

Sleep Disorders

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RELATIVE PREVALENCE OF IDIOPATHIC HYPERSOMNIA, NARCOLEPSY TYPE 1, AND NARCOLEPSY TYPE 2: A CLAIMS DATABASE ANALYSIS

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PURPOSE: It is difficult to estimate the exact prevalence rates of rare diseases, including the central disorders of hypersomnolence. A big-data approach was undertaken to better estimate the relative prevalence of idiopathic hypersomnia (IH), narcolepsy type 1 (NT1), and narcolepsy type 2 (NT2). Retrospective analysis of claims data was used to identify a subset of patients in whom there was the highest confidence of their diagnoses and to estimate relative frequencies of IH, NT1, and NT2. In this high-confidence subset, demographic trends within each disorder and demographic comparisons among disorders were assessed.

METHODS: The Komodo® Health claims database comprises claims data from >330 million individuals in the United States. The total number of patients in this database with any diagnosis of IH, NT1, or NT2 (ie, ≥ 1 ICD-10 diagnosis code in 2022 or 2023 [IH: G47.11, G47.12; NT1: G47.411, G47.421; NT2: G47.419, G47.429]) was determined for 2023. Only patients with the highest confidence diagnoses, defined as those with 5 consecutive years of data (2018-2023) with 100% of claims available and a claim within this time period that had a pertaining ICD-10 code, were included for further analysis. Diagnosis was defined as ≥ 2 relevant ICD-10 codes documented ≥ 30 days apart. Patients with multiple distinct diagnoses of IH, NT1, and NT2 were excluded. The number (%) of individuals was calculated for diagnosis (ie, IH, NT1, or NT2), sex (ie, male, female, or unspecified), and age group (ie, 0-17 years, 18-24 years, 25-34 years, 35-44 years, 45-64 years, or ≥ 65 years). Data were analyzed descriptively.

RESULTS: The Komodo claims dataset included 154,750 patients with ≥ 1 IH, NT1, or NT2 diagnosis in 2023. Of these, 26,003 individuals were identified as having the highest confidence diagnosis and were included in this analysis: 24% (6,287) were diagnosed with IH, 11% (2,845) with NT1, and 65% (16,871) with NT2. In total, 62% were female (IH, 68%; NT1, 65%; NT2, 60%) and 36% were male (IH, 31%; NT1, 34%; NT2, 39%); 1% did not specify. Overall, 2% of patients were age 0-17 years (IH, 2%; NT1, 5%; NT2, 2%), 9% were age 18-24 years (IH, 9%; NT1, 15%; NT2, 8%), 11% were 25-34 years (IH, 12%; NT1, 13%; NT2, 11%); 20% were age 35-44 years (IH, 22%; NT1, 20%; NT2, 20%), 42% were age 45-64 years (IH, 43%; NT1, 36%; NT2, 42%), and 15% were age ≥ 65 years (IH, 11%; NT1, 12%; NT2, 17%).

CONCLUSIONS: Notwithstanding the limitations of identifying diagnoses while using a claims dataset, which may underestimate the true prevalence of a disorder in the general population, NT2 was diagnosed approximately 6 times more frequently than NT1 and nearly 3 times more frequently than IH. The majority of patients with each disorder were between the ages of 35 and 64 years, inclusive.

CLINICAL IMPLICATIONS: Given the high prevalence of NT2 compared to NT1 and IH, attention to this subtype should be prioritized.

DISCLOSURES:

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