

Supplementary Materials

Quality of Life in Mild Cognitive Impairment and Alzheimer's: A Systematic Review

Joanna Campbell^a, Louis Lavoie^b, Mariana Farraia^c, Rachel Huelin^d, Quanwu Zhang^e,
Amir Abbas Tahami Monfared^{e,f}

AFFILIATIONS:

^a Evidence Synthesis, Modelling and Communications, PPD Evidera, London, UK.

^b Evidence Synthesis, Modelling and Communications, PPD Evidera, St-Laurent, QC, Canada.

^c Evidence Synthesis, Modelling and Communications, PPD Evidera, Zonneoordlaan, The Netherlands.

^d Evidence Synthesis, Modelling and Communications, PPD Evidera, Bethesda, MD, USA.

^e Eisai Inc., Societal Value Platform and Evidence Development, Nutley, NJ, USA.

^f McGill University, Department of Epidemiology, Biostatistics, and Occupational Health, Montreal, Canada.

Corresponding Author:

Amir Abbas Tahami Monfared, MD, PhD 

ORCID: <https://orcid.org/0000-0003-4003-3192>

Eisai Inc. 200 Metro Blvd., Nutley, NJ 07110

Tel: +1 (201) 746-2112

Email: amir_tahami@eisai.com

SUPPLEMENTARY TABLES

Supplementary Table 1. Study Characteristics

Study	Study Design	Country	Intervention	Treatments	Duration of Follow-up
RCTs					
Ascher-Svanum, 2015 [26]	Randomized, placebo-controlled (post hoc analysis using data from the placebo groups of three RCTs)	US	NR	NR	18 months
Cohen, 2023 [34] Clarity-AD	Double-blind, multicenter, placebo-controlled, parallel group trial	North America, Europe, Asia	Lecanemab	Placebo	18 months
Doody, 2014 [25]	Randomized, placebo-controlled [EXPEDITION2]	Global	Solanezumab	Placebo	18.5 months
Ostrowitzki, 2022 [33]	Randomized, placebo-controlled [CREAD]	Global	Crenezumab	Placebo	24 months
	Randomized, placebo-controlled [CREAD2]	Global	Crenezumab	Placebo	24 months
Observational Studies					
Ashizawa, 2021 [24]	Prospective	Japan	Donepezil, galantamine, rivastigmine, or memantine	NR	12 months
Aye, 2023 [20] MCI patients in MEMENTO	Longitudinal cohort	France	NR	NR	6-12 months
Bruno, 2018 [23]	Prospective	Italy	NR	NR	NR
Froelich, 2021 [32]	Prospective	Germany, Spain, and UK	NR	NR	24 months
Garre-Olmo, 2017 [35]	Cross-sectional	Spain	NR	NR	NR
Hongisto, 2015 [31]	Prospective	Finland	NR	NR	60 months

Study	Study Design	Country	Intervention	Treatments	Duration of Follow-up
Jutten, 2019 [18]	Cross-sectional	The Netherlands	NR	NR	NR
Langer, 2019 [17]	Prospective	US	NR	NR	NR
Lara, 2020 [30]	Prospective	Spain	NR	NR	5 weeks
Nakanishi, 2020 [22]	Prospective	Japan	NR	NR	18 months
Olazarán, 2017 [21]	Prospective	Spain	NR	NR	NR
Pusswald, 2015 [16]	Cross-sectional	Austria	NR	NR	NR
Pusswald, 2016 [15]	Cross-sectional	Austria	NR	NR	NR
Reinlieb, 2014 [36]	Cross-sectional	US	Citalopram	Placebo	NR
Sousa, 2013 [19]	Cross-sectional	Brazil	NR	NR	NR
Sousa, 2015 [29]	Prospective	Brazil	NR	NR	12 months
Stites 2017 [38], 2023 [28]	Prospective	US	NR	NR	12 months
Tonga, 2020 [27]	Cross-sectional	Norway	NR	NR	NR

Abbreviations: NR = not reported; RCT = randomized controlled trial; UK = United Kingdom; US = United States

Supplementary Table 2. Patient Characteristics

Study	Treatment	N at Baseline	Age, Years Mean (SD)	Female (%)	Race (%)	APOE ε4/ε4 Carriers (%)	Clinical Stage	Mean Score (SD)			
								MMSE	CDR-SB	ADAS-Cog	ADCS-iADL
RCTs											
Ascher-Svanum, 2015 [26]	NR	859	74.0 (8.0)	54.2	White: 84.7 Asian: 12.2 Hispanic: 1.4 Other: 1.6	59.6	Mild AD: 100	22.9 (2.0)	NR	ADAS-Cog14: 29.5 (8.6)	43.0 (0.6)
Cohen, 2023 [34] Clarity-AD	Lecanemab	859	71.4 (7.9)	51.6	Caucasian: 76.3 Black: 2.3 Asian: 17.1 Other/missing: 4.3	68.9	Mild dementia: 38.5 MCI: 61.5	NR	CDR Global=0.5, n (%) 694 (80.8) CDR Global=1, n (%) 165 (19.2)	NR	NR
	Placebo	875	71 (7.8)	53	Caucasian: 77.4 Black: 2.7 Asian: 16.9 Other/missing: 3.0	69	Mild dementia: 37.8 MCI: 62.2	NR	CDR Global=0.5, n (%) 706 (80.7) CDR Global=1, n (%) 169 (19.3)	NR	NR
Doody, 2014 [25]	Solanezumab (EXPEDITION2)	322	71.5 (7.9)	50.6	White: 77 Black: 1.2 Asian: 21.1 American Indian/Alaska Native: 0.3 Multiple: 0.3	54.6	Mild AD	22.0 (3.0)	NR	ADAS-Cog11: 20.0 (7.0)	NR
	Placebo (EXPEDITION2)	325	72.5 (7.9)	55.7	White: 83.1 Black: 0.3 Asian: 16.6 American Indian/Alaska Native: 0 Multiple: 0	61.4	Mild AD	23.0 (3.0)		ADAS-Cog11: 19.0 (7.0)	

