

How Research Trials Can Contribute to Alzheimer’s Disease Diagnosis

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INTRODUCTION

Alzheimer’s disease (AD) diagnosis is shifting from clinical to biomarker-guided ⁱ. An estimated 60% of people with dementia receive a diagnosisⁱⁱ and 25-30% are misdiagnosedⁱⁱⁱ, showing need for optimized diagnostic approaches^{iv}.

NHS organizations that participate in research have improved patient outcomes^v. Clinical trials may offer investigations such as blood-based biomarkers (BBBMs) for dementia subtyping and identifying presymptomatic individuals ⁱⁱⁱ.

Our aim was to evaluate whether access to research trials can contribute to improved dementia diagnosis for service users at National Health Service memory clinics.

METHODS

A service improvement project was registered with the local NHS Trust. We retrospectively collected data from the electronic medical records of patients screened for dementia drug trials by the Trust’s Research & Development service between May 2024 and October 2025.

The trials recruited healthy volunteers, people with Mild Cognitive Impairment (MCI) due to AD and Mild AD. 69 participants were identified. Medical records from memory clinic assessment were anonymised and analysed.

Declaration of interest & funding: None. This audit was registered with the local NHS Trust. No ethics approval was required.

RESULTS

Of the 69 participants, 6% were healthy volunteers. At memory clinics, 93% underwent Addenbrooke’s Cognitive Examination-III and 80% had brain imaging. Most had MRI (42%), 28% had CT (28%), and 7% had MRI and FDG-PET. Following clinic assessment, AD was the lead diagnosis (42%), then MCI (30%), while 7% had no diagnosis.

Following trial screening, 74% of people were not eligible to participate in clinical trials and 83% of patients retained their initial diagnosis. 10% received a new diagnosis at the memory service, while 7% await reassessment.

Figure 1. Diagnosis Before & After Trial Screening

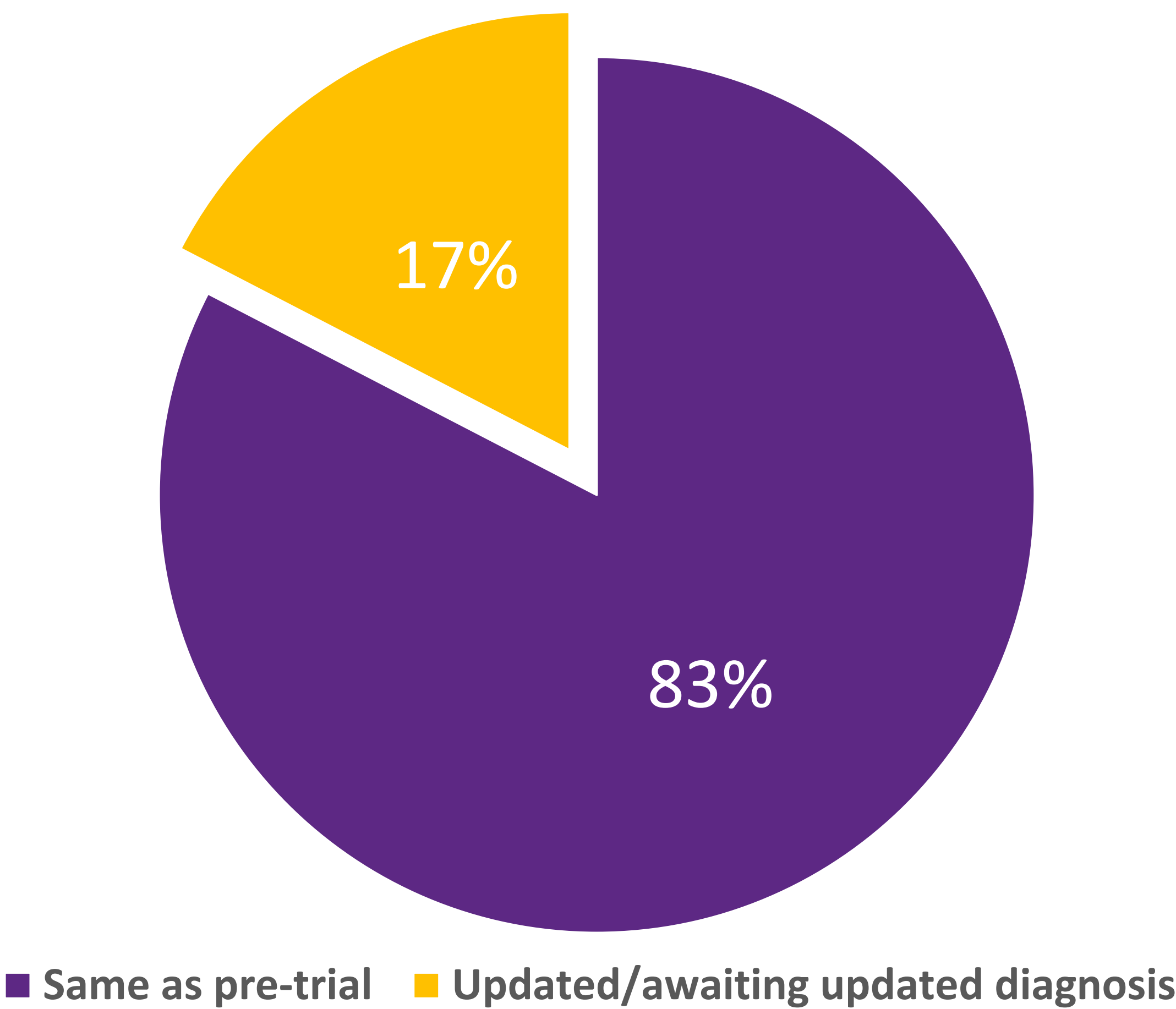


Table 1. Details of participants receiving an updated diagnosis after trial screening

Initial Memory Clinic Diagnosis	→	Diagnosis After Clinical Trial Screening
Depression	→	Pending update
Mild Cognitive Impairment	→	Pending update
No diagnosis	→	Subjective Cognitive Impairment
Cognitive deficits likely vascular/multifactorial	→	Alzheimer's disease
Mild Cognitive Impairment	→	Pending update
Mild Cognitive Impairment; Possible Lewy Body Dementia	→	Lewy Body Dementia
Mild Cognitive Impairment	→	Pending update
Alzheimer's disease	→	Mild Cognitive Impairment
Mild Cognitive Impairment	→	Self-discharged from service; Sought private assessment
Alzheimer's disease	→	Vascular dementia
Alzheimer's disease	→	Mild Cognitive Impairment ?functional cognitive disorder
Mild Cognitive Impairment	→	Alzheimer's Disease

DISCUSSION

17% of patients' diagnoses changed course following clinical trial screening, possibly due to access to additional investigations.

This highlights the potential benefit of mental health trust participation in research delivery and a need for further research in this area.

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