Supplementary Data

Medline Search Strategy

1. Dementia/
2. Alzheimer*.mp.
3. Alzheimer disease/
4. (Cogniti* adj2 (impair* or decline* or loss* or disorder* or deteriorat* or dysfunction*)).mp.
5. 1 or 2 or 3 or 4
6. Cerebrospinal fluid/
7. Amyloid beta-Peptides/
8. tau Proteins/
9. (cerebro-spinal fluid* or cerebrospinal fluid* or csf or spinal fluid*).mp.
10. ((blood or plasma) adj3 (biomarker* or marker* or biological marker*)).mp.
11. (biomarker* or marker* or biological marker*).mp.
12. biomarker/
13. (abeta* or ab42 or ab40 or amyloid beta or beta amyloid).mp.
14. (phospho tau* or total tau* or ptau181 or phosphorylated tau or ptau*).mp.
15. neurofilament.mp.
16. or/6-15
17. Diagnos*.mp.
18. Diagnosis/
19. Diagnosis.fs.
20. or/17-19
21. clinical decision rules/
22. cost benefit.tw.
23. Cost-Benefit Analysis/
24. ((clinical or perceived or clinician* or pragmatic or diagnos*) adj5 (impact or utility or useful* or confidence or decision* or benefit*)).mp.
25. or/21-24
26. 5 and 16 and 20 and 25
27. exp animals/ not humans.sh.
28. 26 not 27

PsychInfo Search strategy

1. Dementia/
2. Alzheimer*.mp.
3. Alzheimer's Disease/
4. (Cogniti* adj2 (impair* or decline* or loss* or disorder* or deteriorat* or dysfunction*)).mp.
5. 1 or 2 or 3 or 4
6. Cerebrospinal fluid/
7. Beta Amyloid/
8. Tau Proteins/
9. (cerebro-spinal fluid* or cerebrospinal fluid* or csf or spinal fluid*).mp.
10. ((blood or plasma) adj3 (biomarker* or marker* or biological marker*)).mp.
11. (biomarker* or marker* or biological marker*).mp.
12. Biological Markers/
13. (abeta* or ab42 or ab40 or amyloid beta or beta amyloid).mp.
14. (phospho tau* or total tau* or ptau181 or phosphorylated tau or ptau*).mp.
15. neurofilament.mp.
16. or/6-15
17. Diagnos*.mp.
18. Diagnosis/
19. or/17-18
20. "clinical judgment (not diagnosis)"/
21. cost benefit.tw.
22. "costs and cost analysis"/
23. ((clinical or perceived or clinician* or pragmatic or diagnos*) adj5 (impact or utility or useful* or confidence or decision* or benefit*)).mp.
24. or/20-23
25. 5 and 16 and 19 and 24

Embase Search Strategy

1. Dementia/
2. Alzheimer*.mp.
3. Alzheimer disease/
4. (Cogniti* adj2 (impair* or decline* or loss* or disorder* or deteriorat* or dysfunction*)).mp.
5. 1 or 2 or 3 or 4
6. cerebrospinal fluid/

7. amyloid beta protein/
8. tau protein/
9. (cerebro-spinal fluid* or cerebrospinal fluid* or csf or spinal fluid*).mp.
10. ((blood or plasma) adj3 (biomarker* or marker* or biological marker*)).mp.
11. (biomarker* or marker* or biological marker*).mp.
12. biomarker/
13. (abeta* or ab42 or ab40 or amyloid beta or beta amyloid).mp.
14. (phospho tau* or total tau* or ptau181 or phosphorylated tau or ptau*).mp.
15. neurofilament.mp.
16. or/6-15
17. Diagnos*.mp.
18. diagnosis/
19. Diagnosis.fs.
20. or/17-19
21. clinical decision rule/
22. cost benefit.tw.
23. "cost benefit analysis"/
24. ((clinical or perceived or clinician* or pragmatic or diagnos*) adj5 (impact or utility or useful* or confidence or decision* or benefit*)).mp.
25. or/21-24
26. 5 and 16 and 20 and 25
27. (exp animal/ or animal.hw. or nonhuman/) not (exp human/ or human cell/ or (human or humans).ti.)
28. 26 not 27

