

A Real-World approach to advancing the diagnosis of Mixed Pathology dementia: Design of the TAP-VaMP multicenter study

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Introduction

- Alzheimer's disease (AD) is the most common form of dementia, other types include vascular dementia, frontotemporal dementia (FTD) and dementia with Lewy Bodies (DLB).
- In many memory clinic (MC) patients, however, multiple pathologies underly their symptoms.
- Recommendations for determining 'mixed pathology' are lacking. This means patients cannot be accurately informed on their diagnosis and prognosis.
- Novel biomarkers for **vascular brain damage**, alpha-synuclein in **DLB** and plasma biomarkers for **AD** and **FTD** have been developed recently.
- Former studies with these biomarkers were performed in selected research populations. We therefore set out to evaluate their use and impact on diagnosis in a **'real life' MC setting** for 150 patients in 7 centers.

Objective

There are 3 primary outcome measures of the VaMP study:

- Change in diagnosis (rating) as a result of the novel biomarkers;
- Change in diagnostic certainty (%) as a result of the novel biomarkers;
- Use experience of the clinicians with the novel biomarkers.

Biomarkers

- Normative data for **vascular damage** on MRI
- Plasma biomarkers for **AD/FTD**
- Alpha-synuclein Real Time Quaking Induced Conversion (RT-QuIC) for **DLB**

Inclusion criteria

- Clinical suspicion of **mixed pathology**
- MMSE ≥ 20
- CDR 0.5-1
- MRI available
- Plasma available
- LP = optional

Before- & after-design

Diagnostic ranking

- by **treating physician**

Patient receives routine diagnostic workup and donates extra blood and CSF (if applicable)



