Announcing the New CIN Website  www.chcf.org/cin
Today’s Speaker

Sandy Atkins, MPA
Project director/VP
Institute for Change, Partners in Care Foundation
An Innovative Approach to Medication Safety

California Improvement Network Webinar
July 24, 2013

Partners in Care Foundation
June Simmons, CEO
Sandy Atkins, VP, Institute for Change
The Problem

Medication errors are:

- **Serious**: Over 700,000 people go to ED each year for adverse drug events
- **Costly**: Drug-related morbidity/mortality > $170 billion (ER, hospital/readmissions, SNF use, etc.)
- **Common**: Up to 48% of community-dwelling elders have medication-related problems
- **Preventable**: At least 25% of all harmful adverse drug events are preventable
The Solution: HomeMeds℠

- *HomeMeds℠* is designed to enable community agencies to keep people at home, out of hospital and nursing home, by addressing medication safety.

- Consensus panel (including Mark Beers) chose target problems for significance, accessibility to in-home staff, and likelihood of positive prescriber response.

- *HomeMeds℠* focus is to look for potential adverse effects (falls, vitals, confusion) and then determine if medications may be part of the cause.
Core Components

- In-home collection of a comprehensive medication list with notes on how each drug is being taken, plus vital signs, falls, symptoms, and other indicators of adverse effects
- Use of evidence-based protocols and processes to screen for risks and deploy consultant pharmacist services appropriately
- Computerized medication risk assessment and alert process with comprehensive report system
- Consultant pharmacist addresses problems with prescribers
"Any symptom in an elderly patient should be considered a drug side effect until proved otherwise."

(Gurwitz et al. 1995)

HomeMeds: Bridge from Home to Healthcare
Why Should Non-Healthcare Agencies Work on Medication Safety?

• To thrive, CBOs need to play a new role connecting the home with the healthcare system
  – Meds are major factor in readmissions
  – **Home** provides unique perspective otherwise unavailable to healthcare providers
  – New focus on **population health** – identifying and proactively addressing health for **high-risk patients**
  – **Quality measures** for health plans and providers relate to issues such as medication use and fall prevention
  – Home medication reconciliation is a **national patient-safety goal**
Medications & Care Transitions

• ~20% of discharged patients suffer an adverse event – 72% of which are med-related

• Med reconciliation and risk assessment – core element of every care transitions program

• But why wait for a hospitalization?

• Why not intervene earlier?

Home Visit Uncovers Many “Secrets” Prescribers May Not Know About

• OTCs – Over-the-counter medications
• Prescriptions from other providers
• Adverse effects such as falls, dizziness, confusion
• Adherence issues
• Out-of-system meds: Drugs from other countries, borrowed, Wal-Mart $4
Quality Measures Now Tied to $$\$$

- **Star Ratings – Medicare Advantage**
  - Yearly review of all medications and supplements being taken
  - Yearly pain screening or pain management plan
  - Controlling blood pressure
  - Reducing risk of falling
  - Readmission to a hospital within 30 days of being discharged

- **HEDIS for physicians**
  - Percentage of Medicare members 66+ who received at least one high-risk medication
  - Fall Risk Management: Discussion & Management
  - Potentially Harmful Drug-Disease Interactions
HomeMeds: Saves Money, Saves Lives

• Falls and other adverse effects improved through collaboration between pharmacists and members of the care team

• 46.7% of older adults screened in 14 sites from 2007 to 2010 had risk for medication-related injury

• Estimated savings from 7,000 screenings: Up to $1.5 million. ROI similar to MTM (4:1 or better)¹

Expected Results

- Lower cost
- Fewer falls, improved BP control, less confusion, etc.
- Improved medication use
What’s It All About?
The first and most important step...

- Treasure hunt – find “hidden” meds
- Transcribe accurate information from the bottle/box
- Inquiry – For each medication ask client:
  - What they take it for
  - How and when they take it
  - How much they take
  - What happens when they take it (Is it effective? Side effects?)
- Assess for common side effects
  - Falls
  - Confusion
  - Dizziness, shakiness, feeling light headed
  - BP/pulse
Evidence-Based Origins

• Vanderbilt University – John A. Hartford Foundation Funds
  – RCT proved efficacy in home health
  – Pharmacist-nurse collaboration to identify and resolve errors
  – Results:
    • 19% had potential medication problems
    • Medication use improved in 50% of patients, (compared to 38% of controls) when pharmacist collaborated with home health staff
HomeMeds: Further Evidence

AoA Funds and USC Evaluation

- In Medicaid Waiver for Dual Eligibles (nursing-home eligible, living at home)
  - Social workers and nurses collected data
- **Results**¹,²: 49% had **potential** medication problems
  - After pharmacist review 29% of all waiver clients required physician intervention
  - Medication use improved in 61% of clients

