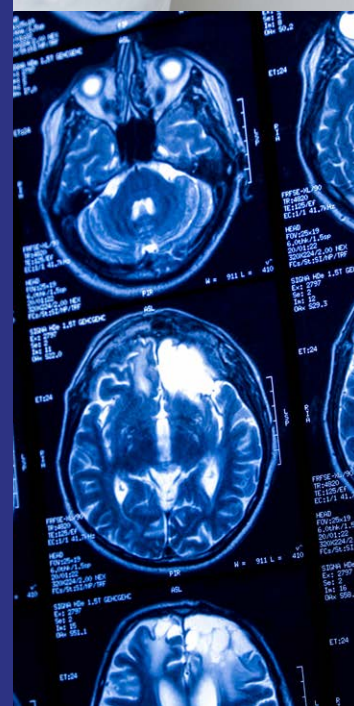




# A Quick Guide to Imaging Analysis & Operations Essentials in Alzheimer's Disease Clinical Research



# Transforming clinical research in Alzheimer's disease

IXICO is a global leader in neuroscience imaging and biomarker analytics, leveraging its proprietary AI-driven platform to advance the treatment of neurological disorders and reduce uncertainties in drug discovery, development, and monitoring. The IXICO Platform utilizes cutting-edge disease-specific algorithms to generate reliable clinical data and precision insights, accelerating R&D decision-making, de-risking clinical research, and maximizing the potential of drug development programs.

With a 20-year proven track record, IXICO has built a global reputation as a leading end-to-end Imaging Contract Research Organisation (iCRO), expertly managing and analyzing neurological clinical trials. The company collaborates with leading pharmaceutical companies, innovative biotechs, scientific consortia, and non-profit organizations, making it a key part of the global neurological disease research community.



## Transforming Alzheimer's Disease Research

IXICO is dedicated to revolutionizing clinical research in Alzheimer's disease (AD) through advanced neuroimaging solutions. With over 20 years of expertise, IXICO excels in AD imaging using advanced biomarkers to quantify key measurements such as amyloid plaques, tau tangles, and brain atrophy. The AI-driven IXIQ.Ai platform enhances the accuracy and efficiency of brain imaging measurements, supporting over 200,000 brain scans collected through various AD research initiatives.

IXICO's comprehensive imaging support includes global site management, regulatory-compliant platforms and processes, and rapid amyloid and tau PET eligibility read reports (within three days). Services encompass centralized radiology reads, AD-specific workflows, advanced analytics, and tailored solutions to meet diverse clinical trial needs, ensuring seamless data collection and analysis.



## Proven Excellence in AD Clinical Trials

With a strong track record in AD imaging analysis, IXICO has been a key part of high-profile studies such as the Bio-Hermes and AMYPAD initiatives, and ongoing collaborations with leading organizations like ADNI and EPAD. IXICO has successfully supported 28 Sponsors across 145 clinical trials in neurodegenerative diseases, providing high-quality deliverables and successful trial outcomes. Our proven expertise makes us a trusted partner in advancing AD research and clinical trials.

# Key Imaging Biomarkers

Key imaging biomarkers, such as amyloid PET, tau PET, and volumetric MRI, are crucial for accurately diagnosing and monitoring AD. These biomarkers are essential for eligibility, safety monitoring, and assessing drug efficacy. By providing critical insights into disease progression, they enable researchers to make informed decisions in clinical trials.

Our centralized radiology reads and imaging analysis solutions ensure consistent and high-quality evaluations across all imaging data. By quantifying the level and anatomical distribution of amyloid and tau burden or structural brain changes, these biomarkers help to identify patients at various stages of the disease, ultimately guiding therapeutic strategies and improving patient outcomes.

Our well-defined process addresses discrepancies between local and central reads, while our robust discordance resolution workflow minimizes delays in trial enrolment. Our tailored radiological read solutions allow for customizable read reports and reading paradigms to meet the specific needs of each clinical trial, such as single, dual, consensus or adjudication workflows.

## Key Radiological Read Outcomes

**Amyloid PET for Eligibility and Efficacy**

**Visual Read & Quantitative Analysis**  
Amyloid classification, longitudinal analysis

**MRI for Eligibility**

**Alzheimer's Disease**  
Exclusion criteria

**Tau PET for Eligibility and Efficacy**

**Visual Read & Quantitative Analysis**  
Tau classification, longitudinal analysis

**MRI for Safety Monitoring**

Presence, number, and location of new or changed findings

**ARIA-E**  
Microhaemorrhages  
Macrohaemorrhages  
Superficial siderosis  
White matter lesions



## Vascular Biomarkers

IXICO is developing a series of biomarker algorithms designed to identify and quantify cerebrovascular abnormalities, which are common contributing factors in neurodegenerative diseases. MRI techniques remain the standard for these measurements. While being relevant for screening, safety, and efficacy in AD clinical trials, the measurement of vascular components and their abnormalities has broader applications in neurological conditions such as vascular dementia, cerebral amyloid angiopathy, stroke, and multiple sclerosis.



## Inflammation Measurement

Building on its existing capabilities, IXICO is exploring opportunities to demonstrate the utility of its diffusion MRI technology in providing insights into inflammatory processes in the brain. This involves, for example, measuring microstructural changes early in the disease process, or increases/decreases in free water, separate from water restricted by tissue structure. Additionally, the development of markers for cerebrovascular pathology can facilitate the measurement of downstream damage associated with neuroinflammatory processes when it becomes detectable via conventional structural MRI.

# Our Track Record in AD clinical research

**Successful Trials:** Participation in high-profile studies, including the Bio-Hermes and AMYPAD initiatives, demonstrating our commitment to advancing AD research.



In both the EPAD and AMYPAD initiatives, our expertise in MRI and PET image data standardisation and our TrialTracker™ platform are being deployed to collect 1000's of MRI and PET scans from people recruited from clinical centres all over Europe



Our partnership with the Global Alzheimer's Platform Foundation in the Bio-Hermes study involved using beta amyloid PET scans to create a comprehensive biomarker database, exploring correlations between amyloid PET and digital assessments and blood biomarkers. We had recent podium presentations at CTAD 2023 and 2024



**Collaboration with Acumen:** Recently, we partnered with Acumen in their Phase 1 INTERCEPT-AD trial of ACU193, utilizing semi-quantitative amyloid classification for eligibility and ASL perfusion analysis. This collaboration highlights our ability to support innovative therapies in the AD space.



We openly worked with Acumen in their recently completed Phase1 INTERCEPT-AD trial of ACU193 using semi-quantitative amyloid classification for eligibility, and ASL perfusion analysis. We had recent co-presentations at AAIC 2023



**Expert Team:** Our central reading team comprises of leading neuroradiologists such as Prof Frederik Barkhof for MRI and Dr Elsmarieke van de Giessen for PET, ensuring high-quality assessments and compliance with regulatory standards.

## Why Choose IXICO?

Choosing IXICO means partnering with a leader in neuroimaging for AD:

**Expertise:** Deep knowledge of AD biomarkers and imaging techniques, backed by a proven track record.

**Innovation:** Commitment to advancing imaging methodologies through ongoing research and development.

**Collaboration:** Strong ties with academic and industry leaders, fostering a collaborative approach to tackling the challenges of AD research and clinical trials.

For more information on how IXICO can support your radiology read and/or imaging analysis needs in clinical trials for AD, please contact us at [www.ixico.com](http://www.ixico.com).





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