

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

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## BACKGROUND

- The inappropriate use of benzodiazepines among seniors is common.
- Benzodiazepines are potentially inappropriate medications for older persons and are associated with greater risks of delirium, cognitive impairment, falls, and motor vehicular accidents.
- Objective:** To deprescribe or reduce the dosage of benzodiazepines among newly hospitalized seniors using a combination of medication review, patient education material, and patient counselling.
- Aim Statement:** 100% of all current benzodiazepine users who are admitted to Unit 4C at the Glenrose Rehabilitation Hospital will have their benzodiazepines deprescribed or have their dosage reduced by at least 50% within a three month period.

## METHODS

- Time Frame: August to October 2017.
- Participants: New patients at the Glenrose Rehabilitation Hospital, aged 65 or older and taking one or more benzodiazepines.
- The intervention:
  - Structured medication review
  - EMPOWER brochure (Cara Tannenbaum and Institute Universitaire de Gériatrie de Montréal, 2014)
  - At least one brief supportive counselling session by the clinical pharmacist or physician
  - At discharge: Continuity of care with patient's family physician.

## RESULTS

### Patient Characteristics

#### Demographics

- Mean age: 79.3 years
- Females: 75%

#### Benzodiazepine Used at Admission

- Lorazepam (5/12, 42%)
- Clonazepam (5/12, 42%)
- Temazepam (1/12, 8%)
- Nitrazepam (1/12, 8%)

#### Indications for Benzodiazepine Use before Admission

- Anxiety (8/12 plus 2/12 uncertain)
- Sleep or insomnia (6/12 plus 1 uncertain)
- Headache (1/12)

#### Duration of Benzodiazepine Use before Admission

- Years (5/12, 42%)
- Months (3/12, 25%)
- Weeks (1/12, 8%)
- Uncertain (3/12, 25%)

#### Other Psychoactive Medications at Admission

- Zopiclone (7/12, 58%)
- Duloxetine, paroxetine, mirtazapine, cymbalta, citalopram (7/12, 58%)
- Zopiclone plus at least one of: duloxetine, paroxetine, mirtazapine, cymbalta (4/12, 25%)

### Outcome Measure

#### Percent of Benzodiazepine Dose Deprescribed

Table 1. Benzodiazepine Deprescribing by Patient Status, 3 Months

Benzodiazepine Dose Deprescribed	Patient Discharged	Patient Transferred	Patient Still Admitted	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

### Balancing Measures

#### Reported Complications

- Anxiety (5/12, 42%)
- Withdrawal symptoms (2/12, 17%)
- Sleep changes (1/12, 8%)

#### Medications Added

- 5 (42%) patients required benzodiazepine substitute medications

### Process Measures

- All eligible patients were enrolled
- All patients were give booklets and received counselling
- Average estimated counselling time:
  - 18 minutes per patient by Physicians
  - 39 minutes per patient by Pharmacist

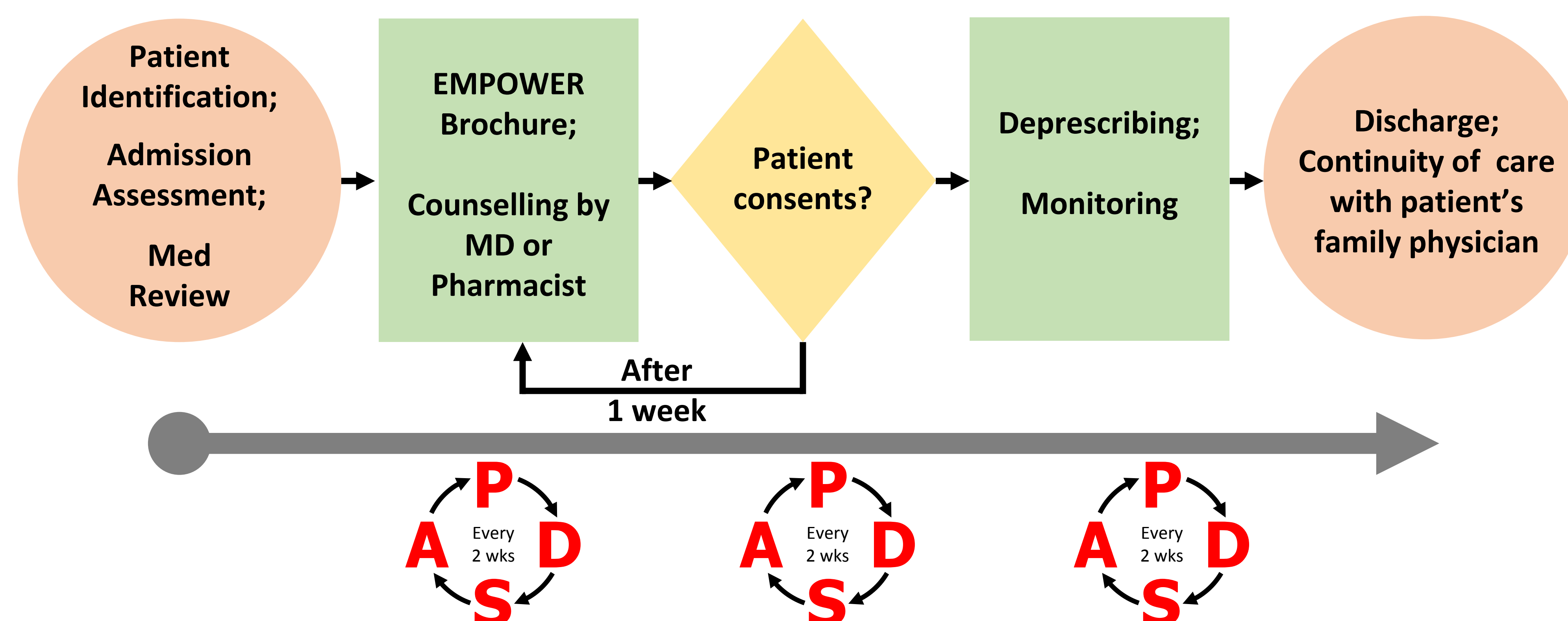


Figure 1: Abbreviated process map for deprescribing.

## FEEDBACK

**Physicians:** Greater awareness of appropriate benzodiazepine use in the elderly; increased confidence for benzodiazepine deprescribing.

**Patients:** EMPOWER brochure appreciated; counselling deemed to be beneficial and built bonding and trust between patients and MDs.

**Family physicians:** A physician reported that they liked the EMPOWER brochure and requested access to the booklet for their patients.

## CONCLUSION

- We were able to deprescribe or decrease the dosage of benzodiazepines in the majority of patients.
- A combination of medication review, patient education, and brief counselling can empower patients and support appropriate benzodiazepine usage, with deprescribing or decreasing benzodiazepine use acceptable and well-tolerated by patients.
- Clinicians, however, need to anticipate the management of anxiety, a common complication of deprescribing.