

The Development of 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 are prescribed significantly more medications than people living independently in the community. Putting them at an increased risk for 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, 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 2 LTC facilities. Baseline data (i.e. 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.



Demographic Information

Gender:

Control	M 43.1%	F 56.9%
Intervention	M 27.8%	F 52%

Preferred Language:

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

Results: Control and intervention groups were prescribed approximately the same no. of non prescription medications at Baseline and at Month 1 period. There were less PRN medications prescribed at 1 month, and less adverse drug events reported from the intervention group compared to that of the control group.

Results:

• No. of Non-PRN medications per resident

	Baseline	Month 1
Control	9.82	9.60
Intervention	9.28	9.12

• No. PRN medications per resident

	Baseline	Month 1
Control	4.82	4.58
Intervention	4.61	3.86

• Types of PRN Medications at 1 month

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

• 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 and
Morphine



Conclusions:

An understanding of how physicians and pharmacists communicate during routine medication review in long term care 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.

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