Web Of Science Search Strategy

1. TS=(Dementia OR Alzheimer*)
2. TS=((Cogniti* near/2 (impair* OR decline* OR loss* OR disorder* OR deteriorat* OR dysfunction*)))
3. #2 OR #1
4. ALL=(“amyloid beta-peptides” OR “tau Protein*” OR “cerebro-spinal fluid*” OR “cerebrospinal fluid*” OR csf OR “spinal fluid*”)
5. TS=(((blood OR plasma) near/3 (biomarker* OR marker* OR “biological marker*”)))

6. TS=(biomarker* OR marker* OR “biological marker*” OR abeta* OR ab42 OR ab40 OR “amyloid beta” OR “beta amyloid” OR “phospho tau*” OR “total tau*” OR ptau181 OR “phosphorylated tau” OR ptau* OR neurofilament)
7. #4 OR #5 OR #6
8. TS=(Diagnos*)
9. TS=(“cost benefit”)
10. TS=(((clinical OR perceived OR clinician* OR pragmatic OR diagnos*) near/5 (impact OR utility OR useful* OR confidence OR decision* OR benefit*)))
11. #9 OR #10
12. #3 AND #7 AND #8 AND #11
13. TS=(animal or animals or pisces or fish or fishes or catfish or catfishes or sheatfish or silurus or arius or heteropneustes or clarias or gariepinus or fathead minnow or fathead minnows or pimephales or promelas or cichlidae or trout or trouts or char or chars or salvelinus or salmo or oncorhynchus or guppy or guppies or millionfish or poecilia or goldfish or goldfishes or carassius or auratus or mullet or mullets or mugil or curema or shark or sharks or cod or cods or gadus or morhua or carp or carps or cyprinus or carpio or killifish or eel or eels or anguilla or zander or sander or lucioperca or stizostedion or turbot or turbots or psetta or flatfish or flatfishes or plaice or pleuronectes or platessa or tilapia or tilapias or oreochromis or sarotherodon or common sole or dover sole or solea or zebrafish or zebrafishes or danio or rerio or seabass or dicentrarchus or labrax or morone or lamprey or lampreys or petromyzon or pumpkinseed or pumpkinseeds or lepomis or gibbosus or herring or clupea or harengus or amphibia or amphibian or amphibians or anura or salientia or frog or frogs or rana or toad or toads or bufo or xenopus or laevis or bombina or epidalea or calamita or salamander or salamanders or newt or newts or triturus or reptilia or reptile or reptiles or bearded dragon or pogona or vitticeps or iguana or iguanas or lizard or lizards or anguis fragilis or turtle or turtles or snakes or snake or aves or bird or birds or quail or quails or coturnix or bobwhite or colinus or virginianus or poultry or poultries or fowl or fowls or chicken or chickens or gallus or zebra finch or taeniopygia or guttata or canary or canaries or serinus or canaria or parakeet or parakeets or grasskeet or parrot or parrots or psittacine or psittacines or shelduck or tadorna or goose or geese or branta or leucopsis or woodlark or lullula or flycatcher or ficedula or hypoleuca or dove or doves or geopelia or cuneata or duck or ducks or greylag or graylag or anser or harrier or circus pygargus or red knot or great knot or calidris or canutus or godwit or limosa or lapponica or meleagris or gallopavo or jackdaw or corvus or monedula or ruff or philomachus or pugnax or lapwing or peewit or plover or vanellus or swan or cygnus or columbianus or bewickii or gull or chroicocephalus or ridibundus or albifrons or great tit or parus or aythya or fuligula or streptopelia or risoria or spoonbill or platalea or leucorodia or blackbird or turdus or merula or blue tit or cyanistes or pigeon or pigeons or columba or pintail or anas or starling or sturnus or owl or athene noctua or pochard or ferina or cockatiel or nymphicus or hollandicus or skylark or alauda or tern or sterna or teal or crecca or oystercatcher or haematopus or ostralegus or shrew or shrews or sorex or araneus or crocidura or russula or european mole or talpa or chiroptera or bat or bats or eptesicus or serotinus or myotis or dasycneme or daubentonii or pipistrelle or pipistrellus or cat or cats or felis or catus or feline or dog or dogs or canis or canine or canines or otter or otters or lutra or badger or badgers or

