A New Role for Consultant Pharmacists: Providing Medication Management at
Most consultant pharmacists spend their days in traditional long-term care settings, ensuring that their patients receive the minimum dose of medication needed for their diagnoses, for the appropriate duration, with minimal side effects. What many of us may forget, however, is that there is a much larger population of patients—those still residing in their homes—who may be receiving little, if any, medication management by qualified health care professionals.

Enter consultant pharmacist Dennee Frey. After landing a job with the Los Angeles Visiting Nurse Association (VNA), Frey quickly identified that this lack of medication management was a problem. Based on her experiences, Frey has spent the past decade and a half developing an innovative practice to help this growing home-based patient population.

“Home health care nurses, agency managers, and administrators all reported that the number one problem they faced with their patients was medication errors and misuse,” reports Frey. In addition, most home health nurses admitted that they felt they lacked adequate training to address many of the medication-related issues.

Such a conclusion isn’t surprising: the Agency for Healthcare Research and Quality recently reported that about 20 percent of the nation’s 32 million community-dwelling older Americans used at least one of 33 prescription medications deemed potentially inappropriate for them.1 The agency also found that nearly one million older adults used at least

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one of 11 medications that should be avoided in older individuals.

When she began at the VNA in 1985, working with patients at home truly was innovative pharmacy practice, recalls Frey. “Even today, there are only a limited number of pharmacists consulting with home care agencies, although the numbers seem to be growing,” she says.

Frey quickly began expanding the role of the traditional consultant pharmacist, says June Simmons, chief executive officer of the Partners in Care Foundation (formerly VNA-LA Foundation). The foundation is a non-profit organization that assists health care providers and community-based organizations create, implement, and evaluate new ways of delivering care.

“As the first consultant pharmacist at the VNA of Los Angeles, Frey won an appeal to Medicare that agreed to reimburse consultant services under administrative and general charges, recalls Simmons. (This payment mechanism later became obsolete under Medicare’s prospective payment system).

Frey’s positive impact on home health care patients expanded when she began collaborating with two organizations—The John A. Hartford Foundation of New York City and Vanderbilt University in Nashville, Tennessee—to begin a research project in medication management for home health patients.

“We developed a Medication Management Model and tested it at the VNA in Los Angeles and New York (two of the country’s largest urban home health agencies at the time),” says Frey. “We were able to demonstrate the positive impact of the pharmacist working with home care patients.”

This success led the Hartford foundation to seek ways to provide a model for home care agencies. The result was a project to disseminate the Model to several sites, do field testing, and “translate the research results into real-life clinical practice,” says Frey.

**The Home Care Model**

The project, led by principal investigator Wayne Ray, PhD, began by conducting a survey of medication use among Medicare patients admitted to the VNA of Los Angeles and the VNA of New York between 1996 and 1998. An expert panel of physicians, pharmacists, and other practitioners developed criteria to define inappropriate medication use for elderly home care patients. The criteria were based on patterns of medication use combined with clinical signs and symptoms to indicate patients at risk for a significant adverse event.

“We wanted to make sure the Model was evidence based,” says Frey, “to help ensure greater acceptance by physicians.” Therefore, Ray took an academic approach. The expert panel identified the most important problems, then developed intervention protocols.

The panel focused on five medication-related problems:

1. Unnecessary therapeutic duplication
2. Cardiovascular medication problems
3. Use of psychotropic drugs in

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**Table 1. Highlights of the Medication Management Model**

For each of the targeted medication problems, the Medication Management Model’s guidelines specify the goal of the intervention:

- For therapeutic duplication, the goal is no unnecessary duplication.

- For cardiovascular medication problems, the goal depends on the problem identified:
  - Hypertension: SBP/DBP <160/90 mm Hg
  - Low SBP: SBP >100 and <160 mm Hg
  - Orthostasis: No dizziness on standing and a smaller postural BP drop
  - Pulse: <55 bpm; or Pulse >55 bpm;

- For recent falls or confusion with use of psychotropic drugs (benzodiazepines, cyclic antidepressants, antipsychotics), the goal is to reduce the dose to minimum required or switch to an alternative with fewer side effects, or discontinue if not required.

- For NSAID use, the goal is to reduce dose or discontinue to minimum needed to control pain, with use of acetaminophen.
patients with a reported recent fall or confusion

4. Use of psychotropic drugs in patients with assessment of recent confusion

5. NSAID use in patients at high risk for ulcer formation

Using admission records and a brief questionnaire completed by the admission nurses, 19% of the 6,718 patients surveyed under these criteria had at least one medication error. Additionally, 17% of patients had at least one medication error according to the Beers’ criteria. Evaluations using both sets of criteria revealed 30% of patients with a possible medication error. These data provided quantifiable evidence of the potential impact that pharmacists could make in reducing medication errors.

