

Real-World Care of Alzheimer's Disease Patients (n=2,153) in Germany: Insights from Registry of the Neurologists Network NeuroTransData (NTD) using the Physician/Patient Platform (DESTINY)

A. Bergmann¹, S. Braune¹, O. Fasold¹, H. Dikow¹, N. Tavakoli¹, NTD Study Group¹

¹ NeuroTransData GmbH, NTD Study Group, Neuburg an der Donau, Bavaria, Germany

What is DESTINY?

Web-based platform DESTINY (DatabasE-asSisted Therapy decsioN support sYstem), which integrates standardized data acquisition and a clinical registry. This platform facilitates the collection and analysis of real-world data, enabling physicians to make informed decisions about patient treatment and optimizing care protocols, especially for neurological conditions like Alzheimer's disease, multiple sclerosis, and others. DESTINY also plays a role in supporting therapeutic decision-making by providing real-time insights from clinical data gathered during patient visits.

Scan the QR code to access our website and learn more about the advanced capabilities and unique features of this platform.



BACKGROUND

NeuroTransData (NTD) is a collaborative network of neurologists and psychiatrists in Germany dedicated to optimizing therapeutic protocols and enhancing patient outcomes through data-driven methodologies and advanced analytics. Standardized data acquisition is facilitated via DESTINY (DatabasE-asSisted Therapy decsioN support sYstem), a web-based platform that integrates a comprehensive clinical registry, allowing for systematic physician-patient interactions. The aim of the present study is to evaluate the current patient journey and treatment landscape for individuals diagnosed with Alzheimer's disease, providing critical insights into therapeutic practices and potential areas for improvement.

METHODS

This retrospective analysis utilizes real-world data from patients with Alzheimer's dementia (SDAT) recorded in the NTD dementia disease registry. The data was collected during clinical visits at NTD-affiliated practices across Germany, spanning the period from September 1998 to August 2024. Patients were categorized by Mini-Mental State Examination (MMSE) scores into (MCI, MMSE \geq 26), ($16 \leq$ MMSE < 26), and (MMSE < 16). The analysis focused on the type of neuropsychological assessments, the use of imaging modalities, biomarker evaluations, and medication prescriptions.

Study Population

A total of 2,153 patients with confirmed diagnoses of ICD F00 (Alzheimer's dementia) or G30 (Alzheimer's disease) were included in the study, with a mean age of 83.2 years, ranging from 44 to 100 years. Of these patients, 57% (1,226) were female and 43% (927) were male. The average follow-up duration was 2.7 years, with individual follow-up times ranging from 0.1 to 26.3 years.

RESULTS

MMSE Score Distribution at Diagnosis

MMSE Score Category	Percentage of Patients	Number of Patients
MMSE < 16	13.75	296
MMSE \geq 16, MMSE < 26	57.45	1237
MMSE \geq 26	16.76	361

Biomarker at Diagnosis

Method	Percentage	Number of Patients
CSF	12.1%	261

Neuropsychological Testing at Diagnosis

Test	Percentage	Number of Patients
MMSE	75.8%	1631
DemTect	38.8%	835
CERAD	0.6%	12

