H2H “Mind Your Meds "Challenge

Webinar #3- Lessons Learned
Wednesday, April 18, 2012
2:00 pm – 3:00 pm ET

Welcome

Take Home Messages
• Understand how to implement the “Mind Your Meds” strategies and tools in your facility
• Learn lessons from other facilities
• Share your ideas, needs, and experiences with the “Mind Your Meds” Challenge
## Webinar Format

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Shilpa Patel</td>
<td>5 min</td>
</tr>
<tr>
<td>MM Success Metrics and Tool Kit</td>
<td>Shilpa Patel</td>
<td>5 min</td>
</tr>
<tr>
<td>Success Metrics 2,5,6,7: Case Study #1</td>
<td>Sam Abdelghany, Pharm D, BCOP Maribeth Cabie, Pharm D Yale New Haven Hospital</td>
<td>15 min</td>
</tr>
<tr>
<td>Success Metrics 2-7: Case Study #2</td>
<td>Adam M. Pugacz, Pharm.D., BCPS Sherry K.M. LaForest, Pharm.D., BCPS Louis Stokes Cleveland Dept of Veterans Affairs Medical Center</td>
<td>15 min</td>
</tr>
<tr>
<td>Success Metrics 5, 8,10: Case Study #3</td>
<td>Michele Gilbert RN, MSN, NP-C, CCRN Bon Secours Charity Health System</td>
<td>10 min</td>
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<tr>
<td>Question-and-Answer</td>
<td>All</td>
<td>10 min</td>
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</tbody>
</table>

### H2H Challenge #2:

**Post Discharge Mediation Management**

**“Mind Your Meds”**

**Goal**

The goal of the “Mind Your Meds” Challenge is for clinicians and patients discharged with a diagnosis of HF/MI to work together and ensure optimal medication management.
**“Mind Your Meds” Success**

The clinician is successful if:

1. HF and MI patients are prescribed appropriate medications, dose, type, and frequency.
2. Medication reconciliation is performed accurately as appropriate for every patient AND is documented in the medical record.
3. Possible external barriers to obtaining prescribed medications are identified in advance, addressed, and documented in the medical record.
4. Possible barriers to patients remembering/understanding the need to take medications as prescribed are identified in advance, addressed, and documented in the medical record.

5. Patient/Caregiver is provided with documented instructions and prescriptions for all their medications, especially when and how they should be taken, during the discharge process.
6. Patient/Caregiver can demonstrate they understand the importance of taking their medications, of adhering to their medication as prescribed, and of adhering to any changes to their prescriptions – especially medications that are discontinued.
7. Patient/Caregiver can demonstrate they understand possible side effects and symptoms that may be related to their medications, and who to call if they have symptoms that may be related to medications.
“Mind Your Meds” Success

The patient is successful if:

8. Patient/Caregiver remembers to take all their medications as prescribed (i.e., dose, type, frequency).

9. Patient/Caregiver can demonstrate they understand what each medication does, why the medication is important to take as prescribed, and what potential side effects there may be for medicines.

10. Patient/Caregiver brings his/her medications or a medication list to each and every clinic visit.

11. Patient/Caregiver can discuss any challenges, problems, issues, side effects, or questions about medications with clinician.

“Mind Your Meds” Tool Kit

The H2H MM Tool Kit consists of 11 success measures and over 30 resources and tools gathered together in one place. The tool kit was derived from the H2H learning community and external organizations. Each tool/strategy is linked to a particular success metric for process improvement.

