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**Family Health Team**

# When Things Aren't Adding Up, Start Subtracting!

Deprescribing Benzodiazepines & Z-Drugs  
Quality Improvement Initiative

AFHTO Concurrent Session  
October 24, 2018

# Disclosures

- **Presenter:** Jessica Lam, RPh, BScPhm, PharmD, BCGP
- **Relationships with commercial interests:** NONE
- **Grants/Research Support:** Partnering with St. Michael's Hospital Mental Health & Addiction Service Research Team
- **Speakers Bureau/Honoraria:** Received individual monetary compensation for sharing research findings with partners
- **Consulting Fees:** NONE



# Community Partnership

- Partnering with St. Michael's Hospital Mental Health & Addiction Service Research Team
  - Research study on Developing Quality Indicators for Collaborative Mental Health Care led by Dr. Nadiya Sunderji



# Agenda

- What is this QI Initiative?
- Why is this Important? What is the evidence?
- Setting goals, creating a workplan, and tracking outcomes
- Lessons learned and sustainability plan



# Patient Story – Meet CB

# What is this QI Initiative?

- It is an initiative to reduce unnecessary use of benzodiazepines or Z-drugs for patients 65 and older
- It's about informing patients of the risks and offering support if they wish to taper or stop taking benzodiazepine or Z-drugs
- It's about informing primary care providers of the risks and how to support patients through the tapering/stopping process



# Why is this Important?

## What is the evidence?

Benzodiazepines & Z-drugs have prolonged elimination half-lives and reduced clearance in older adults



Increased risk adverse effects

NNH =  
6

Death  
Daytime sedation  
Falls & complications  
Hip fractures & complications  
Delirium  
Pneumonia  
Interference with cognition  
Motor vehicle crashes  
Physical dependency in 2 weeks

23 more minutes  
of sleep

NNT =  
13

Lorazepam is #1  
Potentially  
Inappropriate  
Prescription per AGS  
2012 Beers Criteria

47% among women  
aged 85+

# EMPOWER Cluster Randomized Trial

## INTERVENTION ARM

- 148 pts through 15 randomized pharmacies
- Received “deprescribing patient empowerment intervention” describing risks, with a stepwise tapering tool

## CONTROL ARM

- 155 pts through 15 randomized pharmacies, received usual care

**Primary Outcome:**  
Benzodiazepine  
discontinuation 6 months  
later



# EMPOWER Trial Results

## INTERVENTION ARM

- 62% initiated conversation with MD or pharmacist
- 27% discontinued
- 11% reduced dose

## CONTROL ARM

- 5% discontinued

**NNT = 4**

# What Outcomes Do We Hope to Achieve?

## De-prescribing Benzodiazepines & Z-drugs

Outcomes	Target
1. % Received intervention at least once during FY	50% (est. 150/300 pts)
2. % Tapering and/or Stopped as of reporting period	17% (est. 53/300 pts)
3. % Stopped as of reporting period	9% (est. 27/300 pts)



# How Did Our Team Do This?



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# What do I need to do?

## Step 1

- QIC Sub Group to develop:
  - Criteria for PCPs to identify pts that should be excluded for de-prescribing
  - Identify PCP intervention tools
  - Identify patient intervention tools



# What do I need to do?

## Step 2

- We use Practice Solutions EMR
- Developed an EMR search for patients who have a benzodiazepine listed in the medication profile



# What do I need to do?

## Step 3

- Lunch-n-learn session introducing the initiative
- Provided patient lists to each physician along with package of clinical resources (will discuss later in more detail)



# What do I need to do?

## Step 4

### **Review list of patients currently taking Benzodiazepines & Z-drugs**

#### Included on List

Pts  $\geq$  65

Rostered or seen in last 2 years

Patient Status 'Active' (thus deceased, inactive, transferred, etc. excluded)

Actively on benzodiazepines or Z-drugs\*

\*Drugs listed in the Choosing Wisely Canada Toolkit

Clinical Resources were handed out with MD patient lists



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# What do I need to do?

## Step 5

**Manually note, on list, if patient is to be excluded\***

\*Reasons to Exclude

No longer on benzodiazepines or Z-drugs ([revise eMR medications in CCP](#))

Seizure disorder

Acute alcohol withdrawal

30 pills or less prescribed in the last year

Acute unstable mental health issues

Treatment resistant restless leg syndrome (i.e. tried pramipexole, ropinirole, etc.)



