



North York
Family Health Team



The “W5” of An Interdisciplinary Approach to Deprescribe Sedative-Hypnotics in Elderly

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What ?

“Sleeping Pills”

- for short-term use only (2-4 wks)



Benzodiazepines (BZ)	Z-Drugs
Lorazepam (Ativan®)	Zopiclone (Imovane®)
Diazepam (Valium®)	Zolpidem (Sublinox®)
Clonazepam (Rivotril®)	
Oxazepam (Serax®)	
Temazepam (Restoril®)	
Alprazolam (Xanax®)	

Sedative-Hypnotics



Why ?





Efficacy?

How long did BZs reduce the sleep latency by (when subjectively estimated by study subjects)?

- a) 5 mins
- b) 15 mins
- c) 30 mins
- d) 60 mins



Efficacy?

How long did BZs reduce the sleep latency by (when objectively measured by sleep records)?

- a) 5 mins
- b) 15 mins
- c) 30 mins
- d) 60 mins



Efficacy?

How long did BZs increase the sleep duration by (when subjectively estimated by study subjects)?

- a) 15 mins
- b) 30 mins
- c) 60 mins
- d) 90 mins



Efficacy?

How long were most of the clinical studies on BZs for sleep conducted for?

- a) 1-2 weeks
- b) 1-2 months
- c) 4-6 months
- d) 1-2 years



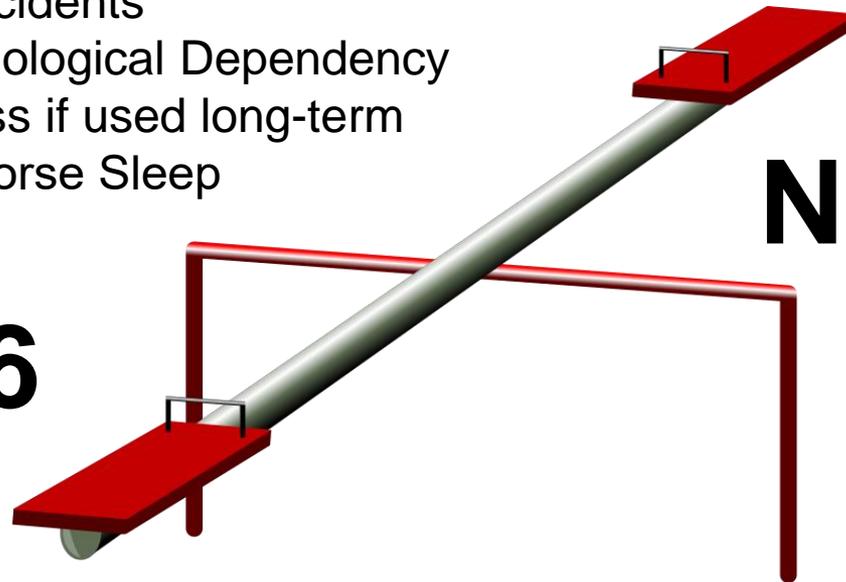
HARMS vs. BENEFITS

- Daytime sedation
- Falls & Fractures
- Delirium
- Cognitive & Memory Impairment
- Alzheimer's
- Motor Vehicle Accidents
- Physical & Psychological Dependency
- Lose effectiveness if used long-term
- Withdrawal → Worse Sleep

- 30 more mins of sleep at the beginning (quality??)

NNH = 6

NNT = 13





Elderly

↑ sensitivity to sedative-hypnotic effects

- Changes in body composition (V_d)
- ↓ renal/hepatic function
- Changes in blood-brain-barrier



Who ?

- Insomnia on its own

OR

- Insomnia where underlying comorbidities managed (e.g. anxiety, restless legs, alcohol withdrawal)

Canadian Deprescribing Network. Benzodiazepine & Z-Drug (BZRA) Deprescribing Algorithm. March 2016.
(Accessed online on May 26, 2017 at <http://www.open-pharmacy-research.ca/wordpress/wp-content/uploads/deprescribing-algorithm-benzodiazepines.pdf>.)



How ?