meles or fitchew or fitch or foumart or foulmart or ferrets or ferret or polecat or polecats or mustela or putorius or weasel or weasels or fox or foxes or vulpes or common seal or phoca or vitulina or grey seal or halichoerus or horse or horses or equus or equine or equidae or donkey or donkeys or mule or mules or pig or pigs or swine or swines or hog or hogs or boar or boars or porcine or piglet or piglets or sus or scrofa or llama or llamas or lama or glama or deer or deers or cervus or elaphus or cow or cows or bos taurus or bos indicus or bovine or bull or bulls or cattle or bison or bisons or sheep or sheeps or ovis aries or ovine or lamb or lambs or mouflon or mouflons or goat or goats or capra or caprine or chamois or rupicapra or leporidae or lagomorpha or lagomorph or rabbit or rabbits or oryctolagus or cuniculus or laprine or hares or lepus or rodentia or rodent or rodents or murinae or mouse or mice or mus or musculus or murine or woodmouse or apodemus or rat or rats or rattus or norvegicus or guinea pig or guinea pigs or cavia or porcellus or hamster or hamsters or mesocricetus or cricetulus or cricetus or gerbil or gerbils or jird or jirds or meriones or unguiculatus or jerboa or jerboas or jaculus or chinchilla or chinchillas or beaver or beavers or castor fiber or castor canadensis or sciuridae or squirrel or squirrels or sciurus or chipmunk or chipmunks or marmot or marmots or marmota or suslik or susliks or spermophilus or cynomys or cottonrat or cottonrats or sigmodon or vole or voles or microtus or myodes or glareolus or primate or primates or prosimian or prosimians or lemur or lemurs or lemuridae or loris or bush baby or bush babies or bushbaby or bushbabies or galago or galagos or anthropoidea or anthropoids or simian or simians or monkey or monkeys or marmoset or marmosets or callithrix or cebuella or tamarin or tamarins or saguinus or leontopithecus or squirrel monkey or squirrel monkeys or saimiri or night monkey or night monkeys or owl monkey or owl monkeys or douroucoulis or aotus or spider monkey or spider monkeys or ateles or baboon or baboons or papio or rhesus monkey or macaque or macaca or mulatta or cynomolgus or fascicularis or green monkey or green monkeys or chlorocebus or vervet or vervets or pygerythrus or hominoidea or ape or apes or hylobatidae or gibbon or gibbons or siamang or siamangs or nomascus or symphalangus or hominidae or orangutan or orangutans or pongo or chimpanzee or chimpanzees or pan troglodytes or bonobo or bonobos or pan paniscus or gorilla or gorillas or troglodytes)

14. #12 NOT #13

Supplementary Figure 1

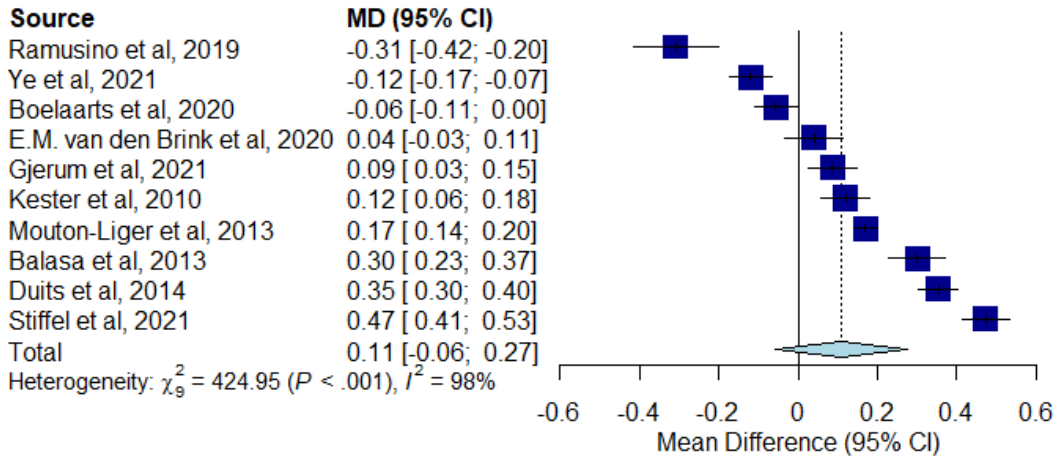

Fig. 1. (A) Forest plot showing the pooled percentage change from initial AD to final non-AD diagnosis.