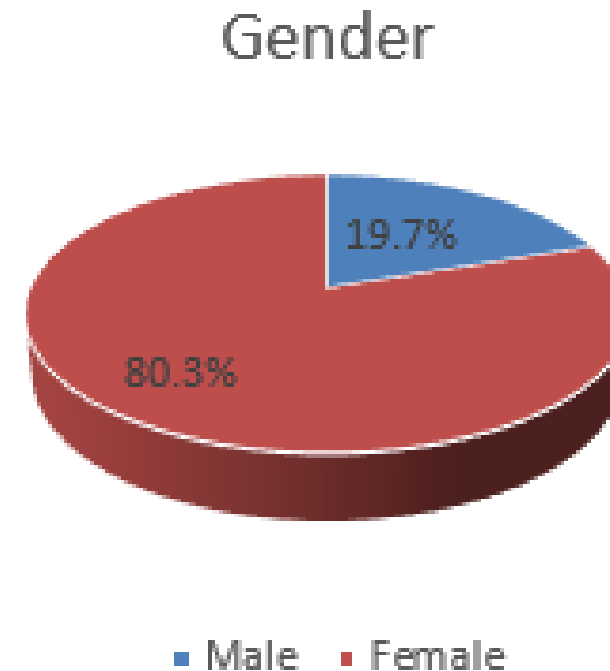
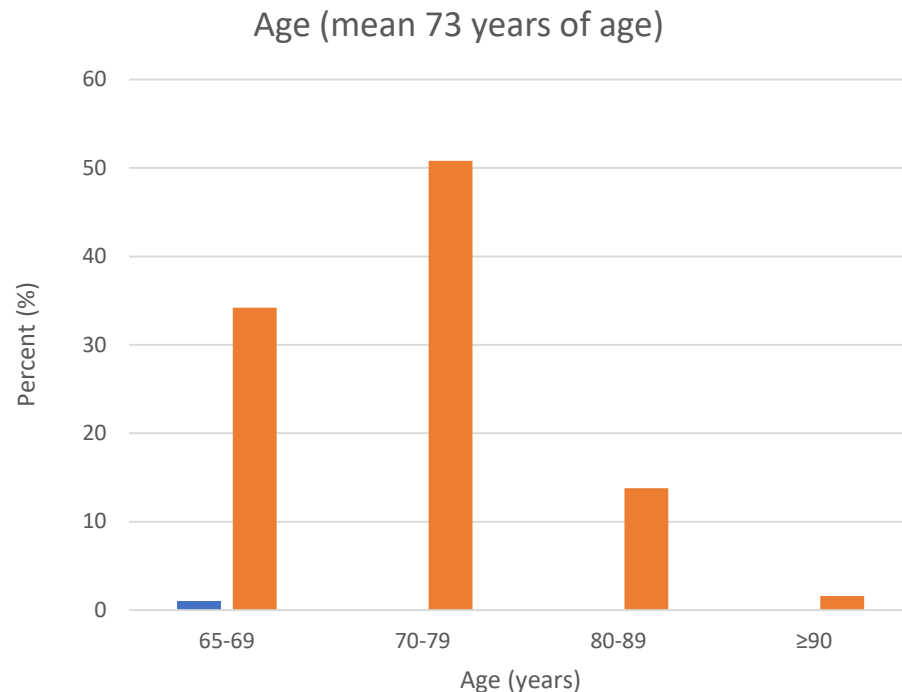
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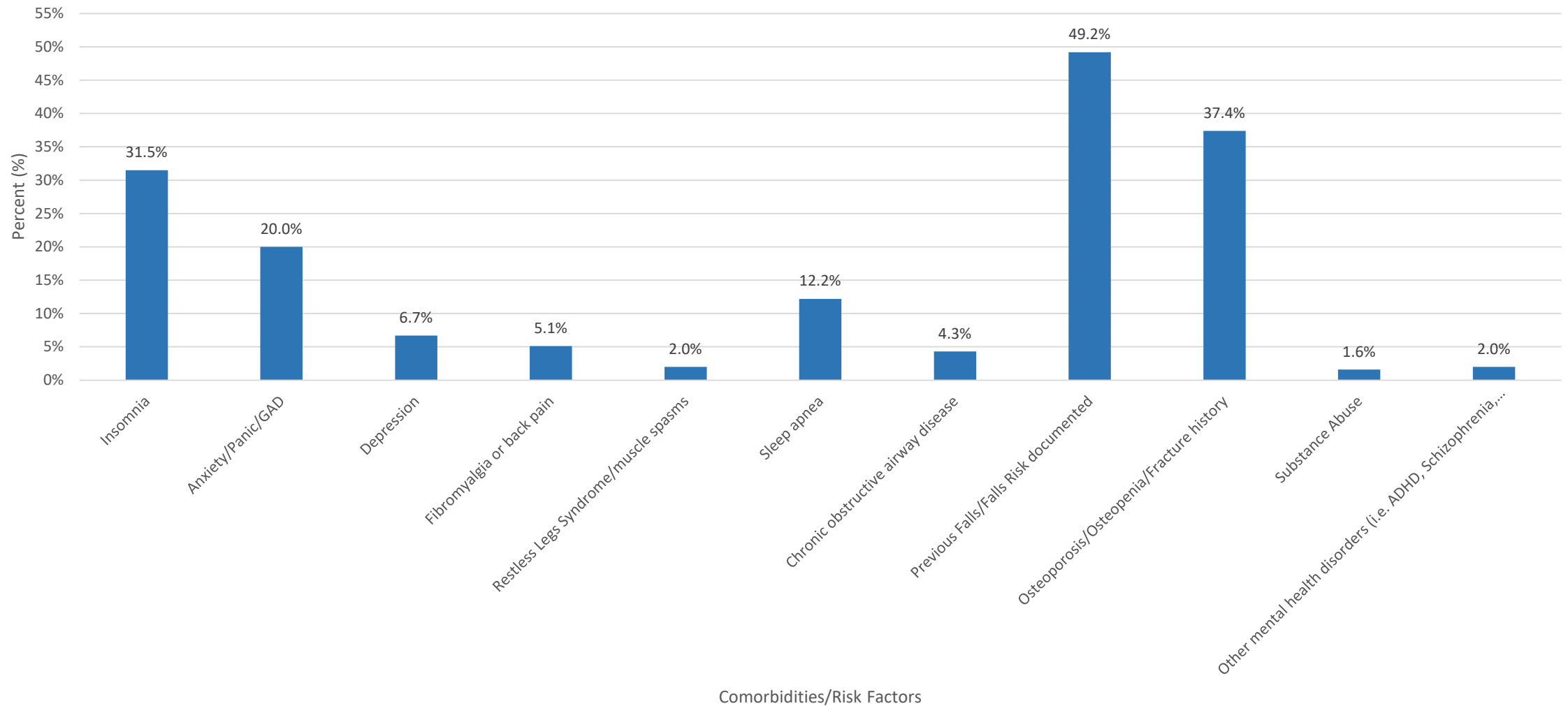
# Demographics of Registry Patients