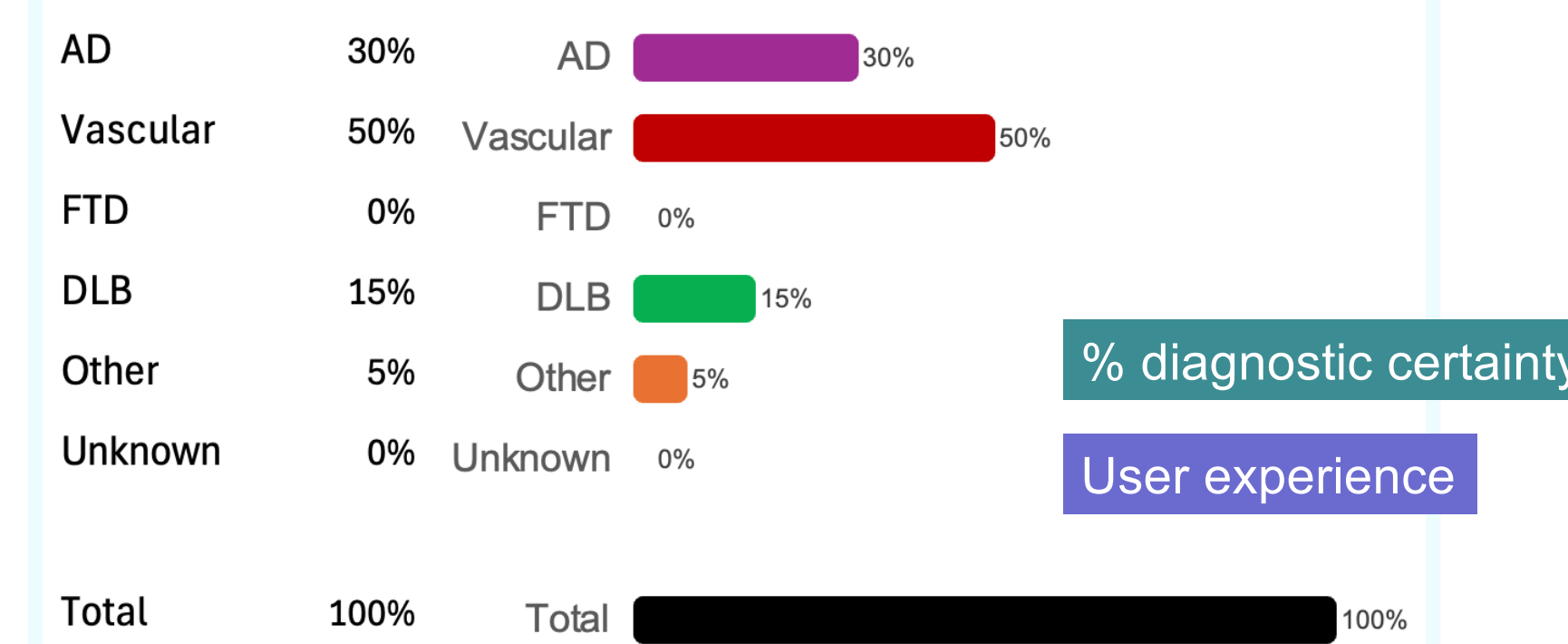
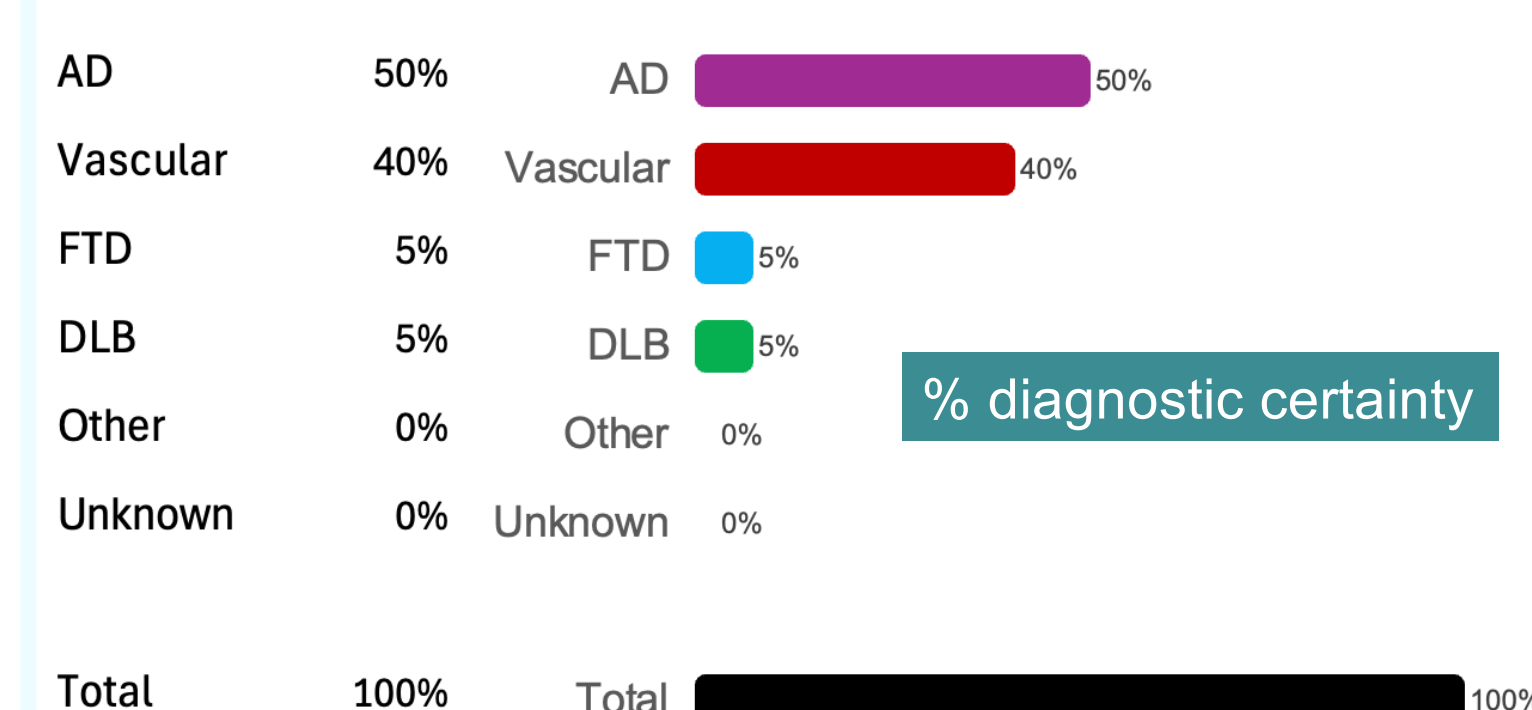
1st diagnostic rating

- by means of case vignette patient
- by **independent expert**



2nd diagnostic rating

- by means of case vignette patient
- with **novel biomarker results**
- by **independent expert**



7 participating centers



Results

- Approval was obtained from IRB
- Study is initiated across three centers
- 6 patients are included in the TAP-VaMP study
- We expect the novel biomarkers will change diagnostic ratings and certainty.
- A dataset will be available with clinical and biomarker data for investigation of mixed pathology and the novel biomarkers in a real-world context.

Conclusion

- This study will contribute to mixed pathology dementia diagnostics in MC's.
- The current study will provide real-world insight/evidence on the contribution of newly developed disease-specific biomarkers to diagnostics in clinical practice.

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