While that phase of the study was being conducted, Frey, Ray, and colleagues began developing the Medication Management Model centered on pharmacist-driven interventions. The Model (see Figure 1) was designed to take elements of the nursing home’s drug regimen review into the home health setting, explains Frey. When a patient’s profile reveals one of the five medication-related problems, the consultant pharmacist reviews the patient’s medication regimen and consults with the home health nurse as needed to develop a care plan:

1. If additional data are needed to assess the problem, the nurse collects it at the next scheduled visit.

FIGURE 1. MEDICATION MANAGEMENT MODEL FLOW CHART

(Ref. 2. Used with permission.)
Pharmacists Yield Better Results

Consultant pharmacist Dennee Frey suggests that pharmacists are often better able to initiate discussions with physicians about medication-related issues in home health settings. This is partly because many nurses readily admit to a lack of formal training in medication management and an inability to keep up with the latest advances.

Frey, who works for the Visiting Nurses Association in Los Angeles, helped develop a widely accepted medication management model for treating patients in their homes. “While the model positions the home health nurse as the primary intermediary between the physician and pharmacist in communicating the recommendations,” Frey says, “we actually have found that we have better physician response when the pharmacist directly contacts the physician.”

2. With all data in hand, the pharmacist makes recommendations to resolve the identified problems. The nurse or pharmacist contacts the physician to present the problem, discuss the regimen, and obtain follow-up orders.

3. The nurse assists the patient with any medication changes and monitors the need for follow-up.

The randomized, controlled-trial conducted by the Vanderbilt research team found that the Model prevents medication errors among home health patients and improves the use of medications overall. Medication use improved in 50% of home health patients who received the Model’s medication review services, compared with 38% of control patients. At the same time, there were no increases in nurse visits or duration of home health care for intervention patients.

Using the Model Elsewhere

Wayne Atkinson, RPh, in Lewisburg, West Virginia, was one of the first consultant pharmacists to use Frey’s model. He credits Frey for much of the success in implementing the model, its acceptance by staff, and the agency’s decision to continue to use the program.

Atkinson’s formal association with Frey and Partners in Care began when a local home health agency was selected to implement the model in a rural home health care organization. He found that Frey’s background in home health allowed her to “talk the talk” with the agency’s owner and staff. In addition, her previous experience with using an agency’s drug database as a risk-screening tool allowed Frey to communicate effectively with the agency’s computer software vendor. And, her site visits to the agency were “invaluable” in integrating the model into the agency’s clinical and care processes.

Getting the Word Out

Frey’s current work focuses on disseminating the Medication Management Model via a Web site (www.homemeds.org) and providing technical assistance to sites implementing it. The Web site provides comprehensive information about the Model, including background information on how it was developed and practical information on how to implement it. The site also
features a “tool kit,” which can be downloaded free of charge to provide facilities with step-by-step guidance in implementing the model. “The Web site averages ten hits a day,” notes Frey, “which tells us that there is a growing interest in providing medication management services in this setting.”

Frey suggests that consultant pharmacists seeking to expand their services into home health care settings also may benefit from downloading the “practice brief” on the site. This tool helps the consultant pharmacist provide information to a prospective home health client agency on the value to be gained from this type of service, she adds.

**Timing Is Everything**

Frey suggests that improving medication management not only has obvious benefits to the patient, but also benefits the home health industry. The timing is opportune because the Centers for Medicare and Medicaid Services (CMS) is taking a hard look at medication management as a component of their quality indicators, she says. CMS previously applied these quality indicators to nursing facilities, and these indicators also will be used to create “consumer report cards” in the incidence of adverse events in home health agencies.

The time is ripe for consultant pharmacists to expand their services into the home health care arena. “We’ve seen that agencies of various sizes have been able to implement the Model,” Frey says. Not only does using this system improve the scores of home health agencies on CMS report cards, but agencies also benefit financially by decreasing the number of emergent or extended visits to their patients. Preventing or resolving medication-related problems is in the agency’s best interest, helping agencies gain a competitive edge in a dwindling market, Frey says.

**Staying on the Cutting Edge**

Frey continues to venture into other areas where consultant pharmacists have been reluctant to explore. “Dennee is leading the way toward receiving funding to study the Model in Medicaid waiver programs for low-income frail elders in southern California,” says Partners in Care’s Simmons. In other words, she’s adapting the innovative leadership in home health to “another vulnerable target population.”

Frey also is expanding the roles of pharmacists in senior centers throughout Los Angeles. More home health agencies are expressing interest in consultant pharmacist services and its value for patients and staff. However, reimbursement for these activities “remains a decisive issue and can be a barrier,” she notes. Frey hopes that some day consultant pharmacists will be approved as providers under Medicare, similar to the coverage approved for certain dietitian services last year.

“As more and more consultant pharmacists begin to expand their services to the senior care patients residing outside of the traditional long-term care setting, the value that we provide—and the impact we have on patients—will secure our role as vital members of the health care team,” Frey says.

**References**


**Share Your Experiences**

Pharmacists who are currently working with home health care agencies are encouraged to contact Dennee Frey at dfrey@picf.org