WELCOME!

Today’s Topic:

Substance Abuse and Insomnia

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SUBSTANCE ABUSE AND INSOMNIA

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GENERAL DISCLOSURES

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GENERAL DISCLOSURES

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OBJECTIVES

• Examine the impact of alcohol and cannabis use on insomnia.
• Describe current practices in the use of benzodiazepines and non-benzo hypnotics in the treatment of insomnia.
• Explore ways in which use of sleep aids modulates nighttime physiological arousal.
• Discuss modifications of CBTi to address substance abuse.
QUESTIONS TO CONSIDER

• How do common substances impact sleep?
• How does withdrawal from substances affect sleep?
• What are the trends in the prescribing of nonbenzodiazepine hypnotics for insomnia? What accounts for these trends?
• How can we best help patients who have insomnia and use substances impacting sleep?
ALCOHOL WITHDRAWAL SYMPTOMS

• Autonomic hyperactivity (e.g., sweating or pulse greater than 100 bpm)
• Increased hand tremor
• **Insomnia**
• Nausea or vomiting
• Transient visual, tactile, or auditory hallucinations or illusions
• Psychomotor agitation
• Anxiety
• Generalized tonic-clonic seizures
SEDATIVE, HYPNOTIC, OR ANXIOLYTIC WITHDRAWAL SYMPTOMS

• Autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm)
• Hand tremor
• **Insomnia**
• Nausea or vomiting
• Transient visual, tactile, or auditory hallucinations or illusions
• Psychomotor agitation
• Anxiety
• Grand mal seizures
CANNABIS WITHDRAWAL SYMPTOMS

- Irritability, anger, or aggression
- Nervousness or anxiety
- Sleep difficulty (e.g., **insomnia**, disturbing dreams)
- Decreased appetite or weight loss
- Restlessness
- Depressed mood
- One of: abdominal pain, shakiness/tremors, sweating, fever, chills, headache
OPIOID WITHDRAWAL SYMPTOMS

- Dysphoric mood
- Nausea or vomiting
- Muscle aches
- Lacrimation or rhinorrhea
- Pupillary dilation, piloerection, or sweating
- Diarrhea
- Yawning
- Fever
- **Insomnia**
EFFECTS OF ALCOHOL ON SLEEP

• Moderate alcohol use decreases REM duration
• Heavy alcohol use decreases SOL and SE, and increases WASO
• Heavy alcohol use and REM: Increases latency, decreases REM percent
• Undetectable levels of alcohol by bedtime are still associated with increased arousal during sleep

Chakravorty et al., 2016
SLEEP DISTURBANCE IN AUD

• Relationship is bidirectional
• 30-80% AUD report insomnia
• 50% report insomnia during acute alcohol withdrawal
• Sleep disturbance early in recovery from AUD is especially problematic (greater likelihood of relapse)

Schmidt and Kolla, 2017
NONBENZODIAZEPINE HYPNOTICS

- Z-drugs: zolpidem, eszopiclone, zolpidem, zaleplon
- Started appearing in the mid-eighties
- Traditional benzodiazepines associated with high risk of dependence, daytime drowsiness, tolerance, rebound insomnia, impaired performance, amnesia
- Do not appreciably change sleep architecture
NONBENZODIAZEPINE HYPNOTICS

- Reports of abuse and dependence emerged in the 90’s - high doses
- Reports of increased hip fracture risk in the geriatric population
- Reports of “sleep driving”
- Sleepwalking/night eating
Influence of Zolpidem and Sleep Inertia on Balance and Cognition During Nighttime Awakening: A Randomized Placebo-Controlled Trial

BALANCE BEAM TEST


CASE EXAMPLE

• 65 yo man, retired x3 yrs
• Zolpidem XR 12.5 mg qhs (6.25 + 6.25)
• Variable morning oob times (TIB 10-12 hrs)
• 4-6 standard drinks most nights
• Untreated OSA
• Prolonged SOL, multiple awake after sleep onset, multiple sleep locations within house
• PHQ-9 = 11; GAD-7 = 2; ISI = 16
CASE EXAMPLE - POLYSOMNOGRAM

AHI: 1a = 28.8, 1b = 10.7 events per hour; O₂ nadir = 72%
CASE EXAMPLE: SESSION 1 INSTRUCTIONS

• Start keeping Sleep Log
• Maintain zolpidem XR at 6.25 mg/qhs
• Refrain from alcohol use
• Sleep hygiene/Stimulus control
• TIB restriction midnight – 9 am
CASE EXAMPLE, RESULTS:

<table>
<thead>
<tr>
<th></th>
<th>Time in Bed (min)</th>
<th>Total Sleep Time (min)</th>
<th>Sleep Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>447</td>
<td>261</td>
<td>58%</td>
</tr>
<tr>
<td>Week 3</td>
<td>429</td>
<td>349</td>
<td>81%</td>
</tr>
<tr>
<td>Week 4</td>
<td>483</td>
<td>402</td>
<td>83%</td>
</tr>
</tbody>
</table>

- Discontinued zolpidem by end of first week
- Stayed out of bed longer than necessary during awakenings, prior to Week 2
- Significant stressor prior to Week 4
- Starting to use CPAP just prior to Week 4
TREATING INSOMNIA: THE PRESCRIBER DILEMMA

• Cognitive Behavior Therapy for Insomnia recommended as first line of treatment
• Access to, and dissemination of, evidence-based psychological interventions remains inadequate
• Nonbenzodiazepine hypnotics are relatively fast, effective, and safe

Moloney et al, 2011
ANNUAL NUMBER OF OFFICE VISITS ACCOMPANIED BY A PRESCRIPTION FOR SLEEP MEDICATIONS, NATIONAL AMBULATORY MEDICAL CARE SURVEY, 1999-2010

Ford et al., 2014
HOUSEHOLD EXPOSURE TO PHARMACEUTICAL TV ADVERTISING FOR SLEEP DISORDERS

Kornfield et al 2015
Annual Spending on Medical-Related Advertising (TV, radio, newspapers, magazines, websites, billboards)

THE PRESCRIBER DILEMMA: “ASK YOUR DOCTOR.”

Patient autonomy (choice, advocacy)
Patient satisfaction
Drug vending machine?

Do no harm
Beneficence
Withholder of goodies?
KEYS TO ADDRESSING INSOMNIA IN SUDS AND IN HYPNOTIC DISCONTINUATION

• Take a curious and collaborative stance with patients
• Ask – Tell – Ask
• Tell: Provide detailed explanations and rationale
• Acknowledge change will be difficult and respect decisions to not change
• Offset withdrawal effects by increasing sleep drive