**Patient Cohort in relation to total TCFHT rostered and active patients**

	Bay Site	Bloor Site	Total
Total # of rostered patients	14358	5921	20279
Total # of rostered patients $\geq 65$ years of age	2032	609	2641
Total # of rostered patients $\geq 65$ taking BZD/Z-drug	475	139	614
Total # of rostered patients $\geq 65$ taking BZD/Z-drug and considered for Deprescribing Initiative	235	28	263



# % Benzodiazepine & Z-drug patients with selected co-morbidities



What do I need to do?

## Step 6 – define cohort

**Deadline for PCPs to return patient lists**

**Insert Custom Form to charts of patients included in the registry**



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# Custom Form

De-prescribing Benzodiazepine & Z-Drugs (F17-18 QI Initiative)		
1. Date PCP identifies Pt for QI initiative: <input type="text"/>		
2. Reason for prescribing: <input type="text"/>		
3. Initial date prescribed: <input type="text"/>		
4. Initial dose: <input type="text"/>		
5. Initial frequency: <input type="text"/>		
<b>Q1 (as of June 30, 2017)</b>		
Pt. recieved intervention	<input type="radio"/> YES	<input type="radio"/> NO
Tapering and/or tapered off	<input type="radio"/> YES	<input type="radio"/> NO
Stopped	<input type="radio"/> YES	<input type="radio"/> NO
Comments: <input type="text"/>		
<b>Q2 (as of Sep 30, 2017)</b>		
Pt. recieved intervention	<input type="radio"/> YES	<input type="radio"/> NO
Tapering and/or tapered off	<input type="radio"/> YES	<input type="radio"/> NO
Stopped	<input type="radio"/> YES	<input type="radio"/> NO
Comments: <input type="text"/>		
<b>Q3 (as of Dec 31, 2017)</b>		
Pt. recieved intervention	<input type="radio"/> YES	<input type="radio"/> NO
Tapering and/or tapered off	<input type="radio"/> YES	<input type="radio"/> NO
Stopped	<input type="radio"/> YES	<input type="radio"/> NO
Comments: <input type="text"/>		
<b>Q4 (as of Mar 31, 2017)</b>		
Pt. recieved intervention	<input type="radio"/> YES	<input type="radio"/> NO
Tapering and/or tapered off	<input type="radio"/> YES	<input type="radio"/> NO
Stopped	<input type="radio"/> YES	<input type="radio"/> NO
Comments: <input type="text"/>		

What do I need to do?

## Step 7 – Setup EMR reminder

**When eMR reminder comes up,  
counsel on tapering/stopping & document in eMR**

Use the De-prescribing Algorithm

Provide Patient with Empower Booklet – *You May be At Risk*

Advise of Benzo Drop-In Support Group (1<sup>st</sup> & 3<sup>rd</sup> Wed of every month)

Advise of CBT Insomnia Group



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# What do I need to do?

## Step 8 – Actions by Clinicians



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# Engaging Patients: Opportunity at time of renewal request

1

- Renew small amount of medication (i.e. 30-day supply)
- Provide EMPOWER brochure to Pt (email if necessary)

2

- If patient agree to participate, PCP to book subsequent follow-up to discuss tapering/stopping
- Provide info re: CBT-Insomnia, Support Group, Pharmacist

3

- If difficulty tapering/stopping, PCP may consult psych, but Pts not directly referred

# What Outcomes Do We Hope to Achieve?

## Potential interventions

1. Primary Care Provider (PCP) or Med. Sec. calls to schedule appt to discuss tapering/stopping
2. PCP visit/phone call/HealthMyself to discuss tapering/stopping
3. Others (i.e. IHPs) providing pt with information Re: tapering/stopping
4. Appointment with Psychiatry (to discuss tapering/stopping)
5. Participation in CBT Insomnia Group
6. Social Support Group





# How Can I Talk with Patients About this?

## Initiating the Conversation

Before renewing your [Benzodiazepine/Z-drug] prescription today, it's important for me to let you know that there is more and more evidence mounting about the risk of long-term use of these medications. The risks are especially concerning in those of an older age. Due to these risks, the team of primary care providers at Taddle Creek have started a new initiative to help patients who are interested in reducing their use of these medications.

