

# Deprescribing Benzodiazepines in Hospitalized Seniors Using a Patient-Education Intervention

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# Objectives

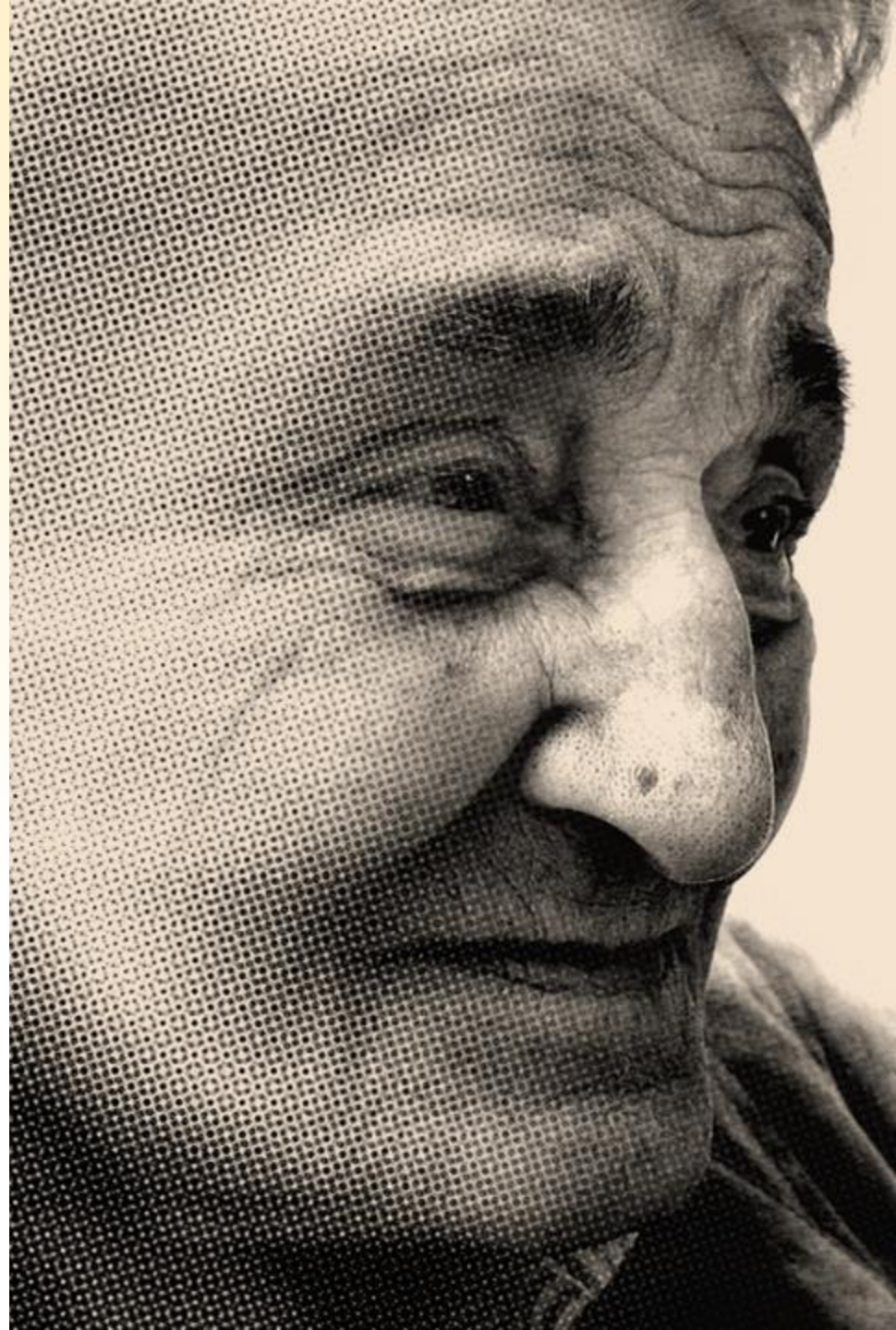
1. Provide an overview of the problem of benzodiazepine use in older adults.
2. Outline the current guidelines for benzodiazepine use in older adults.
3. Present the methods and results of a QI study, Deprescribing Benzodiazepines.

