

A Clinical Snapshot of Demographic Characteristics and Comorbidities Among Adults Newly Diagnosed With Idiopathic Hypersomnia

Idiopathic hypersomnia is a rare central disorder of hypersomnolence characterized by^{1,2}:

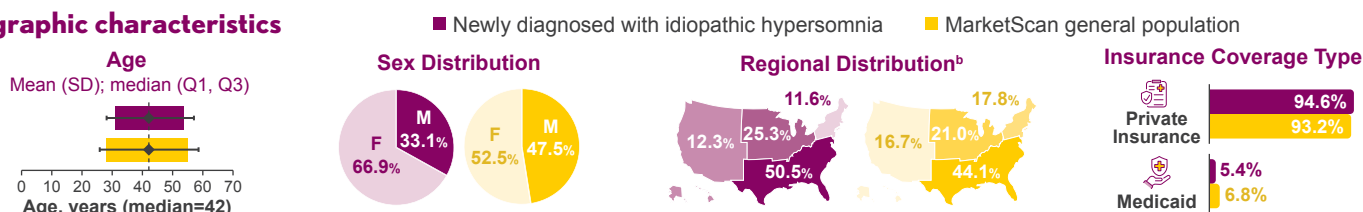
- Chronic excessive daytime sleepiness
- Severe sleep inertia
- Impaired productivity at work or school
- Prolonged nighttime sleep
- Long, unrefreshing naps
- Cognitive impairment
- Decreased health-related quality of life



A retrospective observational study examined the characteristics of a large cohort of people newly diagnosed with idiopathic hypersomnia using the IBM® MarketScan® database, a nationally representative sample of Americans with employer-sponsored insurance³

- The MarketScan general population included **32,948,986 adults with ≥12 months continuous enrollment from 2014 to 2019** and no diagnosis of idiopathic hypersomnia in the 12 months prior to cohort entry³
 - Comorbidities^a in the 12 months prior to diagnosis (idiopathic hypersomnia group) or study entry (general population) were evaluated³
- **4980 people** (0.015%) in the MarketScan general population were **newly diagnosed with idiopathic hypersomnia from 2015 to 2019³**
 - Approximately two-thirds (69.1%) had a diagnosis code for idiopathic hypersomnia with long sleep time
 - The most frequent specialties of diagnosing physicians were pulmonology (23.3%), neurology (14.4%), and internal medicine (11.4%)

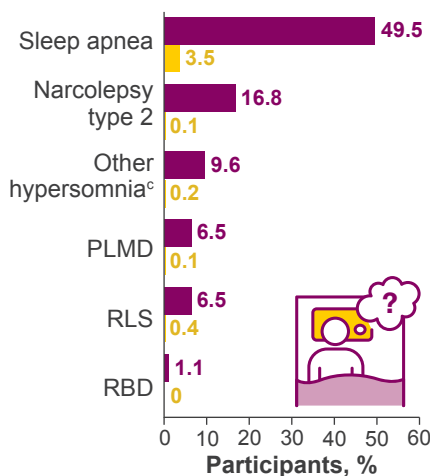
Demographic characteristics



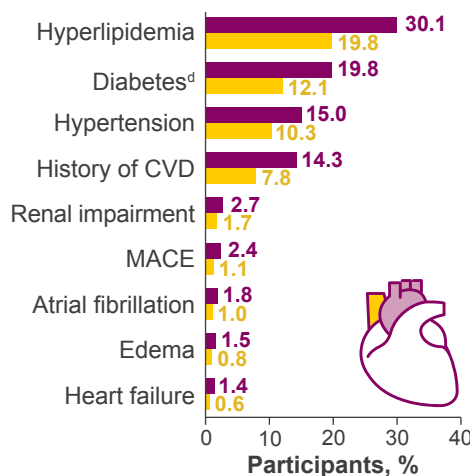
People newly diagnosed with idiopathic hypersomnia had a high burden of medical comorbidities³

■ Newly diagnosed with idiopathic hypersomnia (N = 4980) ■ MarketScan general population (N = 32,948,986)