<table>
<thead>
<tr>
<th>#</th>
<th>Success Measures</th>
<th>Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>The clinician is successful if:</td>
<td>PINNACLE Heart Failure Practice Solutions</td>
<td>American Society of Health System Pharmacists Med Rec Tool Kit</td>
</tr>
<tr>
<td>1</td>
<td>The right meds are prescribed</td>
<td>Qualifed Heart Failure Module 1</td>
</tr>
<tr>
<td>2</td>
<td>Med rec at admission and discharge</td>
<td>BOOST Med Rec Resources</td>
</tr>
<tr>
<td>3</td>
<td>Environmental barriers to getting meds addressed</td>
<td>H2H Key Questions at Admission, a Stay, and Discharge</td>
</tr>
<tr>
<td>4</td>
<td>Patient barriers to taking meds addressed</td>
<td>H2H Key Questions at Admission, a Stay, and Discharge</td>
</tr>
<tr>
<td>5</td>
<td>Patient has medication documentation</td>
<td>H2H Common Barriers and Solutions to Med Management</td>
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</table>
“Mind Your Meds” Case Study #1: Yale New Haven Hospital

Success Metrics Addressed:

2. Med rec at admission and discharge
5. Patient has medication documentation
6. Patient understands importance of their meds
7. Patient understand side effects from their meds

Medication Reconciliation

Sam Abdelghany, Pharm D, BCOP
Maribeth Cabie, Pharm D
Yale New Haven Hospital
Overview

• Medication reconciliation projects
  – Heart Failure
  – Medicine
• Implementation/logic
• Outcomes to date
• Barriers and future directions

Yale-New Haven Hospital (YNHH)

• 1000 + bed tertiary care, academic medical center
• 52,000 + admissions
• Electronic medical record (EMR)
• Pharmacy department: 190 pharmacists and technicians
  – 4 Med Rec. Techs
Heart and Vascular Center Collaborative

• Started in 2010 on two cardiac units

• Rapid cycle quality improvement methodology

• Weekly interdisciplinary meetings

Heart and Vascular Center Collaborative

• Patient identification
  – Drug filters in our EMR (furosemide, torsemide, digoxin)
• Intense one-on-one education with a HF care coordinator
• Redesign of discharge education materials
• Appointment within 7 days
• Follow up phone calls by the care coordinator
• Review of discharge medication lists by a pharmacist prior to discharge
Pharmacist's Role

**HF check list**
- Med. Recon
- Life saving therapy
- Follow-up appt
- Medication refills
- Vaccinations
- When to call the physician
- When to call 911

**Provide patient with:**
- Wallet card
- Handouts- informational sheets/kits (ie; Fragmin)
- Drug information handouts
- Discharge instructions

Results

<table>
<thead>
<tr>
<th></th>
<th>VNHH</th>
<th>SP 52 &amp; SP 53</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Intervention</strong></td>
<td>27.3%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Post Intervention</strong></td>
<td>20.4%</td>
<td>18%</td>
</tr>
</tbody>
</table>
Medicine Pilot

- Follow up to a previous pharmacy project
- Include best practices
  - Medication reconciliation (admission and discharge)
    - Incorporate medication reconciliation technicians
  - New discharge instructions
  - Follow up phone call
- Targeted challenging floor

Design

- A quasi-randomized, prospective study

- Inclusion Criteria
  - All patients admitted to one medicine floor
  - October 2011 – March 2012

- Exclusion Criteria
  - Discharged to hospice
  - Expired prior to discharge
Objectives

• Primary
  – 30-day readmission rates
    • Compare to preceding 6 months and same time frame the previous year
• Secondary
  – Pharmacist interventions
  – Total pharmacist and technician time
Follow-up Phone Call

• Made by a pharmacist 24 to 72 hours after discharge:
  ✓ How have you been feeling since you have returned home?
  ✓ Were you able to obtain all of your medications?
  ✓ Did you understand how to take all of your medications?
  ✓ Did you experience any medication-related side effects?
  ✓ Do you have any questions regarding your follow-up appointments?
  ✓ Do you have any other questions or concerns?
Preliminary Results

30-Day Readmission Rates

- Pre-intervention
- Post-intervention

Chronic Medication Omitted: 57% (n=314)
- Same Therapeutic Class, Wrong Medication: 29% (n=157)
- Wrong Dose or Frequency: 8% (n=44)
- Other: 6% (n=31)

Medication Reconciliation Interventions

Pharmacist-Identified Medication Interventions (Per Patient)