# Faculty/Presenter Disclosure

- **Faculty:** Dr. Jean Triscott; Dr. Frances Carr
- **Relationships with commercial interests:**
  - **Grants/Research Support:** Northern Alberta Academic Family Medicine Fund (\$5000)
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  - **Consulting Fees:** N/A
  - **Other:** Affiliated with the University of Alberta, Glenrose Rehabilitation Hospital

# Case

- 75-year-old lady
- Living independently alone
- Impaired memory
- Frequent falls
- Insomnia, osteoarthritis, depression, and others
- Meds: Lorazepam, clonazepam, oxycodone, and others



# Misuse of Benzodiazepines (BZD)

- Growing public health problem<sup>1</sup>
- BZD: 20%-25% of inappropriate prescriptions in the elderly<sup>2-3</sup>
- BZD: prevalence of use range from 5% to 32% in community-dwelling older adults<sup>4-6</sup>
- 50% of Physicians continue to renew prescriptions, citing patient dependence and benefit<sup>7</sup>

# Risk Factors for BZD Misuse

- Increasing age<sup>8-10</sup>
- Female<sup>8-9</sup>
- Poor self-reported health<sup>11</sup>
- Chronic Pain<sup>9</sup>
- Physical disability<sup>9,12</sup>
- Limitations in Instrumental Activities of Daily Living<sup>12</sup>
- Co-morbidities<sup>9,13</sup>
- Myocardial infarction<sup>11</sup>
- Alcohol dependence<sup>13</sup>
- Cognitive impairment<sup>9,14</sup>
- Common mental disorders<sup>11</sup>
- Depression<sup>13</sup>
- Suicidal ideation<sup>9,13</sup>

# Risks from BZD Use

- Dementia<sup>15-17</sup>
- Delirium<sup>18</sup>
- Falls and hip fractures<sup>16,19</sup>
- Motor vehicle crashes<sup>20</sup>

# Guidelines

American Geriatrics Society (2015) - Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults <sup>21</sup>

## Short- and intermediate-acting BZDs

(alprazolam, estazolam, lorazepam, oxazepam, temazepam, triazolam)

- Older adults have increased sensitivity to BZDs and decreased metabolism of long acting agents;
- In general, all BZDs increase the risk of cognitive impairment, delirium, falls, fractures, and motor vehicle crashes in older adults.



# Guidelines

Canadian Geriatrics Society (2017) - Choosing Wisely Canada  
5 Things Physicians and Patients Should Questions – Geriatrics<sup>22</sup>

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

# Strategies for Deprescribing BZD<sup>23</sup>

- Pharmacological substitution
- Psychological support
- Orally communicated recommendations
- Written medication reviews
- Patient education
- Tapering

# Quality Improvement Project: Deprescribing Benzodiazepines at the Glenrose Rehabilitation Hospital

- August 2017 to October 2017
- New patients,  $\geq 65$  years old
- Taking benzodiazepines at admission
- Sample size: 12 patients

UofA Research Ethics Board (Pro00074428): Outside REB Mandate

AHS Operational Approvals #36863 and #37576

## AIM

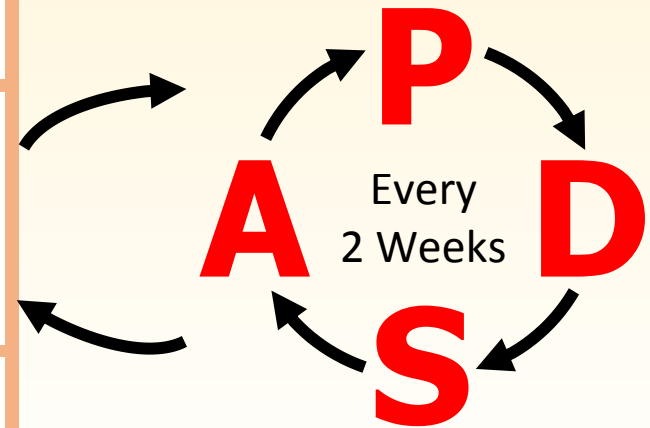
Stop Benzo or Decrease Benzo  
Dose by 50%

