Best Practice for Treatment of Insomnia

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Disclosures

- Cognitive Behavioural insomnia Therapy (CBT-I) books royalties
- Receive government funding for CBT-I research.
- Co-Chair for the Health Ontario Quality Standards for Insomnia
- Member of the American Academy of Sleep Medicine workgroup who produced the Clinical Practice Guidelines for Insomnia Disorder (Edinger et al., 2021)

Quality Statement: Comprehensive Assessment

- Difficulty falling or staying asleep > 3 nights AND distress or daytime complaints (e.g., energy, mood, cognitive complaints) suggestive of **possible insomnia disorder and should trigger assessment**
  - Someone reporting difficulty falling or staying asleep a night or two a week with or without distress or daytime complaints is normal
- Essentially: ask them about their sleep complaint, their physical and mental health histories and screen for sleepiness and other sleep disorders, especially sleep apnea.

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Five minute screen

Sleepiness
epworthsleepinessscale.com
Apnea screen
stopbang.ca
Depression
PHQ2
Anxiety
GAD7

Question	Condition
You said you had difficulty falling asleep and/or staying asleep and you feel tired a lot, how often does this happen a week (3 or more times a week) and how long has this been going on (3 months +)?	Insomnia disorder
Do you fall asleep unintentionally, or have to nap to get through the day?	Excessive daytime sleepiness
Do you collapse or lose muscle tone if you are surprised, scared or excited?	Narcolepsy
Do you snore loudly and persistently, or wake up choking, gasping?	Obstructive Sleep Apnea
Do you have unusual sleep schedule, do night shifts or fly across time zones frequently?	Circadian Rhythm Disorders
Any trouble with a strange creepy crawly feeling in your legs in the evening? Alleviated by movement?	Restless leg syndrome

You know their medications and conditions

Quality Statement: Individualized, Person-Centred Plan

- **People with insomnia disorder, their care partners (as appropriate), and clinicians collaborate to develop an individualized, person-centred, comprehensive care plan.**
- **They review this plan together regularly (i.e., every two months).**

CBT-I addresses factors for chronic insomnia

- Time-in-bed restriction and Stimulus control will increase sleep drive, which will restore sleepiness and reverse hyperarousal
- Time-in-bed restriction and Stimulus control will provide regular circadian input
- Stimulus control will re-associate the bed with sleep and eliminate conditioned arousal
- In other words, it eliminates the perpetuating factors for chronic insomnia
- Sleep medications can help some produce sleep but they do not address these factors
  - Creates a chronic need for the medications, assuming they continue to work
  - Additionally, adverse effects and polypharmacy, make CBT-I the preferred choice
  - CBT-I is very brief (4-6 sessions) and works even ten years after treatment (Jernelöv et al., 2022)

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Quality Statement: First-line is CBT-I

- CBT is a repeatedly tested and efficacious treatment derived from chronic insomnia perpetuating factor research: conditioned arousal, low deep sleep drive, circadian factors. The two main components are: Stimulus Control and Time in Bed Restriction.
- **People with insomnia disorder have timely access to CBT-I as a first-line treatment.**
  - **Therapy is delivered in a way that best fits the person's needs and preferences (e.g., bibliotherapy, online, therapist-directed).**

American Academy of Sleep Medicine (AASM) Psychological Guidelines for Insomnia (Edinger et al., 2017)

- Use cognitive behavioral therapy for insomnia for the treatment of chronic insomnia disorder in adults.
- Do NOT use sleep hygiene as a single-component therapy for the treatment of chronic insomnia disorder in adults.

1 minute CBT-I explanation

You're describing something called chronic insomnia and the best treatment for this is called cognitive behaviour therapy for insomnia. It teaches you how to get your sleep system to do what it needs to do and if you are someone who feels wide awake in bed, it teaches you strategies to get rid of that. If you are interested, I can give you [information about our CBT-I service, a list of providers in the community, books, internet programs]. If you have insurance it may cover it. There is a place at TMU that offers free CBT-I as part of their research, and I can give you that information. If you pay out of pocket, it is usually 4-6 sessions which may be cheaper in the long-run than taking medications. Internet based programs are an option but you are not getting one on one help. Books written by CBT providers are cheaper still if you think you can do it by following the exercises in the book.

We can talk about sleep medications but the reason we don't recommend it for chronic insomnia, is because there are significant problems with side effects and they don't address the causes of insomnia so it essentially turns the problem into a chronic one.