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Discharge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.3</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Range</td>
<td>0-4</td>
<td>0-9</td>
<td>546</td>
</tr>
</tbody>
</table>

- Chronic Medication Omitted: 57% (n=314)
- Same Therapeutic Class, Wrong Medication: 29% (n=157)
- Wrong Dose or Frequency: 8% (n=44)
- Other: 6% (n=31)
Barriers and Limitations

- Advance notification of patient discharges
- Weekend and off-hours discharges
- Summer blues!
- Primary diagnosis and EMR filter accuracy
Future Directions

- Expand current efforts
  - Heart and Vascular Center Collaborative
  - Med Rec. technicians on other floors
  - Weekends
- Technology and medication reconciliation
  - EPIC
- Follow-up phone call
- Communications with outside providers

“Mind Your Meds” Case Study #2: Louis Stokes Cleveland Dept of Veterans Affairs Medical Center

Success Metrics Addressed:

2. Med rec at admission and discharge
3. Environmental barriers to getting meds addressed
4. Patient barriers to taking meds addressed
5. Patient has medication documentation
6. Patient understands importance of their meds
7. Patient understand side effects from their meds
Pharmacist Medication Reconciliation and Cardiac Disease

Adam M. Pugacz, Pharm.D., BCPS
Sherry K.M. LaForest, Pharm.D., BCPS
Louis Stokes Cleveland Dept of Veterans Affairs Medical Center

The Veterans Affairs Health System

- Cleveland VA Medical Center
  - Tertiary care center, 673 beds, 223 acute care, closed health system with standardized national formulary
  - Estimated ~7000 patients with HF
  - Urban population center
  - Electronic health record system (EHR)
    - Access to national data and Rx records

- Medication Access
  - Any VA medical center or community based clinic
  - Central fill mail order

- Prescription drug benefits
  - Fully covered in some cases
  - Affordable co-payments if applicable
Approach to Medication Reconciliation

- Clinical Pharmacist
  - Dedicated to medication reconciliation and transition of care
  - Scope of Practice Agreement
  - Follow patient throughout admission
  - Review home going instructions with patient and/or family at discharge
  - Medication education
  - Assure follow up instructions present

Integration and Co-operation

- Facilitates patient discharge and transition
- Optimize pharmacotherapy
- Early post-discharge follow up (7-10d)
- Provides inpatient care when needed
- Provides appropriate outpatient care
SERIOUS Model for Medication Reconciliation

Solicit (from patient)
- Medications and allergies from patient at each encounter, including all medications and herbal supplements
- Obtain information from other pharmacies if needed

Examine
- At each inpatient and outpatient encounter
- Look for discrepancies in doses, frequencies between list and reported regimen

Reconcile
- Compare home list and list in medical record, make changes to make them match as appropriate
- Reconcile with interactions and allergies and take appropriate actions

Inform
- Educate patients and caregivers about indications and adverse effects of medications

Optimize
- Optimize medication doses to target guidelines or to improve symptoms
- Reduce medications if appropriate to address polypharmacy or improve adherence

Update
- Update list with appropriate changes

Share
- With patient/caregiver when leaving and all other providers


What do we provide at discharge?

• Apply guideline based pharmacotherapy
  – Assure quality care (templates, active review)
    • Look for medication omissions in discharge instructions
  – Document required medication-related performance measures for patients with heart failure, acute coronary syndromes

• Facilitate prompt follow up
  – Utilize available clinics and communicate amongst staff

• Detailed medication education
  – Bedside teaching with discharge medications present
  – Medication adherence aids available (e.g. pill organizer)
Barriers Identified with Discharge Medication Reconciliation

**Challenges**

- Accurate admission med rec assessments
  - Prescriptions across different health systems and pharmacies
  - Expired outpatient orders
- Access to care and medications
- Patient non-adherence
  - Objective evidence?
  - Try to get at source of problem