Study	Treatment	N at Baseline	Age, Years Mean (SD)	Female (%)	Race (%)	APOE ε4/ε4 Carriers (%)	Clinical Stage	Mean Score (SD)			
								MMSE	CDR-SB	ADAS-Cog	ADCS-iADL
Ostrowitzki, 2022 [33]	Crenezumab (CREAD)	404	71.0 (7.9)	58.4	White: 87.1 Asian: 6.9 Black: 1.2 Native American/Alaska Native: 2.5 Multiple: 0.2 Unknown: 2.0	72.7	Mild: 57.7 Prodromal AD: 42.3	23.7 (3.0)	3.9 (1.7)	ADAS-Cog13: 29.4 (7.6)	ADCS Total Score: 67.1 (8.3)
	Placebo (CREAD)	409	70.3 (8.4)	60.4	White: 88.0 Asian: 6.8 Black: 0.7 Native American/Alaska Native: 1.2 Multiple: 0 Unknown: 3.2	71.7	Mild: 57.2 Prodromal AD: 42.8	23.4 (2.9)	3.8 (1.6)	ADAS-Cog13: 28.9 (7.4)	ADCS Total Score: 67.6 (8.1)
	Crenezumab (CREAD2)	407	71.1 (7.5)	56.8	White: 84.0 Asian: 11.5 Black: 0.7 Native American/Alaska Native: 1.2 Multiple: 0.7 Unknown: 1.7	66.9	Mild: 51.4 Prodromal AD: 48.6	23.6 (2.8)	3.7 (1.6)	ADAS-Cog13: 28.8 (7.4)	ADCS Total Score: 67.1 (8.5)
	Placebo (CREAD2)	399	70.7 (7.9)	56.4	White: 83.5 Asian: 11.3 Black: 1.0 Native American/Alaska Native: 2.0 Multiple: 1.0 Unknown: 1.3	65.9	Mild: 52.4 Prodromal AD: 47.6	23.5 (2.9)	3.8 (1.6)	ADAS-Cog13: 28.9 (7.3)	ADCS Total Score: 66.8 (8.1)
Observational Studies											
Ashizawa, 2021 [24]	Donepezil, galantamine, rivastigmine, or memantine	53	84.0 (6.9)	71.7	NR	NR	Mild AD: 100	NR	NR	NR	NR

Study	Treatment	N at Baseline	Age, Years Mean (SD)	Female (%)	Race (%)	APOE ε4/ε4 Carriers (%)	Clinical Stage	Mean Score (SD)			
								MMSE	CDR-SB	ADAS-Cog	ADCS-iADL
Aye, 2023 [20]	NR	MCI: 1336	70.84 (9.02)	60	NR	NR	MCI: 100	27.53 (2.12)	NR	1.08 (0.2)	NR
Bruno, 2018 [23]	NR	29	76.2 (7.1)	48.3	NR	NR	Mild AD: 100	23.0 (SD NR)	NR	ADAS-Cog14 35.2 (SD NR)	32.9 (SD NR)
Froelich, 2021 [32]	NR	254	77.5 (6.7)	46.9	NR	NR	Mild AD: 100	23.3 (1.7)	NR	24.7 (6.5)*	NR
		362	77.4 (7.3)	58.0			Moderate AD: 100	16.7 (2.8)		33.8 (8.4)*	
Garre-Olmo, 2017 [35]	NR	110	76.5 (7.3)	65.5	NR	NR	Mild AD: 32.1	19.3 (4.2)	NR	NR	NR
		126	79.9 (6.5)	82.0			Moderate AD: 36.7	14.8 (4.2)			
		106	79.9 (8.0)	75.0			Severe AD: 31.2	8.2 (5.0)			
Hongisto, 2015 [31]	NR	236	75.6 (6.5)	51.3	NR	NR	Very mild AD: 54.2	NR	4.1 (1.5)	NR	NR
							Mild AD: 45.8				
Jutten, 2019 [18]	NR	80	73.6 (8.0)	36.3	NR	NR	MCI: 100	26.7 (2.3)	2.7 (1.9)	ADAS-Cog13 22.2 (6.8)	ADCS-ADL: 67.5 (7.8)
Langer, 2019 [17]	NR	200	76.1 (5.8)	41.5	NR	NR	MCI: 100	NR	NR	NR	NR
Lara, 2020 [30]	NR	20	77.3 (4.1)	50.5	NR	NR	MCI: 100	25.3 (2.8)	NR	NR	NR
			77.5 (6.3)	70.0			Mild AD: 100	20.9 (3.4)			
Nakanishi, 2020 [22]	NR	156	80.3 (7.3)	69.2	NR	NR	Mild AD: 100	22.9 (1.6)	NR	ADAS-Cog11: 18.3 (5.8)	ADCS-ADL Total Score: 59.4 (13.1)

Study	Treatment	N at Baseline	Age, Years Mean (SD)	Female (%)	Race (%)	APOE ε4/ε4 Carriers (%)	Clinical Stage	Mean Score (SD)			
								MMSE	CDR-SB	ADAS-Cog	ADCS-iADL
Olazarán, 2017 [21]	NR	116	74.7 (7.9)	54.3	NR	NR	Mild AD: 100	23.1 (SD NR)	NR	ADAS-Cog14: 39.2 (SD NR)	NR
Pusswald, 2015 [16]	NR	98	68.9 (9.0)	50.0	NR	NR	MCI: 100	NR	NR	NR	NR
Pusswald, 2016 [15]	NR	224	NR	55.4	NR	NR	MCI: 100	NR	NR	NR	NR
Reinlieb, 2014 [36]	Citalopram vs. placebo	14	73.1 (8.4)	60.0	White: 79.0 African American: 7.0 Asian: 0 Hispanic: 14.0	NR	Amnestic MCI: 20.0	28.0 (1.2)	NR	NR	NR
Sousa, 2013 [19]	NR	41	77.3 (7.8)	65.8	NR	NR	MCI: 100	21.0 (3.9)	NR	NR	NR
Sousa, 2015 [29]	NR	69	76.8 (7.3)	72.0	NR	NR	MCI: 41.8	21.4 (3.5)	NR	NR	NR
Stites 2017 [38], 2023 [28]	NR	92	78.1 (6.4)	45.6	African American: 6.7	NR	MCI: 100	27.3 (2.2)	NR	NR	NR
		68	78.2 (6.5)	63.2	African American: 5.9		Mild AD: 100	24.4 (2.7)			
Tonga, 2020 [27]	NR	196	70.0 (SD NR)	46.9	NR	NR	MCI: 40.8	24.1 (SD NR)	NR	NR	12.9 (SD NR)
							Dementia diagnosis: 58.7				

Abbreviations: AD = Alzheimer's disease; ADAS-Cog = Alzheimer's Disease Assessment Scale-Cognitive Subscale; ADCS-ADL = Alzheimer's Disease Cooperative Study Activities of Daily Living; ADCS-iADL = Alzheimer's Disease Cooperative Study Instrumental Activities of Daily Living; CDR-SB = Clinical Dementia Rating–Sum of Boxes; MCI = mild cognitive impairment; MMSE = Mini-mental State Exam; NR = not reported; RCT = randomized controlled trial; SD = standard deviation

* ADAS-Cog version not specified.

