Real-world Use of Solriamfetol for Excessive Daytime Sleepiness in Patients Reporting Anxiety or Depression in the Real-World SURWEY Study

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Key Question

- Is solriamfetol effective in treating excessive daytime sleepiness associated with narcolepsy or obstructive sleep apnea in patients with self-reported anxiety and/or depression?

Conclusions

- These real-world data describe treatment outcomes of solriamfetol in patients with narcolepsy or OSA, both with and without self-reported anxiety/depression
- Reductions in EDS were substantial and comparable in patients with and without self-reported anxiety/depression
- Most patients and physicians reported improvements in EDS
- These findings are consistent with clinical trial results and suggest that solriamfetol is effective in managing EDS in patients with psychiatric comorbidities

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Disclosures

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H. Benes is on the advisory board of Takeda Pharmaceuticals and Idorsia Pharmaceuticals, and has received honoraria for educational presentations from Idorsia.
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Introduction

- Psychiatric comorbidities are prevalent in patients with excessive daytime sleepiness (EDS) from narcolepsy or obstructive sleep apnea (OSA)[1,2]
  - Depression and anxiety are particularly common in these patients, with prevalence rates of ≥ 30% each[3,4]
- Efficacy and safety data for wake-promoting agents in these populations are limited
- Solriamfetol (Sunosi®) is a dopamine-norepinephrine reuptake inhibitor with agonistic properties at the trace amine-associated receptor 1 and serotonin 1A receptor[5,6]; it is approved for use in adults in the United States, Canada and select countries in Europe for the treatment of EDS associated with narcolepsy or OSA[7,8]
- Clinical trials with solriamfetol have excluded patients with severe psychiatric comorbidities, and the prescribing information advises against its use in this population
  - As a result, there are limited data available on the efficacy and safety of solriamfetol in these patients

Methods & Study Design

- **SU**nosi **R**eal **W**orld **E**xperience Stud**Y** (SURWEY) was a retrospective chart review among physicians in Germany who have prescribed solriamfetol to patients with EDS associated with narcolepsy or OSA
- Eligible patients were ≥ 18 years of age, had a diagnosis of EDS and narcolepsy or OSA, had reached a stable maintenance dose of solriamfetol and completed ≥ 6 weeks of treatment; patients who received solriamfetol during a clinical trial or early access program were excluded
- The present analysis focused on data from 154 adult patients with narcolepsy or OSA, stratified by self-reported anxiety and/or depression
  - Patients were classified as anxious and/or depressed based on their answer at baseline to a single yes/no question
- Data related to comorbidities, Epworth Sleepiness Scale (ESS) scores, patient-and physician-reported improvement in EDS, and adverse events were summarized descriptively

Key Findings

Patient Population

Table 1. Baseline Demographics and Clinical Characteristics

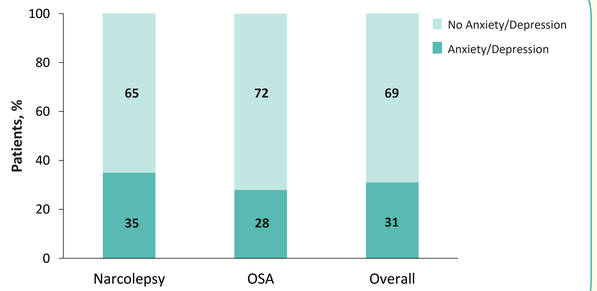
	Anxiety/Depression n = 48	No Anxiety/Depression n = 106	Overall N = 154
Indication, n (%)			
Narcolepsy	25 (52)	46 (43)	71 (46)
OSA	23 (48)	60 (57)	83 (54)
ESS, mean (SD)	17.0 (3.3)	16.6 (3.2)	16.7 (3.2)
Age, mean (SD), years	43.9 (12.8)	42.8 (15.9)	43.1 (15.0)
Sex, n (%)			
Female	21 (44)	48 (45)	69 (45)
Male	27 (56)	58 (55)	85 (55)
BMI	29.2 (6.2)	29.9 (6.4)	29.7 (6.3)
ADHD, n (%)	1 (2.1)	1 (0.9)	2 (1.3)
Other psychiatric disorder, n (%)	0	4 (3.8)	4 (2.6)
Other neurological disorder, n(%)	4 (8.3)	2 (1.9)	6 (3.9)
Other sleep disorder, n (%)	5 (10)	18 (17)	23 (15)