We have put together a pamphlet to give you more information regarding the risks of these medications and a step-by-step guide on how to safely reduce their use. You can start and stop this process at any time. We have arranged numerous supports to help you with the process and issues that commonly come up. I am happy to review the supports available to you as part of engaging in this process.

If you're not interested at this time, that is okay too. This is an ongoing initiative to optimize patient safety, therefore I will be checking in with you periodically about your use of these medications.



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# How Can I Talk with Patients About this?

## Motivational Interviewing

### 1. Expressing empathy

- PCPs strengthen rapport with Pt, validates any ambivalence/resistance Pt has to participating, and acknowledges challenges associated with process

### 2. Supporting self-efficacy

- Empowering Pt that they are an active partner in this process
- Recall a time in the past that Pt able to achieve goals that were difficult
- Highlight strengths and skills that Pt possesses that PCP believes will help them through the process

### 3. Roll with resistance

- Avoid challenging or confronting the Pt's resistance
- See resistance as a sign that Pt requires empathy and validation
- Communicate with Pt that not participating at this time is OK

### 4. Develop discrepancy

- Counsel Pt on risks of benzos/Z-drugs
- Long-term use negatively impact overall goals for healthy aging
- Using the Pt's goals as it relates to their health and wellness as they age, to create a discrepancy between goals and continued use

A patient-centered and collaborative approach with the goal of eliciting and strengthening motivation for change.

# How Can I Talk with Patients About this?

## Talking Points:

### For patients reluctant to discontinue the use of sleeping pills

Discontinuing the use of sleeping pills can increase alertness, energy, daily function and can also reduce the risk of falls and traffic accidents.

- Sleeping pills can have serious or deadly side effects, including:
  - confusion, memory problems, falls and hip fractures
  - increase the risk of car accidents
- Sleeping pills can be addictive
- Sleeping pills may only help a little. On average, individuals who take these drugs sleep only a little longer and better than those who do not take the drug.

### Tips to assist patients who want to STOP taking sleeping pills



Ask the patient regularly (e.g., every 3-6 months) if it is a suitable time to stop the use of sleeping pills



Tapering and/or discontinuing benzodiazepine can be done with or without switching to diazepam



A gradual and flexible drug tapering schedule may be negotiated



Ask the pharmacy to dispense using weekly dosette or blisterpack



Check-in with the patient frequently (e.g., every 2-4 weeks) to detect/manage problems and to provide encouragement

# Clinical Resources & In-House Support

1. Benzodiazepine & Z-Drug De-prescribing Algorithm
2. EMPOWER Trial Tapering Tool
3. In-house Patient Support
  - Patient-Directed Posters
  - Benzo Drop-In Support Group
  - CBT-Insomnia Workshops



**Why is patient taking a BZRA?**

If unsure, find out if history of anxiety, past psychiatrist consult, whether may have been started in hospital for sleep, or for grief reaction.

- Insomnia on its own OR insomnia where underlying comorbidities managed  
**For those  $\geq 65$  years of age:** taking BZRA regardless of duration (avoid as first line therapy in older people)  
**For those 18-64 years of age:** taking BZRA  $> 4$  weeks

- Other sleeping disorders (e.g. restless legs)
- Unmanaged anxiety, depression, physical or mental condition that may be causing or aggravating insomnia
- Benzodiazepine effective specifically for anxiety
- Alcohol withdrawal

**Engage patients** (discuss potential risks, benefits, withdrawal plan, symptoms and duration)

**Recommend Deprescribing****Taper and then stop BZRA**

(taper slowly in collaboration with patient, for example  $\sim 25\%$  every two weeks, and if possible, 12.5% reductions near end and/or planned drug-free days)

- **For those  $\geq 65$  years of age** (strong recommendation from systematic review and GRADE approach)
- **For those 18-64 years of age** (weak recommendation from systematic review and GRADE approach)
- Offer behavioural sleeping advice; consider CBT if available (see reverse)

**Monitor every 1-2 weeks for duration of tapering****Expected benefits:**

- May improve alertness, cognition, daytime sedation and reduce falls

**Withdrawal symptoms:**

- Insomnia, anxiety, irritability, sweating, gastrointestinal symptoms (all usually mild and last for days to a few weeks)

**Use non-drug approaches to manage insomnia**

Use behavioral approaches and/or CBT (see reverse)

**Continue BZRA**

- Minimize use of drugs that worsen insomnia (e.g. caffeine, alcohol etc.)
- Treat underlying condition
- Consider consulting psychologist or psychiatrist or sleep specialist

