

Building a Home Care Medication Therapy Management Practice at a Visiting Nurse Agency

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Background

Medication-related problems, including adverse drug events and non-adherence, lead to hospitalizations and emergency room visits. Such medication-related problems are common among home care clients who often take multiple medications to treat a number of chronic diseases, utilize multiple prescribers and pharmacies, and may have little to no supervision at home. Therefore, it is important to identify, resolve, and prevent medication-related problems among home care clients to minimize hospitalizations and emergency room visits. Even though pharmacists have expertise in resolving medication-related problems, few home care agencies have a pharmacist integrated within their care team.

Objective

The purpose of establishing a home care medication therapy management (MTM) program at the Minnesota Visiting Nurse Agency (MVNA) was to create a practice integrated within the home care practice model to serve the medication-related needs of home care patients.

Medication reviews were used to minimize the number of medication-related problems, defined as “any undesirable event experienced by a client, which involves, or is suspected to involve, drug therapy and that interferes with achieving desired goals of therapy.” (Cipolle et al, 2004)

Setting

The MVNA is a non-profit organization in the Minneapolis-St. Paul metropolitan area that serves economically disadvantaged individuals and families at risk for critical social and health issues. Their mission is to “provide comprehensive and culturally competent Community Health and related services in collaboration with Public Health and Health Service Providers to ensure a healthy future for Minnesota residents.” The organization provides a variety of programs, including home health nursing, physical therapy, and occupational therapy.

Methods

Patient Recruitment

- All patients taking 9 or more medications
- Any patient referred by MVNA staff

Visits

- Conducted by a pharmacist to assess all medications (prescription, over-the-counter, and herbal supplements) for the following medication-related problems:

Types of Medication-Related Problems

Indication	Needs additional therapy
	Drug not indicated
Effectiveness	Dose too low
	More effective drug available
Safety	Dose too high
	Adverse drug event
Compliance	Compliance

- Up to 5 visits were scheduled in one day
- Visits lasted between 30 and 60 minutes

Documentation

- Completed in an electronic health record
- Each encounter note included:
 - Number of conditions
 - Number of medications
 - Number of medication-related problems
 - Number of prescriber recommendations
 - Outcomes of recommendations

Communication

- The pharmacist was responsible for contacting the patient’s prescribers with the medication recommendations.
- The pharmacist would then follow-up with the patient and/or caregiver(s) to implement the changes.
- A medication list would be updated and shared with the patient, caregiver(s) and provider(s).

Follow-up

- Coordinated with the pharmacist and nursing staff

Preliminary Results

- 499 medication-related problems were identified
- To resolve these problems, 218 recommendations to prescribers were made
 - 54% were accepted
 - 40% were at addressed at the patient’s next appointment
 - 6% were rejected

Discussion

- Integrating MTM home visits at MVNA allowed the pharmacist to conduct thorough medication evaluations, improving medication use and helping to keep patients safely in their homes.
- Providing services in homes allowed the pharmacist to understand environmental factors affecting a patient’s ability to adhere to a medication regimen.
- Collaboration between clinicians, home care nurses, and the pharmacist was critical to the implementation of medication changes and therefore, the program’s success.

References

Cipolle RJ, Strand LM, & Morley PC. (2004). *Pharmaceutical care practice: The clinician’s guide, second edition*. New York: McGraw-Hill Double space references

Preliminary Results

Patient Demographics	
Number of patients	163
Average Age (yrs)	60.5
Average Number of Conditions	7.2
Average Number of Medications	15.4
Average Number of Medication-Related Problems	3.1
Gender	
Female	68.7%
Male	31.3%
Race	
Black	48.5%
Caucasian	32.5%
American Indian	5.5%
African	4.9%
Hispanic	3.1%
Unknown	2.5%
Asian	1.8%
Hmong	0.6%
Other	0.6%

Medication-Related Problems Identified