WEEKS	TAPERING SCHEDULE							✓
	MO	TU	WE	TH	FR	SA	SU	
1 and 2	●	●	●	●	●	●	●	
3 and 4	●	●	●	●	●	●	●	
5 and 6	●	●	●	●	●	●	●	
7 and 8	●	●	●	●	●	●	●	
9 and 10	●	●	●	●	●	●	●	
11 and 12	●	●	●	●	●	●	●	
13 and 14	●	●	●	●	●	●	●	
15 and 16	✗	●	✗	✗	●	✗	●	
17 and 18	✗	✗	✗	✗	✗	✗	✗	

EXPLANATIONS							
●	Full dose	●	Half dose	●	Quarter of a dose	✗	No dose

Stepwise Tapering Protocol (EMPOWER trial)

Canadian Institute of Health Research, McGill University, Institut universitaire de gériatrie de Montréal, Université de Montréal. Non-pharmacological approaches to sleep disturbance in the 60+ population. (Accessed online on Dec 14, 2015 at <http://www.criugm.qc.ca/fichier/pdf/Sleep%20brochure.pdf>.)



Another Approach

- ↓ 10% q 1-2 wks (until dose is 20% of original) then ↓ 5% q 2-4 wks
 - Hard to cut tabs into $\frac{1}{4}$'s or less
 - May try using tabs of different strengths e.g. diazepam 2mg, 5mg, 10mg tabs



Monitoring ?

Every 1 – 2 weeks:

- Expected benefits: may improve alertness, cognition; reduce daytime sedation and falls
- Withdrawal symptoms: insomnia, anxiety, irritability, sweating, GI symptoms

Canadian Deprescribing Network. Benzodiazepine & Z-Drug (BZRA) Deprescribing Algorithm. March 2016.
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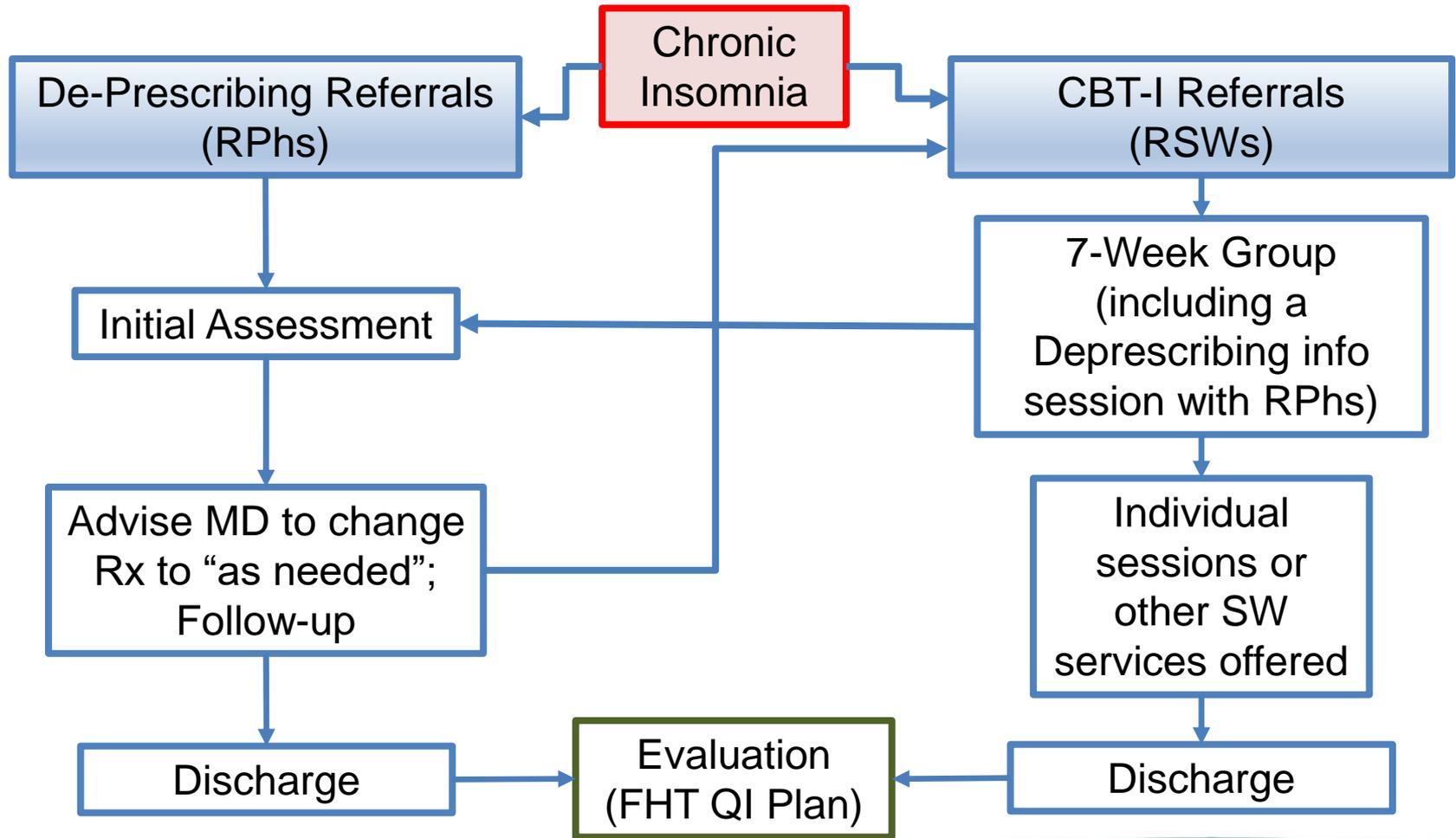


