

Reducing Medication Errors: Using Homecare as an Opportunity to Significantly Increase Safety for Older Adults

Evidence-Based, Cost-Effective Medication Management Helps Resolve Medication Problems

Because home health care agencies already have personnel and data systems in place to monitor medications through their ongoing operations, instituting a program to identify patients with potentially harmful medications regimens is relatively straightforward.

Some suggestions include:

- **Assess Readiness**

With the help of the organization's compliance officer or consulting pharmacist, assess readiness for the program via governance and support of executives and homecare worker supervisors.

- **Form A Planning Committee**

A planning/advisory committee can help design the Medications Management Model in a manner that best utilizes local resources and interested staff in the agency and at participating pharmacies. Use screening tools to identify client issues related to medications, and set expected benchmarks relative to industry standards for quality care.

- **Test the Model In a Pilot Demonstration**

A pilot implementation of the model, using selected staff and clients, can help identify potential ways to streamline the processes and garner wider support across the organization by providing an internal validation of the program.

- **Create and Implement Training for Staff**

Having staff who participated in the demonstration project present at trainings may help disseminate the program internally.

- **Seek Feedback, Measurements of Results**

Build in simple mechanisms to monitor results, update materials in the medications database, and highlight favorable results.

Medication-related problems are a leading cause of death in America, and older people are particularly vulnerable to medication-related problems. Changes in their drug metabolism that naturally occur with age, their increased susceptibility to medication side effects, and their frequent problems with medication compliance combine to create almost limitless possibilities for medication issues. But many medication-related problems are predictable and preventable.

While hospitals, nursing homes, and other care facilities often have mechanisms in place to try and prevent medication errors, homecare is the setting where a systematic medication review can often be made most efficiently, if only because clients often get their medications from several different physicians and have their prescriptions filled at numerous pharmacies so medication reviews at the point of purchase are not always effective. Further, home health agencies are ideally situated to do reviews as their services are often covered as a Medicare benefit following hospitalization. And tools to help agencies adopt medications management policies are now easily available.

The JAHF Contribution



Medication errors constitute the largest fraction of medical adverse events, and the complexity of the US health services system means that there are few opportunities to systematically review an older patient's medication regimen. In 1994, the Foundation made a grant to Vanderbilt University aimed at reducing potential hazards for older adults making the transition from hospitalization to homecare. A 1997 grant helped the Partners In Care Foundation demonstrate the feasibility of the model. Together these grants are part of over \$7.4 million awarded since 1983 to pioneer advances in geriatric pharmacology.

The Medications Management Model

Research has shown that nearly one third of home health patients may be receiving medications that can cause them to become more confused, increase their risk of falls, and result in more frequent hospitalization. These patients do receive regular visits from nurses and therapists, however, and thus the opportunity exists for increased vigilance over medication use, improved screening for potential problems, and better communication with prescribers to coordinate the medical regimen and avoid harmful drug interactions. The OASIS statutory requirement for a medications review by home health agency personnel provides the informational basis for the intervention. Further, the home is a productive venue for a medications review as it is covered by Medicare following hospitalization and medications may have been changed during the hospital stay.

In 1994, the John A. Hartford Foundation awarded funding to researchers at Vanderbilt University, in partnership with the Visiting Nurse Service of New York, to survey medications used for home health patients and then developed and tested an intervention to reduce medication errors for these patients. The intervention—the Medications Management Model—was designed to be easily adopted into a home health agency’s everyday practices, and to provide an algorithm to screen patients for

potential medication errors. The model provided for a consultant pharmacist to employ evidence-based criteria developed by a consensus panel of experts to advise the home health nurse of potential problems. Where appropriate, the prescriber was notified and the medication regimen adjusted.

A randomized, controlled clinical trial of the intervention resulted in a 50% decrease in medication errors, and was especially effective in resolving therapeutic duplication and cardiac problems such as poorly controlled hypertension. Funding from the John A. Hartford Foundation to the Partners In Care Foundation enabled the Medications Management Model to be implemented at four diverse home health care agencies and disseminated nationally. At each location, the Model has proven to be a time-and cost-effective strategy for decreasing medication errors, with benefits for clinicians, agencies, and patients.

