ANDI - Advanced Neuropsychological Diagnostics Infrastructure
A Novel Normative Database Created from Control Datasets
Nathalie de Vent, Joost Agelink van Rentergem, Ben Schmand, Jaap Murre, Hilde Huizenga
University of Amsterdam, The Netherlands

What and why of ANDI
ANDI is a website that assists clinicians and researchers with the analysis of results of neuropsychological assessments.

- **Norms**: large aggregated dataset of normative data with demographic corrections for age, sex and education.
- **Multivariate normative comparisons**: Entire profile of test scores is evaluated for abnormality.
- **User friendly**: multiple neuropsychological tests evaluated in one website.
- **Exportable**: infrastructure can be exported to any country (if filled with local norms).

Proof of Principle: Predicting Parkinson’s Disease Dementia

**Aim**: To investigate whether ANDI can successfully predict which Parkinson’s disease patients (PD) will decline to dementia at follow up after 5 years.

**Participants**: 123 newly diagnosed PD patients.

**Methods**: At baseline, patients were diagnosed using consensus PD-MCI criteria and by multivariate normative comparisons with the ANDI database as reference.

**Results**: After 5 years, 26 patients were diagnosed with dementia. Baseline diagnosis of PD-MCI had 59% sensitivity and 75% specificity. Abnormal cognition according to ANDI had 82% sensitivity and 73% specificity.

**Conclusion**: ANDI can successfully predict dementia status after 5 years.

ANDI database
ANDI currently has data of 19742 healthy participants on 8 neuropsychological tests. Data for 42 extra tests are being prepared. See: www.andi.nl

Contact: n.r.devent@uva.nl


Fig. 4. Profiles of test scores of individual patients with at baseline.

Fig 1. Screen for selecting tests to analyze.

Fig 2. Screen to fill out test scores.

Fig 3. Screen with results of 3 patients both univariate and multivariate

ANDI analytic tool

Fig 3. Screen with results of 3 patients both univariate and multivariate

Fig. 4. Profiles of test scores of individual patients with at baseline.