**If symptoms relapse:****Consider**

- Maintaining current BZRA dose for 1-2 weeks, then continue to taper at slow rate

**Alternate drugs**

- Other medications have been used to manage insomnia. Assessment of their safety and effectiveness is beyond the scope of this algorithm. See BZRA deprescribing guideline for details.




































































# You May Be at Risk

You are taking one of the following  
sedative-hypnotic medications:

- 
- |  |   |   |
|--|---|---|
| <input type="radio"/> Alprazolam (Xanax®)                  | <input type="radio"/> Diazepam (Valium®)  | <input type="radio"/> Temazepam (Restoril®)   |
| <input type="radio"/> Chlorazepate                         | <input type="radio"/> Estazolam           | <input type="radio"/> Triazolam (Halcion®)  |
| <input type="radio"/> Chlordiazepoxide-<br>amitriptyline   | <input type="radio"/> Flurazepam          | <input type="radio"/> Eszopiclone (Lunesta®)  |
| <input type="radio"/> Clidinium-<br>Chlordiazepoxide       | <input type="radio"/> Loprazolam          | <input type="radio"/> Zaleplon (Sonata®)  |
| <input type="radio"/> Clobazam                             | <input type="radio"/> Lorazepam (Ativan®) | <input type="radio"/> Zolpidem (Ambien®,<br>Intermezzo®, Edluar®,<br>Sublinox®, Zolpimist®) |
| <input type="radio"/> Clonazepam<br>(Rivotril®, Klonopin®) | <input type="radio"/> Lormetazepam        | <input type="radio"/> Zopiclone (Imovane®,<br>Rhovane®)                                     |
|  | <input type="radio"/> Nitrazepam          |   |
|  | <input type="radio"/> Oxazepam (Serax®)   |   |
|  | <input type="radio"/> Quazepam            |   |
-

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



## Patient-directed Posters

- Post in all suites
- TCFHT Website
- Taddler

### Talk to Your Doctor If....

**You are 65 or older and taking any  
of the following sleeping pills:**

Alprazolam (Xanax)  
Clonazepam (Rivotril)  
Diazepam (Valium)  
Flurazepam (Dalmane)  
Lorazepam (Ativan)  
Oxazepam (Serax)  
Temazepam (Restoril)  
Triazolam (Halcion)  
Zolpidem (Sublinox)  
Zopiclone (Imovane)



**Book an appointment to talk to your doctor or nurse  
practitioner about the risks and benefits of continued use.**



- BENZO DROP-IN Support Group



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## Benzo Drop-In Support Group

On the 1st and 3rd Wednesday of every month,  
11am to noon, 790 Bay Street, Suite 306

***Starting July 5, 2017,  
Cognitive Behavioural Strategies  
and Mindfulness for:  
Stress, Anxiety,  
Depression and Insomnia***

This support group will be facilitated  
by a licensed social worker,  
light refreshments to be served.



