

# Use of CNS Medication May Reduce Cognition

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Community-dwelling elderly people were more likely to show cognitive decline over a 5-year period if they took medications that act on the central nervous system, especially with higher cumulative doses or with longer use, Dr. Rollin M. Wright and her colleagues reported.

“The fact of the matter is that many older adults are on combinations of CNS medications,” said Dr. Wright of the University of Pittsburgh. In some patients, physicians may want to consider adjusting individual drug doses to lower the cumulative CNS medications dose while retaining the benefits of each medication, she suggested at the annual meeting of

**Use of CNS-active medications for 2 or more years was associated with a 39% increased risk of cognitive decline, compared with no use of the medications.**

the Gerontological Society of America.

In a longitudinal cohort study, Dr. Wright and her colleagues examined 2,737 cognitively intact adults aged 70-79 years old at baseline and again 3 and 5 years later. All of the partici-

pants could walk a quarter of a mile and climb a flight of stairs, and were enrolled in the Health, Aging, and Body Composition study.

The investigators gathered information about medication use from containers brought in by participants and assessed cognitive function using Teng’s Modified Mini-Mental State Examination (3MS), they wrote in their poster.

Use of CNS-active medications including benzodiazepines, opioid receptor agonists, antipsychotics, or antidepressants was not associated with new-onset cognitive impairment (defined as a 3MS score below 80) but was associated with new development of cognitive decline (defined as a decrease of 5 or more points on the 3MS), said Dr. Wright and her associates. She has no association with companies that make the medications being used by patients in the study, which was partially funded by the National Institute on Aging.

Any use of the CNS-active medications was associated with a 36% increased risk of cognitive decline after adjustment for the effects of sociodemographic factors, health behavior, health status, and the indications for CNS medication use. Long-term use of CNS-active medications, defined as 2 or more years of use, was associated with a 39% increased risk of cognitive decline, compared with no use of the medications, she said.

Participants on the highest cumulative doses of CNS-active medications had the greatest increased risk for cognitive decline. To measure the cumulative CNS-medication dose, the investigators divided a participant’s daily dose for an individual

medication by the minimum effective geriatric daily dose to calculate a standardized daily dose (SDD) and then added up the SDDs for each person. Those using the highest cumulative dose of more than three SDDs had an 82% increased risk of cognitive decline, compared with nonusers of the medications.

CNS-active drug use increased from 14% of participants at baseline to 15% of participants at year 3, with 3% of the cohort at year 3 using the highest doses

and 11% reporting long-term use. Between baseline and year 3, 20% showed cognitive decline.