Supplementary Table 3. Treatment Characteristics of the Included RCTs

Study	Treatment	Dose	Route	Frequency	Duration	Concomitant Symptomatic Treatments (%)
Ascher-Svanum, 2015 [26]	Placebo	NA	NA	NA	NA	NR
Cohen, 2023 [34] Clarity-AD	Lecanemab	10mg/kg	NR	Bi-weekly	18 months	NR
	Placebo	NA	NA	Bi-weekly	18 months	NR
Doody, 2014 [25]	Solanezumab (EXPEDITION2)	400 mg	IV	Every 4 weeks	18 months	Cholinesterase inhibitors, memantine
	Placebo (EXPEDITION2)	NA				
Ostrowitzki, 2022 [33]	Crenezumab (CREAD)	60 mg/kg	IV	Every 4 weeks	100 weeks	Continued use and stable doses of AD medications, memantine, or medical food supplements
	Placebo (CREAD)	NA				
	Crenezumab (CREAD 2)	60 mg/kg				
	Placebo (CREAD 2)	NA				

Abbreviations: AD = Alzheimer's disease; IV = intravenous; NA = not applicable; NR = not reported

Supplementary Table 4. Risk of Bias

Study	Study Design	Screening Questions						
RCTs								
		S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	2.1. Is randomization appropriately performed?	2.2. Are the groups comparable at baseline?	2.3. Are there complete outcome data?	2.4. Are outcome assessors blinded to the intervention provided?	2.5 Did the participants adhere to the assigned intervention?
Cohen, 2023 [34] Clarity-AD	RCT	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes
Doody, 2014 [25]	RCT	Yes	Yes	Yes	Yes	Yes	Can't tell	Yes
Ostrowitzki, 2022 [33]	RCT	Yes	Yes	Can't tell	Yes	No	Can't tell	Yes
Non-RCTs								
		S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	3.1. Are the participants representative of the target population?	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?	3.3. Are there complete outcome data?	3.4. Are the confounders accounted for in the design and analysis?	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?
Ascher-Svanum, 2015 [26]	Non-RCT	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quantitative descriptive studies								
		S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?
Ashizawa, 2021 [24]	Prospective	Yes	Yes	Yes	Yes	Yes	No	Yes
Aye, 2023 [20] MCI patients in MEMENTO	Longitudinal cohort	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Study	Study Design	Screening Questions						
Bruno, 2018 [23]	Prospective	Yes	Yes	No	Yes	Yes	Yes	Yes
Froelich, 2021 [32]	Prospective	Yes	Yes	Yes	Yes	Yes	No	Yes
Garre-Olmo, 2017 [35]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes
Hongisto, 2015 [31]	Prospective	Yes	Yes	Yes	Yes	Yes	No	Yes
Jutten, 2019 [18]	Cross-sectional	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Langer, 2019 [17]	Prospective	Yes	Yes	No	Yes	Yes	Yes	Yes
Lara, 2020 [30]	Prospective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nakanishi, 2020 [22]	Prospective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Olazarán, 2017 [21]	Prospective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pusswald, 2015 [16]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes
Pusswald, 2016 [15]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes
Reinlieb, 2014 [36]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes
Sousa, 2013 [19]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes
Sousa, 2015 [29]	Prospective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stites 2017 [38], 2023 [28]	Prospective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tonga, 2020 [27]	Cross-sectional	Yes	Yes	No	Yes	Yes	Yes	Yes

Abbreviation: RCT = randomized controlled trial

APPENDIX

Search Strategy: Economic Burden/Economic Evaluations/Utilities/PROs

Note: The search strategy was first run on December 14, 2022 (Table A1 to Table A6). The search was then rerun on July 10, 2023 (Table A7 to Table A12) and January 4, 2024 (Table A13 to Table A18). These second and third searches were de-duplicated against the first search and the difference was screened as a refresh.

These search strategies were part of a larger project that covered an economic burden SLR, economic evaluations SLR, and PRO SLR. Only studies relevant to the PRO were included for this manuscript.

Table A1. Ovid Algorithm-Embase

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab,kw.	54,339
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	15,416
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	36,200
4	exp mild cognitive impairment/	33,692
5	or/1-4	80,132
6	exp parkinson disease/ or parkinson\$.ti,ab. or diagnosis.ti,ab.	2,755,260
7	5 not 6	57,362
8	Monte carlo.ti,ab.	57,554
9	decision tree.ti. or "decision tree"/	19,054
10	(decision adj3 (tree* or analys* or model*)).ti.	7,691
11	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti.	162,582
12	(patient adj2 simulat*).ti.	1,427
13	(discrete adj2 (choice or event or simulat*)).ti.	2,667
14	(multi-criteria decision analy* or multiple criteria decision analy*).ti,ab.	910
15	(incremental cost effectiveness ratio or icer).ti,ab.	16,576
16	Cost-Benefit Analysis/ or Cost-Benefit Analysis.ti,ab.	93,138
17	cost minimization analysis/ or cost minimiation.ti,ab.	3,836

