Systematic Deprescribing of Proton Pump Inhibitors: Pilot Study in a Geriatric-Medicine Unit at a Community Teaching Hospital

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Project:
This pilot project was a single centre intervention with pre- and post-study design conducted on alternate level of care (ALC)/geriatric patients at St. Joseph's Health Centre, a community teaching hospital.

Goal(s):
Main goal was to implement and evaluate an algorithm to deprescribe PPIs in patients who were in a geriatric/ALC unit. The results of the study will be used to help implement the algorithm throughout the institution on appropriate patients. The primary outcome was a composite of PPI dose decrease, and PPI discontinuation at the end of the post intervention phase. Patients were also monitored for adverse effects (AE) related to the de-prescribing, specifically gastrointestinal (GI) AE such as rebound acid hypersecretion (RAH).

Results:
A total of 70 patients were enrolled (n=36 pre, 34 post). PPI de-prescribing increased from 44% before the intervention to 68% after intervention (p=0.08). Rebound GI symptoms were noted in one patient in the post intervention group. The mean age of patient's in the intervention group was 79 (pre-intervention mean age was 79); 54% were male (50% in pre) and 46% were female (50% in pre); 70% of patients were on a PPI from home in the intervention group.

Challenges & Lessons Learned:
Obtaining consent was challenging due to patient's concern with stopping the medication, even if not indicated. The current algorithm requires extensive monitoring and a lengthy taper, which may not always be feasible to implement in busy patient care populations. Opportunities for improvement include shortening the taper schedule and reducing the post-intervention monitoring. A trend toward improved prescribing was noted; further studies with larger sample sizes are needed. This pilot presents future opportunities to reduce PPI overuse in inpatient and long-term care settings in patients with similar characteristics.

Just a Lot of Hot Air: Deprescribing Inhaled Corticosteriods among Hospitalized Medicine Patients

Call to action: Physicians are the prescribers; we also need to be the deprescribers. The development and application of simple deprescribing protocols to reduce polypharmacy will have a positive impact on the cost of delivering health care and patient outcomes and satisfaction.

Presenter: Dr. John Abrahamson MD FRCP [john.abrahamson@tehn.ca]
Disclosures: No pharmaceutical sponsorship for deprescribing

Background: A large proportion of patients prescribed Inhaled corticosteroids (ICS) are unlikely to benefit. It is estimated only 20-40% of COPD patients meet criteria for ICS use: however, > 70% of COPD patients receive them. ICS are not benign medications and are associated with significant adverse effects and cost to society.
Goal: The goal of this initiative was to reduce unnecessary ICS use among all patients admitted to Michael Garron Hospital (MGH)-medicine health service for a non-respiratory illness.
Activities: All patients admitted to the medicine health service for a non-respiratory illness who had an existing prescription for ICS were assessed by the depescribing team consisting of a ward-based pharmacist and an internal medicine physician. An electronic hard stop on delivery of ICS was implemented until the appropriateness of the ICS was reviewed by the Deprescribing team. ICS deprescribing recommendations were entered into our electronic health record (EHR) and auto-faxed to the primary care physician. For this project we leveraged our EHR, strong physician-pharmacist dyad, and an institutional culture amenable to reviewing prescribing practices. We applied continuous PDSA (Plan,DO,Study, Act) evaluations to various process measures introduced to ensure appropriate patients received ICS.
Impact: MGH, a community teaching hospital in Toronto, spends approximately $120,000/year on ICS. We have reduced ICS costs by 70,000 $ within one year of implementation.

Key Requirements for Program Sustainability
Culture

- our highly successful antibiotic stewardship program helped develop the culture for accepting CWC recommendations and optimized physicians–pharmacists collaboration
- patient engagement and family engagement, close collaboration and communication with pharmacists, family physicians and community partners is essential for program success
- senior administrative support. Eg, deprescribing was made a part of MGH's Quality Improvement Plan reported to MOH
- stakeholder involvement, identify champions, celebrate success

Tools

- electronic health record: automated daily reports required to capture ICS utilization, allows hardwiring of changes to order-sets, electronic medication reconciliation, automated faxing of deprescribing note to the community physician
- QI tools: engagement with decision support for metrics, PDSA cycles learning from data
- Evidence-based drug-specific reduction protocols

Business Plan:

- focusing on high-cost, frequently prescribed medications
- low hanging fruit within CWC basket (glucometer and thyroid testing)

Conclusion: Hospitals should play a key role in deprescribing as community resources are often insufficient to meet our patient's needs. Targeting high cost medications for deprescribing can lead to substantial cost savings, which can be diverted to expand and ensure sustainability of the Deprescribing program at MGH.

The greatest modifiable health care expense, what physicians do with their pens

OPUS·AP

OPTIMISER LES PRATIQUES, LES USAGES,
LES SOINS ET LES SERVICES - ANTIPSYCHOTIQUES

CONTEXT

In Quebec, 40-60% of CHSLD residents take antipsychotics (AP) despite the fact they have not been diagnosed with psychosis.

