



Program: Evidence-Based Disease Prevention: **Medication Management**

Organization: Partners in Care Foundation, Burbank, CA

Project Title: A Community Based Medication Management Intervention

Project Period: September 30, 2003 to September 29, 2006

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Evidence Base

The Vanderbilt University Medication Management Model has been shown to prevent medication-related adverse events such as falls, and provides both healthy and frail community-dwelling clients with medication review services. The program was designed to improve the use of medications among elderly home patients with chronic conditions by identifying and eliminating medication errors.

Original Research Evidence

The intervention is adapted from a medication management study published in 2002 by Vanderbilt University researchers S. Meredith, P.H. Feldman, D. Frey, L. Giammarco, K. Hall, K. Arnold, N.J. Brown and W.A. Ray.

The objective of the study was to test the efficacy of a medication management program in home health agencies. Four main medication problems were addressed: unnecessary therapeutic duplication, cardiovascular medication problem, use of psychotropic drugs in patients with possible adverse psychomotor or adrenergic effects, and use of nonsteroidal anti-inflammatory drugs (NSAIDs) in patients at high risk of peptic ulcer complications.

Participants included Medicare beneficiaries, age 65 and older, who were clients of the home health agencies between October 1996 and September 1998. They each had at least one of the identified medication problems, and were projected to be with the home health agency for at least 4 weeks. The study included an intervention group of 130 participants who received the medication improvement program, and a control group of 129 people who received usual care.

Results of the study showed medication improvement of 50% in the intervention group and 38% in the control group. This effect was strongest for therapeutic duplication,

which showed 71% improvement for the intervention group and 24% for the control group.

Adaptation of Model

Whereas the original research focused the program in home health agencies, Partners in Care will adapt this program to the community setting by implementing the intervention in two types of sites: a Medicaid Waiver program and a LA City AAA care management program.

Project's Overall Design

Partners in Care will conduct a medication management project for seniors receiving a continuum of community-based social service programs in Los Angeles. The goal of the intervention is to identify, prevent, and resolve medication errors among seniors identified as "high risk."

The objectives are:

- To implement the intervention in at least 2 Medicaid Waiver programs and a City AAA care management program;
- To evaluate the outcomes of the intervention, which includes assessment recommendations and follow-up by a pharmacist;
- To disseminate findings through a medication management website.

The intervention is a structured medication review for high-risk participants, conducted by a consultant pharmacist or pharmacy intern. Core components include screening, assessment, consultation, and follow-up. The program uses guidelines established by an expert panel for resolving three high-risk medication problems: unnecessary therapeutic duplication, cardiovascular medication problems, and use of psychotropic drugs in patients with a reported recent fall or confusion.

Target Population

During the first year, two Medicaid Waiver sites for low-income frail elderly (called Multi-Purpose Senior Services Programs (MSSP) in California) will be targeted.

Additionally program implementation is being considered for high-risk seniors receiving City AAA care management services through the Emergency Response System (EARS). Each of these programs primarily serves low-income, minority elders.

Anticipated Outcomes

Results of screening medication errors will show:

- Number and types of errors detected
- The types of recommendations by the pharmacists

- Outcomes of the recommendations

The project will also produce a tested community-based model for medication management that is effective and is reasonable in cost to implement in the Aging Services Network.

Evaluation Design

The Impact Evaluation will look at the following participant outcomes: number of clients screened, number and type of medication errors identified, type of recommendations made by the pharmacist, and the outcomes of those recommendations. Self-reported health status will also be evaluated at baseline and at periodic intervals.

The Process Evaluation will monitor outcomes to ensure that the intervention was implemented in accordance with the stated plan. Any problems or difficulties in adapting the intervention will be identified as “lessons learned”. An advisory group will meet quarterly to monitor the success of the implementation.

Partnerships

- Partners in Care Foundation will be responsible for the day-to-day management of the project including coordinating outreach, scheduling, planning and delivery of services, data tracking, training oversight of students, and financial management.
- LA City Area Agency on Aging (AAA) will work with Partners in Care to expand medications screening and management in a care management program at this time anticipated to be the Emergency Alert Response(EARS)
- LA County AAA will assist in project planning and diffusion strategies.
- Healthcare partners include two geriatricians who will provide medical review of guidelines and procedures, in addition to providing linkage to healthcare providers when needed.
- Kate Wilber, PhD, Associate Professor of Gerontology at the Andrus School of Gerontology, University of Southern California (USC), will serve as the evaluator for this program.
- The University of Southern California School of Pharmacy will provide consultation and PharmD interns for the program.