supranuclear Palsy	**Presynaptic**	19	0	1	9	1.000	0.900
Plotkin, 2005		**Presynaptic**	7	0	1	5	1.000	0.833
Pirker, 1997		**Presynaptic**	7	2	2	4	0.778	0.667
Pirker, 2002		**Presynaptic**	18	0	1	9	1.000	0.900
Kim, 2002		**Presynaptic**	11	2	1	7	0.846	0.875
Benamer, 2000		**Presynaptic**	4	1	0	2	0.800	1.000
Buck, 1995		**Postsynaptic**	5	2	6	0	0.714	0.000
Kim, 2002		**Postsynaptic**	1	1	2	2	0.500	0.500
Plotkin, 2005		**Postsynaptic**	7	6	6	2	0.538	0.250
Vlaar, 2006		**Postsynaptic**	10	4	3	6	0.714	0.667
Royen, 1993		**Postsynaptic**	13	4	1	3	0.765	0.750

Reference:

Annemarie MM Vlaar, Marinus JPG van Kroonenburgh, Alfons GH Kessels and Wim EJ Weber
Meta-analysis of the literature on diagnostic accuracy of SPECT in parkinsonian syndromes.
BMC Neurology 2007, 7:27

Table B19: Diagnostic Performance of Per-Segment and Per-Patient Analysis of Spiral CT Compared with Invasive Coronary Angiography

Author	analysis type	coronary artery disease		no disease		sens	spec
	per-segment(1) /per-patient(0)	TP	FN	FP	TN		
Nieman et al, 2002	1	38	0	13	7	1.000	0.350
Hoffmann et al, 2004	0	34	20	19	457	0.630	0.960
	1	19	2	3	9	0.905	0.750
Kuettner et al, 2004	0	54	21	21	667	0.720	0.969
	1	35	1	1	23	0.972	0.958
Martuscelli et al, 2004	0	83	10	9	511	0.892	0.983
Mollet et al, 2004	0	216	18	58	1092	0.923	0.950
	1	106	0	3	18	1.000	0.857
Cademartiri et al, 2005	0	88	4	14	322	0.957	0.958
Hoffmann et al, 2005	0	149	8	22	1117	0.949	0.981
	1	56	2	7	38	0.966	0.844
Kaiser st al, 2005	0	128	304	146	1532	0.296	0.913
	1	96	16	19	18	0.857	0.486
Kuettner et al, 2005	0	304	55	29	1172	0.847	0.976
Kuettner et al, 2005	0	96	21	15	804	0.821	0.982
Mollet et al, 2005	0	61	3	9	537	0.953	0.984
	1	31	0	3	17	1.000	0.850
Morgan-Hugues et al, 2005	0	75	15	19	566	0.833	0.968
	1	32	0	1	24	1.000	0.960
Probst et al, 2005	0	188	8	70	424	0.959	0.858
Schuijf et al, 2005	0	59	5	22	231	0.922	0.913
Achenbach et al, 2005	0	50	3	23	559	0.943	0.960
	1	25	0	4	19	1.000	0.826
Kefer et al, 2005	0	64	14	76	293	0.821	0.794
	1	32	2	6	12	0.941	0.667
Moon et al, 2005	1	30	5	2	21	0.857	0.913
Manghat et al, 2006	0	26	6	19	361	0.813	0.950
Ghersin et al, 2006	0	68	17	62	482	0.800	0.886
Dewey et al, 2006	1	56	5	10	37	0.918	0.787
Rodevand et al, 2006	1	49	0	37	15	1.000	0.288
Reant et al, 2006	0	14	4	19	421	0.778	0.957
	1	12	1	6	21	0.923	0.778
Nikolaou et al, 2006	0	4	1	3	380	0.800	0.992
	1	4	1	3	52	0.800	0.945
Garcia et al, 2006	0	90	51	19	638	0.638	0.971
	1	22	3	3	17	0.880	0.850
Leber et al, 2005	0	90	51	19	638	0.638	0.971
	1	22	3	3	17	0.880	0.850
Leschka et al, 2005	0	165	11	24	805	0.938	0.971
	1	47	0	0	20	1.000	1.000
Mollet et al, 2005	0	93	1	30	601	0.989	0.952
	1	38	0	1	12	1.000	0.923
Pugliese et al, 2005	0	66	1	19	40	0.985	0.678
	1	25	0	1	9	1.000	0.900
Raff et al, 2005	0	79	13	41	802	0.859	0.951
	1	38	2	3	27	0.950	0.900
Schuijf et al, 2006	0	62	11	14	755	0.849	0.982

