PHARMACY QUALITY MEASURES:
Improving Performance Playbook
Congratulations for taking on the challenge of improving your pharmacy’s performance on key pharmacy quality measures, as well as improving the outcomes of the patients you serve! This guide is intended to support you and your pharmacy staff in improving your pharmacy’s performance to positively affect health plans’ Star Ratings and protect your access to insured patients.

The guide is organized by four key Star Ratings quality measures tracked by the Centers for Medicare and Medicaid Services (CMS) that pharmacies can impact. For each measure, the guide includes a description of the measure, the clinical relevance of the measure, a case study, and suggested initial action steps that your pharmacy can take. The guide also includes examples of motivational interviewing techniques and sample fax templates that can be customized for the particular requirements in your state and the specific operations in your pharmacy.

The topics discussed in the playbook are generalized based on common pharmacy systems or program-agnostic action steps that may pertain to all pharmacies. The guide also includes third-party guidelines and resources. These links or resources are sourced directly from third parties and have not been modified, updated or verified. Accordingly, use them as a general reference but verify and tailor the information based on your practice and location. Note that the Board of Pharmacy in your state may have patient counseling, documentation or other requirements that are different from or in addition to the information and examples discussed in this guide.

Finally, although this guide is an educational resource, it is not intended to be the only resource used in establishing your quality improvement efforts. In addition to the legal requirements imposed by your state, other resources may be available and helpful.

The information provided here is for reference use only and does not constitute the rendering of legal or other professional advice by Health Mart®. Readers should consult appropriate professionals for advice and assistance prior to making important decisions regarding their business. Health Mart is not advocating any particular program or approach. Health Mart is not responsible for, nor will it bear any liability for, the content provided in this guide.
Why Performance Measures Matter to Your Pharmacy

Both of your customers — the patient and the payer — want better value for their investment through reduced total healthcare cost and improved outcomes.

This desire is being driven by the tremendous mismatch of healthcare expenditures compared to healthcare quality in the U.S. The United States spends more than any other country in the world on healthcare. In fact, 17% of the GDP, or nearly $1 out of every $5 dollars produced, is spent on healthcare. Yet according to the World Health Organization, the United States ranks in the mid-30s worldwide in healthcare quality. The huge gap between investment in healthcare and quality of outcomes is leading many experts to look for ways to improve the quality of each dollar spent and to create tangible changes in how health systems are incentivized. This impacts every aspect of the healthcare system, including your pharmacy.¹

The Medicare Star Ratings System

Star Ratings are a 5-star quality rating system of health plans designed by CMS to help patients compare and choose Medicare plans. These ratings impact health plan reimbursement and open enrollment periods, and higher ratings are better. The ratings are used to review many aspects of plans and benefits provided to patients, ranging from customer service to patient outcomes. The quality measures most relevant to community pharmacies are the four measures related to medication adherence and comprehensive medication review completion rate. In addition, there is a new statin use in diabetes display measure that pharmacies have the ability to impact. Each of these quality measures directly affects patients’ quality of care and health outcomes.²

The four measures are:³

| CORE MEASURES #1, 2, 3 | Medication adherence for three chronic disease states:  
|                        | • RAS antagonist adherence in the treatment of hypertension  
|                        | • Statin adherence in the treatment of hyperlipidemia  
|                        | • Oral diabetic agent adherence in the treatment of diabetes  
| CORE MEASURE #4 | Comprehensive medication review completion rate

The United States spends more than any other country in the world on healthcare. In fact, 17% of the GDP, or nearly $1 out of every $5 dollars produced, is spent on healthcare. Yet according to the World Health Organization, the United States ranks in the mid-30s worldwide in healthcare quality.
For More Information

For more information on the Star Ratings, changes in the healthcare marketplace, and a general overview of payment model changes, refer to “The Pharmacy Performance Imperative: A Guide for Independent Pharmacies” found with other resources on the *Know Your Numbers* and EQuIPP™ pages in the Health Mart Operations Manual. The following CE opportunities are also available on Health Mart University™:

- Pharmacy Quality Measures: Action Steps for Improvement
- Coaching at the Counter ... Opportunities for Enhancing Communication with a Patient-Centered Approach
- Implementing Medication Synchronization
- Practical Steps for Integrating MTM into Your Daily Practice
- Disease state–specific education courses and more!

**PHARMACIST’S LETTER**

*Pharmacist’s Letter*, a Health Mart member benefit, provides education and resources to help impact pharmacy quality measures, including drug therapy recommendations, comparison charts, patient education handouts, FAQs, audio snippets, disease state–specific toolboxes, and more. Throughout the playbook, you’ll see the *Pharmacist’s Letter* icon, indicating that additional related resources are available from *Pharmacist’s Letter*. See Appendix H for a sampling of the resources available to you from *Pharmacist’s Letter*. For more information and instructions on how to access, visit the *Pharmacist’s Letter* page on the Health Mart Operations Manual.

In addition to the training available on Health Mart University, below are some examples of the related *Pharmacist’s Letter* CE and quality resources also available. Refer to additional resources section at the end of each measure for more examples.

