

The Insufficiency of Today's Approach to COMISA Care

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Despite clear recognition as a standalone condition, COMISA remains not only underdiagnosed but poorly managed, falling through many systemic cracks.

After decades of being largely overlooked in sleep medicine, comorbid insomnia and sleep apnea (COMISA) is finally getting much-needed recognition as a distinct clinical condition deserving focused research and clinical attention.

Estimates show that 30–50% of individuals with OSA report clinically significant insomnia symptoms, and 30–40% of those with insomnia also have comorbid OSA.¹ But despite the solid evidence regarding its prevalence and significant health implications, current approaches to managing COMISA remain fragmented and inadequate.¹

The relationship between insomnia and OSA

The relationship between insomnia and OSA is bidirectional and complex. OSA can contribute to insomnia through sleep fragmentation caused by repeated breathing disturbances. On the flip side, heightened arousal from insomnia can make patients more sensitive to breathing disruptions caused by OSA.¹

The cyclical interaction between insomnia and OSA complicates treatment, as addressing one condition without the other doesn't just leave symptoms unaddressed—it could potentially worsen the patient's overall health.² Patients with COMISA experience

worse sleep quality, mental health, physical health, and overall quality of life compared to those with just one of the conditions.²

“A fragmented care approach with little to no coordination among providers often leaves patients struggling unnecessarily.”

Current treatment approaches and their limitations

Despite its established prevalence, COMISA is often treated as two separate issues. Sleep clinics usually prioritize OSA, assuming insomnia will improve or resolve once breathing events are managed.³ But continuous positive airway pressure (CPAP) therapy, the leading standard treatment for OSA, while effective for OSA's hallmark respiratory events, does not adequately address insomnia symptoms in many patients.⁴

The study from Lundatrae et al. 2021 showed that CPAP may be effective in reducing both insomnia symptoms and the prevalence of chronic insomnia in some OSA patients, with a greater effect in patients with good adherence to their CPAP therapy.⁵

One of the main barriers to an effective management of COMISA is that even when insomnia is recognized as a distinct primary condition, it's often managed by different providers with little to no coordination with other providers a patient may also see.⁶ For patients with COMISA, this siloed approach often leaves them with persistent symptoms and sub-optimal quality of life.

“The complex relationship between OSA and insomnia is further highlighted when treatments for one condition exacerbate the other.”

Treatment conflicts and contradictions

A significant challenge in COMISA management is the potential for treatment conflicts.

This can be observed on many fronts, including:

- **CPAP therapy resistance:** Patients with COMISA are less likely to start PAP therapy and tend to use it for fewer hours per night compared to those with OSA alone.⁷ This low adherence is not surprising—discomfort or anxiety related to CPAP use can worsen existing insomnia symptoms or be seen as a threat to sleep itself, which many individuals with insomnia already view as fleeting and deeply important.⁸ Research shows that patients with COMISA are about 30% less likely to accept PAP therapy when compared to those with just sleep apnoea. More, among COMISA patients that initiate PAP therapy, their nightly use is ~2 times lower than those with sleep apnoea alone.¹
- **Pharmacological complications:** Another prime example of a treatment conflict can be seen with emerging drug therapies for OSA. Apnimed's AD109, an investigational oral medication combining aroxypytynin and atomoxetine currently in Phase 3 trials,⁸ has shown promising results in reducing the Apnea-Hypopnea Index (AHI) in OSA patients.⁹ However, clinical trial data reveals that insomnia is among the most common adverse events reported

by patients receiving this treatment. In the MARIPOSA (Phase 2b) trial, dry mouth, insomnia, and urinary hesitancy were identified as the most common side effects in patients treated with AD109.¹⁰

This effect—medications and medical devices designed to treat one sleep disorder potentially aggravating another—highlights the complex relationship between OSA and insomnia and the challenges in developing treatment regimens that effectively address COMISA.

Barriers to optimal care

Beyond clinical challenges, several systemic and patient-related barriers continue to limit the delivery of integrated care for COMISA. One major issue is the lack of standardized clinical guidelines for this condition. This lack of formal guidance leaves clinicians without a clear roadmap for assessment and treatment planning.¹¹ Which condition or therapy should they treat first? Should they be treated together? Should only one be treated in the hope the other will benefit along with that? These are just some of the questions clinicians must answer on their own today.

The absence of formal direction is further complicated by reimbursement models that often don't support the added time, coordination, and resources needed for comprehensive COMISA care. Without payment structures that reflect the difficulty of managing both insomnia and OSA, clinicians face financial disincentives to provide truly holistic care.^{12,13}

Patient perception also plays a huge role. Patients with COMISA may view one condition as more problematic than the other, influencing their treatment priorities and adherence. For example, a patient primarily troubled by insomnia may be less motivated to adhere to CPAP therapy for OSA.^{14,15}

Evidence-based approaches to COMISA management

Despite the challenges in treating COMISA, growing evidence supports the effectiveness of integrated treatment strategies. Combining cognitive behavioral therapy for insomnia (CBT-I) with PAP therapy has been shown to produce better outcomes than treating

either condition alone.¹⁶ This integrated approach addresses the complexities of both insomnia and OSA, resulting in improved sleep quality and overall health.

One randomized controlled trial that examined the effects of cognitive behavioral therapy for insomnia (CBT-I) and PAP therapy on patients with COMISA found that patients receiving both CBT-I and PAP therapy experienced faster and more significant improvements in sleep and daytime functioning compared to those using PAP alone. Specifically, the combined treatment group showed greater reductions in sleep onset latency and wake after sleep onset, along with higher sleep efficiency—key indicators of better sleep outcomes.¹⁶

Providers are also directed to consider patient characteristics, treatment preferences, and accessibility to treatment when developing treatment plans for COMISA patients.¹¹

Patients deserve better

The current approach to COMISA care is clearly insufficient. The siloed treatment of insomnia and OSA fails to address the complex interplay between these conditions and often results in inadequate outcomes. Healthcare providers must recognize COMISA as a distinct clinical entity requiring integrated management strategies. This shift will require collaboration across disciplines, changes in healthcare delivery systems, and continued research to refine further understanding of this condition.

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