## MEASURE

# of Patients Stopped or  
Decreased Benzo

## INTERVENTION

1. Medication Review
2. EMPOWER Brochure
3. Counselling
4. Discharge - Continuity of Care





TEST YOUR KNOWLEDGE ABOUT THIS MEDICATION

# The EMPOWER Brochure

## You May Be at Risk

You are

### QUIZ

SEDATIVE-HYPNOTIC DRUGS

1. The medication I am taking is a mild tranquilizer that is safe when taken for long periods of time.  TRUE  FALSE

### ANSWERS

### SO ASK YOURSELF:

#### YES OR NO?

Have you been taking this sedative-hypnotic drug for a while?  YES  NO

Are you tired and often

### ALTERNATIVES

If you are taking this sedative-hypnotic drug to help you sleep:

There are lifestyle changes that can help.

### ALTERNATIVES

If you are taking this sedative-hypnotic drug to help reduce your anxiety:

There are other solutions to deal with your stress and anxiety.

- Talking to a therapist is a good way to help you work out stressful situations and
- Support groups



#### MRS. ROBINSON'S STORY

She had been taking Lorazepam, a sedative-hypnotic

### TAPERING-OFF PROGRAM

We recommend that you follow this schedule under the supervision of your doctor or your pharmacist.

WEEKS	TAPERING SCHEDULE						
	MO	TU	WE	TH	FR	SA	SU
1 and 2	◐	●	●	●	◐	●	●



### 5 QUESTIONS TO ASK YOUR HEALTH CARE PROVIDER

1. Do I need to continue my medication?
2. How do I reduce my dose?
3. Is there an alternative treatment?
4. What symptoms should I look out for when I stop my medication?