Online Resources

- OPEN (Ontario Pharmacy+ Evidence Network) Algorithm:
<http://www.open-pharmacy-research.ca/wordpress/wp-content/uploads/deprescribing-algorithm-benzodiazepines.pdf>
- Canadian Guidelines on Benzodiazepine Tapering:
http://nationalpaincentre.mcmaster.ca/opioid/cgop_b_app_b_06.html#table_b_app_06_01
- EMPOWER trial:
<https://www.ncbi.nlm.nih.gov/pubmed/24733354>
- CaDeN (Dr. Cara Tannenbaum) patient brochure:
<http://www.criugm.qc.ca/fichier/pdf/BENZOeng.pdf>
- Choosing Wisely Canada patient brochure:
<https://www.ncbi.nlm.nih.gov/pubmed/24733354>



Multidisciplinary Team Approach





When ?



A good time to try weaning off would be before starting CBT, and may continue, during CBT.





CBT-I portion

What ?





Why ?

“CBT-I helps you overcome the underlying causes of your sleep problems”

Mayo Clinic ART-20046677

“ACP recommends that all adult patients receive cognitive behavioral therapy for insomnia (CBT-I) as the initial treatment for chronic insomnia disorder.”

<http://annals.org/aim/fullarticle/2518955/management-chronic-insomnia-disorder-adults-clinical-practice-guideline-from-american>

“Non-pharmacologic therapies are effective in the management of primary insomnia especially when behavioural and cognitive techniques are used in combination.”

http://www.topalbertadoctors.org/download/439/insomnia_management_guideline.pdf



Toward
Optimized
Practice





Who ?

Is appropriate for CBT-I:

- Patient meets DSM-V criteria for Primary Insomnia
- Other sleep disorders ruled out
- Patient ready for change





Who ?

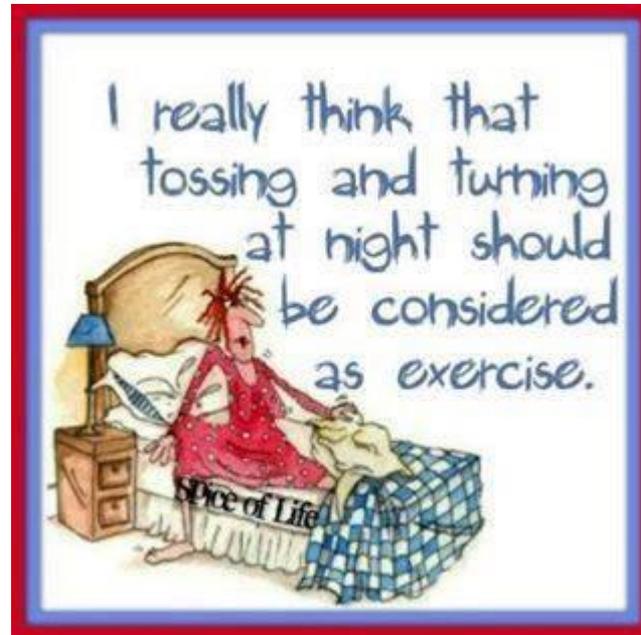
Is NOT appropriate for CBT-I:

