Melatonin and Sedative Prescribing Trends after Policy Changes in a Pediatric Medicaid Population

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BACKGROUND

- In children, behavioral sleep problems are characterized by bedtime refusal, delayed sleep onset, and night awakening and can negatively affect quality of life
- Children with certain psychiatric conditions, neurodevelopment disorders, genetic syndromes, and acquired conditions have a higher prevalence of insomnia
- The American Academy of Sleep Medicine recommends 3-5 mg of melatonin for children with delayed sleep-wake phase disorder
- In October 2021, melatonin was added to the Oregon Health Plan (OHP) Fee-for-Service (FFS) pharmacy benefit for children
- All other sleep drugs require a prior authorization, including benzodiazepines which are only approved for an initial 30 days

OBJECTIVES

- Describe changes in utilization for melatonin and other sedatives in pediatric patients after the policy change
- Identify comorbid diagnoses predisposing pediatric patients to insomnia in those prescribed melatonin
- Determine if prescribed melatonin dosages are consistent with current recommendations

METHODS

- Retrospective review of pharmacy claims for melatonin and other sedatives for Medicaid members ≤18 years
- Exclusion criteria: patients with Medicare Part D coverage or limited or no Medicaid drug coverage in the baseline period, patients with primary insurance coverage, or patients with non-continuous Medicaid enrollment or Coordinated Care Organization enrollment
- Pre-policy time frame: October 2020 – September 2021
- Post-policy time frame: January 2022 – December 2022
- Primary outcome: proportion of members with a paid pharmacy claim before and after the policy change
- Secondary outcome: proportion of patients prescribed melatonin with a diagnosis of insomnia or predisposing condition, mean daily dose of melatonin, and subsequent benzodiazepine claim within 90 days
- Descriptive statistics were used to evaluate changes between the two cohorts, including mean and standard deviation, median and interquartile range (IQR), and proportions and percentages as appropriate.

RESULTS

- There were 126 pediatric members in the pre-policy group and 80 in the post policy group with a pharmacy claim for melatonin or other sedative
- There were 0 paid claims and 59 denied claims for melatonin in the pre-policy group. This shifted to 30 paid claims and only 4 denied claims in the post-policy group.

Adding melatonin coverage to the Oregon Medicaid pharmacy benefit increased access for pediatric patients with predisposing comorbidities at safe doses without impacting benzodiazepine or other sedative prescribing