- Quality Measures Toolbox for Pharmacists (310108)
- Quality Measures: What Pharmacy Teams Need to Know (14-311)
CORE MEASURES #1–3

Adherence to Drug Therapy for Three Chronic Disease States
Adherence to Drug Therapy for Three Chronic Disease States

Why is CMS targeting adherence? There’s a lot of room for improvement. Today, only 25–30% of prescriptions are taken properly and only 15–20% are refilled as prescribed. The World Health Organization estimates that the average nonadherence rate is 50% for patients with chronic diseases. A study published in 2012 in the *Annals of Internal Medicine* estimated that nonadherence is costing the U.S. healthcare system in the range of $100 billion to $289 billion a year. In addition to higher healthcare costs, the consequences of nonadherence include worsening condition, increased comorbid diseases and death.13

**MEASURE DESCRIPTION**

<table>
<thead>
<tr>
<th>2015 CMS 5-STAR GOAL:</th>
<th>(Higher is better)</th>
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<tbody>
<tr>
<td>RAS Antagonists:</td>
<td>&gt; 85%</td>
</tr>
<tr>
<td>Statins:</td>
<td>&gt; 83%</td>
</tr>
<tr>
<td>Diabetes:</td>
<td>&gt; 81%</td>
</tr>
</tbody>
</table>

**WHAT:** These measures look at improving adherence in three key medication groups:

(i) RAS antagonists (see Table A on page 26)

(ii) Oral diabetic agents (see Table B on page 27)

(iii) Statin medications (see Table C on page 26)

**WHO:** Adherence is measured by proportion of days covered (PDC), which assesses the percentage of patients covered by prescription claims for the same drug or another drug in the same therapeutic class within a calendar range. Specifically, these measure the percentage of plan members who have a prescription for an oral diabetes medication, a hypertension medication (RAS antagonist) or a cholesterol medication (statin) and filled their prescription often enough to cover 80% or more of the time that they are supposed to be taking the medication.3
MEASURE CALCULATION

These adherence measures are calculated based on Prescription Drug Event (PDE) data submitted to Medicare two years prior to the reporting year (e.g., data from January 1–December 31, 2013 for reporting year 2015). Data must be reported by June 30 of the year prior to the reporting year (e.g., June 30, 2014 for 2015).\(^3\) Essentially, action or activity on the part of the pharmacist lags the reporting/reward by two years.

This percentage is calculated separately for RAS antagonists, oral diabetic agents and statins. It is calculated as:

**THE FORMULA:**

\[
\frac{\# \text{ member-years of enrolled beneficiaries 18 years or older with a proportion of days covered (PDC) at 80\% or more across the classes of the given medications during the measurement period}}{\# \text{ member-years of enrolled beneficiaries 18 years or older with at least two fills of medication(s) across any of the drug classes during the measurement period}}
\]

**Adjustment for inpatient stays:** Medication fills during beneficiary stays in inpatient facilities are not included in the Prescription Drug Event claims used to calculate the adherence measures.\(^3\)

**Patient attribution:** The pharmacy that filled the most prescription claims within the target therapeutic category for a specific patient within the calendar range is assigned responsibility for the patient. All prescription claims, regardless of pharmacy, are counted toward the patient’s PDC threshold.\(^3\)

\(^3\)The EQuIPP dashboard, which is provided to Health Mart members through Pharmacy Quality Solutions (PQS), is a 6-month rolling report as opposed to the 12-month reporting cycle used by CMS.

**KEY TAKEAWAY:**

PDC measures look at patients’ ability to remain adherent throughout the measurement period (year). Continued health coaching along with addressing patient-specific barriers with each prescription fill or refill is critical to long-term performance success!
CLINICAL RELEVANCE: ADHERENCE

The following is intended to be a brief overview of the clinical relevance of this measure. It should not be used as a treatment guide, but rather as a reference point for correct treatment guidelines. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

Adherence is defined as the “active, voluntary and collaborative involvement of the patient in the creation of a mutually acceptable course of behavior to produce a therapeutic result.”14,15 Adherence is a personal behavioral choice that a patient has to make. The choice begins with the patient’s decision to even start medication therapy.

A recent study showed that up to 25% of patients fail to start newly prescribed medications.16 When therapy is initiated, adherence tends to be higher in acute symptomatic conditions and lower in chronic conditions (e.g., hyperlipidemia). Adherence decreases the most after the first six months of therapy.12 Medication adherence rates for patients with chronic diseases such as hypertension, hyperlipidemia and diabetes have been seen as low as 50–65%.18-20 The World Health Organization (WHO) has characterized nonadherence as a “worldwide problem of striking magnitude.”21

Patient nonadherence has been shown to cause worsening of disease and increased hospitalization rates.18,22 This in turn has significant cost impacts on the healthcare system. The impact of medication nonadherence on the U.S. healthcare system had previously been estimated at $100 billion per year.23-25 Of that, approximately $47 billion was due to hospitalizations caused by patients not starting, not maintaining, or having a complication from medication therapy.26 When other indirect costs such as physician visits and nursing home admissions were added, that number climbed to $177 billion.27 However, in 2009, The New England Healthcare Initiative updated the total cost in today’s economy to $290 billion per year.28 Lack of adherence is impacting patients’ health outcomes and leading to continued escalating costs in our healthcare system.

