Supplementary Material

Diagnosis of Alzheimer's Disease in Developed and Developing Countries: Systematic Review and Meta-Analysis of Diagnostic Test Accuracy

Supplementary Table 1.
Diagnostic performance of electroencephalography in Alzheimer's disease diagnosis

Study	DOR	95%CI	LR+	95%CI	LR-	95%CI
Claus 1999	21.47	13.11-35.16	2.71	2.20-3.33	0.126	0.08-0.18
Ihl 2000	5.49	3.18-9.48	2.38	1.74-3.25	0.434	0.32-0.57
Petrosian 2001	18.87	4.00-88.94	5.23	1.92-14.22	0.277	0.12-0.63
Fernandez 2006	45.37	6.37-323.09	10.07	2.13-47.49	0.222	0.09-0.51
Juckel 2008	6.738	2.25-20.09	2.88	1.42-5.85	0.429	0.26-0.69
de Haan 2008	13.286	2.74-64.24	4.07	1.52-10.88	0.306	0.13-0.70
Abásolo 2008	6.738	2.25-20.09	2.88	1.42-5.859	0.429	0.26-0.69
da Silva 2010	19.612	3.80-101.14	4.42	1.67-11.68	0.226	0.08-0.59
Trambaiolli 2011	37.593	5.21-270.80	8.48	1.82-39.50	0.226	0.09-0.52
Engedal 2015	49	4.36-550.73	7.00	1.54-31.75	0.143	0.03-0.64
Lizio 2016	15.988	3.70-68.91	3.93	1.68-9.18	0.246	0.10-0.57
Houmani 2016	6.728	2.52-17.95	1.70	1.35-2.13	0.253	0.11-0.56
Stylianou 2018	6497	125.81-335502.11	88.78	5.63-1398.04	0.014	0.00-0.21

DOR, diagnostic odds ratio; LR+, positive likelihood ratio; LR-, negative likelihood ratio; 95%CI, 95% confidence interval

Supplementary Table 2.
Diagnostic performance of tau-PET in Alzheimer's disease diagnosis

Study	DOR	95%CI	LR+	95%CI	LR-	95%CI
Tiepolt 2013	96.00	10.34-890.58	5.52	2.47-12.33	0.05	0.00-0.39
Kerbage 2015	51.00	7.56-343.73	6.26	2.17-18.05	0.12	0.03-0.46
Thurfjell 2014	74.28	17.86-308.93	14.86	4.89-45.16	0.20	0.10-0.39
Kaneko 2014	259.00	25.30-2650.45	7.78	2.69-22.47	0.03	0.00-0.20
Apostolova 2015	7.53	4.81-11.78	2.59	2.07-3.24	0.34	0.26-0.45
Ossenkoppele 2018	151.05	64.59-353.23	8.18	5.41-12.38	0.05	0.02-0.10

DOR, diagnostic odds ratio; LR+, positive likelihood ratio; LR-, negative likelihood ratio; 95%CI, 95% confidence interval

Supplementary Table 3.
Diagnostic performance of magnetic resonance imaging in Alzheimer's disease diagnosis

Study	DOR	95%CI	LR+	95%CI	LR-	95%CI
Shonk 1995	3.33	0.90-12.37	1.89	0.94-3.80	0.56	0.29-1.10
Frisoni 1996	101.44	23.46-438.60	8.81	3.66-21.21	0.08	0.03-0.23
Maas 1997	8.59	4.84-15.23	3.06	2.17-4.32	0.35	0.26-0.47
Scheltens 1997	9.42	3.32-26.67	2.88	1.67-4.97	0.30	0.16-0.57
Pucci 1998	142065	2804.31-7196934.19	369.04	23.17-5878.03	0.00	0.00-0.04
Golebiowski 1999	18.50	4.64-73.64	8.91	3.00-26.44	0.48	0.30-0.77
Chaves 1999	64.89	13.32-316.02	4.63	2.18-9.79	0.07	0.02-0.24
Wahlund 2000	95.19	51.79-174.96	18.29	11.02-30.35	0.19	0.15-0.24
Bottino 2002	9.98	1.98-50.23	2.75	1.11-6.81	0.27	0.11-0.68
Wang 2004	67.13	16.25-277.21	23.32	6.73-80.72	0.34	0.22-0.53
Fritzsche 2008	25.02	6.01-104.11	7.78	2.77-21.83	0.31	0.16-0.60
Colliot 2008	441.00	7.97-24372.70	21.00	1.39-315.97	0.04	0.00-0.71
Ishii 2008	13.95	8.51-22.87	6.59	4.46-9.74	0.47	0.40-0.55
Watanabe 2008	5.40	1.72-16.89	2.43	1.38-4.25	0.45	0.23-0.86
Magnin 2009	22.60	6.48-78.84	4.71	2.30-9.64	0.20	0.09-0.45
Gutman 2009	68.02	35.92-128.80	11.57	7.14-18.76	0.17	0.12-0.23
Gerardin 2009	16.46	2.92-92.84	4.22	1.74-10.19	0.25	0.08-0.78
Raji 2010	163.40	20.00-1334.67	14.09	2.99-66.46	0.08	0.02-0.28
Tolboom 2010	5.18	2.23-12.00	2.10	1.40-3.15	0.40	0.24-0.66
Westman 2011	18.16	3.48-94.71	3.68	1.71-7.90	0.20	0.06-0.64
Vemuri 2011	38.81	7.78-193.50	3.86	1.85-8.06	0.10	0.03-0.33
Graña 2011	75.00	15.28-367.92	19.50	5.64-67.33	0.26	0.12-0.53
Oishi 2012	202.05	73.16-557.99	14.89	7.43-29.83	0.07	0.03-0.14
Polat 2012	27.42	14.50-51.85	6.84	4.31-10.86	0.25	0.18-0.33
Kaneko 2012	202.71	54.70-751.23	11.38	5.72-22.63	0.05	0.02-0.15
Chang 2012	81.50	42.61-155.87	9.18	6.18-13.63	0.11	0.07-0.17
Guo 2012	490.38	26.72-8999.78	73.29	4.64-1156.19	0.14	0.07-0.30
Aguilar 2013	6.87	2.45-19.29	2.04	1.30-3.19	0.29	0.15-0.58
Guo 2014	23.37	15.62-34.96	5.19	4.03-6.70	0.22	0.17-0.27
Pereira 2014	33.00	5.69-191.20	5.21	1.97-13.77	0.15	0.04-0.50

