



# LESS SEDATIVES FOR YOUR RELATIVES.

A toolkit for reducing inappropriate use of benzodiazepines and sedative-hypnotics (BSH) among adults in hospitals.

**This toolkit was reviewed and supported by:**



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# Executive Summary

## Rationale

Prior studies suggest that more than a quarter of adult hospitalized patients receive benzodiazepines or other sedative-hypnotics (BSH) for sleep, the majority of whom are naïve users.<sup>1,2</sup> While the rate of adults that chronically use BSH are declining, a recent report from Choosing Wisely Canada (CWC) and the Canadian Institute for Health Information (CIHI) demonstrates that overuse remains prevalent, with 1 in 12 older adults using BSH regularly.<sup>3</sup> The most common reasons for BSH use are related to managing insomnia, delirium, and agitation in hospital. However, the risk of cognitive, psychomotor, and daytime fatigue often outweighs potential benefits of BSH.<sup>4</sup> Furthermore, patients who receive new prescriptions for BSH after leaving hospital are at increased risk of becoming dependent on these medications for sleep. Use of BSH is also associated with preventable harm such as falls, fractures, and delirium.<sup>1,2</sup> Quality improvement initiatives can successfully reduce inappropriate prescribing of BSH in hospitalized patients.<sup>5,6</sup>

## Purpose

This toolkit was created to support the implementation of interventions designed to reduce overuse of BSH in hospital settings.

## Target Audience

This toolkit is well suited for hospitals that have confirmed overuse of BSH related to sleep management. This toolkit can be used by inpatient care providers, clinical services, or hospitals to help achieve significant reductions in overuse of BSH.

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# Recommendations

**Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.**

Canadian Geriatrics Society  
Canadian Society for Hospital Medicine

**Don't routinely continue benzodiazepines initiated during an acute care hospital admission without a careful review and plan of tapering and discontinuing, ideally prior to hospital discharge.**

Canadian Psychiatric Association  
Canadian Academy of Geriatric Psychiatry  
Canadian Academy of Child and Adolescent Psychiatry

**Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia.**

Canadian Psychiatric Association  
Canadian Academy of Geriatric Psychiatry  
Canadian Academy of Child and Adolescent Psychiatry

**Don't continue medications that are no longer indicated or where the risks outweigh the benefit.**

Canadian Society of Hospital Pharmacists

**Don't use a medication for long-term risk reduction if life expectancy is shorter than the time-to benefit of the medication.**

Canadian Society of Hospital Pharmacists

**Don't routinely prescribe benzodiazepines or other sedative-hypnotics for promotion of sleep without first a trial of non-pharmacologic interventions.**

Canadian Society of Hospital Pharmacists

**Don't prescribe or dispense benzodiazepines without building a discontinuation strategy into the patient's treatment plan (except for patients who have a valid indication for long-term use).**

Canadian Pharmacists Association

# APPROACH TO REDUCING OVERUSE OF INPATIENT BSH FOR ADULTS

Change Ideas	Interventions
<p><b>1. Implement non-pharmacological strategies to promote 6-8 hours of uninterrupted sleep.<sup>7-10</sup></b></p>	<ul style="list-style-type: none"> <li>• <a href="#">Sleep Tight Bundle (page 6)</a></li> <li>• Patient facing materials:               <ul style="list-style-type: none"> <li>• <a href="#">Sleeping pills are not usually the best solution</a></li> <li>• <a href="#">Sleeping pills</a></li> <li>• <a href="#">Insomnia prescription pad</a></li> </ul> </li> </ul>
<p><b>2. Limit BSH prescribing by targeting various contributors.</b></p>	<ul style="list-style-type: none"> <li>• Achieve consensus regarding the appropriate indications for BSH. See example consensus criteria in Box 1 below.</li> <li>• <a href="#">Order set modifications</a> to embed appropriate BSH ordering practices</li> <li>• Routine medication reviews by inpatient pharmacy services:               <ul style="list-style-type: none"> <li>• <a href="#">Canadian Deprescribing Network</a></li> <li>• <a href="#">Deprescribing.org</a></li> </ul> </li> <li>• Educational resources for providers and patients:               <ul style="list-style-type: none"> <li>• <a href="#">Sleepwell</a></li> </ul> </li> <li>• Case based learning modules:               <ul style="list-style-type: none"> <li>• <a href="#">Link 1</a> • <a href="#">Link 2</a></li> </ul> </li> </ul>
<p><b>3. Safely initiate BSH if unable to avoid use.</b></p>	<p>When non-pharmacological strategies have failed and insomnia is negatively impacting the patient's daytime function, initiate BSH by:</p> <ul style="list-style-type: none"> <li>• If sedating medication is required, consider starting with lower risk medications such as melatonin<sup>11</sup></li> <li>• Starting at the lowest possible dose*</li> <li>• Prescribing for the shortest possible duration* (consider one-time dose followed by close monitoring of effects)</li> <li>• Monitoring for adverse effects (e.g., delirium, excessive daytime sleepiness due to "hangover effect")</li> </ul> <p>*The optimal drug and dosing are unknown</p>

