Clinical performance study of the in vitro diagnostic device Elecsys® Amyloid Plasma Panel

Submission date	Recruitment status	Prospectively registered
07/08/2024	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
07/10/2024	Completed	Results
Last Edited	Condition category	Individual participant data
20/10/2025	Nervous System Diseases	[X] Record updated in last year

Plain English summary of protocol

Background and study aims

This global study aims to see how well a new blood test, the Elecsys® Amyloid Plasma Panel (EAPP), can identify how likely people with memory problems are to develop Alzheimer's disease (AD). To do so, the test identifies toxic proteins, such as amyloid, which build up in the brains of people with AD and are key characteristics in identifying people who have or are at risk of AD. AD is an illness in the brain that causes memory problems, as well as difficulties with thinking and reasoning. It can also affect behaviour and the ability to carry out normal activities. AD is a potentially serious medical condition and not part of normal ageing. The EAPP may allow faster access to medical, personal, and emotional support, and opportunities to take part in research for people with memory problems.

Who can participate?

Males and females between the ages of 55 and 80 years who are experiencing issues with their memory, thinking and reasoning, and have not previously had a diagnosis of dementia

What does the study involve?

Participants will need to visit their study centre up to four times over a period of 3 months for procedures such as assessments of their memory and thinking, a clinical assessment, blood collection, brain imaging by PET and MRI scans, and a lumbar puncture.

What are the possible benefits and risks of participating?

The results from this study will be used to receive regulatory approval of the EAPP for use with patients with memory problems in clinics around the world. Since there is no intervention (drug) given in this study, the risks are low for the participants. Study participants may have accelerated access to Alzheimer's diagnostics than they would get in routine care.

Where is the study run from? Roche Diagnostics (Switzerland)

When is the study starting and how long is it expected to run for? January 2022 to December 2024

Who is funding the study? Roche Diagnostics (Switzerland)

Who is the main contact?
David Caley, david.caley@contractors.roche.com

Contact information

Type(s)

Public, Scientific, Principal Investigator

Contact name

Mr David Caley

Contact details

Forrenstrasse 2
Rotkreuz
Switzerland
6343
+44 (0)7731325977
david.caley@contractors.roche.com

Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

326591

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

RD006263, CPMS 57697

Study information

Scientific Title

A multicenter, prospective, non-interventional study to determine the cutoff and clinical performance of the Elecsys® Amyloid Plasma Panel and its component assays

Acronym

EAPP

Study objectives

Firstly to derive the stepwise decision function for the Elecsys® Amyloid Plasma Panel (EAPP), and to calculate a cut-off for the Elecsys® Phospho-Tau (181P) plasma (pTau181p) immunoassay, which maximizes the clinical performance of each in the intended use population. Then, to demonstrate the Clinical Performance of both EAPP and pTau181p in terms of their ability to rule out subjects in the intended use population, who are most likely to be amyloid negative, by showing a high negative predictive value (NPV) and acceptable positive predictive value (PPV).

Ethics approval required

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Ethics approval(s)

- 1. Approved 18/07/2023, London Stanmore Research Ethics Committee (2nd Floor, 2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; +44 (0)2071048068; stanmore.rec@hra.nhs. uk), ref: 23/LO/0483
- 2. Approved 12/12/2023, Ethikkommission Bei Der Lmu München (Pettenkoferstr. 8a, Munich, 80336, Germany; +49 (0)89 440055191; Ethikkommission@med.uni-muenchen.de), ref: 23-0869 fed
- 3. Approved 31/08/2023, Ethikkommission der Medizinischen Universität Wien (Borschkegasse 8b/6, Vienna, 1090, Austria; +43 (0)1 404 00-21470, 22440; ethik-kom@meduniwien.ac.at), ref: 1267/2023
- 4. Approved 24/04/2023, Medical Research Ethics Committees (Ørestads Boulevard 5, Bygning 37K, st., Copenhagen, 2300, Denmark; +45 (0)72 21 66 77; kontakt@dvmk.dk), ref: 2303725
- 5. Approved 05/04/2023, Comité de Ética de la Investigación con medicamentos del Parc de Salut MAR (Dr. Aiguader, 88, Barcelona, 08003, Spain; +34 (0)93 316 06 77; ceic-psmar@imim.es), ref: 2023/10799
- 6. Approved 04/04/2023, WCG IRB (1019 39th Ave SE/ Suite 120, Puyallup, 98374, United States of America; +1 (0)855 818 2289; clientcare@wcgclinical.com), ref: 2023/10799
- 7. Approved 22/02/2024, Bellberry IRB (123 Glen Osmond Road, Eastwood, 5063, Australia; +61 (0)8 8361 3222; bellberry@bellberry.com.au), ref: 2023-10-1246

Study design

Observational multi-centre cross-sectional study

Primary study design

Observational

Secondary study design

Cross sectional study

Study setting(s)

Hospital, Laboratory, Other

Study type(s)

Diagnostic

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

Health condition(s) or problem(s) studied

Alzheimer's disease, amyloid pathology

Interventions

The duration of participation of each patient is approximately four visits over 3 months. Two study arms; cutoff establishment and pivotal clinical trial. Please note that both arms have the same methodology - only the objectives and therefore the statistical analyses differ between the two arms. There is no randomisation, sites are assigned to either one of the two arms, so patients are enrolled into the arm that their site is assigned. All potential participants will be screened - involving informed consent, an assessment against the inclusion and exclusion criteria (including administration of QDRS and MMSE) and collection of demographic information. Subjects who are screened in will have the following procedures over approximately three further visits: clinical interview, administration of Clinical Dementia Rating scale, vitals collection, blood collection (for measurement with EAPP and creatinine, and APOE genotyping, if applicable), CSF collection (for measurement with Elecesys AB42 and pTau181 biomarkers) and /or amyloid PET and MRI (T1w, T2, FLAIR).