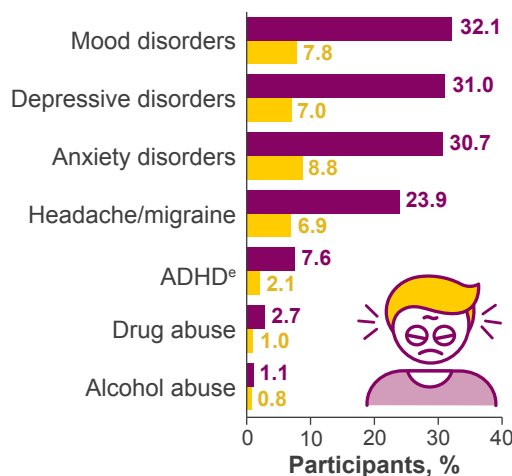
Sleep disorders were more common in the idiopathic hypersomnia cohort than the reference cohort³



Cardiovascular and metabolic disorders were more common in the idiopathic hypersomnia cohort than the reference cohort³



Over 30% of adults newly diagnosed with idiopathic hypersomnia had a comorbid mood, depressive, or anxiety disorder, and over 20% had headaches or migraine³



Understanding the comorbidities of patients with idiopathic hypersomnia is important when considering a treatment plan, and could help guide future research on the possible association between comorbidities and disease pathophysiology

^aConditions of interest were prespecified and selected with clinical input, and included cardiovascular disorders, metabolic disorders, psychiatric disorders, substance use disorders, and other disorders (chronic kidney disease, headache/migraine, hyperuricemia, pulmonary fibrosis or interstitial lung disease, and renal impairment).

^bUnknown/missing percentages: Newly diagnosed with idiopathic hypersomnia, 0.2%; MarketScan general population, 0.4%.

^cDefined as an inpatient or outpatient medical claim with one of the following diagnoses in any position: ICD-9-CM, 327.1, 780.54; ICD-10-CM, G47.1, F51.13, F51.19.

^dDiabetes comorbidity determined based on diagnosis or use of a diabetes/obesity medication.

^ePrevalence of ADHD was determined in a post-hoc analysis.

Abbreviations: ADHD, attention-deficit/hyperactivity disorder; CVD, cardiovascular disease; F, female; M, male; MACE, major adverse cardiovascular event; PLMD, periodic leg movement disorder; Q, quartile; RBD, rapid eye movement behavior disorder; RLS, restless leg syndrome; SD, standard deviation.

References: 1. American Academy of Sleep Medicine. *International Classification of Sleep Disorders*. 3rd ed, Text Revision. Darien, IL: American Academy of Sleep Medicine; 2023. 2. Stevens J, et al. *Nat Sci Sleep*. 2023;15:593-606. 3. Saad R, et al. *Sleep Epidemiol*. 2023;3:100059.

A Clinical Snapshot of Comorbidities Among Adults With Narcolepsy

Narcolepsy is a chronic neurologic sleep disorder characterized by:^{1,2}



Excessive daytime sleepiness



Cataplexy
Present in narcolepsy type 1; absent in narcolepsy type 2



Hypnagogic/Hypnopompic hallucinations



Sleep paralysis



Disrupted nighttime sleep

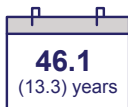
Burden of Narcolepsy Disease (BOND) Study

Methods

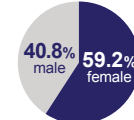
- The Burden of Narcolepsy Disease (BOND) study used US insurance claims data to analyze the prevalence of comorbidities^a in adults with **narcolepsy (n=9312)** vs **controls (n=46,559)** matched for age, sex, geographic region, and type of insurance³

