### 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.

### 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’. 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 sessions – 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

### 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.