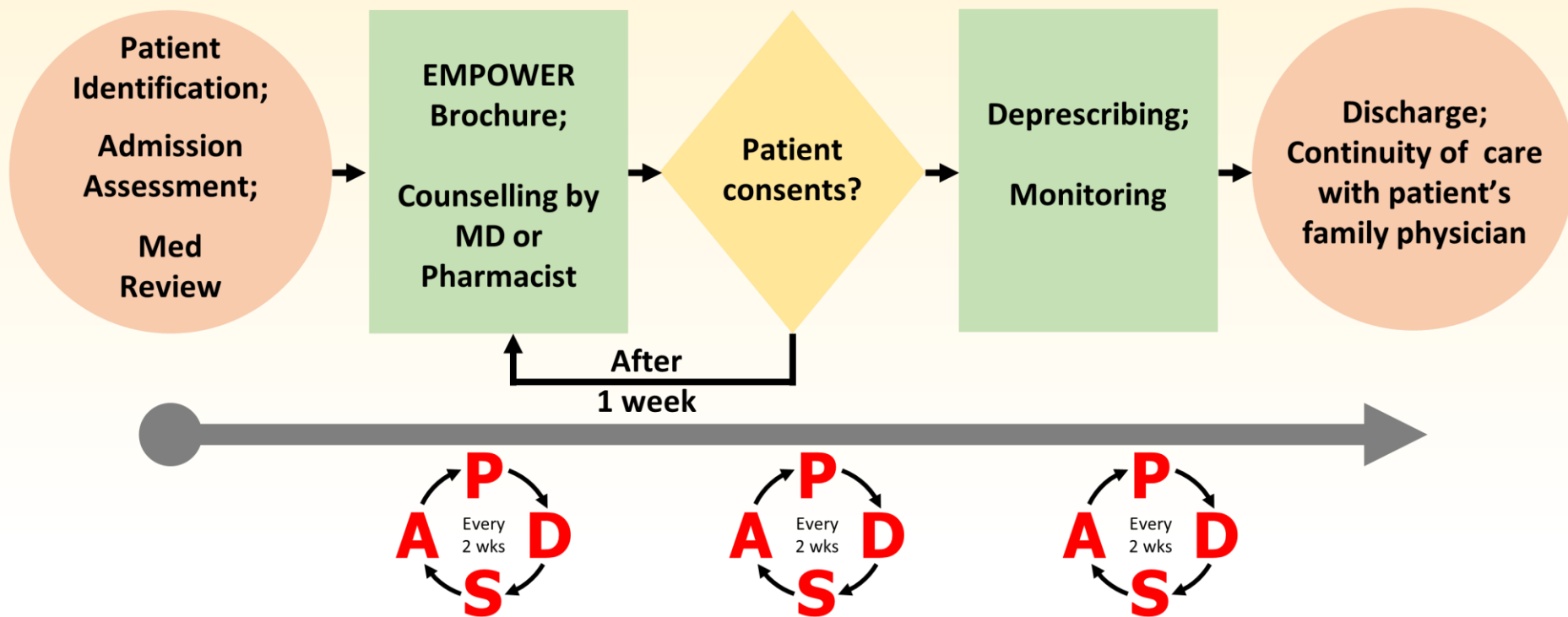


Figure 1: Abbreviated process map for deprescribing.

# Results

- 79.3 years of age; 75% Females (n=12)
- Most common BZD: Lorazepam, clonazepam
- Common Indication: Anxiety and Insomnia
- Taken for months to years
- Commonly combined with Zopiclone & psychoactive meds

Table 1. Benzodiazepines and other psychoactive medications at admission.

BZD at Admission	Indication	Duration of Use	Other Psychoactive Medications
Lorazepam (5)	Anxiety (8)	Years (5)	Zopiclone (7)
Clonazepam (5)	Insomnia (6)	Months(3)	Duloxetine, paroxetine, mirtazapine, cymbalta, citalopram (7)
Temazepam (1)	Headache (1)	Weeks (1)	
Nitrazepam (1)		Uncertain (3)	Zopiclone plus: duloxetine, paroxetine, mirtazapine, cymbalta (4)

BZD, Benzodiazepine

# Outcome Measure: % Deprescribed

- 6 patients were totally deprescribed
- 5 patients: 50-99% deprescribed
- 1 patient: 0-49% deprescribed

Table 2. Outcome measure: Percent of BZD Dose Deprescribed

Benzodiazepine Dose Deprescribed	Patient Discharged (n=5)	Patient Transferred (n=2)	Patient Still Admitted (n=5)	Total
100% (Totally) Deprescribed	3	1	2	6
50-99% Deprescribed	2	0	3	5
0-49% Deprescribed	0	1	0	1
Total	5	2	5	12

BZD, Benzodiazepine



# Balancing & Process Measures

## Reported Complications

- Anxiety (5)
- Withdrawal symptoms (2)
- Sleep changes (1)

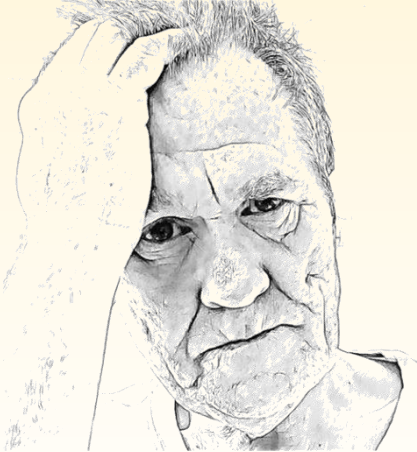
## Medications Added

- 5 patients required benzodiazepine-substitute medications

## Process

- All eligible patients were enrolled
- All patients were given booklets and received counselling
- Average estimated counselling time:  
18 minutes by MDs; 39 minutes by Pharmacists

# Patients



- 85-year-old male
- Clonazepam for uncertain indications
- Totally deprescribed
- Complication: Anxiety
- Added: Mirtazapine

- 80-year-old female
- Lorazepam for anxiety
- Failed deprescribing
- Complication: Anxiety
- Added: Mirtazapine, cymbalta
- Transferred to geriatric psychiatry



# Case

- Med Review
- EMPOWER brochure
- BZDs tapered
- Cognitive behavior therapy
- Melatonin
- Home Care and Day program



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