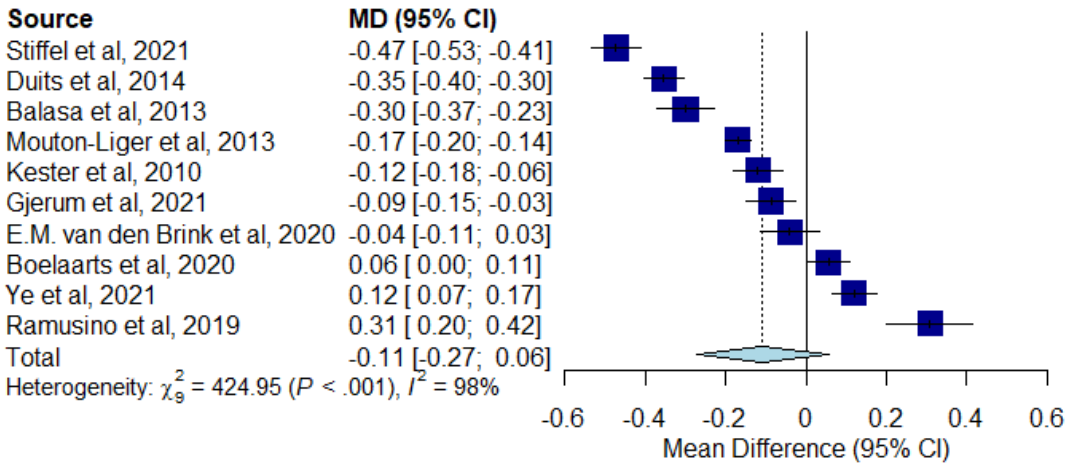

Fig. 1. (B) Forest plot showing the pooled percentage change from initial non-AD to final AD diagnosis.

Supplementary Table 1: Quality Assessment Table

Author & Date	Title	Selection bias	Study design	Confounders	Data collection method	Withdrawals & dropouts	Global Rating 1=strong 2=moderate 3=weak
Balasa et al, 2013	Usefulness of biomarkers in the diagnosis and prognosis of early-onset cognitive impairment	2	2	2	3	1	2
Boelaarts et al, 2020	Diagnostic Impact of CSF Biomarkers in a Local Hospital Memory Clinic Revisited	1	2	2	3	1	2
Cognat et al, 2019	What is the clinical impact of cerebrospinal fluid biomarkers on final diagnosis and management in patients with mild cognitive impairment in clinical practice? Results from a nation-wide prospective survey in France	1	2	2	2	1	2
Duits et al, 2014	Diagnostic impact of CSF biomarkers for Alzheimer's disease in a	1	2	2	3	1	2

	tertiary memory clinic						
E.M. van den Brink et al, 2020	Clinical impact of CSF assessment on diagnostic accuracy in atypical dementias in Quebec, Canada: preliminary results from a specialized dementia clinic	1	2	2	3	1	2
Falgas et al, 2019	Clinical applicability of diagnostic biomarkers in early-onset cognitive impairment	1	2	2	3	1	2
Gjerum et al, 2021	Comparison of the clinical impact of 2-[18F]FDG-PET and cerebrospinal fluid biomarkers in patients suspected of Alzheimer's disease	1	2	2	2	1	2
Gooblar et al, 2015	The influence of cerebrospinal fluid (CSF) biomarkers on clinical dementia evaluations	2	2	2	3	1	2
Handels et al, 2017	Cost-Utility of Using Alzheimer's Disease	1	1	1	2	1	1