## Box 1: Proposed criteria for appropriate clinical indications for BSH initiation among hospitalized patients.<sup>7</sup>

- Acute management of seizure disorder and panic attacks
- Alcohol and/or drug withdrawal
- Severe aggression posing imminent physical risk to patients and/or health care professionals (excluding non-alcohol withdrawal related delirium)
- Pre-procedural sedation
- Severe generalized anxiety disorder unresponsive to other therapies
- Symptom management at end of life

# SLEEP TIGHT BUNDLE

## NON-PHARMACOLOGICAL STRATEGIES FOR SLEEP PROMOTION IN HOSPITALS



CLINICIAN CHANGES	UNIT-LEVEL CHANGES	ORGANIZATIONAL CHANGES
<ul style="list-style-type: none"> <li>Distribute patient facing posters to empower and engage patients and caregivers in <u>promoting non-pharmacological strategies for sleep</u></li> </ul>	<ul style="list-style-type: none"> <li>During established sleep time, when possible, reduce:                             <ul style="list-style-type: none"> <li>POCT glucose checks</li> <li>Vital sign checks</li> <li>Medication administration</li> <li>Unnecessary transfer of patients in/out of wards</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Collect routine blood work after 7 AM</li> </ul>
<ul style="list-style-type: none"> <li>Consider positioning patient near window and actively engage patients in activity during the day (i.e., wake therapy to minimize daytime sleeping)</li> </ul>		<ul style="list-style-type: none"> <li><u>Establish non-pharmacological sleep strategies</u> as an institutional policy</li> </ul>
<ul style="list-style-type: none"> <li><u>Provide aids to facilitate sleep</u> (e.g., eye masks, ear plugs, non-caffeinated warm beverages, warm blankets, curtains/blinds) and consider cognitive behavioural therapy for insomnia strategies (CBTi)</li> </ul>	<ul style="list-style-type: none"> <li>During admission, ask patients and caregivers their strategies to support the patient's nighttime routine (e.g., toileting, calming music, review caffeine related products)</li> </ul>	<ul style="list-style-type: none"> <li>Establish "<u>Quiet sleep time</u>" from 10 PM-6 AM to limit disruptions (e.g., "Zamboni" floor cleaners, vacuums, dimmed lights, overhead announcements)</li> </ul>
<ul style="list-style-type: none"> <li>Routinely screen for alternate causes of insomnia:                             <ul style="list-style-type: none"> <li>Pain</li> <li>Infection</li> <li>Prolonged fasting</li> <li>Constipation</li> <li>Urinary retention</li> <li>Shortness of breath</li> <li>Sleep apnea</li> <li>Prostatic hypertrophy</li> <li>Heart failure</li> <li>Gastroesophageal reflux</li> <li>Restless leg syndrome</li> <li>Anxiety/depression</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><u>Audit and performance feedback</u> on BSH measurement to engage teams.<sup>12</sup></li> </ul>	<ul style="list-style-type: none"> <li>Establish protocols for interacting with BSH pharmaceutical sales representatives</li> </ul>

# MEASURING YOUR IMPROVEMENT

Decide on the measurement tool for data extraction:

1. Chart audits: Perform weekly or monthly and plot on a graph to see visual effect over time and response to interventions.
2. Use electronic medication order entry to provide a list of patients prescribed BSHs while in hospital. This function can be useful in creating a drug database for focused chart reviews.

