



# Incidence trends of diagnosed idiopathic Parkinson's syndrome in Germany from 2013 to 2019

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## Abstract

### Background

Idiopathic Parkinson's disease (IPS) is a common neurodegenerative disorder of older age. As a result of a progressive demographic ageing in Germany, a steady increase in the number of patients is expected. The aim of the study was to describe current gender- and age-specific trends and regional differences in the incidence of IPS diagnosed by SHI-accredited physicians in the 50+ age segment in Germany from 2013 to 2019.

### Methods

The data basis was formed by nationwide, pseudonymised, cross-insurance claims data from SHI-accredited physicians according to § 295 SGB V and drug prescription data according to § 300 para. 2 SGB V from the years 2010 to 2019 of patients aged +50 years. The frequency of the new occurrence of an IPS was recorded per year in the period from 2013 to 2019 in cohorts of SHI-accredited patients who were observable for a minimum period of four years. The new occurrence of an IPS in the reporting year was assumed if i) a "confirmed" diagnosis (ICD code: G20) was coded for the first time after a diagnosis-free pre-observation period of three years in a quarter of the reporting year and ii) repeatedly at least once in the patient-individual following three quarters and iii) a drug of the drug group antiparkinsonian drugs (ATC code: N04) was prescribed at least once in the four quarters used for diagnoses ascertainment. In addition to this primary case definition, two further case definitions with variations in the minimum requirements for the utilisation patterns of incident IPS cases were applied to test the robustness of the incidence trends found at the national level.

### Results

Between the years 2013 and 2019, the incidence of a diagnosed IPS according to the primary case definition decreased from 149 to 112 new cases per 100,000 patients. Successive decreases in annual incidence were found for all three case definitions, cumulating to reductions of 25% to 30% between 2013 and 2019. Decreases in the annual incidence of diagnosis were observed nationwide in all age groups of 50 years and older, in both sex groups and in almost all SHI areas.

### Conclusions

Despite progressive demographic ageing, the evaluation of SHI-accredited physicians claims data in the age segment 50 years and older indicates a clear and nationwide decline in the incidence of IPS from 2013 to 2019. This trend was robust to variations in the case definition regarding the minimum requirements for the utilisation patterns of SHI-accredited care for the recording of newly ill patients with IPS.

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#### Keywords

Claims data, diagnostic incidence, Germany, idiopathic Parkinson's syndrome, incidence, IPS, Morbus Parkinson, SHI-physicians

#### Citation

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