DISCLOSURES

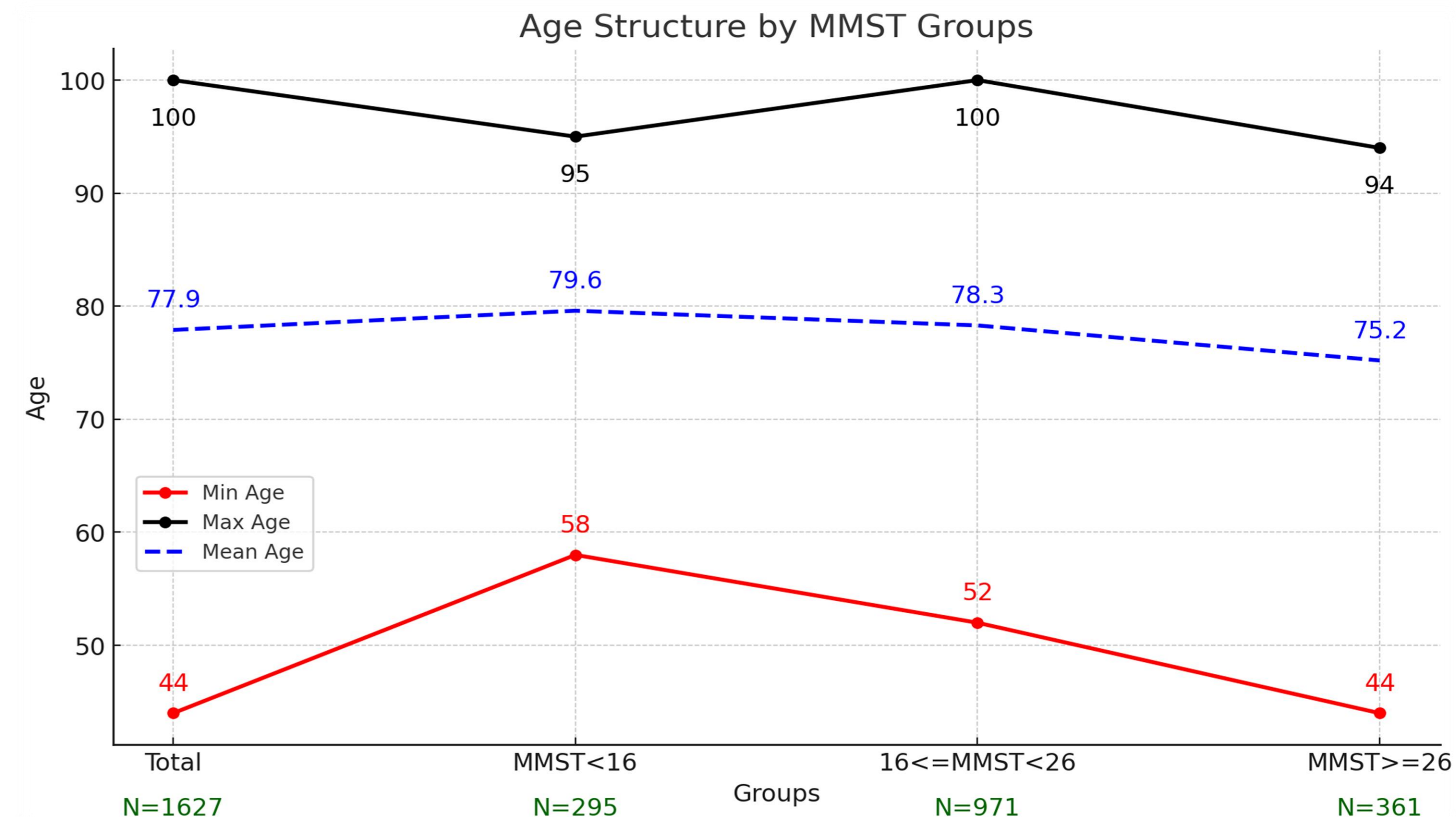
Dr. med. Arnfin Bergmann has received consulting fees from advisory board/speaker/other activities for NeuroTransData. Prof. Dr. med Stefan Braune has received honoraria for clinical services from the Kassenärztliche Vereinigung Bayern und private health insurances, for clinical studies and lecturing from Novartis, Merck, Roche and Sanofi. He received honoraria for consulting from NeuroTransData and as board member. Dr. med. Oliver Fasold has received honoraria for clinical services from the Kassenärztliche Vereinigung Berlin and private health insurances, for clinical studies and lecturing from Novartis, Merck, GAIA, Biogen, Roche and Sanofi. He received honoraria for consulting from NeuroTransData and as board member. Heidi Dikow, Niloofer Tavakoli, and NTD Study Group declare that they have no conflicts of interest to disclose.

Medication History

Medication	Percentage	Number of Patients
Donepezil	22.7%	489
Memantine	21.74%	468
Galantamine	1.9%	41
Rivastigmine	0.84%	18
Gingko	0.3%	6
No Specific Medication	52.16%	1131

Imaging Diagnostics at Diagnosis

Method	Percentage	Number of Patients
Cranial MRI	24.4%	525
Cranial CT	24.1%	519
Nuclear Medicine Scans	10.7%	230



CONCLUSIONS

The NTD dementia registry provides a tried and tested, web-based data capturing platform to enable in-time standardized documentation of cognitive assessments, biomarkers, imaging data, and clinical course information [1]. This real-world data capturing framework with established data quality protocols [2] enables reliable retrospective and prospective analyses, thereby underpinning the registry's role as a critical resource for advancing dementia research clinically and socioeconomically. Given the retrospective nature of this analysis, it is important to account for potential missing data due to incomplete or insufficient documentation in the original records.

The registry supports risk stratification for novel therapies, like amyloid antibody treatments, by managing risks and tracking amyloid-related imaging abnormalities (ARIA). It also facilitates cognitive monitoring, capturing early cognitive impairment dynamics, such as subjective cognitive impairment (SCI). Additionally, it is planned to integrate blood and CSF biomarker results and, with AI-driven tools, enables nasal-, speech and passive digital biomarker analysis. This holistic approach aids evidence-based identification of clinically relevant cognitive impairment.

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