

Amsterdam Neuroscience

The impact of tau-PET in a selected memory clinic cohort: design and rationale of the TAP-TAU study

Marie R. Vermeiren, Joost Somsen, Gert Luurtsema, Fransje E. Reesink, Nicolaas A. Verwey, Liesbeth Hempenius, Nelleke Tolboom, Geert Jan Biessels, J. Matthijs Biesbroek, Meike W. Vernooij, Sophie E.M. Veldhuijzen van Zanten, Harro Seelaar, Emma M. Coomans, Charlotte E. Teunissen, Afina W. Lemstra, Argonde C. van Harten, Leonie N.C. Visser, Wiesje M. van der Flier, Elsmarieke van de Giessen*, Rik Ossenkoppele*

*Shared last authors



Introduction

Tau-PET is a diagnostic tool with high sensitivity and specificity for discriminating Alzheimer’s disease from other neurodegenerative disorders in well-controlled research environments. The aim of this study is to investigate the impact of tau-PET in clinical practice.

Methods

- 300 patients across 5 Dutch memory clinics
- Primary outcomes: change (pre- versus post- tau-PET) in diagnosis, diagnostic certainty, patient management and patient anxiety and uncertainty
- Secondary outcomes: head-to-head comparisons between tau-PET and less invasive and lower cost diagnostic tools (novel blood-based biomarkers and AI-based classifiers)

Inclusion criteria

- ≥ 50 years of age
- MCI or mild dementia
- Completed routine work-up, incl. basic cognitive screening and MRI
- Diagnostic certainty < 85%
- AD in differential diagnosis
- Able to tolerate study procedures
- Competent to make a well-informed decision to participate

Exclusion criteria

- Evidence of structural abnormalities on MRI and history of clinically significant disease likely to interfere
- Women of child-bearing potential
- History of severe drug allergy or hypersensitivity
- Treated with an anti-amyloid/-tau agent
- Radiation exposure exceeded

Diagnostic uncertainty based on ...

- Suspicion of mixed pathology
- Atypical clinical presentation
- Conflicting/inconclusive diagnostic tests

Figure 1. Criteria for participation in the TAP-TAU study

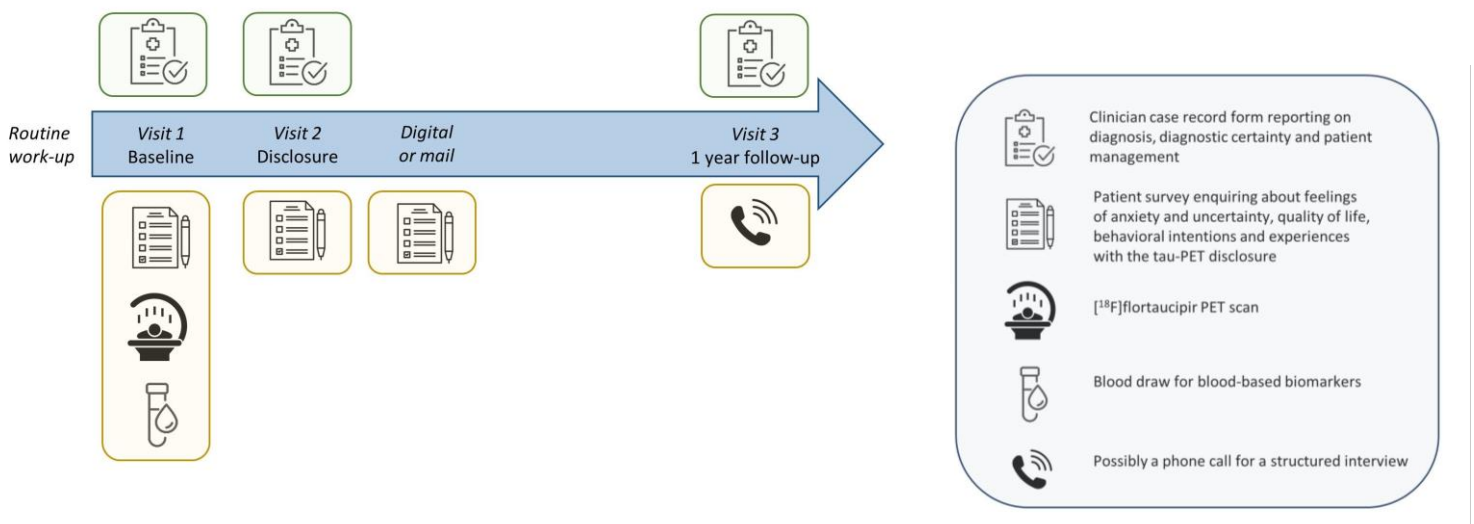


Figure 2. TAP-TAU study timeline and procedures

Importance

Findings of our study may contribute to recommendations regarding which patients would benefit most from assessment with tau-PET.

TAP-Dementia
Onderdeel van de Nationale Dementiestrategie