Study	DOR	95%CI	LR+	95%CI	LR-	95%CI
Balthazar 2014	31.32	15.10-64.96	4.96	3.32-7.40	0.15	0.09-0.25
Farhan 2014	38.33	4.34-338.06	7.66	1.65-35.46	0.20	0.06-0.62
Lebedev 2014	22.41	11.00-45.66	3.24	2.40-4.38	0.14	0.08-0.24
Yun 2015	23.34	5.51-98.79	3.87	1.70-8.82	0.16	0.06-0.40
Ahmed 2015	7.73	2.53-23.60	2.68	1.50-4.78	0.34	0.18-0.66
Martinez-Torteya 2015	42.46	8.10-222.56	5.71	2.41-13.53	0.13	0.04-0.43
Zhan 2015	3321.00	63.57-173474.50	41.48	2.68-641.76	0.01	0.00-0.19
Yoo 2016	41.16	14.98-113.11	13.43	5.85-30.82	0.32	0.22-0.47
Besga 2016	127.72	49.73-328.04	9.41	5.54-15.96	0.07	0.03-0.14
Mohammadian 2015	17.64	3.53-88.03	3.31	1.66-6.58	0.18	0.05-0.60
Vasta 2016	10.51	4.96-22.24	2.51	1.94-3.25	0.23	0.13-0.42
Tang 2016	123.43	39.75-383.29	15.82	6.42-38.95	0.12	0.07-0.22
Roquet 2016	37.68	11.87-119.58	5.38	2.88-10.05	0.14	0.06-0.31
Khedher 2017	17.40	2.85-105.99	3.41	1.34-8.63	0.19	0.06-0.64
Arnaoutoglou 2017	9.55	1.82-50.10	4.08	1.24-13.44	0.42	0.22-0.82
Fallmar 2017	13.69	5.54-33.81	3.98	2.36-6.70	0.29	0.17-0.48
Doan 2017	141.00	17.17-1157.40	15.00	3.16-71.17	0.10	0.03-0.34
Golubic 2017	151.37	22.37-1024.13	18.80	3.92-90.10	0.12	0.05-0.29
Medaglia 2017	14.73	4.11-52.71	3.51	1.75-7.04	0.23	0.10-0.52
Jha 2017	84.73	10.07-712.33	12.60	2.66-59.85	0.14	0.04-0.47
Gerischer 2017	15.24	4.05-57.35	4.01	1.84-8.71	0.26	0.12-0.56
Donelly-kehoe 2018	22.82	5.42-96.04	4.77	2.02-11.27	0.20	0.08-0.49
Lu 2018	75.44	18.95-300.32	7.32	3.07-17.44	0.09	0.04-0.23
Giraldo 2018	102.54	18.56-566.44	5.97	2.28-15.65	0.05	0.01-0.19
Knight 2019	25.92	7.74-86.72	5.72	2.88-11.37	0.22	0.10-0.47
Spasov 2019	286.65	53.91-1524.13	24.25	7.16-82.07	0.08	0.03-0.23
Bartos 2019	39.44	8.71-178.48	4.45	1.94-10.20	0.11	0.04-0.31
Moscoso 2019	8.29	2.90-23.71	2.82	1.54-5.15	0.34	0.19-0.59
Howett 2019	210.04	34.24-1288.26	12.11	3.67-39.92	0.05	0.01-0.19
Ferrari 2019	22.371	3.75-133.22	4.339	1.65-11.37	0.19	0.06-0.61

DOR, diagnostic odds ratio; LR+, positive likelihood ratio; LR-, negative likelihood ratio; 95%CI, 95% confidence interval

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	3
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	8
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	Not applicable
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	9-10
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	9
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	9
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	10
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	10
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	10
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	10
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	10
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	10