Biomarkers in a Canadian Memory Clinic - BioMIND

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Location of the Research
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3. St. Joseph's Health Care London 268 Grosvenor St. London

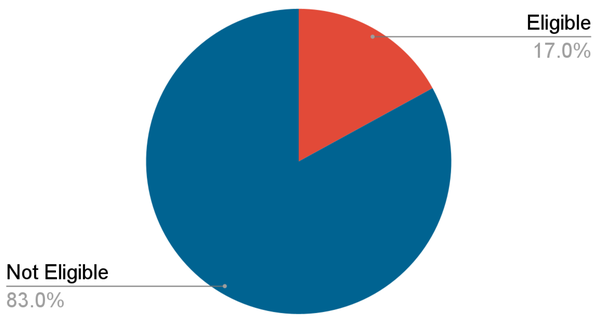
INTRODUCTION

Alzheimer's Disease (AD) is a clinical diagnosis based on a constellation of symptoms and neuropsychological testing.
Symptomatic diagnostic models incompletely consider underlying biological mechanisms and show a low specificity for the underlying disease process of AD.
Researchers have proposed aligning the clinical diagnosis of AD with a biological diagnosis based on biomarker ascertainment.

OBJECTIVES

BioMIND is a prospective, observational, case control study in a real-world cohort of patients referred by primary care physicians to a tertiary memory clinic for cognitive concerns. This study's main objective is to determine the effect of using standardized criteria (based on eligibility for disease modifying treatment (DMT)) to triage patients towards biological staging of disease with biomarker testing.

Eligibility



ACKNOWLEDGEMENTS

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METHODS

Inclusion Criteria:
- Suspected diagnosis of amnestic mild cognitive impairment (MCI)
- 55-85 years inclusive
- Has a study partner

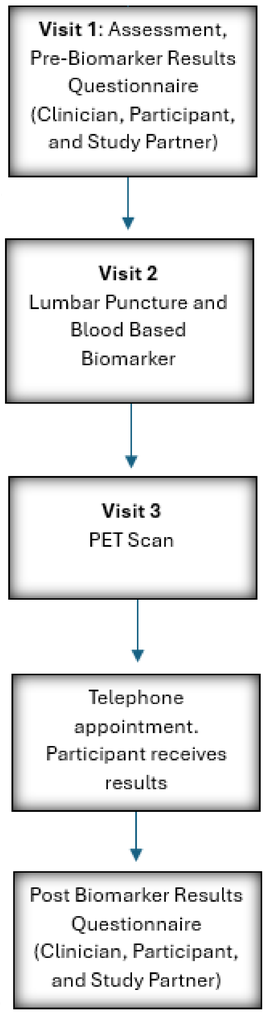
Exclusion Criteria:
- Unable to complete LP
- Individuals unable to complete assessments in English language
- Individuals requiring sedation for PET scan
- History of malignant neoplasms in last 3 year

All patients referred by family doctors to the Aging Brain and Memory Clinic (ABMC) are prescreened for eligibility.
Group A - Participants who have a future appointment in ABMC (within 18 months)
Group B - Participants who have already been assessed in ABMC and diagnosed with amnestic MCI.

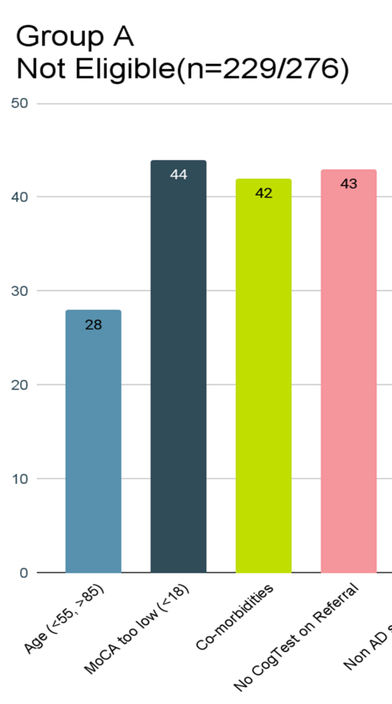
Eligible participants underwent assessments at Visit 1 including standardized Mini Mental State Exam (MMSE), Montreal Cognitive Assessment (MoCA), Geriatric Depression Scale (GDS), ADCS-MCI-ADL and Cornell Scale for Depression and Dementia (CSDD).

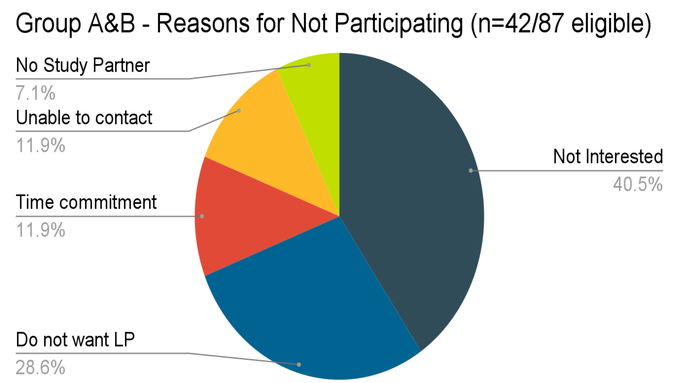
Participants are informed of results after PET scan and LP results are available.

FLOW



RESULTS





CONCLUSIONS AND DISCUSSION

Data from a tertiary memory clinic in Canada has shown that 17% of patients referred by primary care physicians would be eligible for biomarker testing if the sole criteria for inclusion was based on disease modifying therapy (DMT) eligibility.

We have designed a potential pathway for patients to be referred for biomarker testing.

We have identified areas which could be improved including:
- Difficulties in discernment of Amnestic MCI from primary care referral information alone
- The need for invasive testing (lumbar puncture)
- The impact of co-morbid conditions on patient eligibility
- Concerns about healthcare inequality (language, rural location, study partner)

Further information from this ongoing study will help to guide large scale implementation studies to move biomarker testing into real world clinical settings.