Evidence-based Recognition

- AoA recognition as an evidence-based prevention program – Highest Level of Evidence
- ACL Aging & Disability Evidence-based Programs and Practices (http://acl.gov/Programs/CDAP/OPE/docs/HomeMeds_InterventionSummary.pdf)
  - Quality of research: 3.2/4
  - Readiness for dissemination: 4/4
- US Agency for Healthcare Research and Quality (AHRQ) Innovation Exchange
  - Strong evidence rating (http://www.innovations.ahrq.gov/content.aspx?id=2841)
Evidence-based Protocols

• Identified by national expert consensus panel¹
• Targets problems that can be identified and resolved in the home:
  – Positive response by prescribers
  – Minimize “alert overload”: based on signs/symptoms

1. Unnecessary therapeutic duplication

2. Use of psychotropic drugs in patients with a reported recent fall and/or confusion

3. Use of non-steroidal anti-inflammatory drugs (NSAID) in patients at risk of peptic ulcer/gastrointestinal bleeding

4. Cardiovascular medication problems
  • High BP, low pulse, orthostasis and low systolic BP

HomeMeds Flow & Fidelity

1. Home Visit Med Inventory & Assessment
2. Enter meds/clinical info into computer
3. An alert is generated
4. Confirm med is currently used by client
5. Document changes to meds/conditions; resolve alerts
6. Pharmacist tracks status and MD response
7. Pharmacist faxes/calls in med list/recommendation to MD, documents intervention
8. TRIAGE: Pharmacist Review/Consult – contacts MD/case manager/patient
Roles of the Pharmacist

- Screen alerts to confirm problems
- Communicate with prescribers
- Consult with staff
- Identify problems beyond protocols
- Assist with complex cases
- Educate staff about medications and risks
- Average 20 min./client
HomeMeds Risk-Screening Software: Ask for a Demo
Web-based: Use with PC or Tablet
HomeMeds Software: Dashboard

To enter a new patient or change an existing patient record, click on Patients on the navigation bar above.

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HomeMeds Software: Risk Assessment

- Have you had a fall in the past three months? Yes
  - How many times? 3
  - How did the fall happen (if more than one, record most serious fall)? Can't remember
  - Did you have any injuries other than bruises? Cut on elbow

- Do you often feel dizzy or light-headed when you get up from a chair or your bed? No
- Have you felt unusually confused at any time in the past three months (i.e. couldn't think straight)? Yes
- Have you been in a hospital or nursing home or visited the ER in the past 3 months? Yes

**Assessment Status**

- How much Pain have you experienced recently? Moderate
- On average, how many days a week do you drink alcoholic beverages (beer, wine, liquor)? 7
- On a typical day when you drink, how many drinks do you have? 2

**Vital Signs**

- Blood Pressure - Lying down: 145 / 95
- Pulse: 50
- Date/time taken: 07/01/2013
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<th>Drug</th>
<th>Frequency</th>
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<td>Sharma</td>
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<td>6. LORazepam 0.5 mg oral tablet</td>
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<td>Gonzalez</td>
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Other drugs and medications not listed: Stool Softener 100mg 1 PRN. Case Manager: Rosa Ruiz

**SELF-REPORTED HEALTH CONDITIONS AND SURGERIES**

1. 'Osteoporosis'
2. Other conditions submitted were;
   - Thyroid and spinal problems
   - Surgeries: cataract.

**ALLERGIES**

**POTENTIAL MEDICATION-RELATED PROBLEMS**

- Patient reports at least one recent fall and concurrent use of the following medication(s), which can increase risk of falls, especially in older adults: (LORazepam 0.5 mg oral tablet). Recommend re-evaluation of drug(s)/dosage.
- Patient reports recent pattern of dizziness upon standing. Recommend reviewing for possible cause, including medication-related factors and to reduce risk of falling.

**DUPLICATE THERAPIES**

1. atenolol 25 mg oral tablet
   - and Metoprolol Tartrate 25 mg oral tablet shares therapy: *beta blockers*

**DUPLICATE INGREDIENTS**

1. Ativan 2 mg oral tablet
   - and lorazepam 1 mg oral tablet has duplicate drug *lorazepam*
2. Coumadin 4 mg oral tablet
   - and warfarin 2 mg oral tablet has duplicate drug *warfarin*
Typical Problems in Community-Dwelling Elders

- Patient with dizziness taking 2 beta blockers.
- Patient >80 taking 3 medications that increased risk of GI bleed
- Patient who fell taking 5 meds that increased risk of falls
- Patient taking 4 narcotic pain killers: hydromorphone, hydrocodone+acetaminophen, fentanyl, hydrocodone
- Average 11 meds – up to 28!
Consumer Feedback...

