

Strategies for Holistic Management of Narcolepsy and Idiopathic Hypersomnia:

Minimizing Cardiovascular Risk While Maximizing Treatment

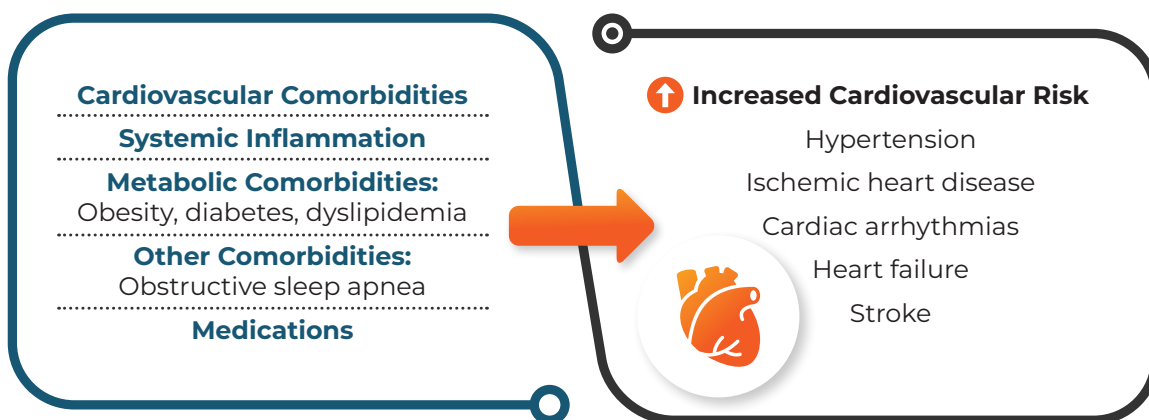
Narcolepsy Facts

- Patients with narcolepsy have frequent, **unpredictable transitions between sleep-wake states**
- **Median age of onset:** 16 years (range: infancy to old age)
- **Prevalence:** ~1 in 2000 people in the general US population
- **Underrecognized and underdiagnosed:** estimated <50% diagnosed
 - **Time to diagnosis:** 8-10 years
 - **Median age of diagnosis:** 33 years (significantly later than median age of onset)
- **Treatable** but not curable—lifelong condition
- Characterized by:
 - **Excessive daytime sleepiness**
 - **REM-related phenomena**
 - **Disturbed nocturnal sleep**

Idiopathic Hypersomnia (IH) Facts

- **More sleep is never enough** and waking up is a struggle
- Characterized by:
 - **Excessive daytime sleepiness** (without cataplexy)
 - **Sleep inertia:** feeling groggy or confused when waking regardless of sleep duration
 - **Long sleep time:** sometimes 11 hours or more, but not feeling rested when waking
 - **Nonrestorative sleep** and long unrefreshing naps
 - **Cognitive impairment:** difficulty focusing, memory problems, brain fog
- Sleep study shows **reduced** percent of **slow wave sleep**
- Can track symptoms and effects of therapy with the **Idiopathic Hypersomnia Severity Score (IHSS)**

Cardiovascular Associations in Narcolepsy and IH



Narcolepsy and Cardiovascular Facts*

Increased risk of developing new-onset cardiovascular events

Any stroke	Ischemic stroke	Stroke, AFib, or edema
↑ 71%	↑ 67%	↑ 48%

MACE	Heart failure	CVD
↑ 45%	↑ 35%	↑ 30%



*Data on new-onset cardiovascular events in IH are not available.

Ways to Minimize Cardiovascular Risk

- Lifestyle modifications for reducing cardiovascular risk in patients with narcolepsy and IH
 - Weight reduction, exercise, dietary measures, sleep hygiene, discontinue any tobacco use
 - Treatment of hypertension, hyperlipidemia, diabetes
- Sodium and cardiometabolic risk
 - The American Heart Association recommends total daily sodium intake of <1500 mg/day with 2300 mg/day as the upper limit
 - The National Academy of Sciences established a threshold of 2300 mg/day, above which reductions in sodium intake are expected to reduce chronic disease risk
 - Possible consequences of excessive sodium intake may include: fluid retention, heart failure, hypertension, stroke, cardiomyopathy, and renal disease

Pharmacologic Management of Narcolepsy and IH

For Sleepiness in Narcolepsy or IH

Amphetamines/amphetamine like (some preparations)

- Methylphenidate
- Dextroamphetamine/amphetamine
- Dextroamphetamine
- Amphetamine

Modafinil/armodafinil

Oxybates

- Sodium oxybate
- Calcium/magnesium/potassium/sodium oxybate (ie, lower-sodium oxybate)
- Once-nightly sodium oxybate

Solriamfetol

Pitolisant

For Cataplexy in Narcolepsy

Oxybates

- Sodium oxybate
- Calcium/magnesium/potassium/sodium oxybate (ie, lower-sodium oxybate)
- Once-nightly sodium oxybate

Pitolisant

Not FDA approved but often used off-label

- SNRIs (eg, venlafaxine)
- SSRIs (eg, fluoxetine)
- Tricyclic antidepressants

Consider Comorbid Cardiovascular Diseases in Treatment Selection

	CVD/CHF	Cardiac, Structural	Arrhythmias	Long QT or FH
Modafinil/armodafinil	—	XX (LVH/MVP)		
Methylphenidate	XX	XX	XX	
Amphetamines	XX	XX	XX	
Oxybates	—			
Pitolisant	XX		XX	XX
Solriamfetol	XX		XX	

XX contraindication; — caution.

AFib, atrial fibrillation; CHF, congestive heart failure; CVD, cardiovascular disease; LVH, left ventricular hypertrophy; MACE, major adverse cardiovascular events; MVP, mitral valve prolapse; REM, rapid eye movement; SNRI, serotonin–norepinephrine reuptake inhibitor; SSRI, selective serotonin reuptake inhibitor.

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