	Biomarkers in Cerebrospinal Fluid to Predict Progression from Mild Cognitive Impairment to Dementia						
Keester et al, 2010	Diagnostic impact of CSF biomarkers in a local hospital memory clinic	1	2	2	2	1	2
Lee et al, 2017	Cost-effectiveness of cerebrospinal biomarkers for the diagnosis of Alzheimer's disease	1	1	1	2	1	1
Mouton-Liger et al, 2013	Impact of cerebro-spinal fluid biomarkers of Alzheimer's disease in clinical practice: a multicentric study	1	2	2	2	1	2
Paquet et al, 2016	Utility of CSF biomarkers in psychiatric disorders: a national multicentre prospective study	1	2	2	2	1	2
Ramusino et al, 2019	The incremental value of amyloid PET versus CSF biomarkers for the diagnosis of	1	1	2	2	1	2

	Alzheimer's Disease						
Stiffel et al, 2021	Use of Alzheimer's Disease Cerebrospinal Fluid Biomarkers in A Tertiary Care Memory Clinic	2	2	2	2	1	2
Valc´arcel-Nazco et al, 2014	Cost-effectiveness of the use of biomarkers in cerebrospinal fluid for Alzheimer's disease	1	1	1	1	1	1
Ye et al, 2021	Application of Cerebrospinal Fluid AT(N) Framework on the Diagnosis of AD and Related Cognitive Disorders in Chinese Han Population	2	2	2	2	1	2

Supplementary Table 2: Table of Study Characteristics

Table 2: Study Characteristics & Findings

Author, Year of Publication	**Patient Population: Clinical & Demographic**	**Patient Population: Initial Diagnosis**	**Clinician Population: Demographics**	**Outcome Measure(s)**	**Outcome definitions: Change in diagnosis Change in confidence Patient management**	**Type of statistical analysis: Descriptive statistics Analysis of values between groups Measure of change**	**Summary of findings: Change in diagnosis post-CSF Final diagnoses: AD vs non-AD Pre-CSF confidence & post-CSF confidence Change in diagnostic confidence level % mean Proportion of patients whose management changed (%)**
Balasa et al, 2013	56.0years ^ 56% F MMSE 23.5^	MCI 51, AD 42, FTD 10, PCA 3 & PPA 14 AD 42 (27.0%) vs non-AD 78 (73.0%)	NR	AD biomarkers impact final on diagnosis; NIA-AA AD (amnestic/non-amnestic AD & MCI diagnostic criteria for MCI	Revision in diagnosis Increase in diagnostic probability according to NIA-AA criteria NR	Mean, %, SD T-test: quantitative variables and χ2 categorical data. Non-parametrical tests for a non-normal data distribution NR	Overall change in diagnosis not reported Final diagnoses: AD 66 (43.0%) vs non-AD 89 (57.0%) CSF biomarkers increased level of probability in diagnosis of AD to high in 49 (91.0%) of amnestic AD, 9 (82.0%) non-amnestic AD & 1(4.0%) of MCI patients NR
Boelaarts et al, 2020	67.9years ± 8.1 %F NR, MMSE 25.2 ± 4.0	NCD 8, amnestic MCI 23 & multidomain 6, AD 17, VaD 1, DLB 2, FTD 5, other dementias 1, neurological disorder 2, psychiatric disorder 5, developmental disorder 1, no diagnosis yet 35 AD 17 (24.6%) vs non-AD 52 (75.4%)	NR	Change in diagnosis, increase in diagnostic certainty, change in medical policy	CSF results used to differentiate AD & no AD CSF "helpful": ↑diagnostic certainty/questioning & change of medical policy or "not helpful": no change in diagnostic certainty/medical policy. NR	Mean, medians, SD, % CSF levels compared in ≥2 groups with Wilcoxon or Kruskall-Wallis statistic.	Change in diagnosis 61.0% Final diagnoses: AD 56 (81.0%) vs non-AD 13 (19.0%) In 75% of cases CSF result helpful to the clinicians for diagnosis NR
Cognat et al, 2019	70.0years^ 52.9% F	MCI (all)	Neurologists 43.3%, geriatricians 46.1%, psychiatrists 1.4%	2-part questionnaire pre/post CSF results. Assessment of diagnosis, level of	Change in diagnosis Level of confidence in diagnosis on 10-point Likert scale Impact of the CSF results management of patients:	Mean, SD, % One-way ANOVA: continuous quantitative variables & χ2 tests: qualitative variables	Change in diagnosis= 28.8% Final diagnoses: AD 50 (33.0%) vs non-AD 103 (67.0%) 8.3±1.4vs 6.73±1.18, p<0.0001, 15.7% ↑