Search Number	Search Terms	Results
18	economic evaluation/ or economic evaluation.ti,ab.	26,364
19	cost effectiveness analysis/ or cost-effective*.ti,ab.	293,712
20	cost utility analysis/ or cost utilit*.ti,ab.	13,496
21	decision tree.ti,ab. or "decision tree"/	23,678
22	(decision adj3 (tree* or analys* or model*)).ti,ab.	46,572
23	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti,ab.	183,845
24	(patient adj2 simulat*).ti,ab.	7,138
25	(discrete adj2 (choice or event or simulat*)).ti,ab.	6,794
26	budget impact.ti,ab.	5,025
27	(incremental cost effectiveness ratio or icer).ti,ab.	16,576
28	(Life Years Gained or LYG).ti,ab.	2,739
29	quality-adjusted life year.ti,ab. or quality adjusted life year/	34,128
30	QALY.ti,ab.	20,204
31	((healthcare or health-care or health resource or medical resource) adj3 ('use' or utili?ation)).ti,ab.	64,682
32	(resource adj2 (use* or utili* or allocat*)).ti,ab.	58,470
33	healthcare utilization/	87,479
34	HCRU.ti,ab.	1,531
35	((economic or health* or resource) adj3 burden).ti,ab.	53,380
36	*cost allocation/	14,056
37	*"cost"/ or cost\$.ti.	192,275
38	(EQ5D or EQ 5D or EuroQoL).ti,ab.	27,286
39	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).ti,ab.	86,316
40	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).ti,ab.	1,055
41	(Time Trade Off or Standard Gamble or rating\$ scale).ti,ab.	93,939
42	(health state* or HSUV).ti,ab.	13,559
43	(Utilit* or disutilit*).ti,ab.	351,165
44	Quality of life.ti,ab. or exp "quality of life"/ or exp health status/	962,484
45	43 and 44	29,636
46	or/8-42,45	1,119,162
47	7 and 46	2,905
48	(exp animal/ or nonhuman/) not exp human/	6,919,115
49	47 not 48	2,872

Search Number	Search Terms	Results
50	conference abstract.pt.	4,569,782
51	49 not 50	1,901
52	limit 49 to (conference abstract and yr="2020-current")	109
53	51 or 52	2,010
54	limit 53 to yr="2001 -Current"	1,892
55	limit 53 to yr="2012-current"	1,397

Table A2. Ovid Algorithm-Medline

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab,kw.	26,912
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	9,893
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	23,276
4	exp cognitive dysfunction/ and (early or mild).ti,ab.	14,618
5	or/1-4	46,012
6	"Costs and Cost Analysis"/	50,877
7	Cost-Benefit Analysis/ or economic.ti.	127,896
8	(cost effective* or CEA).ti.	36,203
9	(cost utilit* or CUA).ti.	2,221
10	Monte carlo.mp.	65,786
11	decision tree.ti. or "decision tree"/	12,369
12	(decision adj3 (tree* or analys* or model*)).ti.	6,022
13	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti.	112,388
14	(patient adj2 simulat*).ti.	1,128
15	(discrete adj2 (choice or event or simulat*)).ti.	1,922
16	('multi criteria decision analysis' or MCDA).mp.	1,170
17	(incremental cost effectiveness ratio or icer).mp.	9,125
18	Cost-Benefit Analysis/ or Cost-Benefit Analysis.mp.	93,074
19	"cost minimization analysis"/ or cost minimi?ation.mp.	52,072
20	economic evaluation/ or economic evaluation.mp.	96,092
21	"cost effectiveness analysis"/ or (cost effective* or CEA).mp.	232,685
22	"cost utility analysis"/ or (cost utilit* or CUA).mp.	93,885
23	Economics, Hospital/ or Economics/ or Economics, Nursing/ or Economics, Medical/ or Economics, Pharmaceutical/	54,376
24	economic*.ti.	55,615
25	Monte carlo.mp.	65,786
26	decision tree.mp. or "decision tree"/	19,833
27	(decision adj3 (tree* or analys* or model*)).mp.	42,334
28	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).mp.	124,246
29	(patient adj2 simulat*).mp.	9,421
30	(discrete adj2 (choice or event or simulat*)).mp.	5,068
31	budget impact.mp.	1,882

Search Number	Search Terms	Results
32	('multi criteria decision analysis' or MCDA).mp.	1,170
33	(incremental cost effectiveness ratio or icer).mp.	9,125
34	(Life Years Gained or LYG).mp.	1,622
35	quality adjusted life year.mp. or quality adjusted life year/	18,231
36	QALY?.mp.	13,380
37	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation))).mp.	43,170
38	(resource adj2 (use* or utili* or allocat*)).mp.	47,831
39	Patient Acceptance of Health Care/	53,868
40	(HCRU or MRU).mp.	850
41	((economic or health* or resource) adj3 burden).mp.	35,365
42	*cost allocation/	566
43	cost\$.ti.	137,738
44	(EQ5D or EQ 5D or EuroQoL).mp.	15,060
45	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	57,042
46	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	698
47	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	65,343
48	(health state* or HSUV).mp.	7,849
49	patient preference.mp. or exp Patient Preference/	14,871
50	(Utilit* or disutilit*).mp.	253,773
51	Quality of life.mp. or exp "quality of life"/ or exp health status/	586,195
52	50 and 51	17,168
53	or/6-49,52	931,875
54	5 and 53	2,484
55	exp animals/ not exp humans/	5,052,226
56	54 not 55	2,475
57	limit 56 to yr="2001 -Current"	2,312
58	limit 56 to yr="2012 -Current"	1,725

Table A3. Ovid Algorithm-Cochrane Database of Systematic Reviews

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	4
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	46
3	or/1-2	49
4	economic.ti.	6
5	Monte carlo.mp.	82
6	decision tree.ti.	0
7	(decision adj3 (tree* or analys* or model*)).ti.	0
8	(markov and (economic* or model*)).ti.	0
9	(patient adj2 simulat*).ti.	1
10	(discrete adj2 (choice or event or simulat*)).ti.	0
11	('multi criteria decision analysis' or MCDA).mp.	1
12	(incremental cost effectiveness ratio or icer).mp.	119
13	Cost-Benefit Analysis.mp.	146
14	cost minimi?ation.mp.	30
15	economic evaluation.mp.	511
16	(cost effective* or CEA).mp.	2,519
17	(cost utilit* or CUA).mp.	189
18	economic*.ti.	7
19	Monte carlo.mp.	82
20	decision tree.mp.	46
21	(decision adj3 (tree* or analys* or model*)).mp.	268
22	(patient adj2 simulat*).mp.	16
23	(discrete adj2 (choice or event or simulat*)).mp.	13
24	budget impact.mp.	6
25	('multi criteria decision analysis' or MCDA).mp.	1
26	(incremental cost effectiveness ratio or icer).mp.	119
27	(Life Years Gained or LYG).mp.	11
28	quality adjusted life year.mp.	120
29	QALY?.mp.	181
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation))).mp.	595
31	(resource adj2 (use* or utili* or allocat*)).mp.	579
32	(HCRU or MRU).mp.	1
33	((economic or health* or resource) adj3 burden).mp.	718