**Solutions**

- Clinical pharmacist available at all levels of care
  - Dedicated to med rec
    - Review records and actual medications
  - Communicate recommendations to inpatient and outpatient PCP/cardiology teams via EHR
- Targeted questions about home medication use, supplies, refills
- Dispensing to patient at bedside for direct education
- Appointments prior to discharge

Heart Failure Medication Reconciliation Clinic

- Pharmacist staffed, with NP/MD evaluation when needed
  - Uses existing departmental staff
- Prompt follow up, re-enforce education/adherence, and regimen optimization
- Provide BP cuffs, scale, tablet cutters, pill box (+/- initial filling) and pill calendars to patient if necessary
Clinic Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Total Population (n=122)</th>
<th>Post Hospital Discharge (n=73)</th>
<th>Systolic Dysfunction (n=67)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (mean ± SD)</strong></td>
<td>68 ± 11 years</td>
<td>69 ± 10 years</td>
<td>65 ± 11 years</td>
</tr>
<tr>
<td><strong>EF ≤ 40%</strong></td>
<td>55%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td><em>Oral/Injectable/Inhaled Medications mean (range)</em></td>
<td>15 (4-27)</td>
<td>14 (4-26)</td>
<td>13 (6-24)</td>
</tr>
<tr>
<td><strong>Medication Discrepancies</strong></td>
<td>52% (n=64)</td>
<td>52% (n=38)</td>
<td>51% (n=34)</td>
</tr>
<tr>
<td><strong>Number of Discrepancies mean (range)</strong></td>
<td>3 (1-12)</td>
<td>3 (1-12)</td>
<td>3 (1-12)</td>
</tr>
<tr>
<td><strong>Medication Optimization</strong></td>
<td>71% (n=87)</td>
<td>71% (n=52)</td>
<td>75% (n=50)</td>
</tr>
<tr>
<td><strong>Number of Medications Optimized median (range)</strong></td>
<td>2 (1-5)</td>
<td>2 (1-5)</td>
<td>2 (1-4)</td>
</tr>
<tr>
<td><strong>Days between discharge and clinic visit (mean ± SD)</strong></td>
<td>n/a</td>
<td>10 ± 6 days</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>30-day all cause readmission rate % (mean number of days)</strong></td>
<td>n/a</td>
<td>8% (16 days)</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Mortality within 30 days</strong></td>
<td>1.6% (n=2)</td>
<td>2.7% (n=2)</td>
<td>1.4% (n=1)</td>
</tr>
</tbody>
</table>

Milfred-LaForest S. HFSA 2010. [Abstract]

Medication Discrepancies

• Why did we find so many medication discrepancies?
  – Patients bring medication bottles/pill box
  – Time allotted to do a thorough interview
    • 60 min appointments (including NP assessment if needed)
  – Hospital discharge
    • Lack of inpatient med rec does not appear to be the problem
      – 77% of patients had med rec done by pharmacist prior to discharge
    • Confusing time for patients, lots of information
    • Don’t have home meds in hospital with them
Medication Use Barriers Identified in Post-Discharge Clinic

Challenges
• Identifying appropriate patients and scheduling within short time frame
• Patient barriers
  – Lack of understanding of changes at discharge (unintentional errors)
  – Multiple medication lists/supplies in home
  – Poor health literacy/social support to actually make prescribed changes

Solutions
• Consult template for inpatient services
  – Request med rec clinic follow-up
  – If possible make appointment prior to discharge
• Targeted education
• Simplify regimen
• Involve home care services, communicate specific issues
  – Telehealth nurses
  – Home-based primary care
  – Family members

“Mind Your Meds” Case Study #3: Bon Secours Charity Health System

Success Metrics Addressed:
5. Patient has medication documentation
8. Patient remembers to take meds
10. Patient brings their meds to appointments
Mind Your Meds