CBT-I Providers

Free CBT-I in clinical trial
Self-refer sadlab@torontomu.ca

Email sadlab@torontomu.ca for provider list
10 telehealth/virtual providers that cover anywhere in Ontario
30 providers in Southern Ontario

Digital CBT-I: Sleep EZ; Shut-I; Sleepio
Free digital CBT-I for teens: dozeapp.ca

Bibliotherapy (Goodnight Mind; Sink Into Sleep; Quiet Your Mind for comorbid insomnia)

Family Health Training drcolleencarney.com or sinkintosleep.ca

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Quality Statement: Management of Comorbid Insomnia Disorder

- Because insomnia disorder increases risk for mental disorders (e.g., Hertenstein et al., 2019), a large portion of those with insomnia disorder will also have a comorbid condition by the time they see you.
- **People who have insomnia disorder along with a comorbid condition(s) receive timely (i.e., immediate) treatment of their insomnia disorder and any other health conditions as part of a comprehensive care plan.**
- The presence of a comorbidity should NOT delay treatment of insomnia disorder with CBT-I
  - "Insomnia due to…" removed as a diagnosis because of poor reliability and validity (Edinger et al., 2011) and causes and treatment the same for insomnia disorder with or without comorbidity
  - Don't think insomnia disorder resolves with treatment of comorbid disorder: Residual insomnia is the rule, not the exception and predicts recurrence of the comorbid disorder (e.g., Holder et al., 2019; Kwaśny et al., 2023)

Is CBT-I effective in comorbid insomnias?

Depression (e.g., Kuo et al., 2001: Carney et al., 2017; Manber et al., 2008; 2016); Post-Traumatic Stress Disorder (e.g., Buysse et al., 2011; Edinger, Wohlgemuth, Radtke, Coffman, & Carney, 2007; Edinger et al., 2007; 2009; Germain et al., 2014; Germain, Shear, Hall, & Buysse, 2007; Kyle, Morgan, Spiegelhalder, & Espie, 2011; Lichstein et al., 2000; Swift et al., 2012); Generalized Anxety Disorder (e.g., Belleville et al., 2016; Ye et al., 2015); Panic Disorder (e.g., Craske et al., 2005); Psychotic Disorders (e.g., Freeman et al., 2015); Chronic pain (e.g., Currie et al., 2000; Edinger et al., 2013; Jungquist et al., 2010; Rybarczyk et al., 2002; Vitiello et al., 2009; 2014); Osteoarthritis (e.g., Rybarcyk et al., 2005; Vitiello et al., 2009), Alcohol Use Disorder (e.g., Chakravorty et al., 2019); Coronary Artery Disease (e.g., Kapella et al., 2011; Rybarcyk et al., 2005); Fibromyalgia (Edinger et al., 2005); Pulmonary Disease (e.g., Rybarcyk et al., 2005); Multiple Sclerosis (Siengsukon et al., 2020); Chronic Heart Failure (e.g., Redeker et al., 2022); Cancer (Johnson et al., 2016; Ma et al., 2021); Menopause (Drake et al., 2019); Obstructive Sleep Apnea (Ong et al., 2020); Alzheimer's Disease (Siengsukon et al., 2020); Period Limb Movement Disorder (Edinger et al., 1996)…

Sleep Hygiene is NOT adequate trial of CBT-I

- Treatment providers most likely to use sleep hygiene (mistaking it for CBT-I); least likely to use evidence-based Stimulus Control and Sleep Restriction (Moss, Lachowski & Carney, 2010)
- *NOT* empirically supported re: American Psychological Association criteria for efficacy (Morin et al, *Sleep* 1999; Morin et al, Sleep, 2006) and American Academy of Sleep Medicine advise against it as a treatment (Edinger et al., 2020)
- Poor fidelity: some add Stimulus Control (e.g., naps), or misinterpretations (e.g., establish a regular bedtime), some use media stories about blue light (see Moss, Lachowski & Carney, 2013)
- Atheoretical – not based on causal factors. Not validated in clinical populations and good and poor sleepers do not reliably differ on sleep hygiene (Cheek, Shaver & Lentz, 2004; Gellis & Lichstein, 2009; McCrae et al., 2006)
- Could be necessary for some? But insufficient
- Used as a placebo control group in trials (e.g., Carney et al., 2017)

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Quality Statement 5: Pharmacotherapy

- People with insomnia disorder are offered effective medications at the lowest possible dose, for the shortest possible duration, and after a trial of CBT-I.
- A medication is offered only after a discussion about its benefits and risks.
- American Academy of Sleep Medicine (AASM) Pharmacotherapy Guidelines for Insomnia (Sateia et al., 2017) recommend CBT-I as frontline and then:

The following medications are recommended for adults:

- Eszopiclone, Zolpidem, Temazepam, Triazolam, Ramelteon, Zaleplon as treatments for sleep onset insomnia.
- Eszopiclone, Zolpidem, Temazepam, Doxepin, Suvorexant as treatments for sleep maintenance.