				confidence & impact on management	medication, clinical trial enrolment & financial assistance		= 46.4% ACE-i 19.6%, health insurance 12.5%, social support aids 6.5%, clinical trial enrolment 23.5%
Duits et al, 2015	63.0years ± 8 39% F, MMSE 24.0 ± 5	No dementia 147, MCI 74, AD 127, other dementia 63, unclear diagnosis 27 AD 127 (36.2%) vs non-AD 224 (63.8%)	Neurologists	2-part questionnaire pre/post CSF results. change of diagnosis, diagnostic confidence & impact on patient management	Re-evaluation of the diagnosis Diagnostic confidence level on visual analogue scale from 0% to 100% Preselection for clinical trials, level of follow up & subsequent imaging	χ2 tests, independent samples T-tests, or ANOVA Univariate GLM (continuous), logistic regression (categorical) & (dichotomous) variables. Pre/post-CSF diagnostic confidence levels with ANOVA for repeated measures, in total population & age stratified	Change in diagnosis 7% Final diagnoses: AD 99 (28.4%) vs non-AD 252 (71.6%) 84.0%^ to 89.0%^ (P<.001) 5.0% ↑ =13.0%: Preselection for clinical trials, follow-up, & imaging studies
E.M. van den Brink et al, 2020	66.3years ± 1.4 64% F, Educational years 12.7± 0.65 MMSE median 26.0	MCI 5, AD 13, other dementia 1, multiple possible diagnoses 8 AD 13 (46.0%) vs non-AD 15 (54.0%)	Behavioural neurologist	Assessment of initial clinical diagnosis vs final CSF-based diagnosis	% Change in diagnosis post CSF result, expressed as change/ no change NR NR	Mean, median, %. NR % Patients where clinical diagnosis changed after CSF results. Fisher's exact test- rate of diagnostic change per initial clinical diagnosis	Change in diagnosis 25.0% Final diagnoses: AD 14 (50.0%) vs non-AD 14 (50.0%) NR NR
Falgas et al, 2019	58.9years ± 3.9, 47.5% F, MMSE mean 24.8^	AD 26, MCI-AD 12, mild dementia 14, FTD 5 non-degenerative conditions 9 AD 26 (65.0%) vs non-AD 40 (35.0%)	Neurologists	2-part questionnaire pre/post CSF results. Assessment of diagnosis, level of confidence & impact on management	Change in diagnosis Questionnaire to estimate level of diagnostic confidence: range, 0%–100% Commence/stop ACEi	Mean, SD, %, T-test for quantitative data & χ2 test for categorical data. Change in diagnostic confidence pre/post-CSF by paired-sample t-tests.	Unable to establish due to pooled results 67.3%^ to 82.4%^ 15.0%↑ Unable to establish due to pooled results
Gjerum et al, 2021	69.2years^, 20% F, Educational years 13.2, MMSE 26.8^	MCI 19, SCD 14, AD 31, FTD 2, DLB 3, VaD 4, mixed-AD 1, other diagnoses 26 AD 32 (39.5%) vs non-AD 49 (60.5%)	2 expert dementia specialists with experience of CSF biomarkers	Correct or incorrect diagnosis, change in diagnosis, change in accuracy,	Change in diagnosis Confidence in the diagnosis visual rating scale score between 0–100 Change in anti-dementia medication, e.g. ACEi	Mean, SD, %, Unpaired t-test (continuous) & Fisher's exact test (categorical) data McNemar's test paired comparison	Change in diagnosis 15.0% Final diagnoses: AD 42 (51.8%) vs non-AD 39 (48.2%) 9.75%^ ↑ 20.0% anti-dementia medication, 19.0%