Search Number	Search Terms	Results
34	cost\$.ti.	9
35	(EQ5D or EQ 5D or EuroQoL).mp.	725
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	1,763
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	13
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	1,604
39	(health state* or HSUV).mp.	75
40	patient preference.mp.	261
41	(Utilit* or disutilit*).mp.	985
42	Quality of life.mp.	5,863
43	41 and 42	676
44	or/4-40,43	5,647
45	3 and 44	32
46	limit 45 to yr="2001-current"	21

Table A4. Ovid Algorithm-APA PsycInfo

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	5,377
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	13,337
3	or/1-2	16,772
4	economic.ti.	13,507
5	Monte carlo.mp.	5,741
6	decision tree.ti.	203
7	(decision adj3 (tree* or analys* or model*)).ti.	2,313
8	(markov and (economic* or model*)).ti.	492
9	(patient adj2 simulat*).ti.	236
10	(discrete adj2 (choice or event or simulat*)).ti.	600
11	('multi criteria decision analysis' or MCDA).mp.	144
12	(incremental cost effectiveness ratio or icer).mp.	643
13	Cost-Benefit Analysis.mp.	6,295
14	cost minimi?ation.mp.	144
15	economic evaluation.mp.	1,678
16	(cost effective* or CEA).mp.	18,671
17	(cost utilit* or CUA).mp.	792
18	economic*.ti.	17,193
19	Monte carlo.mp.	5,741
20	decision tree.mp.	1,608
21	(decision adj3 (tree* or analys* or model*)).mp.	12,397
22	(patient adj2 simulat*).mp.	1,461
23	(discrete adj2 (choice or event or simulat*)).mp.	2,002
24	budget impact.mp.	90
25	('multi criteria decision analysis' or MCDA).mp.	144
26	(incremental cost effectiveness ratio or icer).mp.	643
27	(Life Years Gained or LYG).mp.	112
28	quality adjusted life year.mp.	578
29	QALY?.mp.	1,395
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation)).mp.	23,697
31	(resource adj2 (use* or utili* or allocat*)).mp.	11,493
32	(HCRU or MRU).mp.	27
33	((economic or health* or resource) adj3 burden).mp.	4,994

Search Number	Search Terms	Results
34	cost\$.ti.	16,216
35	(EQ5D or EQ 5D or EuroQoL).mp.	4,243
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	48,487
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	321
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	107,471
39	(health state* or HSUV).mp.	1,841
40	patient preference.mp.	2,404
41	(Utilit* or disutilit*).mp.	70,185
42	Quality of life.mp.	100,931
43	41 and 42	3,435
44	or/4-40,43	259,034
45	3 and 44	3,924
46	limit 45 to yr="2001-current"	3,882
47	limit 46 to yr="2012 -Current"	2,580

Table A5. Ovid Algorithm-EconLit

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	5
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	6
3	or/1-2	10
4	limit 3 to yr="2001 -Current"	10
5	limit 4 to yr="2012 -Current"	8

Table A6. NHS Economic Evaluation Database (NHS EED. EBM Reviews) (Ovid)

Search Number	Search Terms	Results
1	Alzheimer Disease/	56
2	((early or mild) adj2 (alzheimer\$ or AD)).af.	12
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).af.	5
4	or/1-3	59
5	limit 4 to yr="2012 -Current"	17

Abbreviations: EBM = evidence-based medicine; EED = Economic Evaluation Database; NHS = National Health Service

Table A7. Ovid Algorithm-Embase: Date searched: 10 July 2023

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab,kw.	59,294
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	16,720
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	39,963
4	exp mild cognitive impairment/	37,714
5	or/1-4	87,863
6	Cost-Benefit Analysis/ or Cost-Benefit Analysis.ti,ab.	95,652
7	cost minimization analysis/ or cost minimiation.ti,ab.	4,006
8	economic evaluation/ or economic evaluation.ti,ab.	28,239
9	cost effectiveness analysis/ or cost-effective*.ti,ab.	313,013
10	cost utility analysis/ or cost utilit*.ti,ab.	14,511
11	Monte carlo.ti,ab.	61,536
12	decision tree.ti,ab. or "decision tree"/	27,223
13	(decision adj3 (tree* or analys* or model*)).ti,ab.	52,531
14	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti,ab.	188,167
15	(patient adj2 simulat*).ti,ab.	7,616
16	(discrete adj2 (choice or event or simulat*)).ti,ab.	7,507
17	budget impact.ti,ab.	5,529
18	(multi-criteria decision analy* or multiple criteria decision analy*).ti,ab.	1,024
19	(incremental cost effectiveness ratio or icer).ti,ab.	18,280
20	(Life Years Gained or LYG).ti,ab.	2,922
21	quality-adjusted life year.ti,ab. or quality adjusted life year/	37,202
22	QALY.ti,ab.	22,072
23	((healthcare or health-care or health resource or medical resource) adj3 ('use' or utili?ation)).ti,ab.	71,056
24	(resource adj2 (use* or utili* or allocat*)).ti,ab.	64,021
25	healthcare utilization/	94,609
26	HCRU.ti,ab.	1,950
27	((economic or health* or resource) adj3 burden).ti,ab.	60,131
28	*cost allocation/	14,259
29	*"cost"/ or cost\$.ti.	203,400
30	(EQ5D or EQ 5D or EuroQoL).ti,ab.	30,165
31	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).ti,ab.	92,310

Search Number	Search Terms	Results
32	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).ti,ab.	1,123
33	(Time Trade Off or Standard Gamble or rating\$ scale).ti,ab.	101,334
34	(health state* or HSUV).ti,ab.	14,662
35	(Utilit* or disutilit*).ti,ab.	379,614
36	Quality of life.ti,ab. or exp "quality of life"/ or exp health status/	1,042,375
37	35 and 36	32,404
38	or/6-33,37	1,189,538
39	5 and 38	4,953
40	(exp animal/ or nonhuman/) not exp human/	7,193,746
41	39 not 40	4,907
42	conference abstract.pt.	4,807,241
43	41 not 42	3,251
44	limit 41 to (conference abstract and yr="2020-current")	254
45	43 or 44	3,505
46	limit 45 to yr="2012-current"	2,650

