

Somatic drug profiles in patients diagnosed with major depressive disorder – a Danish nationwide register study using Latent Class Analysis

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Abstract

Background: Major Depressive Disorder (MDD) is a heterologous disease in respect to clinical symptoms, severity and responsiveness to treatment, and is often accompanied by somatic comorbidities. The objective of this study was to identify and characterize subgroups of patients with a first-time MDD diagnosis based on somatic drug utilization, including socio-demographic and clinical characteristics, and psychiatric healthcare-related outcomes. **Methods:** The nationwide register-based study included all Danish patients with an incident MDD diagnosis between 2011 and 2015. Using Latent Class Analysis (LCA), the population was sub-grouped according to somatic drug use (drug profiles). Sociodemographic and clinical characteristics at baseline and odds/hazards of shift in antidepressant treatment and psychiatric hospitalization one year after index were compared between the drug profiles. Trajectories of drug profile membership over time was also analyzed. **Results:** Of 37,080 MDD patients (mean age 41.5 years, 62% women), the LCA identified five unique somatic drug profiles: 1) limited drug use (74.3%), 2) drugs for pain management (7.6%), 3) cardiovascular drugs (10.7%), 4) drugs for obstructive airway diseases (2.3%) and 5) high drug burden (5.1%). There were large differences in age between the drug profiles, and limited drug use profile and high drug burden profile had lower rates of psychiatric hospitalization than the cardiovascular drug profile. When analyzing the trajectories, we found that the majority of the population continued in the same drug profile during all time intervals. **Conclusion:** The identified five somatic drug profiles were comparable in respect to the course of the depression during one year following diagnosis.

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