Author	analysis type	coronary artery disease		no disease		sens	spec
	per-segment(1) /per-patient(0)	TP	FN	FP	TN		
	1	29	2	1	28	0.935	0.966
Ropers et al, 2006	0	39	3	31	1010	0.929	0.970
	1	25	1	5	50	0.962	0.909
Ehara et al, 2006	0	275	29	35	545	0.905	0.940
	1	59	1	1	6	0.983	0.857
Nikolaou et al, 2006	0	97	21	43	762	0.822	0.947
	1	38	1	6	23	0.974	0.793
Meijboom et al, 2006	0	34	2	18	949	0.944	0.981
	1	18	0	4	48	1.000	0.923
Scheffel et al, 2006	0	54	2	9	355	0.964	0.975
	1	14	1	0	15	0.933	1.000
Muelenbruch et al, 2006	0	91	14	30	591	0.867	0.952
	1	44	1	3	3	0.978	0.500
Plass et al, 2006	0	111	17	18	404	0.867	0.957

Reference:

Michele Harmon, Remy Morello, John W. Riddell, Martial Harmon
Coronary Arteries: Diagnostic Performance of 16- versus 64-Section Spiral CT Compared with Invasive Coronary Angiography -Meta-Analysis.
Radiology: Volume.245: Number 3-December 2007

Table B20: The diagnostic accuracy of stress ECG for the detection of coronary artery disease

study	author	coronary artery disease		no disease		sens	spec
		TP	FN	FP	TN		
1	Michaelides	139	72	4	30	0.659	0.882
2	Mairesse	35	48	8	38	0.422	0.826
3	Koskinen	57	33	2	8	0.633	0.800
4	Huang	77	77	6	19	0.500	0.760
5	Kajinami	98	35	29	89	0.737	0.754
6	De	15	19	23	62	0.441	0.729
7	Santana-Boado	54	27	24	58	0.667	0.707
8	Hamasaki	39	8	27	51	0.830	0.654
9	Hecht	35	33	17	31	0.515	0.646
10	Daou	121	137	29	51	0.469	0.638
11	Beygui	33	32	43	71	0.508	0.623
12	Nallamothu	114	133	30	44	0.462	0.595
13	Gentile	92	16	10	14	0.852	0.583
14	Psirropoulos	335	28	138	105	0.923	0.432
15	Khattar	39	17	26	18	0.696	0.409

Reference:

G Mowatt, L Vale, M Brazzelli, R Hernandez, A Murray, N Scott, C Fraser, L McKenzie, H Gemmell, G Hillis and M Metcalfe

Systematic review of the effectiveness and cost-effectiveness, and management of angina and myocardial infraction

Health Technology Assessment 2004;8

Table B21: Meta-Analysis of Diagnostic Accuracy of prostate cancer studies which use magnetic resonance spectroscopy (MRS) as a diagnostic tool.

Study	Author	Criterion	prostate cancer		no prostate cancer		sens	spec
			TP	FN	FP	TN		
1	Mueller-Lisse UG, 2001	0.75	122	30	35	55	0.803	0.611
2	Jung JA, 2004	0.75	73	8	80	219	0.901	0.732
		0.75	75	6	92	207	0.926	0.692
3	Wefer AE, 2000	0.75	123	39	38	50	0.759	0.568
4	Scheider J, 1999	0.75	134	21	40	39	0.865	0.494
5	Kyle KY, 1999	0.75	12	12	7	75	0.500	0.915
1	Mueller-Lisse UG, 2001	0.86	81	71	24	66	0.533	0.733
2	Jung JA, 2004	0.86	56	25	32	267	0.691	0.893
		0.86	52	29	46	253	0.642	0.846
4	Scheider J, 1999	0.86	98	57	20	59	0.632	0.747
6	Yuen JS, 2004	0.86	6	9	15	266	0.400	0.947
7	Prando A, 2005	0.86	44	8	32	264	0.846	0.892

Reference:

Peng Wang, You-min Guo, Yong-qian Qiang, Xiao-Yi Duan, Qui-Juan Zhang and Weifeng Liang
A meta-analysis of the accuracy of prostate cancer studies which use magnetic resonance spectroscopy (MRS) as a diagnostic tool
Korean J Radiol 2008;9:432-438

Table B22: Meta-Analysis of Diagnostic Accuracy of the alcohol use identification test (AUDIT) for detecting at-risk drinking.