<p><b>OUTCOME MEASURES</b></p> <p>The main improvement outcomes that you are trying to achieve</p>	<ul style="list-style-type: none"> <li>• Proportion of BSH-naïve patients receiving BSH for sleep = <math>B/(C-A)*100</math></li> <li>• A = The number of patients prescribed BSH at home</li> <li>• B = The number of patients prescribed any BSH for sleep in hospital, excluding patients who are home BSH users</li> <li>• C = The total number of patients in hospital during a given period (i.e., 1 month)</li> </ul> <p>Other clinical outcome(s) of interest:</p> <ul style="list-style-type: none"> <li>• Falls</li> <li>• Delirium</li> <li>• Sleep quality (consider administering sleep surveys)</li> </ul>
<p><b>PROCESS MEASURES</b></p> <p>Ensure the intervention is being carried out and delivered as intended</p>	<ul style="list-style-type: none"> <li>• Proportion of providers who received an educational intervention to reduce BSH prescribing</li> <li>• Proportion of eligible patients who receive appropriate pharmacy medication review</li> <li>• Proportion of patients where clinical criteria were used to prescribe BSH medication</li> <li>• Proportion of patients where an order set was used to order BSH medications</li> </ul>
<p><b>BALANCING MEASURES</b></p> <p>Any intervention may create new, unintended consequences that need to be monitored</p>	<ul style="list-style-type: none"> <li>• Occurrence of any inappropriate abrupt discontinuation of chronic pre-admission BSH prescriptions</li> <li>• Withdrawal incidents</li> <li>• Prescription rates of other sedating medications (e.g., quetiapine, trazodone, diphenhydramine, melatonin)</li> </ul>



# MAKE YOUR WORK COUNT TWICE

## CME CREDITS

Quality improvement is a great way to obtain continuing medical education (CME) credits. Choosing Wisely QI activities can be used for credit towards the following licensure and maintenance of certification programs:

- **College of Physicians and Surgeons of Ontario:**  
[QI Program for Individuals and QI Partnership Program for Hospitals Program](#)
- **Royal College of Physicians and Surgeons of Canada:**  
[Maintenance of Certification](#)

## HOSPITAL DESIGNATION CREDITS

Implementing this toolkit can count as a self-directed QI activity (one credit) towards Choosing Wisely Canada's Hospital Designation Program.

Learn more about becoming a [Choosing Wisely Canada Hospital](#) at the Quality Improvement and Leadership Status levels.

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## KEY REFERENCES

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## **THIS TOOLKIT WAS ORIGINALLY PREPARED BY:**

### **Dr. Jerome Leis, MD, MSc, FRCPC**

Division of Infectious Diseases, Sunnybrook Health Sciences Centre  
Assistant Professor, University of Toronto

### **Dr. Christine Soong, MD, MSc, CCFP**

Division of General Internal Medicine, Sinai Health System  
Associate Professor, University of Toronto

## **THIS TOOLKIT WAS UPDATED IN 2024 BY:**

### **Dr. Chandandeep Bal, MD, MSc, FRCPC**

Affiliate Member, CQuIPS  
Academic Pediatric Medicine Fellow, Hospital for Sick Children

### **Dr. Mercedes Magaz MD, MHSc**

Quality Improvement Specialist, CQuIPS

### **Dr. Olivia Ostrow, MD, FAAP**

Associate Director, CQuIPS  
Division of Pediatric Emergency Medicine, Hospital for Sick Children  
Associate Professor, University of Toronto

### **Dr. William Silverstein, MD, MSc, FRCPC**

Affiliate Member, CQuIPS  
Division of General Internal Medicine, Sunnybrook Health Sciences Centre  
Assistant Professor, University of Toronto

### **Dr. Christine Soong, MD, MSc, CCFP**

Division of General Internal Medicine, Sinai Health System  
Associate Professor, University of Toronto

## **THE UPDATED TOOLKIT WAS PEER-REVIEWED BY:**

### **Dr. Sophiya Benjamin, MBBS, MHSc, FRCPC**

Associate Professor and Schlegel Chair for Mental Health in Aging  
Department of Psychiatry and Behavioral Neurosciences, McMaster University  
Co-Executive Director, GeriMedRisk

### **Dr. Tara Burra, MD, FRCPC**

Department of Psychiatry, Sinai Health System  
Education Lead, CQuIPS