

Evaluation of a Standardized Protocol for Medication Review in Long Term Care Facilities

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Background

Medication use increases with age and residents in long term care facilities (LTC) are prescribed significantly more medications than people living independently in the community, putting them at increased risk for an adverse event. Studies have shown that routine medication reviews have been considered an effective strategy for improving quality of life of LTC residents by reducing the number of prescription medications and the potential for an adverse event.



Purpose

To pilot a standardized protocol for conducting medication reviews that can be consistently used in LTC, and to examine ease of use and identify any issues related to use of protocol prior to advocating for province-wide implementation.

Methodology

In this study, a derivation of the **Residential Medication Management Review Form** was piloted in 72 randomly selected residential charts from two LTC facilities. Baseline data (i.e. patient demographics and medication orders) were collected from the most recent medication administration record (MAR) and compared to data collected at 1-month post medication review. An identical process was done with the group at two other LTC facilities using their standard medication review processes/protocol. Any changes to the number of medications (prescription and non-prescriptions), types of medications, appropriateness of medications given the resident's conditions and adverse events were also examined.

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Summary of Results

Control and intervention groups were prescribed approximately the same number of non-prescription medications at Baseline and at Month 1. There were less PRN medications prescribed at Month 1, and less adverse drug events reported from the intervention group compared to that of the control group.

Participant Demographics

Gender

Control	M 43.1%	F 56.9%
Intervention	M 27.8%	F 52.0%

Preferred Language:

	English	Other	Unknown
Control	72.5%	22.2%	5.6%
Intervention	62.5%	26.4%	11.1%

Results

Number of Non-PRN Medications per Resident

	Baseline	Month 1
Control	9.82	9.60
Intervention	9.28	9.12

Number of PRN Medications per Resident

	Baseline	Month 1
Control	4.82	4.58
Intervention	4.61	3.86

Types of PRN Medications at Month 1

Control	Benzodiazepines, Sedative/Hypnotics, Antitussives, Opioid agonists
Intervention	Benzodiazepines, Antipsychotics, Opioid agonists Antacids, Anti-emetics, Sedative/Hypnotics, Antianginals and Adrenergics



Conclusions

An understanding of how physicians and pharmacists communicate during routine medication review in LTC facilities is important when designing an effective residential medication management review form. A standard medication review protocol could improve the review process and potentially lead to a reduction in the number of medications given to patients in LTC thereby, reducing the risk for potential adverse events.

Results

Medication Changes

Control:

Meds to be discontinued: 67.5%
Med dose to be decreased: 14.6%
Med added: 12%
Med dose to be increased: 4.4%

Intervention:

Meds to be discontinued: 61.6%
Med dose to be decreased: 20.3%
Med added: 9.4%
Med dose to be increased: 7.3%

Adverse Drug Reactions

Control 26 (66.7%)

Types: Fall without injury 31%
Endocrine/metabolic 23%
Fall with injury 19%

Meds involved:

Citalopram, Quetiapine,
Zopiclone, Ramipril, HCTZ

Intervention 13 (33.3%)

Types: Fall without injury 46%
Cardiovascular symptoms 23%
Fall with Injury 15%

Meds involved:

Quetiapine, Metoprolol,
Risperidone, Lorazepam,
Morphine

Further Information

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