Table A8. Ovid Algorithm-MEDLINE: Date searched: 10 July 2023

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab.	28,552
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	10,511
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	25,149
4	exp cognitive dysfunction/ and (early or mild).ti,ab.	16,134
5	or/1-4	49,282
6	Monte carlo.ti,ab.	58,585
7	Decision Trees/ or decision tree.ti,ab.	21,112
8	(decision adj3 (tree* or analys* or model*)).ti,ab.	38,285
9	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti,ab.	125,532
10	(patient adj2 simulat*).ti,ab.	5,014
11	(discrete adj2 (choice or event or simulat*)).ti,ab.	5,314
12	(multi-criteria decision analy* or multiple criteria decision analy*).ti,ab.	717
13	(incremental cost effectiveness ratio or icer).ti,ab.	9,767
14	Cost-Benefit Analysis/ or Cost-Benefit Analysis.ti,ab.	94,498
15	(cost effective\$ or cost minimi?ation or cost utilit\$).ti,ab.	175,751
16	economic evaluation\$.ti,ab.	15,031
17	budget impact.ti,ab.	1,952
18	(Life Years Gained or LYG).ti,ab.	1,675
19	Quality-Adjusted Life Years/ or quality-adjusted life year.ti,ab.	18,971
20	QALY.ti,ab.	11,663
21	((healthcare or health-care or health resource or medical resource) adj3 ('use' or utili?ation)).ti,ab.	45,040
22	(resource adj2 (use* or utili* or allocat*)).ti,ab.	41,664
23	HCRU.ti,ab.	623
24	((economic or health* or resource) adj3 burden).ti,ab.	38,776
25	"Cost Allocation"/	2,018
26	"Costs and Cost Analysis"/	51,405
27	cost\$.ti.	143,591
28	(EQ5D or EQ 5D or EuroQoL).ti,ab.	16,371
29	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).ti,ab.	59,988
30	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).ti,ab.	724

Search Number	Search Terms	Results
31	(health state* or HSUV).ti,ab.	8,275
32	(Utilit* or disutilit*).ti,ab.	266,755
33	"Quality of Life"/ or exp Health Status/ or Quality of life.ti,ab.	606,859
34	32 and 33	17,369
35	or/6-31,34	728,989
36	5 and 35	1,424
37	exp animals/ not exp humans/	5,137,571
38	36 not 37	1,416
39	limit 38 to yr="2012 -Current"	1,078

Table A9. Ovid Algorithm-Cochrane Database of Systematic Reviews: Date searched: 10 July 2023

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	1,840
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	4,304
3	or/1-2	5,675
4	economic.ti.	3,603
5	Monte carlo.mp.	1,126
6	decision tree.ti.	53
7	(decision adj3 (tree* or analys* or model*)).ti.	243
8	(markov and (economic* or model*)).ti.	94
9	(patient adj2 simulat*).ti.	174
10	(discrete adj2 (choice or event or simulat*)).ti.	152
11	('multi criteria decision analysis' or MCDA).mp.	16
12	(incremental cost effectiveness ratio or icer).mp.	3,144
13	Cost-Benefit Analysis.mp.	12,030
14	cost minimi?ation.mp.	431
15	economic evaluation.mp.	4,734
16	(cost effective* or CEA).mp.	34,077
17	(cost utilit* or CUA).mp.	2,534
18	economic*.ti.	4,027
19	Monte carlo.mp.	1,126
20	decision tree.mp.	774
21	(decision adj3 (tree* or analys* or model*)).mp.	3,515
22	(patient adj2 simulat*).mp.	1,472
23	(discrete adj2 (choice or event or simulat*)).mp.	387
24	budget impact.mp.	343
25	('multi criteria decision analysis' or MCDA).mp.	16
26	(incremental cost effectiveness ratio or icer).mp.	3,144
27	(Life Years Gained or LYG).mp.	258
28	quality adjusted life year.mp.	4,365
29	QALY?.mp.	4,833
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation))).mp.	8,828
31	(resource adj2 (use* or utili* or allocat*)).mp.	5,710
32	(HCRU or MRU).mp.	126

Search Number	Search Terms	Results
33	((economic or health* or resource) adj3 burden).mp.	3,223
34	cost\$.ti.	15,423
35	(EQ5D or EQ 5D or EuroQoL).mp.	12,623
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	27,377
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	238
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	44,020
39	(health state* or HSUV).mp.	1,528
40	patient preference.mp.	3,712
41	(Utilit* or disutilit*).mp.	19,002
42	Quality of life.mp.	146,365
43	41 and 42	5,641
44	or/4-40,43	137,010
45	3 and 44	759
46	limit 45 to yr="2012-current"	674

Table A10. Ovid Algorithm-APA PsycInfo: Date searched: 10 July 2023

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	5,608
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	14,105
3	or/1-2	17,681
4	economic.ti.	13,987
5	Monte carlo.mp.	5,918
6	decision tree.ti.	212
7	(decision adj3 (tree* or analys* or model*)).ti.	2,371
8	(markov and (economic* or model*)).ti.	505
9	(patient adj2 simulat*).ti.	243
10	(discrete adj2 (choice or event or simulat*)).ti.	645
11	('multi criteria decision analysis' or MCDA).mp.	154
12	(incremental cost effectiveness ratio or icer).mp.	673
13	Cost-Benefit Analysis.mp.	6,451
14	cost minimi?ation.mp.	150
15	economic evaluation.mp.	1,764
16	(cost effective* or CEA).mp.	19,298
17	(cost utilit* or CUA).mp.	835
18	economic*.ti.	17,756
19	Monte carlo.mp.	5,918
20	decision tree.mp.	1,708
21	(decision adj3 (tree* or analys* or model*)).mp.	12,839
22	(patient adj2 simulat*).mp.	1,500
23	(discrete adj2 (choice or event or simulat*)).mp.	2,122
24	budget impact.mp.	94
25	('multi criteria decision analysis' or MCDA).mp.	154
26	(incremental cost effectiveness ratio or icer).mp.	673
27	(Life Years Gained or LYG).mp.	115
28	quality adjusted life year.mp.	606
29	QALY?.mp.	1,465
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation)).mp.	24,527
31	(resource adj2 (use* or utili* or allocat*)).mp.	11,890
32	(HCRU or MRU).mp.	32
33	((economic or health* or resource) adj3 burden).mp.	5,353

Search Number	Search Terms	Results
34	cost\$.ti.	16,703
35	(EQ5D or EQ 5D or EuroQoL).mp.	4,599
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	51,339
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	332
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	110,780
39	(health state* or HSUV).mp.	1,943
40	patient preference.mp.	2,492
41	(Utilit* or disutilit*).mp.	72,720
42	Quality of life.mp.	105,675
43	41 and 42	3,627
44	or/4-40,43	268,900
45	3 and 44	4,072
46	limit 45 to yr="2012 -Current"	2,728

Table A11. Ovid Algorithm EconLit: Date searched: 10 July 2023

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	5
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	8
3	or/1-2	12
4	limit 3 to yr="2012 -Current"	10

Table A12. NHS Economic Evaluation Database (NHS EED. EBM Reviews) (Ovid): 1st Quarter 2016. No update required.