Incorporating the Medication Management Model offers several advantages to home health agencies:





www.homemed.org

A toolkit and materials that can be easily customized, created by the Partners in Care Foundation of Los Angeles, can help local agencies create medication management programs.

- The Model can help meet federal standards for medication review and improve clinical outcomes by identifying and preventing medication errors in their patients. Further, accreditation entities such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the Community Health Accreditation Program (CHAP) have standards that address patient safety and medication management, including those that require home health agencies to address National Patient Safety Goals to improve medication safety and to reduce the risk of patient harm resulting from falls.

- Beginning in January 2006, the Medicare Modernization Act (MMA) requires, as part of the implementation of Medicare Part D, that high-risk or “targeted” beneficiaries receive Medication Therapy Management (MTM) services. Models such as the Medications Management Model can have important practical implications in providing such services.

- The Medications Management Model promotes patient-oriented services with positive clinical outcomes. This can be a valuable marketing tool in the highly competitive home health care market where agency directors are continually searching for cost-effective strategies to expand their patient volume.

Success Stories

As shown in the studies, the Medications Management Model can easily be adapted to the needs and goals of individual agencies and programs, and can be an important addition to quality improvement efforts targeted toward patient safety.

Comprehensive Quality Improvement Initiative

Long Beach Memorial Medical Center

The Medications Management Model is applicable to a wide variety of home health programs. In California, Long Beach Memorial Medical Center implemented it in their traditional skilled nursing home health services, as well as for infusion therapy, hospice care, and rehabilitation services, as part of their established Quality Improvement Program.

Newly revised JCAHO standards require home health agencies to address National Patient Safety Goals, which include safe use of medication. It is important to note, however, that JCAHO has left it up to individual organizations to determine how to address these goals. Long Beach Memorial Medical Center has found the Medications Management Model to be a cost-effective tool for improving patient safety related to medication use, particularly in the area of fall prevention. From a quality improvement standpoint, the program met and even exceeded expectations in that it enabled staff to identify a serious threat to patient safety—medication-related problems, especially falls—and gave them the tools to resolve these potential problems.



Site-Specific Strategies

HomeCare Plus

The Model is adaptable to agency-specific needs. HomeCare Plus, a locally owned and managed mid-sized home health agency in West Virginia, used the Model to create their own protocol to identify high-risk patients, with the goal of integrating this protocol into the comprehensive assessment completed at admission for each new patient. Additionally, they have computerized their risk screening process, thus maximizing resources, making the intervention more affordable to implement, and decreasing staff burden.

HomeCare Plus also generates a bi-monthly newsletter that specifically highlights their medication therapy management services to inform physicians, other health care providers, and patients.

Targeted Patient Populations

The Eddy Visiting Nurse Association

The Medications Management Model allows agencies to focus their programs on patients with the greatest need. The Eddy Visiting Nurse Association in New York used the Model for Medicare Certified Home Health Care (CHHA) patients who had recent falls as well as for long-term home health patients. Pharmacy student interns, under the supervision of clinical pharmacists, reviewed clinical records and medication lists, made recommendations to physicians, and notified the nurse case manager. Through this process, nursing staff at Eddy felt that they were taking a more proactive approach to fall prevention, and gained confidence in speaking with physicians about certain high-risk medications. Physicians responded positively as well to the staff's recommendations, accepting nearly half of the proposed changes in the patient's medication regimens.

For More Information

For detailed information about the Medications Management Model, including a tool kit and forms that can be customized to individual agencies, visit www.homemeds.org

"Medication Management: An Evidence-Based Model That Decreases Adverse Events."

Dennee Frey and Anna Rahman.

Home Healthcare Nurse, June 2003. Vol. 21, No. 6, Pages 404-412.

"Improving Medication Use in Newly Admitted Home Healthcare Patients: A Randomized Controlled Trial."

Meredith S, Feldman P, Frey D, Giammarco L, Hall K, Arnold K, Brown NJ, Ray WA.

Journal of the American Geriatrics Society, September 2002. Vol. 50, No. 9, Pages 1484-91.

This pamphlet is available at the Web site of the John A. Hartford Foundation at www.jhartfound.org/IDEAS/meds.



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