FIGURE 1: NEW START MELATONIN PRESCRIPTIONS

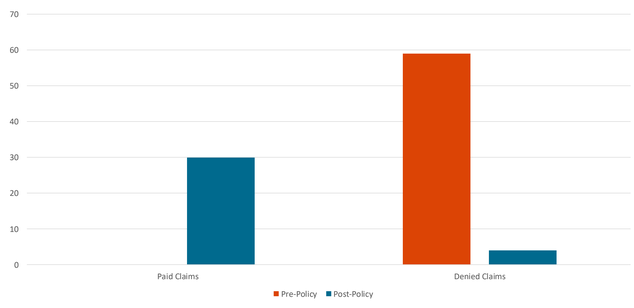


FIGURE 2: NEW START BENZODIAZEPINE AND OTHER SEDATIVE PRESCRIPTIONS

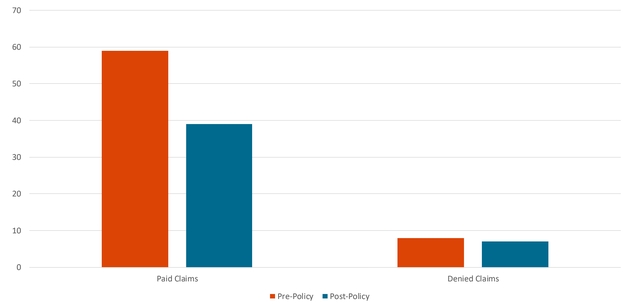


FIGURE 3: PROPORTION OF PATIENTS PRESCRIBED MELATONIN WITH A SUPPORTING DIAGNOSIS

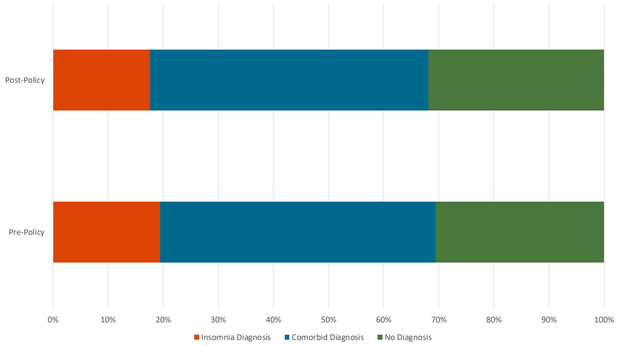
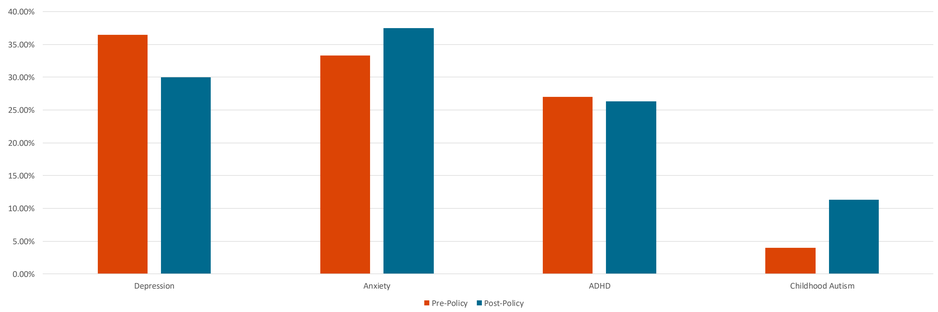


TABLE 1: AVERAGE DAILY DOSES OF MELATONIN

	Pre-policy group (n=59)	Post-policy group (n=34)
Daily dose of melatonin		
< 3mg	8 (13.6%)	3 (8.8%)
3-5 mg	27 (45.8%)	21 (61.8%)
5 mg	24 (40.7%)	10 (29.4%)
Average Daily Dose (mg) by Age (standard deviation; SD)		
0-5 years	3.2 (SD: 2.6)	3.0 (SD: N/A)
6-12 years	5.0 (SD: 2.6)	3.5 (SD: 1.0)
13-18 years	5.2 (SD: 3.3)	4.9 (SD: 2.9)

FIGURE 4: MOST COMMON COMORBIDITIES IDENTIFIED CONTRIBUTING TO INSOMNIA



RESULTS, CONTINUED

- There were a total of 66 paid and denied benzodiazepine claims in the pre-policy group (52.4%) and 45 claims in the post-policy group (56.3%).
- Among the members who started on melatonin, only one received a subsequent benzodiazepine claim within 90 days.
- Most claims for melatonin in both the pre- and post-policy group were between 3 and 5 mg (45.8% and 61.8%, respectively).
- Members between 13 and 18 years had a slightly higher average daily dose of 4.9 mg compared to 3.5 mg for those between 6 and 12 years old
- 57.5% of pediatric members had a comorbid diagnosis that predisposes them to insomnia. However, only 21.3% had a diagnosis of insomnia and 36.3% have no diagnosis that supports the use of melatonin.

CONCLUSIONS

- Addition of melatonin to the OHP FFS pharmacy benefit increased utilization and access for pediatric members
- Although paid claims for benzodiazepines decreased, there is not enough data to know if opening access to melatonin can prevent new starts of benzodiazepines
- Most pediatric members prescribed melatonin had an evidence-supported or comorbid contributing diagnosis. However, 35% members did not have a supporting diagnosis and could benefit from deprescribing
- Most prescribed dosages were consistent with clinical practice guideline recommendations. Average higher daily doses were seen in older adolescents.

LIMITATIONS

- A significant proportion of pediatric patients were excluded because they had partially incomplete claims data .
- This analysis included benzodiazepines for treatment of sleep disorders. However, benzodiazepines are commonly prescribed for other indications not related to sleep.

REFERENCES

1. Auger RR, Burgess HJ, Emens JS, et al. Clinical Practice Guideline for the Treatment of Intrinsic Circadian Rhythm Sleep-Wake Disorders: Advanced Sleep-Wake Phase Disorder (ASWPD), Delayed Sleep-Wake Phase Disorder (DSWPD), Non-24-Hour Sleep-Wake Rhythm Disorder (N24SWD), and Irregular Sleep-Wake Rhythm Disorder (ISWRD). *J Clin Sleep Med. Oct 15 2015;11(10):1199-236. doi:10.5664/jcsm.5100*

DISCLOSURES/CONTACT

The authors of this presentation have no conflicts of interest to disclose

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