

Impact of European inter-societal recommendations for biomarker diagnosis on patient journeys: the multi-center EuroValiCo project

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INTRODUCTION

- Biomarkers support etiological diagnosis and may reduce diagnostic uncertainty in neurocognitive disorders.
- A European task force proposed a **biomarker-based diagnostic workflow** for routine clinical practice (Frisoni et al., *Lancet Neurol.* 2024).
- The EuroValiCo project aims to evaluate the **feasibility of this workflow** across **five European academic memory clinics**.

METHODS

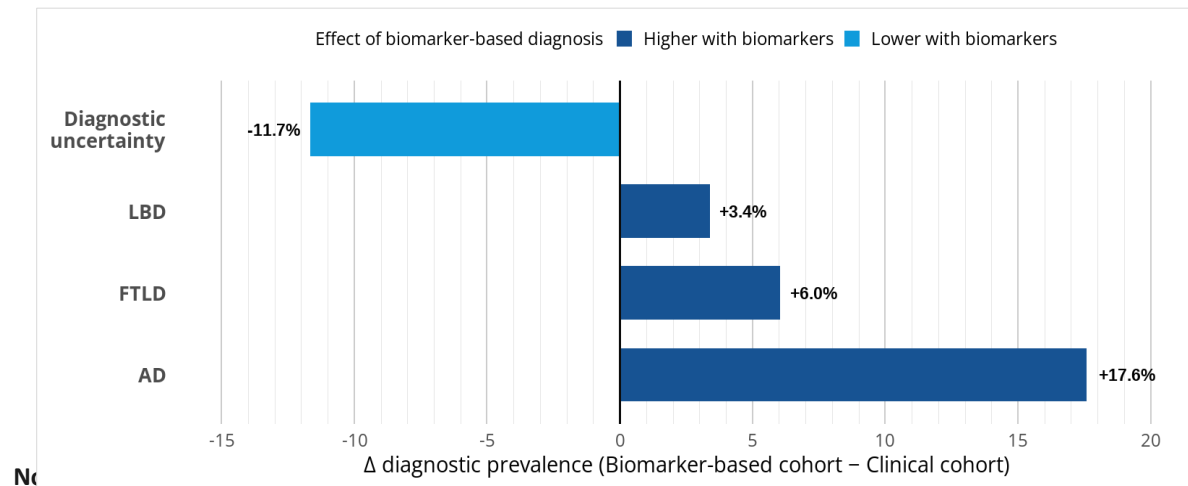
Medical charts review of consecutive new patient referred in 2022 (**P1**; pre-publication) and 2024 (**P2**; post-publication). Collected data allow description of diagnostic pathways. Pathway were classified as clinical (based on MRI and neuropsychological; **C**), or biomarker-based (including molecular imaging or CSF analysis, **BB**) or non-diagnostic (**ND**).

DEMOGRAPHIC FEATURES

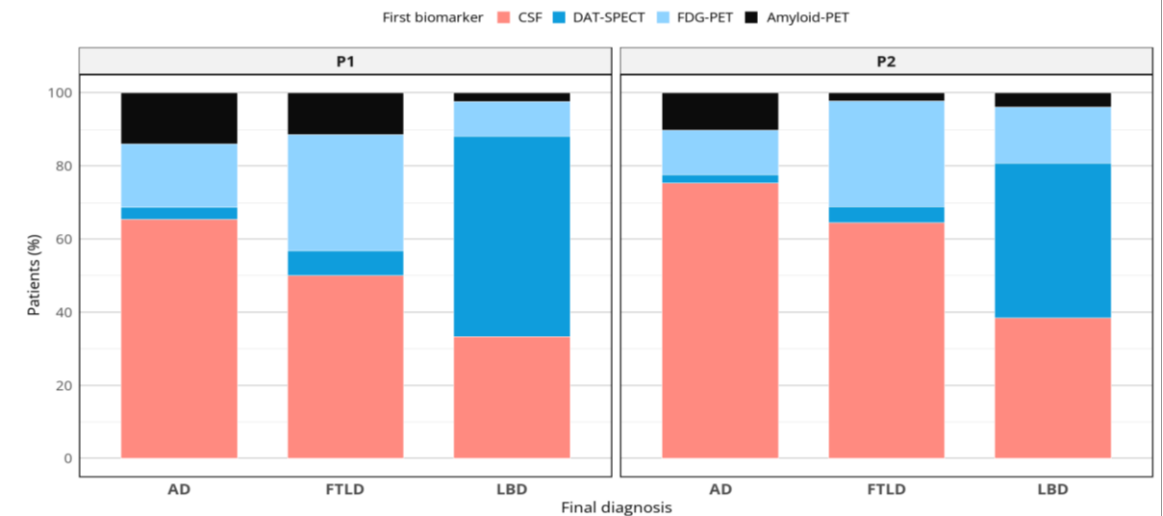
	Age	Sex (F)	MMSE	Pathway (C; BB; ND)
P1 N=1331	71 ± 11	55%	24.2 ± 5.3	52%; 43%; 5%
P2 N=1443	71 ± 11	57%	24.6 ± 5.3	53%, 45%; 2%

PRELIMINARY RESULTS

BIOMARKER USE REDUCES DIAGNOSTIC UNCERTAINTY AND INCREASE ETIOLOGICAL DIAGNOSES.



CSF EMERGES AS THE MOST WIDELY ADOPTED FIRST-LINE BIOMARKER.



Acronyms: AD: Alzheimer's disease, including typical and atypical variants; CSF: cerebrospinal fluid. DaT-SPECT: Dopamine Transporter - Single Photon Emission Computed Tomography. FDG-PET: Fluorodeoxyglucose - Positron Emission Tomography. FTLD: fronto-temporal lobar degeneration, including behavioral and language variants. LBD: Lewy bodies disease.

CONCLUSION

1. Biomarker-based pathways lead more frequently to an etiological diagnosis.
 2. As recommended in the European diagnostic workflow, CSF is the most frequent first-line biomarker in AD, and DaT-SPECT in LBD.
- Future analyses will assess the feasibility using process mining algorithms.

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