These medications are not very effective at relieving the behavioural and psychological symptoms of dementia (BPSD) associated with Alzheimer's disease or any other type of neurocognitive disorder.

What's more, they increase the risk of:

- stroke;
- pneumonia;
- death.

Background

2014-2015
Appropriate Use of Antipsychotics (AUA) project implemented nationwide by the Canadian Foundation for Healthcare Improvement (CFHI). Use of AP was reduced or discontinued in 54% of residents.

March 2017
The Ministère de la Santé et des Services sociaux approved the implementation of the OPUS-AP approach in the province of Quebec.

January to October 2018
Phase 1 of OPUS-AP in **24 CHSLD in Quebec**.

FINANCING FOR PHASES 1 AND 2 OF OPUS-AP

$1.2 M > CFHI

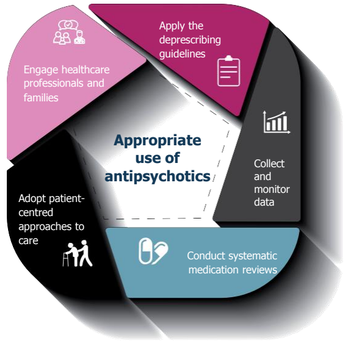
$1.2 M > MSSS

$150,000 for the analysis of the results > Centre for Aging and Brain Health Innovation (CABHI)

Objective

Improve the appropriate use of AP and promote the use of person centred approaches to care and non-pharmacological interventions for managing BPSDs in residents in long-term care centres (CHSLD) with major neurocognitive disorders.

METHODS



Support for the approach

- Clinical huddles on personalized non-pharmacological approaches to care
- Project managers
- Webinars
- Train the trainer approach
- Online learning platform

COHORT

Prospective, longitudinal, closed-cohort with 4 follow-ups (T0, T3, T6, T9), once every 3 months for 9 months. The final analysis was done comparing data at the end of follow-up (9 months) to baseline values.

Semi-structured interviews (n = 18) with CHSLD teams to assess the implementation of OPUS-AP.

30 UNITS IN 24 CHSLDs PARTICIPATED IN PHASE 1 OF OPUS-AP.

Results

(T0) started
January 2018

1,054 residents were admitted in the participating units

Average age **83 yrs.**

78.3% 825 residents had a major neurocognitive disorder

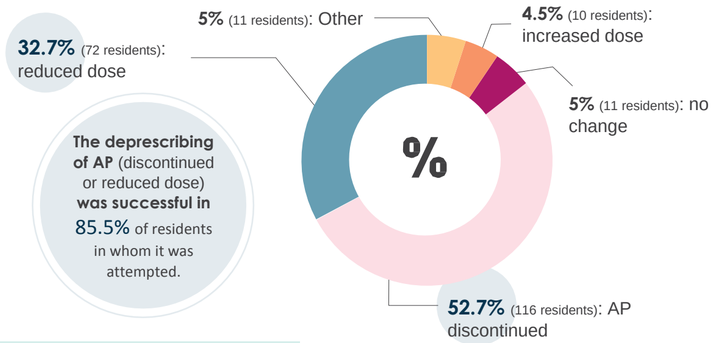
63.4% Women

44.0%
464 residents with a diagnosis of major neurocognitive disorder and an AP prescription were included in the follow-up cohort.
At the final measurement follow-up (T9), 344 residents were still enrolled in the follow-up cohort.

51.7%
545 residents had at least one prescription for antipsychotics.

REDUCING THE USE OF ANTIPSYCHOTICS (AP)

Changes in AP prescribing practices in residents in whom deprescribing was attempted (n = 220)



The deprescribing of AP (discontinued or reduced dose) **was successful in** 85.5% of residents in whom it was attempted.

BENZODIAZEPINES AND ANTIDEPRESSANTS

The deprescribing of AP has not led to an increase in prescriptions for benzodiazepines or antidepressants. A reduction in the use of benzodiazepines has been observed. The deprescribing of AP does not appear to lead to an increase in prescriptions for antidepressants.

Changes in benzodiazepine and antidepressant prescribing practices in eligible residents in whom deprescribing was attempted

	AP discontinued or dose reduced (n = 220)
Benzodiazepines	
+ Addition	12 (5.5%)
- Withdrawal	34 (15.5%)
Antidepressants	
+ Addition	15 (6.8%)
- Withdrawal	15 (6.8%)

BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD) AND FALLS

Overall, the deprescribing of AP did not lead to an increase in BPSD or a decrease in falls.

Changes in BPSD and falls in eligible residents in whom deprescribing was attempted

	AP discontinued or reduced dose (n = 220)
Cohen-Mansfield Agitation Inventory score	
Clinically insignificant change	146 (74.9%)
Decrease of at least 30%	32 (16.4%)
Increase of at least 30%	17 (8.7%)
Falls	
No change	155 (79.1%)
Decrease in falls	23 (11.7%)
Increase in falls	18 (9.2%)

FINDINGS FROM INTERVIEWS WITH CLINICIANS

The effects

- A deep commitment by all participants in what they view as important and necessary work.
- More active residents and happier families and caregivers.
- Manageable behavioural changes.
- Increased collaboration between professionals.
- Flexibility in the implementation of the antipsychotic deprescribing guidelines.