- Excessive daytime sleepiness
- Untreated sleep apnea
- Periodic Limb Movement Disorder
- Circadian Rhythm Disorder (delayed and advanced sleep phase)
- Parasomnias



How ?

What do you do to fall asleep?





CBT for Insomnia: Two Elements

1. Stimulus control

- Reduce “bed = awake” association
- Increase “bed = sleep” association

2. Sleep restriction

- Collect data using sleep log
- Provide sleep prescription



Goal: rebuild body's natural sleep system





When ?

- The NYFHT CBT-I Program is offered bi-annually
- Orientation, 5 group sessions, one individual session
- At orientation, RPh presents information about sedative-hypnotics and offers de-prescribing services
- RD component was added to the second session to support patient wellness



Resources

Web:

- Canadian Sleep Society - <https://css-scs.ca/>

Books:

- Quiet your mind and get to sleep (2009) written by Dr. C. Carney and Dr. R. Manber
- Sink into Sleep (2013) written by Judith Davidson
- Say Goodnight to Insomnia (2010) Dr. G. Jacobs

Online:

CBT-I Coach a free mobile app on android and iOS



Lessons Learned

- Multidisciplinary team effort
- Buy-in from all players
- Incorporate into FHT QI plan
- Promote to prescribers
- AHPs play significant role in all steps
- EMR functionality may help identify patients or set alerts
- Patient readiness to change is key
- Start small, Evaluate, then Grow
- Persistence
- Keep smiling





Case 1

75 yo male on temazepam (Restoril®) 15 mg for sleep x ~10 yrs, motivated to wean off. What would you first do?

- a) Stop temazepam abruptly, start zopiclone
- b) Reduce temazepam to 7.5 mg x 2 nights/week
- c) Reduce temazepam to 11.25 mg every night
- d) Switch to clonazepam first before tapering



BZ Equivalence

Benzodiazepine	Oral Formulation	Approximate Equivalent to 5 mg diazepam (mg)
Short-Acting		
Triazolam (Halcion®)	Tabs (small, oval)	0.25
Intermediate-Acting		
Alprazolam (Xanax®)	Tabs (small, oval)	0.5
Lorazepam (Ativan®)	Tabs (small)	0.5 - 1
Oxazepam (Serax®)	Tabs	15
Temazepam (Restoril®)	Caps	10 – 15
Long-Acting		
Clonazepam (Rivotril®)	Tabs	0.5 – 1
Diazepam (Valium®)	Tabs	5



Long- vs. Short-Acting

- May taper with either; insufficient evidence to support either
- Factors to consider:
 - Daytime drowsiness?
 - Less withdrawal?
 - Patient preference?
 - Can it be cut?

Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain. Appendix B-6: Benzodiazepine Tapering. Available at: http://nationalpaincentre.mcmaster.ca/opioid/cgop_b_app_b06.html#table_b_app_06_01 (Accessed May 30, 2017.)



Case 2

82-yo female on clonazepam (Rivotril®) 0.25 mg for sleep x yrs.
Recent fall & hip fracture. Any good alternative sleeping aids to help wean?

- a) Sleep-Eze®
- b) Melatonin
- c) Valerian Tea
- d) Trazodone (low doses)
- e) None of the Above



Alternative Meds ?