The following medications/supplements are NOT recommended for a treatment for sleep onset or sleep maintenance insomnia in adults:

- Trazodone, melatonin, tryptophan, diphenhydramine, tiagabine, valerian

Delphi consensus recommendations for the management of chronic insomnia in Canada

(Morin et al., 2024)

- Chronic insomnia should be specifically targeted for treatment, even in the presence of comorbidities.
- CBT-I is the first-line treatment. Sleep hygiene alone is NOT CBT-I.
- Benzodiazepines and z-drugs are effective for short-term management, despite concerns about adverse effects and tolerance. Some evidence demonstrated a relative lack of tolerance of eszopiclone.
- Dual orexin antagonists (DORA) may have benefits that outweigh their risks for long-term use (e.g., lack of rebound of tolerance in 1-year follow-up).
- Lack of evidence for melatonin, cannabinoids, and off-label medications such as trazodone, other antidepressants and antipsychotics, in addition to concerns about their safety profiles.

Morin et al. (2024)

Is Hypnotic Discontinuation Necessary for CBT-I?

- No.
- CBT-I can prepare people for a taper: CBT-I then continued CBT-I support during taper (Morin et al., 2009)
- CBT-I for hypnotic discontinuation groups can be delivered by social work and pharmacist members of family health teams (Truong, Ha & Lui, 2020).
- CBT-I – no *PRN* use - eliminate contingent sleep medication use (intermittent reinforcement, undermines self-efficacy)
  - Discuss with doctor to maintain consistent timing and consistent lowest recommended clinical daily dose throughout CBT-I
  - Allows them to see:
    - Insomnia symptoms while ON steady medication
    - Insomnia improvements when stimulus control and new time-in-bed prescription added (medication was held steady so the only thing new was CBT-I)
    - Learn that they have the tools to correct the problem and don’t need the pills

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Sleep Expert Consensus Taper Advice

Table 2. Consensus recommendation for switching insomnia medications, both within-class and to a new drug class.

Initial Drug Class/Group	Consensus Recommendation for Different Class Switching	Grading of Evidence	Consensus Recommendation for Within-Class Switching	Grading of Evidence
BZDs	Slow taper method/cross taper	B /C	Direct switch	B
Zolpidem	Taper and then wait 1–2 days	B	Taper and then wait 1–2 days	B
Zaleplon	Direct switch	B	Direct switch	B
Eszopiclone	Taper and then wait 1–2 days	B	Taper and then wait 1–2 days	B
Suvorexant	Direct switch	B	Direct switch	B
Lemborexant	Direct switch	B	Direct switch	B
Daridorexant	Direct switch	B	Direct switch	B
Ramelteon	Direct switch	B	N/A	
Doxepin 3–6 mg	Direct switch	B	N/A	
Trazodone	Slow taper method /cross taper	D	Not recommended	E
Mirtazapine	Slow taper method /cross taper	E	Not recommended	E
TCAs	Slow taper method /cross taper	D	Not recommended	E
Quetiapine	Slow taper method /cross taper	D	Not recommended	E

*NOT RECOMMENDED (Trazodone, Mirtazapine, TCAs, Quetiapine)

Reproduced from Watson, Benca, Krystal, McCall, & Neubauer (2023)

* See Sateia et al. (2017)

Summary of Best Practices for Insomnia Disorder

- A complaint of difficulty falling asleep and or staying asleep on 3 or more nights per week should trigger an assessment for insomnia disorder, i.e., a chronic condition with different maintaining factors than a short term or occasional insomnia
- Patients in Ontario deserve a person-centred treatment approach in which:
  - CBT-I is the frontline treatment offered for chronic insomnia disorder (NOT sleep hygiene)
  - The presence of a comorbidity does NOT delay treatment of insomnia disorder with CBT-I
- Approved sleep medications are effective but unlike CBT-I, they do not target the perpetuating factors of chronic insomnia, do not have durable effects, and have safety issues
- Pharmacotherapy for insomnia is used only after CBT-I trial has failed and with a discussion of the significant risks associated with these medications
  - Should select an approved medication with established efficacy (AASM Guidelines do not recommend trazodone, melatonin, valerian, antipsychotics…), not contingent i.e., *prn*, at the lowest recommended clinical dose and for a maximum of 2 weeks and a plan for discontinuation
- The upcoming Health Ontario Quality Standards will help providers and patients understand best practices for insomnia disorder

People can self-refer for free CBT-I via clinical trials: sadlab@torontomu.ca

Free insomnia resources: drcolleencarney.com

Free teen sleep app dozeapp.ca (Doze: Goodnight Mind for Teens on app store and Google Play

Free patient diary app: consensussleepdiary.com

Sleep Medicine provider list: researchsleep.ca

Geriatric medication consultation: gerimedrisk.com

Watch hqontario.ca for the new standards

Thank you

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