Study	Author	Alcohol-use disorder		no disorder		sens	spec
		TP	FN	FP	TN		
1	Gual et al., 2002	54	10	19	172	0.844	0.901
2	Contel et al., 1999	9	1	33	145	0.900	0.815
3	Gomez et al., 2001	41	5	31	423	0.891	0.932
4	Rumpf et al., 2002	219	62	621	2649	0.779	0.810
5	Gordon et al., 2001	681	73	936	5264	0.903	0.849
6	Taj et al., 1998	50	25	8	18	0.667	0.692
7	Daeppen et al., 2000	56	21	18	237	0.727	0.929
8	MacKenzie et al., 1996	26	2	13	198	0.929	0.938
9	Neumann et al., 2004	199	61	292	1375	0.765	0.825
10	Kokotailo et al., 2004	80	8	86	128	0.909	0.598
11	Bradley et al., 1998	91	14	47	109	0.867	0.699
12	Philpot et al., 2003	12	6	4	106	0.667	0.964
13	Skipsey et al., 1997	30	1	16	35	0.968	0.686
14	Hiro et al., 1996	21	2	15	55	0.913	0.786
15	Piccinelli et al., 1997	59	11	41	371	0.843	0.900
16	Bradley et al., 2003	62	27	43	261	0.697	0.859

Reference:

Berner M.M., Kriston L., Bentele m., & Haerter M. (2007)
The Alcohol Use Disorders Identification Test for Detecting at-risk Drinking: A Systematic Review and Meta-analysis.
Journal of Studies on Alcohol and Drugs, 68, 1-13.

Table B23: Meta-Analysis of Diagnostic Accuracy of Exercise Thallium Scintigram for predicting angiographic coronary artery disease

Study	Author	coronary artery disease		no disease		sens	spec
		TP	FN	FP	TN		
1	Amor, 1984	93	15	0	35	0.86	1
2	Balley, 1977	47	16	0	3	0.75	1
3	Berger, 1981	100	10	3	27	0.91	0.9
4	Blood, 1978	55	7	5	20	0.89	0.8
5	Bodenheimer, 1979	55	18	2	20	0.75	0.91
6	Botvinik, 1978	35	6	4	29	0.85	0.89
7	Boucher, 1980	141	21	16	49	0.87	0.75
8	Brown, 1983	67	14	19	39	0.83	0.67
9	Burke, 1984	34	9	1	7	0.79	0.88
10	Caldwell, 1980	28	11	0	13	0.71	1
11	Canhashi, 1984	52	4	6	11	0.93	0.65
12	Carillo, 1978	34	5	0	16	0.87	1
13	Chaitman, 1984	53	18			0.75	0
14	Cinotti, 1983	52	17	3	24	0.75	0.9
15	Dash, 1979	66	15	0	15	0.81	1
16	Del Rio-Meraza, 1985	50	7	4	19	0.88	0.83
17	Dunn, 1979	102	6	3	14	0.94	0.82
18	Faris, 1982	83	4	0	20	0.95	1
19	Friedman, 1982	22	6	4	28	0.79	0.88
20	Hamilton, 1978	82	25	2	28	0.77	0.93
21	Hirzel, 1979	159	16	2	12	0.91	0.86
22	Hung, 1985	21	7	6	58	0.75	0.91
	Hung, 1984	94	23	7	47	0.8	0.87
23	Ilsley, 1982	8	3	1	55	0.73	0.98
24	Iskandrian, 1980	45	14	7	36	0.76	0.84
	Iskandrian, 1980	75	16	2	28	0.82	0.93
25	Jengo, 1980	39	3	1	15	0.93	0.94
26	Kambara, 1982	27	6	2	24	0.82	0.92
	Kambara, 1982	56	11	1	39	0.84	0.97
27	Kaul, 1986	253	28	9	35	0.9	0.8
28	Lenaers, 1977	52	3	1	14	0.95	0.93
29	Massie, 1979	57	7	1	13	0.89	0.93
	Massie, 1984	48	2	2	9	0.96	0.82
30	Melin,1985	31	13	5	86	0.7	0.95
	Melin,1981	86	13	7	54	0.87	0.89
31	Murray, 1981	54	6	5	35	0.9	0.88
32	Nakashima, 1982	26	2	8	7	0.93	0.47
33	O'Hara, 1985	77	3	8	15	0.96	0.65
34	O'Keefe, 1983	22	6	3	19	0.79	0.86
35	Osbakken, 1984	65	21	11	23	0.76	0.68
36	Patterson, 1982	42	8	17	29	0.84	0.63
37	Ritchie, 1978	112	36	5	37	0.76	0.88
38	Rizi, 1981	49	3	1	10	0.94	0.91
39	Rothendler, 1985	26	16	5	13	0.63	0.72
40	Schicha, 1980	55	5	1	9	0.92	0.9
41	Schneider, 1977	59	1	6	5	0.98	0.45