Intervention Type

Other

Primary outcome measure

Clinical performance of EAPP and pTau181p in reference to amyloid pathology status as defined by amyloid PET imaging VR. All measures are conducted at a single timepoint.

Secondary outcome measures

- 1. Clinical performance of EAPP and pTau181p in reference to amyloid pathology status as defined by CSF biomarker analysis. All measures are conducted at a single timepoint.
- 2. Clinical performance of ApoE4p sub-result in reference to amyloid pathology status as defined by APOE4 genetic carrier status. All measures are conducted at a single timepoint.

Overall study start date

01/01/2022

Completion date

17/12/2024

Eligibility

Key inclusion criteria

- 1. 55 to 80 years old (inclusive) at the time of ICF signature
- 2. Has cognitive complaints or objective memory impairment and is being evaluated for Alzheimer's Disease (AD) and other causes of cognitive decline, for which the cause is yet unknown, or would be in need of referral for further cognitive evaluation
- 3. Quick Dementia Rating System (QDRS) score from 0.5 to 12 (inclusive), with one box memory and recall
- 4. PI has uncertainty about the underlying etiology i.e. not certain that symptoms are caused by

AD

- 5. No contraindication for performing: clinical interview, cognitive testing, blood and CSF extraction and/or amyloid PET scan
- 6. Has a person available to be an informant for the Clinical Dementia Rating. An informant can be any person with sufficient contact with the patient (minimum twice a week), who is willing to participate in a clinical interview for this study, is fluent in the language used during the assessment, and has sufficient cognitive health to provide accurate information.
- 7. Signed informed consent form

Participant type(s)

Patient

Age group

Other

Lower age limit

55 Years

Upper age limit

80 Years

Sex

Both

Target number of participants

1400

Key exclusion criteria

- 1. A clinical diagnosis of moderate and severe dementia and/or Mini-Mental State Exam (MMSE) score <20
- 2. Has already undergone advanced diagnostic evaluation including amyloid PET and/or tau PET and/or CSF as part of their routine medical care
- 3. Presence of active delirium or encephalopathy
- 4. Shows any condition that, in the opinion of the investigator, could interfere in the proper execution of the study procedures and/or in their future permanence in the study
- 5. Has received or is receiving any investigational treatment within 5 half-lives or 6 months (whichever is longer) prior to enrollment and during the course of this study before their participation is complete
- 6. Has received any anti-amyloid medication in a clinical trial setting or other at any time in their life

Date of first enrolment

20/05/2023

Date of final enrolment

30/09/2023

Locations

Countries of recruitment

Study participating centre King's College Hospital Denmark Hill London United Kingdom SE5 9RS	e
Study participating centre Australian Dementia Net Melbourne Australia 3010	
Study participating centre	e

Study participating centre Brain Health Scotland Life Sciences Ltd

Gyleview House 3 Redheughs Rigg Edinburgh United Kingdom EH12 9DQ

United Kingdom

United States of America

Australia

Austria

Denmark

England

Germany

Scotland

Spain

vork

Adams Clinical Watertown United States of America 02472

Study participating centre Alzheimer's Research and Treatment Center Wellington

United States of America 33414

Study participating centre Barrow Neurological Institute

Pheonix United States of America 85013

Study participating centre Center for Advanced Research & Education

Gainesvill United States of America 30501

Study participating centre Charter Research

Lady Lake United States of America 32159

Study participating centre Charter Research

Winter Park United States of America 32792

Study participating centre Eastside Research

Redmond United Kingdom 98052

Study participating centre K2 Medical Research

Tampa United States of America 33607

Study participating centre K2 Medical Research

Maitland United States of America 32751

Study participating centre K2 Medical Research

The Villages United States of America 32159

Study participating centre Genesis Neuroscience Clinic

Knoxville United Kingdom 37909

Study participating centre Indiana University Health

Indianapolis United States of America 46202

Study participating centre Massachusetts General Hospital

Boston United Kingdom 02114

Study participating centre Optimus U Miami

United States of America 33135

Study participating centre Berman Clinical

New York City United States of America 10029

Study participating centre
Barcelona-beta Research Center
Barcelona
Spain
08005

Study participating centre ACE Alzheimer Center Barcelona Spain 08028

Study participating centre
Vall D'Hebron University Hospital
Barcelona
Spain
08035

Study participating centre
Universitätsklinikum RWTH Aachen
Aachen
Germany
52074

Study participating centre
Charite Ambulantes Gesundheitszentrum
Berlin
Germany
10117

Study participating centre Universitätsklinikum Köln Köln Germany 50937

Study participating centre Studienzentrum Dr. Bischof GmbH Böblingen Germany 71034

Study participating centre Institut für Studien zur Psychischen Gesundheit Mannheim Germany 68165

Study participating centre
Danish Dementia Research Center
Copenhagen
Denmark
2100

Study participating centre MedUni Wien Vienna Austria 1090

Study participating centre Universitätsklinikum Salzburg Salzburg Austria 5020

Sponsor information

Organisation

Roche Diagnostics International Ltd

Sponsor details

Forrenstrasse 2
Rotkreuz
Switzerland
6343
+41 (0)41 799 61 00
rotkreuz.reception@roche.com

Sponsor type

Industry

Website

https://www.roche.com/

Funder(s)

Funder type

Industry

Funder Name

Roche Diagnostics International Ltd

Results and Publications

Publication and dissemination plan

Results will be published in a peer-reviewed journal and at a future conference.

Intention to publish date

31/12/2025

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary

Data sharing statement to be made available at a later date