O-56 - RESPONSE TO ACETYL CHOLINESTERASE INHIBITOR AGENTS IN DEMENTIA: LONGITUDINAL ANALYSIS OF COGNITIVE TRAJECTORIES BEFORE AND AFTER TREATMENT INITIATION IN A LARGE MENTAL HEALTH CASE REGISTER

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Introduction: Longitudinal cognitive change before and after acetyl cholinesterase inhibitor (AChEI) treatment initiation in Alzheimer´s disease has never been described previously in a representative clinical population.
Objectives: To model longitudinal changes in cognitive function for before and after AChEI prescription.
Aims: To further investigate differences in response by cognitive function at treatment initiation.
Method: A retrospective longitudinal analysis was carried out of all 1843 patients from the South London and Maudsley NHS Foundation Trust (a large mental health provider to a catchment population of approximately 1.2m) who were prescribed AChEIs between 2003-10 and had a minimum of one MMSE score within 1 year before treatment initiation and one MMSE score within 3 years after this. Manually extracted MMSE scores were analyzed over this period using three-piece linear mixed models.
Results: Rates of MMSE change were -1.9 (95% CI -2.3,-1.4) in the year before treatment initiation, +1.3 (0.9,1.7) in the 6 months after treatment initiation, and -2.4 (-2.6,-2.3) from 6 months to 3 years. The difference between pre-treatment and 6-month-post-treatment slopes was -0.6 (-1.8,0.6) at baseline (treatment initiation) MMSE of 25 or over, +2.7 (1.7,3.7) at MMSE 21-24, and +4.6 (3.6,5.7) at MMSE 10-20.
Conclusion: In this naturalistic sample, a clear cognitive response to AChEI treatment was observed over the first six months followed by an unchanged decline. Response was substantially higher for patients with lower MMSE scores at treatment initiation.

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