Michele Gilbert RN, MSN, NP-C, CCRN
Nurse Practitioner, Heart Failure Program
<table>
<thead>
<tr>
<th>Take These Medications</th>
<th>At These Times</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allopurinol</strong> 200mg Tablet(s)</td>
<td>1 Tab(s)</td>
<td>Treats gout</td>
</tr>
<tr>
<td><strong>Levohytnarid sodium</strong> 25mg Tablet(s)</td>
<td>1 Tab(s)</td>
<td>Replaces thyroid hormone</td>
</tr>
<tr>
<td><strong>Aldactone</strong> 50 mg Tablet(s) By mouth</td>
<td>1 Tab(s)</td>
<td>Water pill</td>
</tr>
<tr>
<td><strong>Lasix</strong> 40mg Tablet(s) By mouth</td>
<td>2 Tab(s)</td>
<td>Water pill</td>
</tr>
<tr>
<td><strong>Apirin</strong> 81 mg Tablet(s) By mouth</td>
<td>1 Tab(s)</td>
<td>Prevents blood clots</td>
</tr>
<tr>
<td><strong>Prinivil</strong> 20mg Tablet(s) By mouth</td>
<td>1 Tab(s)</td>
<td>Controls blood pressure</td>
</tr>
<tr>
<td><strong>Digitak</strong> 0.25mg Tablet(s) By mouth</td>
<td>1 Tab(s)</td>
<td>Treats heart failure and irregular heart beat</td>
</tr>
</tbody>
</table>
Weekly Med Checklist

It is important to bring this completed list with you to each healthcare or dental visit.

| Allergies | DOB: 03-01-1933 | Phone: 44793405 |

<table>
<thead>
<tr>
<th>Time</th>
<th>Medication</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12PM</td>
<td>Atorvastatin 30mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Lovastatin 15mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Fluvastatin 40mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Rosuvastatin 10mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Simvastatin 20mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Metoprolol 50mg</td>
<td>2 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Indomethacin 75mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Allopurinol 300mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Furosemide 20mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Losartan 50mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Amlopidine 5mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Lisinopril 20mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Digoxin 0.25mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Levetiracetam 500mg</td>
<td>1 Tablet(s)</td>
</tr>
<tr>
<td></td>
<td>Levetiracetam 500mg</td>
<td>1 Tablet(s)</td>
</tr>
</tbody>
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Password (Case Sensitive):
Forgot your password?
Sign In

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Save Money on Your Medications

Learn More

Did you know that your healthcare providers use MobileMedication? They can send a schedule to your MyMedSchedule account?

More information in app.
### MyMedSchedule.com®

**Name:**

<table>
<thead>
<tr>
<th>Medication</th>
<th>10 am</th>
<th>2 am</th>
<th>6 am</th>
<th>10 am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nexium®</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cerevac®</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Digest®</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lipitor®</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Plavix®</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>Aspirin®</td>
<td>1</td>
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<td></td>
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<tr>
<td>Pro Amnion®</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Coumadin®</td>
<td>Please see your Anticoagulation Schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coumadin®</td>
<td>12.5 mg Tablet(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now patients can access MyMedSchedule wherever they go! iPhone and Android phone users can launch MyMedSchedule Mobile to create, update, or view their schedules, and set or receive medication reminders.

Learn more available at the App Store and available at the Android Market.
Medication Adherence

- 31-58% of cardiovascular patients are non-adherent in taking their medications.
- 33-69% of medication-related hospital readmissions in the US are due to poor medication adherence.
- Improved medication adherence can lead to a decrease in ED visits, rehospitalization and mortality.
- Medication non-adherence contributes to 20-64% of heart failure readmissions.
Final Thoughts…

- A good medication list is easy to read, with:
  - Brand and generics if indicated
  - Clear dosage
  - Simple explanation of what medication does
  - Tailored to the patient’s schedule
  - Portable (accessible on smart phone or paper list with the patient at all times)

Upcoming Activities

- Patient Recognition of Signs and Symptoms
  Introductory Webinar – June

_The H2H “See You in 7” and “Mind Your Meds” Challenge_ Archived Webinars
_Are available online_

Everything will be available online at
_http://www.h2hquality.org_
Moderated Question-and-Answer Session

*Please submit your question online at this time.*

*Thank You*