ADHD, attention deficit hyperactivity disorder; BMI, body mass index; ESS, Epworth Sleepiness Scale; OSA, obstructive sleep apnea

- Baseline demographics were similar between patients with and without self-reported anxiety and/or depression

Anxiety/Depression Incidence

Figure 1. Incidence of Anxiety/Depression in Patients With Narcolepsy or OSA



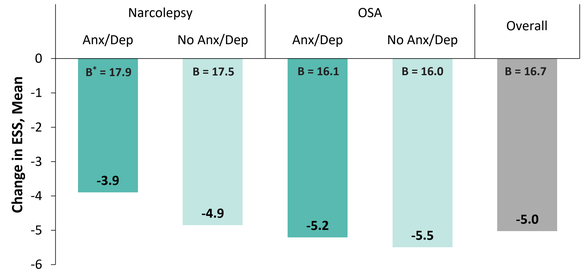
- Rates of anxiety/depression were similar between patients with narcolepsy (35.2%) and OSA (27.7%)

Efficacy

- All efficacy results were pooled across dosages, and most patients took less than the maximum recommended dose of 150mg/day

Average Improvements in EDS

Figure 2. Reductions in ESS Scores for Patients With and Without Anxiety/Depression

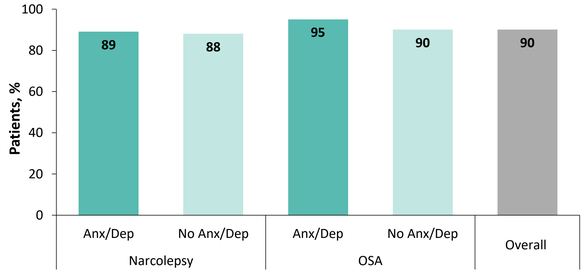


- In patients with narcolepsy or OSA, those with anxiety/depression experienced comparable reductions in ESS to those without

*B: Baseline

Clinically Meaningful Improvement

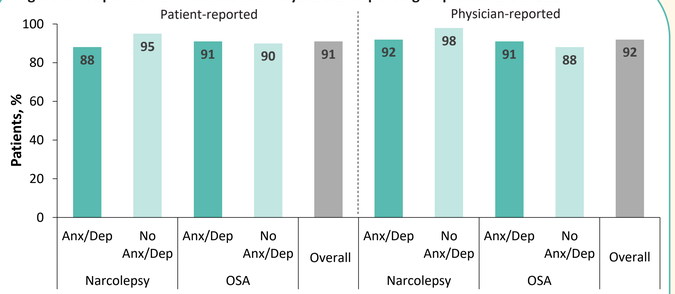
Figure 3. Proportion of Patients Achieving a ≥ 2-point Reduction in ESS Score



- In patients with narcolepsy or OSA, ≥ 88% experienced clinically meaningful improvement in EDS, achieving a reduction of ≥ 2 points in ESS score, regardless of anxiety/depression status

Patient/Physician-Reported Improvement

Figure 4. Proportion of Patients and Physicians Reporting Improvement in EDS*



- In patients with narcolepsy or OSA, ≥ 88% reported experiencing improvement in EDS, regardless of anxiety/depression status, consistent with physician reports

*Patients or physicians rated EDS "slightly improved" or "strongly improved"

Safety

Table 2. Adverse Events (≥3% Overall)

	Narcolepsy		OSA		Overall
Adverse event, n (%)	Anxiety/ depression n = 25	No anxiety/ depression n = 46	Anxiety/ depression n = 23	No anxiety/ depression n = 60	N = 154
Headache	2 (8.3)	4 (8.9)	3 (13.0)	4 (6.8)	13 (8.6)
Decreased appetite	1 (4.2)	3 (6.7)	3 (13.0)	3 (5.1)	10 (6.6)
Insomnia	2 (8.3)	2 (4.4)	2 (8.7)	3 (5.1)	9 (6.0)
Irritability	3 (12.5)	0	2 (8.7)	2 (3.4)	7 (4.6)
Other	3 (12.5)	0	0	3 (5.1)	6 (4.0)
Dizziness	1 (4.2)	1 (2.2)	1 (4.3)	2 (3.4)	5 (3.3)
Feeling jittery	1 (4.2)	0	1 (4.3)	3 (5.1)	5 (3.3)

- The most common adverse events overall were headache, decreased appetite, and insomnia (**Table 2**)
- Adverse events were more common overall in patients reporting anxiety/depression (**Table 2**)