Study	Author	coronary artery disease		no disease		sens	spec
		TP	FN	FP	TN		
42	Silber, 1979	71	15	4	18	0.83	0.8
43	Starling, 1985	119	15	4	38	0.89	0.9
44	Tamaki, 1984	58	3	1	13	0.95	0.95
45	Turner, 1978	24	11	1	28	0.68	0.97
46	Uhl, 1981	39	2	14	137	0.94	0.91
47	Underwood, 1982	41	7			0.85	0
	Underwood, 1982	35	13			0.73	0
48	Van Train, 1986	77	15	12	12	0.84	0.5
	Van Train, 1986	42	9	17	13	0.82	0.43
49	Verani, 1978	37	11	1	33	0.78	0.97
50	Vogel, 1979	40	2	1	22	0.95	0.96
51	Weiner, 1985	45	13	6	38	0.78	0.86
52	Weintraub, 1984	83	18	16	30	0.82	0.65

Reference:

Robert Detrano, Andras Janosi, Kenneth P Lyons, Gilberto Marcondes, Nabil Abbassi, Victor F Froelicher
Factors Affecting Sensitivity and Specificity of a Diagnostic Test:The Exercise Thallium Scintigram
April 1988 The American Journal of Medicine Volume 84; 699-710

Table B24: Meta-Analysis of Diagnostic Accuracy of LiPA for the detection of rifampicin-resistance tuberculosis among culture isolates and clinical specimens.

Study	Author	Sample	Tuberculosis		no disease		sens	spec
			TP	FN	FP	TN		
1	Ahmad, 2002	Isolate	0	12	29	12	0.97	1
2	De Oliveria, 1998		0	15	113	15	0.97	1
3	Gamboa, 1998		0	13	46	13	1	1
4	Hirano, 1999		0	26	90	26	0.92	1
5	Johansen, 2003		0	24	35	24	0.97	1
6	Jureen, 2004		2	24	27	26	1	0.92
7	Lemus, 2004		0	10	10	10	1	1
8	Rossau, 1997		0	61	203	61	0.98	1
9	Sintchenko, 1999		0	11	22	11	0.96	1
10	Somoskovi, 2003		0	37	64	37	0.85	1
11	Srivastava, 2004		0	10	45	10	0.82	1
12	Tracevska, 2002		0	19	34	19	1	1
13	Traore, 2000		0	145	266	145	0.99	1
14	Watterson, 1998		1	15	16	16	1	0.94
15	De Beehouwer, 1995	Clinical Specimen	0	46	21	46	0.91	1
16	Gamboa, 1998		0	13	46	13	0.98	1
17	Johansen, 2003		0	21	26	21	1	1
18	Watterson, 1998		0	24	10	24	0.8	1

Reference:
Maureen Morgan, Shriprakash Kalantri, Laura Flores and Madhukar Pai
A commercial line probe assay for the rapid detection of rifampicin resistance in Mycobacterium tuberculosis: a systematic review and meta-analysis
BMC Infectious Diseases 2005, 5:62

Table B25: Meta-Analysis of Diagnostic Accuracy of endometrial thickness by pelvic ultrasonography for predicting endometrial pathology in women with postmenopausal bleeding