				change in confidence, impact on management		between baseline diagnoses & change in anti-dementia medication. Unpaired t-tests for impact of biomarkers on continuous variables	received care, 23.0% further investigations
Gooblar et al, 2015	72.0years^, %F NR, Previous employment: retired pilot and real estate agent	2 Clinical vignettes with 4 CSF results. Case 1: borderline/unclear, Case 2: mild AD. CSF results: normal, borderline, AD-consistent, none provided	Primary or Secondary care. Role includes assessment of patients >65y. 90.6% medical doctor, 3.6% doctor of osteopathy, 3.6% nurse practioner, 1% advanced practice nurse, 1% assistant practioner. Age 50.9years ± 10.8, 43.9% Female, 79.2% white. Mean years in clinical practice 19.4	Clinician perceived utility of CSF biomarkers, diagnostic confidence, Impact on management	NR Clinicians rated their diagnostic confidence on a five-point scale: 1 (not at all confident), 3 (moderately confident), 5 (very confident) Clinicians indicated their recommendation for treatment in open-ended response	Demographic/ practice info calculated to characterize sample. χ2 tests, t-tests & ANOVA to evaluate if CSF result related to diagnostic choice, confidence & treatment Logistic regressions to model multivariate associations between clinician diagnosis and CSF group assignment, demographic, & practice variables & clinical detail ratings.	NR N/A Significant effect of CSF values on decision to treat for borderline vignette. Clinicians who received AD-consistent CSF significantly more likely to recommend treatment.
Kester et al, 2010	71.3years^, 49.5% F, MMSE mean 24.5^, Education classified with Verhage scale (1–7) Mean= 4^	AD 47, other dementia 26, MCI 18, no dementia 18 AD 47 (43.1%) vs non-AD 62 (56.9%)	Local memory clinic clinicians	Change in initial Diagnosis & change in level of confidence on diagnosis	Change in initial diagnosis Change in confidence level where confidence in diagnosis rated as certain or uncertain NR	Mean, SD, %, Fisher exact test for categorical variables, ANOVA for age, MMSE & Kruskal-Wallis tests for CSF results Mann-Whitney U test for post-hoc analysis & proportion of diagnoses that changed & proportion of changes in confidence after CSF results	Change in diagnosis 10.0% Final diagnoses: AD 49 (44.9%) vs non-AD 60 (55.1%) 50.3^ to 67.3^ 17.0% ^ ↑ NR

