Strategic Clinical Improvement Committee
Partnerships in Action

Glenrose Rehabilitation Hospital (GRH)-Deprescribing Benzodiazepines: A Quality Improvement Initiative

Dr. F. Carr, Dr. P. Tian, J. Chow, J. Guzak, Dr. J. Triscott, P. Mathura, X. Sun and Dr. B. Dobbs

DEFINE OPPORTUNITY

Background, Problem Statement and Goal Statement:

Benzodiazepines are classified as psychoactive drugs commonly used in the treatment of anxiety, insomnia and seizures. Although they can be effective drugs when prescribed appropriately, their side effect profile with both short and long term use is significant, with the incidence of side effects increasing with advancing age. Despite the high rates of side effects associated with benzodiazepine in seniors, benzodiazepine prescriptions in this population are common, and once initiated, these medications are often extremely difficult to stop, especially following long term use, which is likely due to the physical and psychological dependence effects. In light of this issue, there has been a growing interest in the 'deprescribing' of benzodiazepines. Although the process of deprescribing of benzodiazepines is usually performed over an extended period of time, commonly in the community, the process can be initiated in hospital and continue post discharge into the community with lasting effects.

Within the EZ fiscal year-2015/2016 ~49,000 geriatric patients (60 or older) were taking benzodiazepines. There is currently no single provincial or nationally recognized standard or strategy towards benzodiazepine deprescribing; instead, current practice is usually dictated by the individual, provider and the situation.

Problem Statement: July 2017, Unit 4C at the Glenrose Rehabilitation Hospital (GRH):

-0% of patients with active benzodiazepine prescriptions were provided education about appropriate benzodiazepine use and encouraged to be involved in the deprescribing process.

-Two patients were admitted with active benzodiazepine prescriptions. One patient had a reasonable (or appropriate) clinical indication for using benzodiazepines, whilst the other patient was being prescribed benzodiazepines inappropriately. At the time of discharge, although benzodiazepine deprescribing has been initiated for both patients (30% reduction in dose/frequency), discontinuation of benzodiazepines was Not achieved for either patient.

Aim Statement: October 2017:

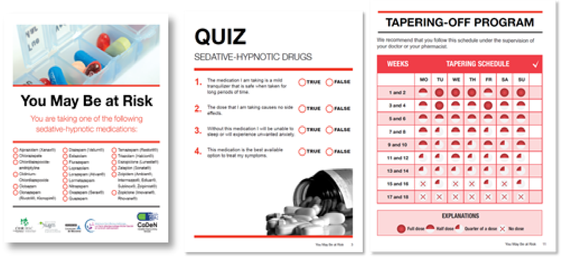
-100% of patients with active benzodiazepine prescriptions will be provided benzodiazepine education and encouraged to be involved in the deprescribing process.

-100% of patients with active benzodiazepine prescriptions admitted to Unit 4C at the GRH will have their benzodiazepines discontinued or have their dosage reduced by at least 50% at time of discharge.

BUILD UNDERSTANDING

Process Assessment: Reviewed the Choosing Wisely Campaign which states 'Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium'(4) along with a review of literature that employed the use of the EMPOWER booklet to assist patient medication understanding. A Gemba walk was conducted to determine the current unit process, and a high level (SIPOC) process map was developed. Baseline data was collected regarding current benzodiazepine status on Unit 4C over the period of July 1-31 2017

EMPOWER Booklet:



SIPOC Map

Scope: Patients are taking Benzodiazepines coming into acute care- from community care

S(Supplier)	I(Input)	P(Process)	O(output)	C(Customer)
Pt	Netcare (Pthp)	1.Pt admitted to Unit 4c		Pt
Family physician/ GP	Drug-see the bottle	2.Initial assessment by Nursing, pharmacy and physicians	Completed charting documents	Family physician/
Community pharmacy	Pt med list	3.Admission paper and orders completed	Process admission care orders	GP
GRH unit 4c nursing staff and UC	BPMH form	4.Pt/ Med reviewed and filled as an order sheet for initial medication order	Processed medication order	Community pharmacy
GRH physicians	Admission order form bundle (med order, etc)	5.CRH- review orders		GRH unit 4c nursing staff and UC
GRH pharmacy	Med order form	6.UC process the order		GRH physicians
		7.Daily –rounding by physician and care team	Charting	
		8.Question: Medication Assessment decision-(continue, discontinue, increase, decrease)		
		9.Weekly, Med review by pharmacy and physician	Charting, med orders	
		10.Question: Medication Assessment decision-(continue, discontinue, increase, decrease)		
		11. Pt ready for dc- yes	D/C paperwork, D/C BPMH, prescriptions, HSVAX and MAR	

