Taking medications at the right time, in the right dose, in the right way.

HomeMeds marries “eyes” and “ears” with technology to reduce errors, readmissions and cost.

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Medication issues in the home have largely been invisible for a long time. The kicker is that medication issues are the major driver of costly adverse health outcomes.

A strong, evidence-based program developed by Partners in Care Foundation – HomeMeds™ - brings a non-clinical workforce solution to the home as “eyes and ears” for providers. When married to an accompanying software tool, the results are both compelling and powerful:

Participant A: “I used to take 20 different medications and after HomeMeds I was down to only 8. You saved us money and you saved my life.”

Participant A: “I have been taking this medication for years and never knew when I should stop because I was never told, so I still take it and I don’t know why.”

Participant C: “Medication costs have gone up, so I cut my pills in half and they last longer.”

Participant D: “I didn’t know that my cold medication and my pain medication had the same ingredients all of this time I was taking them.”

These comments illustrate the importance of patients taking the right medicines and consistently taking them in the right dose, at the right time, in the right way.

Unfortunately, medication-related errors are common. As many as 60% of community-dwelling elders have medication-related problems - with falls, dizziness and confusion being the most frequently reported.

Over 1.3 million people end up in an emergency department each year as the result of adverse drug events. When you add up unnecessary emergency department use, hospital readmissions, and skilled nursing facility admissions, drug-related morbidity/mortality costs the health system more than $170 billion annually.
It is estimated 72% of post-discharge adverse events are related to medications—and close to 20% of discharged patients suffer an adverse event. What is most shocking, though, about these facts is that at least 25% of all harmful adverse drug events are preventable.

**An Effective Prevention**

Twenty years ago, Partners in Care Foundation of San Fernando, CA developed a home medication-safety program called **HomeMeds**, which is a high-level evidence-based model using social workers or community health workers in the home as health coaches backed by an offsite consultant pharmacist.

**HomeMeds** is among the key programs included in the Administration for Community Living’s rigorously tested Aging and Disability Evidence-Based Programs and Practices. As medication errors are the top driver of avoidable hospital admissions, readmissions and emergency department visits, this in-home non-clinical tool has great power to protect and extend health.

**The HomeMeds Process**

A community-based health coach visits the patient and inventories all medications in the home and performs an assessment of environmental, functional, and psychosocial needs.Besides the prescribed medications, the inventory enumerates drugs from other countries, “borrowed” meds, over the counter items, herbal items, supplements, and the unusual or unexpected, such as inadvertently taking their pet dog’s glucosamine. This list is entered in HomeMeds’ web-based software, along with information about the patient’s age, their physicians, diagnoses, concerns, etc.

After entering the inventory together, the coach talks with the patient to identify potential adverse medication effects such as any recent experiences with falls, dizziness, or confusion. This information is also entered in the program. The coach then asks the patient to take their own blood pressure, which is entered into the system. Lastly, the coach talks with the patient about each medication’s instructions in order to determine their understanding and adherence to properly taking and using each medication. This is also added to the program.

Once the assessment is finished and the input is completed, the **HomeMeds** software’s algorithm looks for any potential medication-related problems (MRPs) that would explain the symptoms. If problems are identified, a report is sent to a pharmacist who reviews these potential MRPs and makes recommendations for resolution. Those recommendations are then provided to the prescribing provider, and sometimes, to the patient as well.

A significant aspect of this approach is that analysis and recommendations are made by trained, licensed professionals – not the coach. The coach’s role is very specific:

- Collect medication information and patient self-reported signs and symptoms
- Enter data into the **HomeMeds** software, preferably in the home
- Contact a pharmacist and collaborate with care plan
  - Contact patient to verify medications
  - Follow-up with patient regarding medication changes

The pharmacist’s role is just as specific:
• Screen alerts to confirm importance of identified problems
• Communicate with prescribers
• Consult with care manager
• Identify medication problems beyond protocols
• Assist with complex cases (e.g., simplification of medication regimens for cognitively impaired people)
• Educate staff about medications/risks
• Document actions taken into the HomeMeds software

**Risk-Screening Protocols**

One of the benefits of using the HomeMeds process to identify any potential medication complications is that it utilizes a set of risk-screening protocols that were identified and selected through the efforts of a national interdisciplinary consensus panel chaired by Mark Beers, MD, using these criteria:

• Amenable to home-based intervention
• Alternatives exist for prescribers
• Problems identified are important enough that providers are likely to respond, i.e., avoid alert overload

There are four overall categories for the MRPs addressed by HomeMeds:

• Unnecessary therapeutic duplication
• Use of psychotropic drugs in patients with a reported recent fall and/or confusion
• Use of non-steroidal anti-inflammatory drugs (NSAID) in patients at risk of peptic ulcer/gastrointestinal bleeding (aged 80 or older, patients also using anticoagulants, antiplatelets, corticosteroids, etc.)
• Cardiovascular medication problems - High systolic BP, low pulse, orthostasis and low systolic BP

**Evidence-Based Success**

HomeMeds is included in the National Registry for Evidence-based Programs and Practices. It is also included with a strong evidence rating on the US Agency for Healthcare Research and Quality (AHRQ) Innovation Exchange.

The program is in use at 60 sites in 20 states—including medical groups and hospitals, health plans, area agencies on aging, post-hospital care transition programs, home-delivered meals programs, fall prevention collaboratives, and care management programs. Its use is expanding, with medical practices and community-based organizations currently adding the service.
It can be successfully applied anywhere people live, be it an individual residence, a congregate housing site, or an assisted living facility. Partners is also available to advise or consult on the design of related SDOH community partnerships.

**HomeMeds** is available through Partners in Care Foundation. To learn more about the program, set up a demonstration, or receive a document identifying outcome results, send an email to: Partners@picf.org