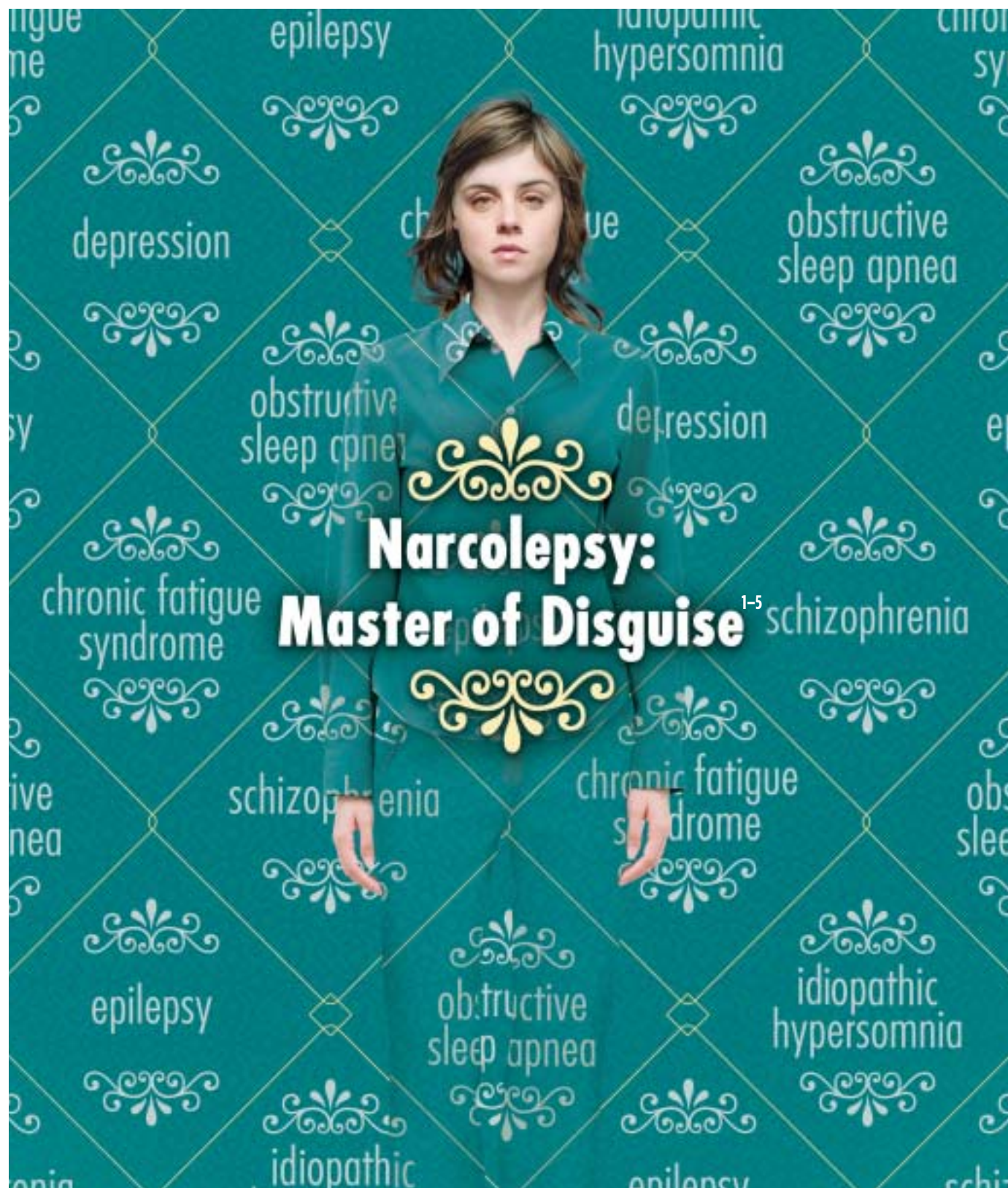
At year 5, 17% of 1,907 participants evaluated were using CNS-active medications, again with 3% on the highest doses and 11% reporting long-term use. After excluding participants who showed cognitive decline at year 3, 14% of participants at year 5 showed new cognitive decline, Dr. Wright and her associates reported.

The researchers plan further studies to

try to identify thresholds between benefits and risks of medication use, and to look at interventions that might help balance the benefits and risks when making decisions about medication dosing.

Indications for CNS-active medication use in the study included sleep problems in 11%, anxiety in 34%, osteoarthritis in 15%, cancer in 18%, depression in 4%, and moderate or worse bodily pain in 40%.

The study cohort was 53% female and 37% black, with a mean age of 74 years. ■



**References:** 1. Dauvilliers Y, Arnulf I, Mignot E. Narcolepsy with cataplexy. *Lancet*. 2007;369:499-511. 2. Thorpy M. Current concepts in the etiology, diagnosis and treatment of narcolepsy. *Sleep Med*. 2001;2:5-17. 3. Thorpy M. Therapeutic advances in narcolepsy. *Sleep Med*. 2007;8:427-440. 4. American Academy of Sleep Medicine. *The International Classification of Sleep Disorders: Diagnostic and Coding Manual*. 2nd ed. Westchester, Ill: American Academy of Sleep Medicine; 2005. 5. Green PM, Stillman MJ. Narcolepsy: signs, symptoms, differential diagnosis, and management. *Arch Fam Med*. 1998;7:472-478.

Sponsored by  Jazz Pharmaceuticals

Because many disorders have symptoms resembling those of narcolepsy—excessive daytime sleepiness, cataplexy, disturbed nocturnal sleep, hypnagogic and hypnopompic hallucinations, sleep paralysis—a differential diagnosis including narcolepsy is often required.<sup>2-4</sup>

For additional information, call 1-800-206-8115 or e-mail [info@narcolepsyDx.com](mailto:info@narcolepsyDx.com). You can help narcolepsy patients finally get the recognition and treatment they deserve.