DEFINE OPPORTUNITY

Improvement Selection and Implementation Plan: ***August 1-October 31st, 2017***

For the purposes of this project, deprescribing was defined as follows: 'Deprescribing is the process of withdrawal of an inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes'(6). Although this definition primarily refers to the withdrawal (rather than dosage reduction) of benzodiazepine, due to the limited time frame for this project, achieving a dosage reduction with a view to complete withdrawal of the medication is a more achievable outcome rather than medication withdrawal.

Four Components of the change intervention:

1.Structured medication review

2.Patient education material – EMPOWER Brochure

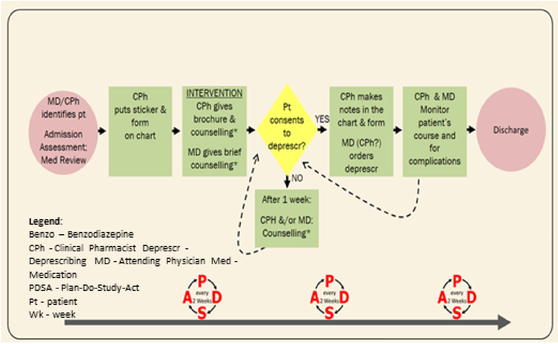
3.Patient counselling session – educate on benzodiazepines' appropriate indications, harms, tapering procedure and other alternatives, withdrawal/breakthrough symptoms and monitoring process enabling shared decision-making within hospitalized adults.

4.Discharge continuity of care:

a. send a copy of the EMPOWER brochure to the family physician with a brief explanation about the intervention (ensure continued deprescribing of benzodiazepines in the community + provide education to the family physician

b. if patient does not have a family physician, a copy of the BPMH and EMPOWER brochure will be sent to their regular community pharmacist

c. if patient does not have a family physician and a regular community pharmacist, a copy of the EMPOWER brochure and tapering plan will be given to the patient and their family



Flowchart of the Intervention Process

PDSA data/results:

- Among the two units, 5 patients were recruited and offered the 4-step change intervention. At time of discharge, 2 patients had their benzodiazepine prescriptions discontinued, and 1 had her dose reduced with plan to continue the deprescribing process in the community. The other 2 patients have just been started on the intervention and deprescribing has not been initiated yet.
- Physicians on the unit reported being more aware of appropriate indications for benzodiazepines in the elderly population, and more confident in the deprescribing process.
- Patient provided feedback that they like the EMPOWER booklet, and appreciated the slow personalized tapering that reduced withdrawal effects.

ACT TO IMPROVE

SUSTAIN RESULTS

Reinforce Ownership, Measurement, & Continuous Improvement:

Plan is to scale and spread within other GRH units such as 3D and potentially to RAH Unit 53 with a long term goal of scale and spread throughout the EZ. With the large amount of patient impact sharing project learning with both acute care and community physicians and pharmacist is critical.

MANAGE CHANGE

Collaboration & Communication Strategies:

Project team included a Geriatrician, Research coordinator, Care of the Elderly Physician, Research director, geriatric pharmacist, Unit manager, medical student and Quality Consultant.

- A one-page summary of the project details was displayed and distributed to staff members at Unit 4C of GRH
- PowerPoint presentation to healthcare providers at the GRH Unit 4C by Dr. F Carr on the importance of benzodiazepine deprescribing and provided an outline of the project.

Approval to conduct the study was obtained:

- GRH – intent to conduct research, Operational and / or administrative approval
- Ethics waiver

SHARE LEARNING

Lessons Learned:

- The number of patients admitted taking benzodiazepines was small, which required expansion of the project to an additional unit-3D.
- Change in both physician staff and planned absences of key team members (i.e. pharmacists) impacted on the continuity of the project, and required implementation of alternative strategies.

References

1. AHS Tableau workbook: Alberta community pharmacy prescribed medication utilization-by population