Success factors

- The clinical huddle, a helpful way to implement and maintain the culture of deprescribing.
- Clear and rapid presentation of results through the quantitative component.

Scaling concerns

- Methods are effective but demanding on staff.
- Challenge of passing the torch from clinical and project champions to other staff members.
- Difficulty implementing new practices given the current resources, which are limited and unstable, especially during nights and weekends.
- Teaching of person centred approaches to care is often an afterthought.
- Sustainability of practices requires a culture change.

CONCLUSION

AP were successfully reduced in more than 85% of CHSLD residents with major neurocognitive disorders in whom deprescribing was attempted. Given this success, phase 2 of OPUS-AP will begin in 2019 in **one-third** (approximately 10,500) of CHSLD residents in Quebec.

OPUS-AP: santeestrie.qc.ca/reduire-les-antipsychotiques
CFHI: https://www.cfhi-fcass.ca/

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Canadian Foundation for Healthcare Improvement
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Québec

Antipsychotic Prescriptions in Long-Term Care Facilities in Eastern Health by Provider

Choosing Wisely Recommendation

1. Don't routinely use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.

Practice Points

1. NL has the highest use of antipsychotics in long-term care facilities in Canada.
2. 38% of long-term care residents are prescribed antipsychotics province wide, with 73% deemed potentially inappropriate. Rates vary by facility and region.

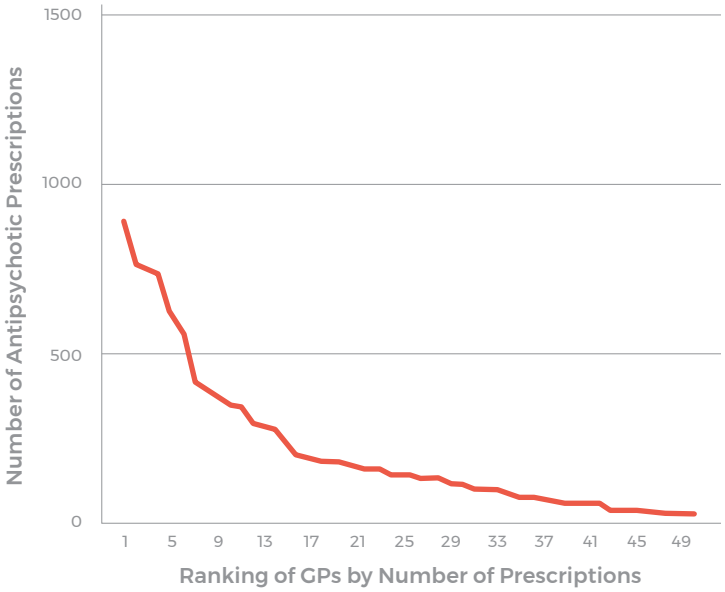
Data

- Prescriptions of antipsychotics recorded in the pharmacy database from 1 Apr 2017 to 31 Sept 2018 for residents of 11 long-term care facilities in Eastern Health.

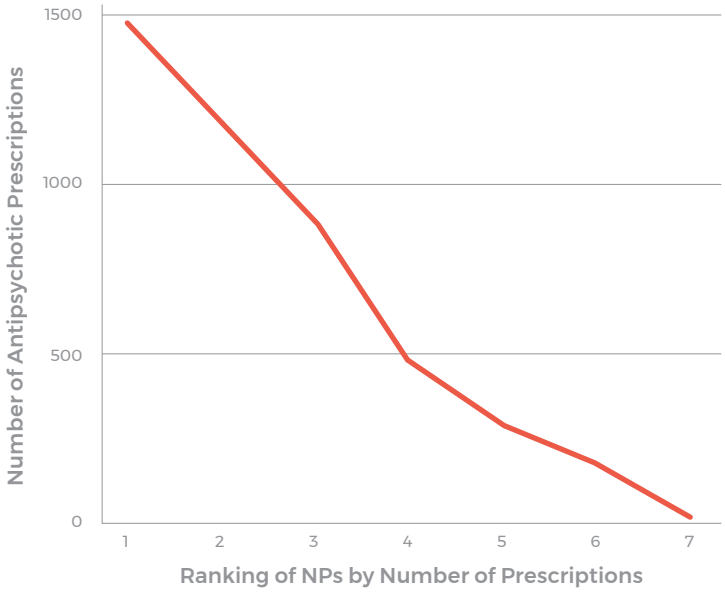
Results

- Of 15,642 prescriptions, 69% were written by General Practitioners (GPs) and 29% by Nurse Practitioners (NPs).
- Quetiapine was the most frequently prescribed agent, comprising 60% of total prescriptions.
- 15 GPs and five NPs wrote more than 200 prescriptions for antipsychotics over the 17-month period.

Volume of Antipsychotics Prescriptions by GPs



Volume of Antipsychotics Prescriptions by NPs



Conclusion

1. Audit and feedback will be undertaken to prescribers of antipsychotics in the long-term care setting.