Study	Author	no. of layer	cutoff	endometrial carcinoma		no disease		sens	spec
			(<= mm)	TP	FN	FP	TN		
1	Auslender, 1993	2	3	16	0	55	58	1.000	0.513
2	Zannoni, 1994		3	55	1	331	374	0.982	0.530
3	Bakour, 1999		4	11	0	43	42	1.000	0.494
4	Botsis, 1992		4	8	0	14	98	1.000	0.875
5	Fistonic, 1997		4	14	0	72	17	1.000	0.191
6	Garuti, 1999		4	59	1	240	119	0.983	0.331
7	Granberg, 1997		4	114	0	480	516	1.000	0.518
8	Guner, 1996		4	19	0	92	81	1.000	0.468
9	Haller, 1996		4	16	0	48	17	1.000	0.262
10	Tsuda, 1997		4	14	1	56	95	0.933	0.629
11	Varner, 1991		4	2	0	6	7	1.000	0.538
12	Abu-Ghazzeh, 1997		5	1	0	60	37	1.000	0.381
13	Briley, 1998		5	5	0	85	87	1.000	0.506
14	Cacciatore, 1994		5	4	0	30	11	1.000	0.268
15	DeSilva, 1997		5	1	2	12	35	0.333	0.745
16	Granberg, 1991		5	8	0	47	150	1.000	0.761
17	Grigoriou, 1996		5	24	0	75	151	1.000	0.668
18	Gu, 1994		5	7	0	16	6	1.000	0.273
19	Gupta, 1996		5	2	1	26	46	0.667	0.639
20	Hanggi, 1995		5	18	3	15	55	0.857	0.786
21	Ivanov, 1998		5	10	0	31	43	1.000	0.581
22	Karlsson, 1993		5	14	1	31	57	0.933	0.648
23	Loverro, 1993		5	25	0	13	68	1.000	0.840
24	Malinova, 1996		5	69	0	43	42	1.000	0.494
25	Merz, 1990		5	14	0	24	18	1.000	0.429
26	Nasri, 1989		5	7	0	19	37	1.000	0.661
27	Nasri, 1991		5	6	0	32	51	1.000	0.614
28	Perti, 1996		5	18	1	96	35	0.947	0.267
29	Suchocki, 1998		5	28	0	89	12	1.000	0.119
30	Taviani, 1995		5	2	0	18	21	1.000	0.538
31	Weber, 1998		5	61	1	59	38	0.984	0.392
32	Wolman, 1996		5	4	0	18	32	1.000	0.640
33	Moreles, 1998		6	20	2	70	108	0.909	0.607
34	Rudigoz, 1993		6	7	2	12	34	0.778	0.739
35	Todrova, 1998		8	2	0	4	4	1.000	0.500
36	Gruboeck, 1996		15	9	2	10	76	0.818	0.884
37	Chan, 1994	1	2	17	0	19	31	1.000	0.620
38	Degenhardt, 1991		2	32	5	33	63	0.865	0.656
39	Dijkhuizen, 1996		2	8	0	31	30	1.000	0.492
40	Brolmann, 1993		3	10	0	26	29	1.000	0.527

Study	Author	no. of layer	cutoff	endometrial carcinoma		no disease		sens	spec
			(<= mm)	TP	FN	FP	TN		
41	Ceccini, 1996	1	3	15	1	101	251	0.938	0.713
42	Masearetti, 1993		3	3	0	8	11	1.000	0.579
43	Mortakis, 1997		3	7	0	30	41	1.000	0.577
44	Schramm, 1995		3	18	11	83	83	0.621	0.500
45	Smith, 1991		3	4	0	19	22	1.000	0.537
46	Osmers, 1992		4	27	0	103	103	1.000	0.500
47	Seelbach-Goebel, 1995		4	37	2	109	84	0.949	0.435
48	Altuncu, 1992		10	5	1	1	34	0.833	0.971
49	Dorum, 1993	unreported	4	11	2	35	52	0.846	0.598
50	Gerber, 1999		4	148	6	375	350	0.961	0.483
51	Li, 1997		4	59	3	56	74	0.952	0.569
52	Salmaggi, 1997		4	4	0	13	8	1.000	0.381
53	Goldstein, 1990		5	1	0	16	11	1.000	0.407
54	Malinova, 1995		5	57	0	26	35	1.000	0.574
55	Mateos, 1997		6	18	0	43	97	1.000	0.693
56	Guisa-Chiferi, 1996		7	19	0	23	38	1.000	0.623

Reference:

Janesh K. Gupta, Patrick F.W. Chien, Doris Volit, Justin Clark and Khalid s. Khan
Ultrasonography endometrial thickness for diagnosing endometrial pathology in women with postmenopausal bleeding: a meta-analysis
Acta Obstet Gynecol scand 2002; 81: 799-816