# CBT-Insomnia Program at TCFHT

## WHY CBT-I?

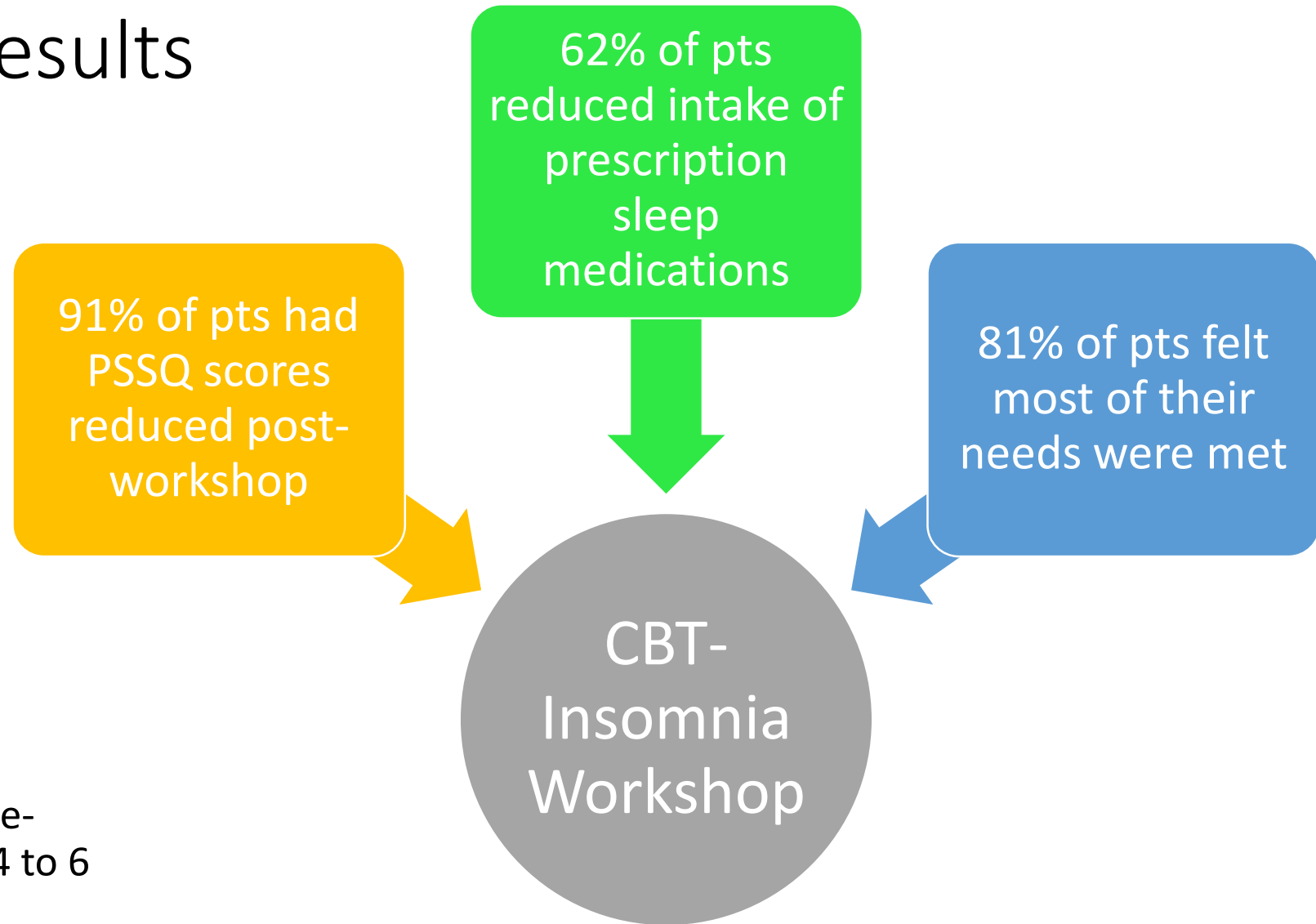
- Recommended as initial and 1<sup>st</sup>-line treatment in adults with chronic insomnia
- Benefits also seen in patients where insomnia occurs in setting of other medical & psychiatric concerns (e.g. depression, chronic pain, cancer)

## Program running since 2013

- Developed and facilitated by 3 Social Workers and 1 FTE Pharmacist
  - Completed training course with Dr. Colleen Carney, PhD, CPsych
  - Advanced training arranged Fall 2017
- Consists of 1 Group Session and 2 individual follow-up sessions with SW or RPh
- Currently running 4 groups per year – Frequency of workshops may increase to accommodate wait list
- PCP referral required



# TCFHT CBT-I Results



- Period to date: FY17-18
- Data from 5 workshops
- n = 34 (83.9% response rate)
- Average time between pre- and post-intervention = 4 to 6 weeks

CB's experience with  
the CBT-Insomnia  
Program

# What do I need to do?

Step 9 – Chart review & quarterly audit



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# Custom Form

## De-prescribing Benzodiazepine & Z-Drugs (F17-18 QI Initiative)

1. Date PCP identifies Pt for QI initiative:

2. Reason for prescribing:

3. Initial date prescribed:

4. Initial dose:

5. Initial frequency:

Q1 (as of June 30, 2017)

Pt. recieved intervention

☐ YES

☐ NO

Tapering and/or tapered off

☐ YES

☐ NO

Stopped

☐ YES

☐ NO

Comments:



