What's new in sleep medicine

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The following represent additions to UpToDate from the past six months that were considered by the editors and authors to be of particular interest. The most recent What's New entries are at the top of each subsection.

SLEEP-RELATED BREATHING DISORDERS

Mouth taping and obstructive sleep apnea (January 2025)

Social media has promoted mouth taping as a treatment for obstructive sleep apnea (OSA), but its efficacy is unclear. A recent study of 54 patients with OSA reported an increase in inspiratory flow during drug-induced sleep endoscopy (which simulates sleep) in the closed-mouth position compared with the open-mouth position [1]. However, in 22 percent of patients, mouth closure resulted in velopharyngeal obstruction that reduced inspiratory flow, which could be harmful during sleep. Further studies are needed before mouth taping can be routinely recommended for patients with OSA. (See "Obstructive sleep apnea: Overview of management in adults", section on 'Investigational'.)

INSOMNIA

Cognitive behavioral therapy for insomnia in patients with alcohol use disorder (May 2025)

Insomnia is very common in patients with alcohol use disorder, but insomnia medications pose risks of drug interactions and increased side effects. In a meta-analysis of eight randomized controlled trials in a total of 426 adults with alcohol use disorder, cognitive behavioral therapy for insomnia (CBT-I) resulted in a large reduction in insomnia severity scores compared with a control condition [2]. Improvements persisted at one, three, and six-month follow up. These data support CBT-I as the recommended first-line therapy for

insomnia in patients with alcohol use disorder. (See "Insomnia in patients with a substance use disorder", section on 'Nonpharmacologic therapies'.)

Triage strategy for digital versus one-on-one cognitive behavioral therapy for insomnia (January 2025)

For patients with insomnia, digital/self-directed cognitive behavioral therapy for insomnia (CBT-I) can be more readily available compared with one-on-one CBT-I, but it may not be as effective for some. A recent randomized trial tested a stepped care strategy in which a triage checklist was used to direct patients to either early therapist-delivered CBT-I or digitally-delivered CBT-I with step-up to a therapist for inadequate responders [3]. Overall, the stepped care strategy resulted in greater reductions in insomnia severity and hypnotic medication use compared with access to digital CBT-I only. These results suggest that, in the context of a limited pool of CBT-I therapists, novel triage strategies may help match patients with the level of care most likely to meet their needs. (See "Cognitive behavioral therapy for insomnia in adults", section on 'Helping patients access CBT-I'.)

Masked taper for discontinuing benzodiazepines (December 2024)

For individuals who need to discontinue chronic benzodiazepines, the optimal tapering strategy to minimize withdrawal symptoms is unclear. In a recent randomized trial of 188 older adults with insomnia, a masked taper over nine weeks (ie, benzodiazepine pills with progressively increasing inert filler) plus augmented cognitive-behavioral therapy for insomnia (CBT-I, with exercises targeting expectations about the taper and placebo effects) increased the rate of benzodiazepine discontinuation at six months compared with an unmasked taper plus standard CBT-I (73 versus 59 percent) [4]. Although the results suggest that blinding patients to the taper rate may help improve benzodiazepine discontinuation, participants took relatively low doses at baseline (4 mg diazepam equivalents); thus, the efficacy of this strategy in other populations using higher doses, as in benzodiazepine use disorder, is uncertain. (See "Benzodiazepine use disorder", section on 'Taper rate'.)

CENTRAL DISORDERS OF HYPERSOMNOLENCE

Orexin receptor 2 agonist in adults with narcolepsy type 1 (May 2025)

Novel therapies targeting orexin deficiency are in development for narcolepsy type 1. In a randomized phase 2 trial of oveporexton, an investigational oral orexin receptor 2 agonist, in 90 adults with narcolepsy type 1, oveporexton improved wakefulness and decreased cataplexy episodes compared with placebo over an eight-week treatment period [5]. The most common adverse effect was insomnia, which was dose-related and transient in most patients. In contrast with an earlier orexin agonist, no hepatotoxicity was observed. A larger

phase 3 trial testing two of the four dose levels from the phase 2 trial is in progress. (See "Treatment of narcolepsy in adults", section on 'Emerging therapies'.)

PEDIATRIC SLEEP MEDICINE

Consensus guideline on melatonin for sleep in typically developing children (March 2025)

An international group of pediatric sleep experts has published a new consensus guideline on the use of melatonin for sleep in typically developing children [6]. The panel recommends performing a thorough clinical evaluation to rule out other causes of chronic insomnia before considering melatonin, using behavioral approaches before and along with melatonin, limiting duration to as short of a time period as possible and no longer than three to six months in most cases, and storing melatonin safely in locked containers out of the reach of children. The guideline provides typical dose ranges of melatonin by age, up to a maximum of 5 mg nightly in adolescents. Our approach is consistent with these guidelines. (See "Pharmacotherapy for insomnia in children and adolescents: A rational approach", section on 'Melatonin'.)

Tonsillotomy versus tonsillectomy for obstructive sleep apnea in children (January 2025)

Intracapsular tonsillectomy (also known as subtotal or partial tonsillectomy or "tonsillotomy") is increasingly used for the treatment of obstructive sleep apnea (OSA) in children, but its optimal role is unsettled. In a meta-analysis of 32 studies including 17 randomized trials of either tonsillotomy or traditional tonsillectomy in children with OSA, tonsillotomy was associated with improved recovery time and lower risk of postoperative complications but increased risk of tonsillar regrowth, recurrent OSA, and reoperation compared with traditional tonsillectomy [7]. Despite the high number of trials, the quality of the evidence remains limited by heterogeneity, high risk of bias, and lack of long-term follow-up. Further studies are needed to help identify individual patient characteristics predictive of long-term benefit from tonsillotomy. (See "Adenotonsillectomy for obstructive sleep apnea in children", section on 'Intracapsular tonsillectomy (tonsillotomy)'.)

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