

Burden of Parkinson's disease in Sicily. A health administrative database study

Calogero Edoardo Cicero¹, S. Scondotto², A.V. Allotta², G. De Luca², G. Murolo², A. Nicoletti¹, M. Zappia¹

¹Department of Medical, Surgical and Advanced technologies G.F. Ingrassia, Section of Neurosciences, University of Catania, Catania, Italy

²Health Activities and Epidemiologic Observatory Division, Health Department, Sicily Region

Introduction: Prevalence of Parkinson's disease (PD) increases with the advanced ages, representing a relevant health burden. Accurate prevalence estimates are of fundamental need in order to adjust the supply of health services for these patients. The availability of administrative health data from the National Health System provides a useful resource to assess the burden of diseases. Our aim was to evaluate the prevalence of PD through the use of administrative data in the Sicily region.

Methods: We have identified all the subjects affected by PD in Sicily in 2017 by gathering data from three regional health administrative databases: the hospital discharge records, the medical exemption databases and the pharmacological prescription database. Prevalence rates and 95% confidence intervals (CI) have been calculated across five-years age classes.

Results: PD patients identified through database searching were 24,674, giving a prevalence of 488/100,000 (95%CI 481.9-494.1) inhabitants. Prevalence was higher among men (514.5/100,000; 95%CI 505.6-523.6) and reached a peak in the 85-89 age class (3,203.8/100,000; 95%CI 3,095.2-3,315.1).

Discussion: Our prevalence estimates of PD were higher when compared to previous epidemiological surveys conducted in Sicily. These findings are, however, comparable to other studies conducted in Italy that identified cases through administrative databases. Using health databases is a feasible strategy to assess the burden of PD.