# Results & Outcomes

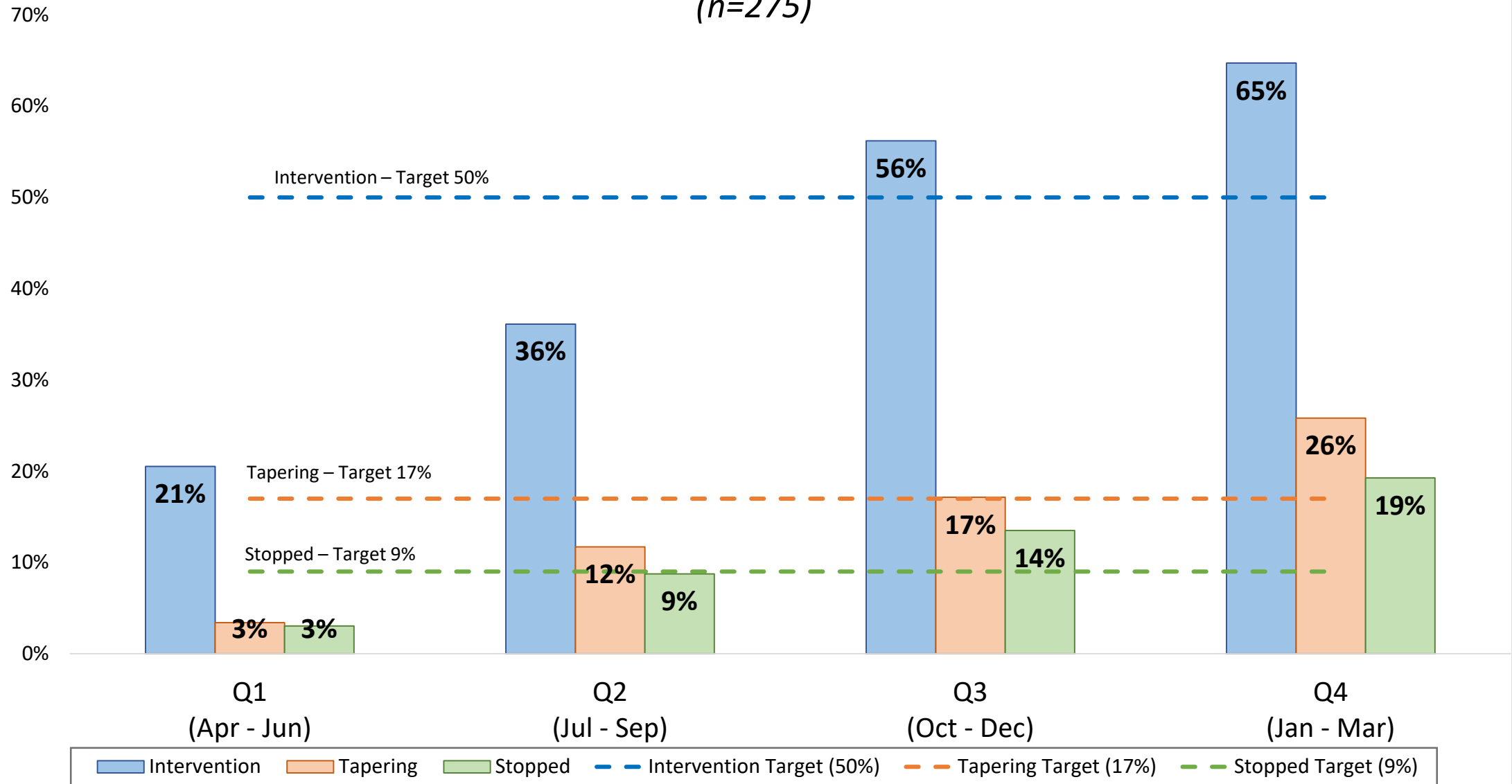


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# De-prescribing Benzodiazepines & Z-Drugs

## 2017/18 Statistics

(n=275)





# Pharmacist's Findings & Recommendations

13.4% of pts were taking >1 BZD and/or Z-drug as per EMR

- AVOID concurrent prescribing of multiple sedative-hypnotics i.e. concurrent use of Z-drugs and BZDs
- Additive adverse effects

16% of pts have been taking  $\geq 1$  agents for  $\geq 10$  years

- Emphasize short-term use only <2-3 weeks – if longer duration requested, r/a insomnia management
- Refer to CBT-insomnia group

49.2% of pts had previous falls/falls risk

37.4% of pts had fracture history/osteoporosis

- Assess pt medical history & risk factors prior to initiation of BZDs and/or Z-drugs

Mean total daily doses of most commonly prescribed:

BZDs (Lorazepam & Clonazepam)  $\geq 5$ -10mg/day and Z-drugs  $\geq 6$ mg/day

- Prescribe lowest dose for shortest duration
- Limit quantity prescribed
- Limit starting doses of Zopiclone to 3.75mg and maximum dosages of 5mg qhs in elderly

# Lessons Learned

- Realistic chart audit frequency
- Engage Pharmacy Students in the audit process
- Weekly benzo Drop-In Sessions were not utilized – most patients followed up directly and regularly with their PCP or the Pharmacist



# CB's Story – Part 2

# Stories



"Doing really well and wants to stop."

Says much less groggy in the morning and has more energy. Easier to get out of bed in the morning. Also noted, has improved speech"



"I'm sleeping better after stopping these pills...I feel tired at night now"

"Doing well, down to 8 or 9 mg zopiclone per night; feeling really good about this; started CBT for insomnia...down to 1 mg zopiclone nightly x 3 weeks, ahead of schedule!"



# Clinician Testimonial #1

The benzo/z-drug de-prescribing initiative has been an overdue and welcome program. Patients have responded very positively to the resources and simply having resources on hand for patients has legitimized and validated what can be a challenging process to come off these medications.

As a physician, the program has been a wonderful resource and motivator to de-prescribe benzodiazepines. Discussing with patients that it is a team-wide initiative deepens patients' appreciation for how important this work is and that we take it seriously and want to ensure our patients' well-being and safety.

- *TCFHT Family Physician*



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# Clinician Testimonial #2

I was very skeptical that my patients would be open to cutting back after being on these meds for so long - realized that patients are more afraid of the potential s/e, especially dementia, vs wanting to stay on them.

One patient who had been on them for years, was so grateful that I helped her come off slowly following the slow tapering schedule - she said her brain was so much clearer.

The schedule makes the whole process less intimidating for patients and gives them a sense of control in the process with a slow progression to quitting which helps avoid s/e.

So happy we did this for our patients, so many success stories!

- TCFHT Family Physician



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# Clinician Testimonials #3

The “Deprescribing benzodiazepine” initiative has been a “game changer” in my practice. This initiative really provided the education and evidence to both patients and providers in a simple, supportive way to change attitudes, behaviours and prescribing habits.