Mr. Johnson went from 20 meds to just 8.

“You have saved us money on monthly refills and my life! We cannot thank you enough!”
Clinician Feedback

“I called the MD's office and Dr. A actually answered the phone! He was very concerned about the 96-y/o client, and definitely wants to follow-up with her. He really appreciated knowing about the falls, especially given aspirin and Advil use because of the potential for bleeding with falls.”

- Pharmacist consultant also found that PA was refilling Valium without MD awareness
User Feedback: Lessons Learned

• Seniors living at home without supports received the greatest benefit.
• Home “treasure hunt” best.
• Positive feedback on having a comprehensive med list.
• Hospitals, health plans & community providers recognize the problem and understand value of this service.

Interesting where people keep meds... and some are taking their spouse’s meds once in awhile. They will often “remember” a bottle in the medicine cabinet or night stand. You wouldn’t get that info unless you are in the home and can talk about it.
Feedback from Ft. Worth AAA

• Caregivers have positive response
  – Beneficial to gain better understanding of their loved one’s medications and provides confidence when accompanying them to doctors visits

• Don Smith, Director, Tarrant County AAA:
  – “HomeMeds is the easiest of all evidence-based programs to implement. We can see results -- decrease in number of medications, decrease in falls pre and post.”
Who’s Implementing HomeMeds?

- Medicaid programs for Dual Eligibles
- Care Transition programs
- CBOs under contract with medical groups
- Area Agencies on Aging & Senior Centers
- Meals on Wheels
- Home Health/Homecare Agencies
- Assisted Living & Affordable Housing
- Native American Tribal Community
Innovative Applications

• Contract with at-risk medical group
• Targeted one-time home visit by social worker
• HomeMeds screening and general safety assessment (ADLs, environment, cognitive status, caregiver/family support, PHQ-2/9)
• HomeMeds pharmacist intervention
• Reports to Case Manager, PCP, EHR system
• Care plan and referrals
Targeting Criteria for a Home Visit

1. Age 65+ and
2. ED/hospital use in past year, plus:
   a) Five or more prescribed meds; or
   b) Warfarin/antiplatelet or insulin/diabetes meds; or
   c) Dx CHF, COPD, depression, anxiety, bipolar, psychosis; or
   d) Mild cognitive impairment; or
   e) Recent treatment for fall or confusion; or
   f) Age 80+; or
   g) Any patient there is a concern about
HomeMeds in Tarrant County, TX

• Local Fall Prevention Coalition
  – Fire Dept. mapped frequent fallers
  – Target MOB classes and HomeMeds outreach
  – Provide alternative to 911

• MOW targets 1,500 clients
  – Pharm Tech doing data entry
  – 80% had alerts
  – 180/400 had at least one fall in last 3 months and a number had dizziness related to the fall

“HomeMeds integrates really well with CDSMP and MOB. Each has a module on medication management and HomeMeds reinforces this and integrates and is easy to refer people to.”
Our Process: Planning & Decisions

• Readiness assessment (online SurveyMonkey)
  – Executives show higher readiness than supervisors and those who must implement

• Champions & staff
  – Internal mentor – clinical & computer

• Data entry variations
  – Real-time data entry or person who collected data best
Planning for Challenges

• Fear of liability by social service staff
  – Social work role is in-home information gathering and communication

• Individual consents from clients/patients
  – Review and update contracts
  – Avoid a separate consent if possible
  – Provide an opt-out, rather than an opt-in choice
  – Consumer brochure “Your doctor will thank you.”
What Does It Cost?

- Planning, setup, consultation, support:
  - $3,000 one-time fee
- Software license
  - From $200/month for up to 50 new clients created/month
  - Negotiate shared licenses for smaller sites
- Training
  - $5,000 on-site plus travel (shared multisite OK)
  - $250 per refresher webinar (after year 1)
Covering the Cost

• Software, startup and pharmacist
  – Older Americans Act Title III-D
• Pharmacist coverage alternatives
  – Pharmacy School – students & supervision
  – Waiver purchase-of-service dollars
  – Volunteer community pharmacist
  – Medicare MTM: Medication Therapy Management (through local pharmacy or patient’s Part D plan)
Conclusion

HomeMeds is a proven tool for improved medication safety, health, and well-being for older adults.

It is an affordable, evidence-based program that is a perfect bridge for partnerships between community agencies and healthcare.
HomeMeds: Call or email us

Email us at HomeMeds@picf.org
HomeMeds Website: www.HomeMeds.org
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Sandy Atkins, VP: satkins@picf.org
Dennee Frey, PharmD: dfrey@picf.org
Phone: 818.837.3775
Thank you for joining our call today!

For more information about the California Improvement Network, go to www.chcf.org/cin

Today’s webinar slides and recording will be available at that site within a week.