Search Number	Search Terms	Results
1	Alzheimer Disease/	56
2	((early or mild) adj2 (alzheimer\$ or AD)).af.	12
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).af.	5
4	or/1-3	59
5	limit 4 to yr="2012 -Current"	17

Abbreviations: EBM = evidence-based medicine; EED = Economic Evaluation Database; NHS = National Health Service

Total: 7140

Total after removal of duplicates v original searches: 509

Table A13. Embase (Ovid): 1974 to 2024 January 03. Date searched: 4 January 2024

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab,kw.	59855
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	16977
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	40461
4	exp mild cognitive impairment/	38804
5	or/1-4	89673
6	Cost-Benefit Analysis/ or Cost-Benefit Analysis.ti,ab.	97064
7	cost minimization analysis/ or cost minimi?ation.ti,ab.	4069
8	economic evaluation/ or economic evaluation.ti,ab.	28825
9	cost effectiveness analysis/ or cost-effective*.ti,ab.	320308
10	cost utility analysis/ or cost utilit*.ti,ab.	14815
11	Monte carlo.ti,ab.	62592
12	decision tree.ti,ab. or "decision tree"/	28692
13	(decision adj3 (tree* or analys* or model*)).ti,ab.	54798
14	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti,ab.	191114
15	(patient adj2 simulat*).ti,ab.	7796
16	(discrete adj2 (choice or event or simulat*)).ti,ab.	7686
17	budget impact.ti,ab.	5668
18	(multi-criteria decision analy* or multiple criteria decision analy*).ti,ab.	1053
19	(incremental cost effectiveness ratio or icer).ti,ab.	18636
20	(Life Years Gained or LYG).ti,ab.	2970
21	quality-adjusted life year.ti,ab. or quality adjusted life year/	37880
22	QALY.ti,ab.	22434
23	((healthcare or health-care or health resource or medical resource) adj3 ('use' or utili?ation)).ti,ab.	72551
24	(resource adj2 (use* or utili* or allocat*)).ti,ab.	65478
25	healthcare utilization/	97562
26	HCRU.ti,ab.	2101
27	((economic or health* or resource) adj3 burden).ti,ab.	61990
28	*cost allocation/	14410
29	*"cost"/ or cost\$.ti.	205390
30	(EQ5D or EQ 5D or EuroQoL).ti,ab.	31056
31	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).ti,ab.	93726

Search Number	Search Terms	Results
32	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).ti,ab.	1144
33	(Time Trade Off or Standard Gamble or rating\$ scale).ti,ab.	102876
34	(health state* or HSUV).ti,ab.	14932
35	(Utilit* or disutilit*).ti,ab.	385363
36	Quality of life.ti,ab. or exp "quality of life"/ or exp health status/	1072949
37	35 and 36	33140
38	or/6-33,37	1214500
39	5 and 38	5091
40	(exp animal/ or nonhuman/) not exp human/	7228057
41	39 not 40	5045
42	conference abstract.pt.	5013205
43	41 not 42	3316
44	limit 41 to (conference abstract and yr="2020-current")	324
45	43 or 44	3640
46	(202304\$ or 202305\$ or 202306\$ or 202307\$ or 202308\$ or 202309\$ or 202310\$ or 202311\$ or 202312\$).dc. or (202314\$ or 202315\$ or 202316\$ or 202317\$ or 202318\$ or 202319\$ or 20232\$ or 20233\$ or 20234\$ or 20235\$).em.	1942106
47	45 and 46	449

Table A14. MEDLINE ALL (Ovid): 1946 to January 03, 2024. Date searched: 4 January 2024

Search Number	Search Terms	Results
1	exp alzheimer disease/ and (early or mild).ti,ab.	29595
2	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	10957
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	26417
4	exp cognitive dysfunction/ and (early or mild).ti,ab.	17132
5	or/1-4	51490
6	Monte carlo.ti,ab.	60242
7	Decision Trees/ or decision tree.ti,ab.	22041
8	(decision adj3 (tree* or analys* or model*)).ti,ab.	41018
9	Models, Statistical/ or Markov Chains/ or (markov and (economic* or model*)).ti,ab.	126944
10	(patient adj2 simulat*).ti,ab.	5198
11	(discrete adj2 (choice or event or simulat*)).ti,ab.	5554
12	(multi-criteria decision analy* or multiple criteria decision analy*).ti,ab.	764
13	(incremental cost effectiveness ratio or icer).ti,ab.	10245
14	Cost-Benefit Analysis/ or Cost-Benefit Analysis.ti,ab.	95591
15	(cost effective\$ or cost minimi?ation or cost utilit\$).ti,ab.	183230
16	economic evaluation\$.ti,ab.	15547
17	budget impact.ti,ab.	2065
18	(Life Years Gained or LYG).ti,ab.	1733
19	Quality-Adjusted Life Years/ or quality-adjusted life year.ti,ab.	19461
20	QALY.ti,ab.	12165
21	((healthcare or health-care or health resource or medical resource) adj3 ('use' or utili?ation)).ti,ab.	47195
22	(resource adj2 (use* or utili* or allocat*)).ti,ab.	43711
23	HCRU.ti,ab.	712
24	((economic or health* or resource) adj3 burden).ti,ab.	41239
25	"Cost Allocation"/	2019
26	"Costs and Cost Analysis"/	51716
27	cost\$.ti.	147223
28	(EQ5D or EQ 5D or EuroQoL).ti,ab.	17253
29	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).ti,ab.	61955

Search Number	Search Terms	Results
30	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).ti,ab.	743
31	(health state* or HSUV).ti,ab.	8554
32	(Utilit* or disutilit*).ti,ab.	276672
33	"Quality of Life"/ or exp Health Status/ or Quality of life.ti,ab.	627483
34	32 and 33	18022
35	or/6-31,34	752890
36	5 and 35	1507
37	exp animals/ not exp humans/	5182830
38	36 not 37	1499
39	(202304\$ or 202305\$ or 202306\$ or 202307\$ or 202308\$ or 202309\$ or 202310\$ or 202311\$ or 202312\$).ed,dt.	1339347
40	38 and 39	130