Sedating Meds	Examples	Other Side Effects
Antidepressants	Amitriptyline (Elavil®), Trazodone (Desyrel®), Mirtazapine (Remeron®)	Dry mouth, Dry eyes, Constipation, Difficulty urinating
Antihistamines (over-the-counter)	Diphenhydramine (Benadryl®), Sleep-Eze®, Unisom®, Dimenhydrinate (Gravol®)	Dry mouth, Dry eyes, Constipation, Difficulty urinating
Antipsychotics	Quetiapine (Seroquel®)	↑ blood sugars & lipids, Involuntary Movements
Anti-Seizure Meds	Gabapentin (Neurontin®)	Stomach upset, Swelling
Orexin Receptor Antagonists	Suvorexant (Belsomra®) – Not approved in Canada	Headache, abnormal dreams, abnormal cognition, anxiety, behavioral changes, hallucination, sleep paralysis, sleep driving, suicidal ideation, ↑ chol, diarrhea, dry mouth, cough

* These meds have a lower risk for physical dependency in general, but may still affect memory, concentration, ↑ daytime fatigue, ↑ risk of falls, and have other potential side effects as listed.



Herbals ?

Herbal Products	Effectiveness	Potential Side Effects / Drug Interactions
Melatonin <i>[Ramelteon (Rozerem®) works on the same melatonin receptors. Not approved in Canada.]</i>	<ul style="list-style-type: none">- More for jet lag- ↓ time to fall asleep by 10 min- ↑ sleep duration by 15 min	Daytime sleepiness, confusion, depression, ↑ risk bleeding with Aspirin or other anticoagulants
L-Tryptophan / 5-Hydroxytryptophan (5-HTP)		Dizziness, nausea, diarrhea, interacts with St. John's Wort & many antidepressants
Valerian / Valerian root		Headaches, dizziness
Kava	<ul style="list-style-type: none">- Conflicting results- Anecdotal	Liver toxicity, tremor
Skullcap		Liver toxicity, confusion
Passionflower		Rarely may ↑ heart rate
Chamomile		Allergic reactions



Case 3

77-yo female on clonazepam (Rivotril®) 0.5 mg for restless leg syndrome & sleep. Noticed return of RLS symptoms when dose reduced to 0.25 mg. What would you do?

- a) Stop tapering; Restart clonazepam 0.5 mg qhs
- b) Stop tapering; Try clonazepam 0.375 mg qhs
- c) Reverse tapering to last step; Try a dopamine agonist
- d) Continue tapering; Slow down the pace



Co-morbidities

Examples:

- Anxiety
 - Restless legs
 - Alcohol withdrawal
-
- » Manage underlying condition first
 - » Minimize drugs that worsen sleep (e.g. caffeine, alcohol, etc.)



Case 4

81-yo male on zopiclone (Imovane[®]) 15 mg x yrs. Trying to ↓ on his own by taking 7.5 mg qhs, but would take another 7.5 mg on most nights if can't fall asleep in 1-2 hours. How would you advise him?

- a) Take 7.5 mg on Mon/Fri, 15 mg on other nights
- b) Limit PRN dosing to 3 nights / week
- c) Switch to 5 mg tabs; Reduce by ¼ tab q 2 wks
- d) Switch to diazepam first before tapering



PRN dosing ?

- Use scheduled rather than PRN doses
- If using blister-packs, coincide dosing changes with refills
- May instruct pharmacist to dispense weekly or biweekly depending on dose & patient reliability



Case 5

75 yo female on clonazepam (Rivotril®) 2 mg x yrs for generalized anxiety disorder. She had tried several SSRIs & SNRIs, stopping due to intolerable side effects. She is managing well at her current dose. What would you do?

- a) Try 1 mg on Mon/Fri, 2 mg on other nights
- b) Try PRN dosing, limiting to 5 night/week
- c) Switch to 0.5 mg tabs; Reduce by $\frac{1}{4}$ tab q 2 wks
- d) Continue as is. Advise not to drive and avoid alcohol.



North York Family Health Team

Our Vision

"Enhance primary healthcare, interdisciplinary learning, and clinical research to improve the health of North York Family Health Team's diverse patient population."

Our Mission

"To provide accessible, patient-focused, and family-centred primary healthcare through an interdisciplinary team committed to transforming health knowledge into best practices."

Our Values

"Patient and family centred care - Teamwork – Continuous Learning – Communication"

Visit us at www.nyfht.com