Demographics and Characteristics^{3,b}

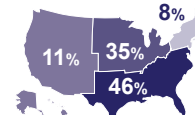
Mean (SD) Age



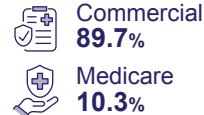
Sex Distribution



Regional Distribution



Insurance Type



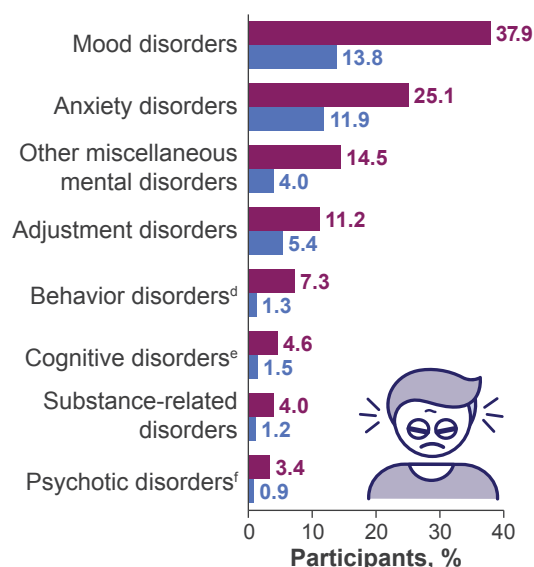
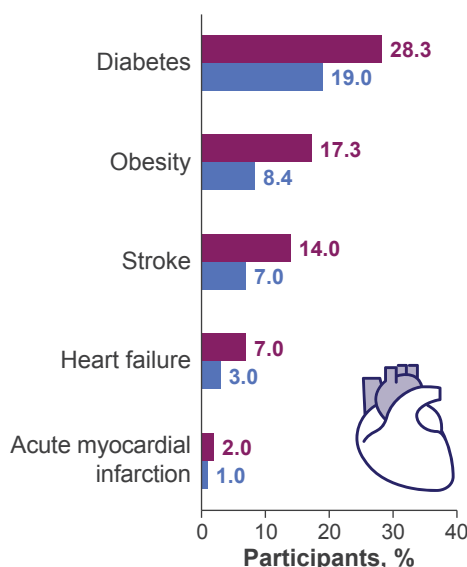
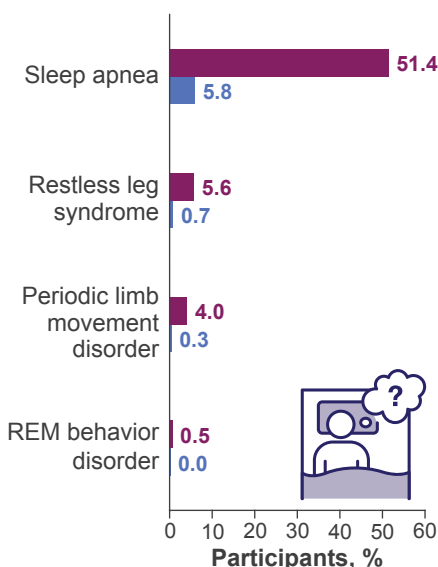
Patients with narcolepsy had a high burden of medical comorbidities³

■ Narcolepsy (n=9312) ■ Matched controls (n=46,559)

Sleep disorders were more common in the narcolepsy cohort than in the control cohort^{3,c}

Cardiovascular and metabolic disorders were more common in the narcolepsy cohort than in the control cohort^{3,c}

Psychiatric disorders, such as mood and anxiety disorders, were more common in the narcolepsy cohort than in the control cohort^{4,c}



- Numerous comorbidities have been significantly associated with narcolepsy in adult populations, including other sleep disorders, psychiatric disorders, cardiovascular events and risk factors, and metabolic disorders^{3,4}
- Understanding the comorbidities of patients with narcolepsy is important when considering a treatment plan

^aComorbidities could occur at any time in relation to the diagnosis of narcolepsy (ie, the study captured comorbidities that were present before narcolepsy was diagnosed, as well as those that occurred after narcolepsy diagnosis).³

^bDemographic characteristics were the same for the narcolepsy and matched control groups.

^cAll $P < 0.0001$ for the difference in prevalence between the narcolepsy and matched control cohorts.^{3,4}

^dIncludes attention deficit, conduct, and disruptive behavior disorders.

^eIncludes delirium, dementia, amnesic, and other cognitive disorders.

^fIncludes schizophrenia and other psychotic disorders.

Abbreviations: BOND, Burden of Narcolepsy Disease; REM, rapid eye movement; SD, standard deviation.

References: 1. Barateau L, et al. *CNS Drugs*. 2016;30:369-379. 2. American Academy of Sleep Medicine. *International Classification of Sleep Disorders*. 3rd ed, Text Revision. 2023. 3. Black J, et al. *Sleep Med*. 2017; 33:13-18. 4. Ruoff CM, et al. *J Clin Psychiatry*. 2017;78:171-176.