Table A15. CENTRAL (Cochrane Central Register of Controlled Trials. EBM Reviews) (Ovid): December 2023. Date searched: 4 January 2024

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	1906
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	4528
3	or/1-2	5948
4	economic.ti.	3690
5	Monte carlo.mp.	1149
6	decision tree.ti.	56
7	(decision adj3 (tree* or analys* or model*)).ti.	253
8	(markov and (economic* or model*)).ti.	96
9	(patient adj2 simulat*).ti.	178
10	(discrete adj2 (choice or event or simulat*)).ti.	159
11	('multi criteria decision analysis' or MCDA).mp.	17
12	(incremental cost effectiveness ratio or icer).mp.	3272
13	Cost-Benefit Analysis.mp.	12178
14	cost minimi?ation.mp.	435
15	economic evaluation.mp.	4885
16	(cost effective* or CEA).mp.	35161
17	(cost utilit* or CUA).mp.	2632
18	economic*.ti.	4126
19	Monte carlo.mp.	1149
20	decision tree.mp.	807
21	(decision adj3 (tree* or analys* or model*)).mp.	3710
22	(patient adj2 simulat*).mp.	1506
23	(discrete adj2 (choice or event or simulat*)).mp.	401
24	budget impact.mp.	356
25	('multi criteria decision analysis' or MCDA).mp.	17
26	(incremental cost effectiveness ratio or icer).mp.	3272
27	(Life Years Gained or LYG).mp.	261
28	quality adjusted life year.mp.	4530
29	QALY?.mp.	5002
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation))).mp.	9115
31	(resource adj2 (use* or utili* or allocat*)).mp.	5880
32	(HCRU or MRU).mp.	132

Search Number	Search Terms	Results
33	((economic or health* or resource) adj3 burden).mp.	3397
34	cost\$.ti.	15781
35	(EQ5D or EQ 5D or EuroQoL).mp.	13171
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	28398
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	242
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	45754
39	(health state* or HSUV).mp.	1567
40	patient preference.mp.	3803
41	(Utilit* or disutilit*).mp.	19562
42	Quality of life.mp.	152303
43	41 and 42	5833
44	or/4-40,43	141870
45	3 and 44	811
46	limit 45 to up="202304-202312"	108

Table A16. NHS Economic Evaluation Database (NHS EED. EBM Reviews) (Ovid): 1st Quarter 2016. No update required.

Search Number	Search Terms	Results
1	Alzheimer Disease/	
2	((early or mild) adj2 (alzheimer\$ or AD)).af.	
3	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).af.	
4	or/1-3	
5	limit 4 to yr="2012 -Current"	

Table A17. EconLit (Ovid): 1886 to December 21, 2023. Date searched: 4 January 2024

Search Number	Search Terms	Results
1	((early or mild) adj2 (Alzheimer\$ or AD)).ti,ab.	5
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	8
3	or/1-2	12
4	(202304\$ or 202305\$ or 202306\$ or 202307\$ or 202308\$ or 202309\$ or 202310\$ or 202311\$ or 202312\$).up.	42912
5	3 and 4	0

Table A18. APA PsycInfo (Ovid): 1806 to December Week 4 2023. Date searched: 4 January 2024

Search Number	Search Terms	Results
1	((early or mild) adj2 (alzheimer\$ or AD)).ti,ab.	5747
2	((mild\$ or early\$) adj2 (cognitive impair\$ or cognitive dysfunction or cognitive decline)).ti,ab.	14598
3	or/1-2	18256
4	economic.ti.	14287
5	Monte carlo.mp.	6035
6	decision tree.ti.	217
7	(decision adj3 (tree* or analys* or model*)).ti.	2435
8	(markov and (economic* or model*)).ti.	517
9	(patient adj2 simulat*).ti.	247
10	(discrete adj2 (choice or event or simulat*)).ti.	690
11	('multi criteria decision analysis' or MCDA).mp.	164
12	(incremental cost effectiveness ratio or icer).mp.	700
13	Cost-Benefit Analysis.mp.	6498
14	cost minimi?ation.mp.	153
15	economic evaluation.mp.	1825
16	(cost effective* or CEA).mp.	19803
17	(cost utilit* or CUA).mp.	872
18	economic*.ti.	18113
19	Monte carlo.mp.	6035
20	decision tree.mp.	2202
21	(decision adj3 (tree* or analys* or model*)).mp.	13495
22	(patient adj2 simulat*).mp.	1520
23	(discrete adj2 (choice or event or simulat*)).mp.	2220
24	budget impact.mp.	98
25	('multi criteria decision analysis' or MCDA).mp.	164
26	(incremental cost effectiveness ratio or icer).mp.	700
27	(Life Years Gained or LYG).mp.	118
28	quality adjusted life year.mp.	625
29	QALY?.mp.	1515
30	((('healthcare' or 'health care' or 'health resource' or 'medical resource') adj3 ('use' or utili?ation))).mp.	25135
31	(resource adj2 (use* or utili* or allocat*)).mp.	12181
32	(HCRU or MRU).mp.	35

Search Number	Search Terms	Results
33	((economic or health* or resource) adj3 burden).mp.	5633
34	cost\$.ti.	17051
35	(EQ5D or EQ 5D or EuroQoL).mp.	4832
36	(medical outcome study or short-form or shortform or mos-sf or sf12 or sf 12 or sf36 or sf 36 or sf6d or sf 6d or RAND36 or RAND12 or RAND 36 or RAND 12).mp.	53542
37	(health utility index or health utility index or HUI2 or HUI3 or HUI 2 or HUI 3).mp.	334
38	(Time Trade Off or Standard Gamble or rating\$ scale).mp.	113112
39	(health state* or HSUV).mp.	1997
40	patient preference.mp.	2533
41	(Utilit* or disutilit*).mp.	74418
42	Quality of life.mp.	108924
43	41 and 42	3745
44	or/4-40,43	276383
45	3 and 44	4188
46	(202304\$ or 202305\$ or 202306\$ or 202307\$ or 202308\$ or 202309\$ or 202310\$ or 202311\$ or 202312\$).up.	144155
47	45 and 46	127

Update Total = 814 records; Total after removal of duplicates: 669 records