Mouton-Liger et al, 2014	68.6years ± 9.7, 52.4% F	NR AD (38.0%) vs non-AD (62.0%)	Neurologists 43.3%, geriatricians 46.1%, psychiatrists 1.4%	2-part questionnaire : Change in diagnosis & change in level of confidence	Final diagnosis post CSF results Clinicians rated level of confidence in initial diagnosis on numerical visual scale (0 to 10) NR	Mean, SD, %, χ2 statistic (categorical) & ANOVA (continuous) variables. C-statistics using logistic regression models. Net Reclassification Improvement- a method to compare the 2 ways of classifications, initial diagnostic & CSF results on final diagnosis	Change in diagnosis 26.7% Final diagnoses: AD 252 (45.0%) vs non-AD 99 (55.0%) 6.0^ to 8.0^ 22.2% ↑ NR
Paquet et al, 2016	64.6years ± 11.6, 43% F	Anxiety +/-depression 43 (62.3 %), bipolar disorder 12 (17.4 %), psychosis 10 (14.5 %), others 4 (5.8 %) NR	Neurologists 43.3%, geriatricians 46.1%, psychiatrists 1.4%	2-part questionnaire -re/post CSF results: change of diagnosis, diagnostic confidence & impact on patient management	"Changed diagnosis" each time the initial and final diagnoses were different Numerical scale of confidence out of 10- degree of certainty Commence/stop ACEi/ other modifications	Mean, SD, %, NR AD or non-AD compared using χ2 statistics for categorical variables & t-test (parametric or non-parametric) for age.	Change in diagnosis 19.0% Final diagnoses: AD 13 (18.8%) vs non-AD 56 (81.2%) 6.0 ± 1.1 to 8.1 ± 1.4, p < 0.0001 20.3% ↑ =30.4% start ACEi 10.0%, stop ACEi 7.0%, other modifications 17.0%.
Ramusino et al, 2019	71.4years ± 7.1, 51% F, Education years 10.7 ± 4, Disease duration years 4.5 ± 3, MMSE 26.1 ± 3.9	NR Round 1 CSF pathway: AD (69.0%) vs non-AD (31.0%)	Dementia experts: 1 neurologist & 1 geriatrician	2-part questionnaire pre/post CSF results: change in diagnosis & change in level of confidence	Rate of diagnostic change (%) Relative diagnostic confidence on visual analogue scale (0 to 100%) NR	Mean, SD, %, Sociodemographic features in 2 arms compared with ANOVA & χ2 Inter-rater agreement: Cohen's k coefficient Diagnostic changes at rounds 2 & 3 Fisher's exact test, change in diagnostic confidence assessed using linear mixed model with 3 repeated factors	Change in diagnosis 8.0% Final diagnoses: AD 44 (61.9%) vs non-AD 27 (38.1%) Round 1 addition of CSF values 14.0%↑ P<0.001 NR
Stiffel et al, 2021	67.5years ± 9, 49% F, 2.7±2 years in education, early disease stage, MMSE 26.0±3	AD or other dementia 68, Amnestic MCI 113, PPA 26, atypical behavioural presentation 144. AD 68 (26.0%) vs non-	NR	Impact of CSF biomarkers on diagnosis and management	Revision in diagnosis NR Commence/stop ACEi on follow up	Mean, SD, %, Continuous variables assessed using ANOVA, dichotomous/categorical variables assessed using χ2 or Mann-Whitney U tests	Change in diagnosis 53.4% Final diagnoses: AD 70 (26.7%) vs non-AD 192 (73.3%) NR =46.5

		AD 194 (74.0%)				NR	44.6% began treatment with ACEi, 1.9% stopped ACEi
Ye et al, 2021	61.6years ± 9.9, 51.8% F, Educational years 7.6 ± 4.0, MMSE Score 14.9 ± 8.1	AD 71, atypical AD 5, prodromal AD 3, MCI 15, FTD 27, NPH 4, VaD 3, DLB 2, mixed dementia 2, leukoencephalopathy 2, PDD 1, PSP 1, pseudodementia 1 79 AD (58.0%) and 58 non-AD (42.0%).	Neurologists	Change in Diagnosis, Change in level of confidence	Revision of diagnosis based on CSF AT(N) framework Diagnostic confidence (range, 50%–100%) in reference to CSF AT(N) framework NR	Mean, SD, %, Quantitative data compared using t-test, One- ANOVA & χ2 test for categorical data Post-hoc analysis: Mann–Whitney U-Tests when evaluating changes in diagnosis & confidence	Change in diagnosis 28.0% Final diagnoses 74 AD (54.0%) and 63 non-AD (46.0%). 70.6%^ to 80.4%^ 9.8%↑ NR
Abbreviations: F- female; years; MMSE- Mini Mental State Examination; MCI- Mild Cognitive Impairment; PCA-Posterior Cortical Atrophy; PPA- Primary Progressive Aphasia; AD-Alzheimer's disease; VaD-Vascular Disease; DLB-Dementia with Lewy Bodies; FTD-Frontotemporal Dementia; PDD- Parkinson's Disease with Dementia; PSP-Progressive Supranuclear Palsy; NIA-AA- National Institute on Aging and Alzheimer's Association Framework; CSF-Cerebrospinal Fluid; sNFL-Serum neurofilament Light; AT(N)- Amyloid/Tau/Neurodegeneration; χ2- Chi-squared test; Aβ42- Amyloid Beta 42; NR- Not Reported; Standard Deviation Not Reported- ^; N/A-Not Applicable, ↑-increase; ↓-decrease; ANOVA- Analysis of variance; SD- Standard Deviation; %-percentage; GLM- General Linear Models; ACEi- Acetylcholinesterase Inhibitors							

Table 2: Table of Study Characteristics & Findings- Observational Studies