Drug burden and functional outcomes in nursing home patients with Dementia

Lianne M J Sanders
University of Groningen, Netherlands

**Purpose:** The Drug Burden Index (DBI) is a tool to quantify the anticholinergic and sedative load of drugs. Establishing functional correlates of the DBI could optimize drug prescribing in patients with dementia. In this cross-sectional study, we determined the relationship between DBI and cognitive and physical function in a sample of patients with dementia.

**Methods:** Using performance-based tests, we measured physical and cognitive function in 140 nursing home patients aged over 70 with all-cause dementia. We also determined anticholinergic (AChDBI) and sedative (SDBI) drug burden separately and in combination as total drug burden (TDB).

**Results:** Nearly one half of patients (48%) used at least one DBI-contributing drug. In 33% of the patients, drug burden was moderate (0<TDB<1) whereas in 15%, drug burden was high (TDB ≥1). Multivariate models yielded no associations between TDB, AChDBI and SDBI, and physical or cognitive function (all p > 0.05).

**Conclusions:** A lack of association between drug burden and physical or cognitive function in this sample of patients with dementia could imply that drug prescribing is more optimal for patients with dementia compared with healthy older populations. However, such an interpretation of the data warrants scrutiny as several dementia-related factors may confound the results of the study.

**Biography**
Lianne M J Sanders is a clinical neuropsychologist who currently does a PhD on the effects of exercise in patients with dementia. The aim of my PhD project ‘Train the Sedentary Brain’ (Deltaplan Dementia, ZonMW: Memorabel) is to delay the progression of dementia with a combined aerobic and strength exercise program. Within this project, we investigate the dose-response relationship between exercise and cognition, and possible moderating effects of ApoE4 carriersonship on exercise effects, in a sample of patients with mild-to-moderate dementia.

l.m.j.sanders@umcg.nl

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