Impact of Quarterly Interdisciplinary Medication Reviews on Resident Care in a Canadian Long Term Care Facility

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Introduction

- Few long term care facilities in Canada conduct quarterly medication reviews as regularly-scheduled face-to-face meetings involving the primary care physician, the clinical unit nurse and the clinical consultant pharmacist.
- Although the value of the interdisciplinary medication review has been documented in other practice settings, there is little research evaluating this medication management strategy in the long term care environment.[1,2]
- Baycrest Apotex Centre, a 472-bed long term care facility in Toronto, currently conducts all quarterly medication reviews using this interdisciplinary approach.
- The purpose of this study was to evaluate the impact of quarterly medication reviews conducted in a Canadian long term care facility using this integrated team approach.

Methodology

- A retrospective review of electronic medical records was undertaken.
- Data extraction and analysis was performed by an independent reviewer.

Inclusion Criteria:

- Residents with 1 or more quarterly medication reviews conducted between January 1, 2011 and December 31, 2011 at Baycrest Apotex Centre.

Primary Endpoints:

- Number of medication-related issues addressed by the team using a classification system widely used in the pharmaceutical care process.[3]
- Number of interventions resulting from the medication reviews.

Results

- 1821 medication reviews involving 536 residents were reviewed (mean age 87, 75% female).
- 1952 medication-related issues were identified during medication reviews.
- The 3 most common medication-related issues: unnecessary drug therapy, too high of a dose, and the need for additional drug therapy.
- 2452 documented interventions occurred during the medication reviews with approximately 95% of residents having received at least 1 intervention.
- The 3 most frequent medication-related interventions were: discontinuation of a medication, decreasing of a dose, and initiation of a new medication.
- Nearly 450 orders for therapeutic monitoring were generated during the medication reviews, accounting for 87% of non-drug related interventions.

Conclusion

- The results of this study demonstrate that interdisciplinary medication reviews are an effective method to monitor residents' health status, identify drug-related problems, and implement drug and non-drug related interventions.
- The collaborative team approach may enhance the assessment of residents' therapeutic outcomes and coordination of monitoring activities.
- The interdisciplinary approach used by the Apotex Centre ensures that medication concerns are addressed immediately during a medication review without a communication delay.

FIGURE 1: Medication-Related Issues Addressed During the Interdisciplinary Quarterly Medication Reviews

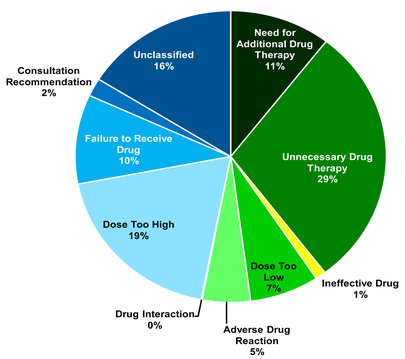


FIGURE 2: Interventions Resulting From the Interdisciplinary Quarterly Medication Reviews

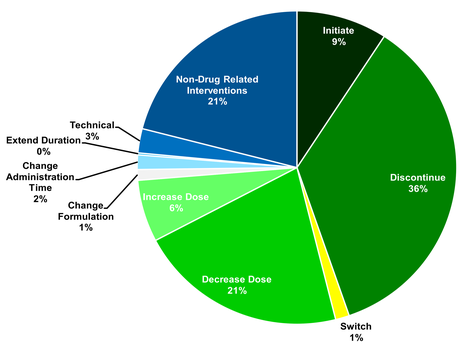


FIGURE 3: Interventions Resulting From the Evaluation of Antipsychotics During the Quarterly Medication Reviews

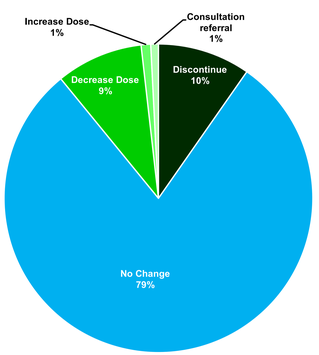


FIGURE 4: Interventions Resulting From the Evaluation of Proton Pump Inhibitors and H2-Antagonists During the Quarterly Medication Reviews

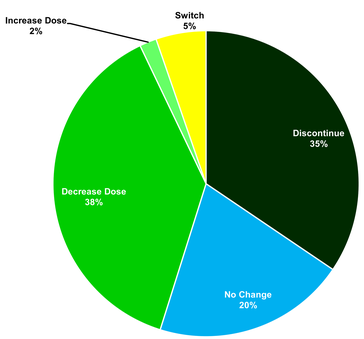


FIGURE 5: Medication–Related Issues Addressed in Residents Receiving at Least 4 Quarterly Medication Reviews (N=347)

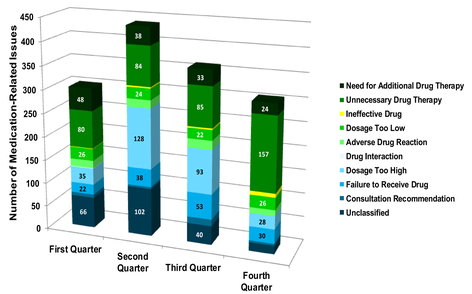
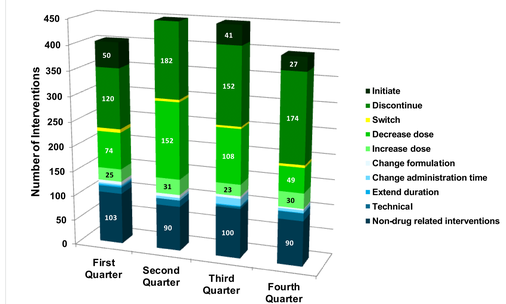


FIGURE 6: Interventions Completed in Residents Receiving at Least 4 Quarterly Medication Reviews (N=347)



References

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[2] Bayley KB, Savitz LA, Maddalone T, et al. Evaluation of patient care interventions and recommendations by a transitional care pharmacist. *Ther Clin Risk Manag*. 2007;3(4):695-703.
[3] Strand LM, Morley PC, Cipolle RJ, et al. Drug-related problems: their structure and function. *DICP*. 1990 Nov;24(11):1093-7.