Trajectories Of Long-term Exposure To Anticholinergic And Sedative Drugs: A Latent Class Growth Analysis

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I have no potential conflict of interest to report
Problem definition & Study Aim
Approach
A Dutch nationally representative cohort study
Of older community-dwelling adults aged 55-85 y
Data collection 20 years (1992-2012) at 7 occasions
Men and older people oversampled to counteract selective drop-out
Detailed assessment of drug use including verification with medication containers
A Drug Burden Index to Define the Functional Burden of Medications in Older People

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\[ DBI = \sum \frac{D}{D + \delta} \]
Latent Class Growth Analysis

#1 You start with a 1 trajectory model, then model with 2 trajectories, then 3….etc.

#2 You inspect “Goodness of fit” statistics
• Bayesian Information Criterion
• Entropy
• Bootstrapped Likelihood Ratio Test

#3 Select the model with best “goodness of fit”
Results
Key data

• N = 763 complete all follow-ups
• 61% women
• M age y 83 (SD 6)
• M drugs prescribed 3.4 (SD 3.6)
• Co-morbidity present: Heart Disease (40%) and Osteoarthritis (61%)
3 trajectories of exposure

- Stable High
- Steep Increase
- Gradual Increase

Years: 92/93, 95/96, 98/99, 01/02, 05/06, 08/09, 11/12

Levels: none, moderate, high
Conclusions
Three trajectories of long-term anticholinergic and sedative exposure were identified.
Thank you

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