I had patients in my practice who read the article in our FHT’s newsletter and gradually weaned off or began to wean off sleep medication themselves before seeing me.

In others who were not quite ready to make a change, it opened a difficult conversation in a non judgmental way given this was an initiative taken on by the whole team.

The handouts with information and the tapering schedule were easy to read and relevant. The quality improvement initiative brought together the whole team in such an engaging way!

- TCFHT Family Physician



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# Sustainability Plan

- Continuing this deprescribing initiative through FY18-19 with scheduled audits biannually
- Including new patients who turned 65 years of age in FY18-19
- Continuing with patients from FY17-18 who have not yet received an intervention
- Primary Care Providers are also providing interventions to younger adults less than 65 years of age in their clinical practice as an extension of this initiative – this indicates long-lasting effects of this medication safety initiative on prescriber practice
- Transferable workplan for deprescribing – i.e. opioids, PPIs





# Discussion & Questions



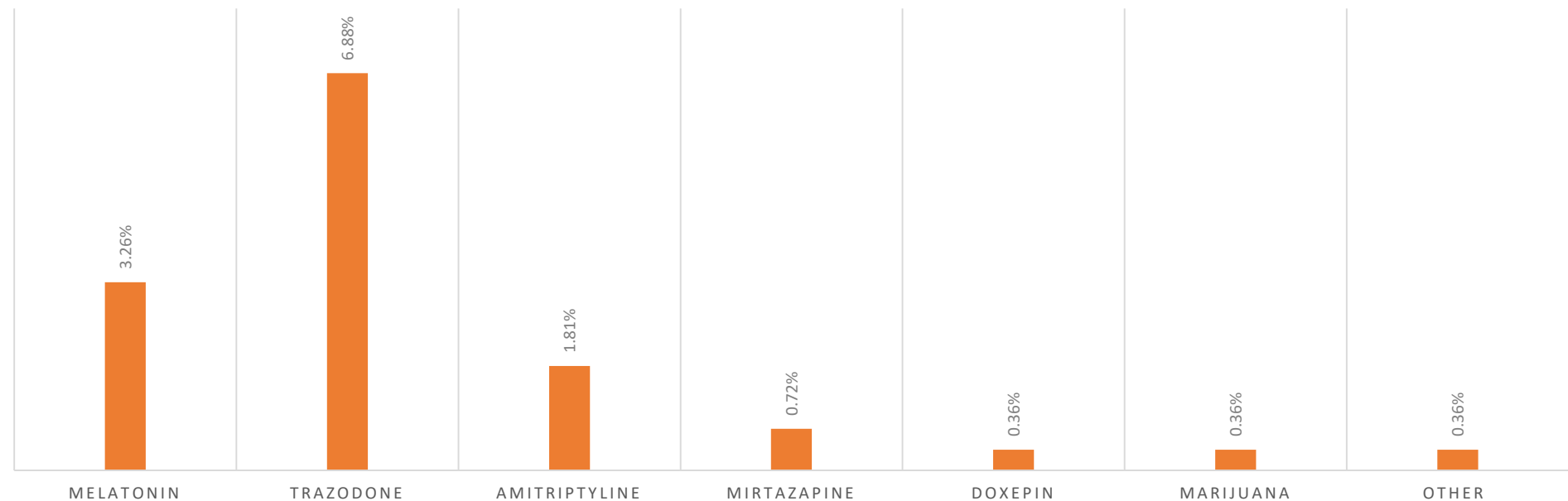
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Next slides may be used for questions

# Monitor for unintentional consequences

- Prescription rates of other sedating medications/substances not recommended for sole management of insomnia
  - Marijuana
  - Antipsychotics – i.e. Quetiapine (Seroquel)
  - Antidepressants – Mirtazapine, Trazodone, TCAs (Amitriptyline)
  - Antihistamines
    - Diphenhydramine (Benadryl, Sleep-Eze, Nytol)
    - Dimenhydrinate (Gravol)
    - Chlorpheniramine

**13.8% OF PATIENTS STARTED ALTERNATIVE MEDICATIONS/SUPPLEMENTS**



# De-Prescribing: Goal not always Zero

- Some people have ongoing, important indications
- Some people have low tolerance for symptoms, cannot taper off
- Shared decision-making required

# General approach to tapering

## Step 1:

Initiate adjunctive therapy with CBT  
prior to initiating therapy

## Step 2:

Initiate taper with drug patient is  
currently taking

OR

convert to equivalent dose of longer-  
acting agent (i.e. Diazepam or  
Clonazepam)

## Step 3:

Taper by 10% of dose q1-2 weeks until  
20% of original dose then taper by 5%  
q2-4 weeks as tolerated

OR

Decrease dose by no more than  
Diazepam 5mg or Clonazepam 0.25mg  
equivalent per week per symptoms

# Management of Chronic Insomnia

Insomnia often manifests as a chronic disease, and approaches for management may take a few months or years to optimize.