Nonadherence can be attributed to many different causes, which are summarized in Table D on page 27.
ADHERENCE — THREE CORE AREAS OF FOCUS

1. RAS ANTAGONIST ADHERENCE

The clinical relevance and mechanism of actions of RAS antagonist and tracked medications from these classes are explained in the diabetic treatment measure section of this guide.

2. STATIN THERAPY ADHERENCE

HMGCoA Reductase inhibitors, or statins, have become key therapeutics agents in the treatment of hypercholesterolemia to reduce the risk and progression of atherosclerotic cardiovascular disease (ASCVD). These medications work on the cholesterol synthesis pathway to decrease the production of endogenous LDL.

The 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults supports the benefits of statin use in four major groups:

1. Patients currently with ASCVD
2. Patients with primary elevations of LDL-C > or equal to 190 mg/dL
3. Diabetic patients age 40 to 74 with LDL-C 70 to 189 mg/dL with clinical ASCVD
4. Patients without ASCVD or diabetes with LDL-C 70 to 189 mg/dL and estimated 10-year ASCVD risk > or equal to 7.5%

3. ORAL DIABETIC AGENT ADHERENCE

Oral diabetic medications in this measure include (see Table B page 27):

- Biguanides
- Sulfonylureas
- Thiazolidinediones
- DPP-IV inhibitors

These medications improve glycemic control through various mechanisms of action including:

- Decreasing hepatic glucose production
- Decreasing glucose absorption
- Increasing insulin-mediated glucose uptake
- Increasing insulin secretion
- Decreasing insulin resistance
- Suppressing glucagon release

Detailed recommendations on when to use which agent can be found in the 2013 American Association of Clinical Endocrinologists (AACE) guidelines.
CASE STUDY: Parkland Pharmacies

Improving Adherence Effectively, on a Budget

After attending her first McKesson ideaShare meeting in 2010, Parkland Pharmacies pharmacist Lisa Umfleet was inspired to improve her patients’ medication adherence rates, specifically taking steps to implement a medication synchronization program.

CHALLENGE
Distances are great in the wide-open spaces of rural Missouri. Geography was proving to be a business challenge for Parkland Pharmacies, which was looking for a way to streamline operations and increase revenues. Inefficient and uncoordinated delivery of multiple medications to customers was proving too costly. Furthermore, customers on multiple medications were finding pickup inconvenient, particularly if they needed to drive to the pharmacy more than once a month. As a result, many patients were late picking up medications or never filled them at all.

SOLUTIONS
• Targeted adherence to streamline operations, save money and increase number of scripts filled, bringing in additional revenue
• Implemented medication synchronization to increase adherence and gain more control over staffing and inventory
• Piloted program with manual appointment-based model vs. new technology due to tight budget
• Focused initially on seniors; later rolled out program to long-term care patients
• In 2011, added manual compliance packaging system (Dispill); upgraded to Parata® PASS™ to help with retail compliance packaging, long-term care and home healthcare agency business
• Synched delivery customers
• Synched drive-through customers

RESULTS: NEW STORE’S ADHERENCE MEASURES IN TOP 20%
• Parkland’s diabetes adherence measure is trending in the top 20% of all retail pharmacies
• Medication synchronization program brought in incremental prescriptions and revenue
• Currently about 200 patients enrolled in medication synchronization program

AT A GLANCE
Health Mart member: 2010
Pharmacist: Lisa Umfleet
Number of locations: 3
Quality measures focus: Adherence
Key tools: Medication synchronization
Results:
• New store in top 20% for adherence measures
• Incremental prescriptions and revenue
HOW TO SUCCEED LIKE PARKLAND PHARMACIES

If you’re interested in implementing a manual medication synchronization program, here are some suggested steps:

❑ GET EDUCATED
   • Take the “Implementing Medication Synchronization” CE course available on Health Mart University.

❑ REVIEW THE RESOURCES
   • Health Mart Operations Manual Medication Synchronization page.
   • Links to valuable information for implementing med sync including National Alliance of State Pharmacy Associations (NASPA) Operations Manual for implementing the appointment-based model of medication synchronization, as well as templates and more. Also a link for NCPA members to Simplify My Meds® branded med sync program.

❑ SET A GOAL AND GET STARTED
   • Consider assigning a specific pharmacy technician as the “medication sync tech” to help implement and lead the program logistics (performing tasks that technicians are allowed to do under the state pharmacy laws).
   • Involve the whole pharmacy team: educate them on the new program and ask for their assistance in recruiting patients.
   • Start by enrolling your first patient and then set a goal (e.g., add at least one patient per day until you reach 100).

This case study is for informational purposes only. The results of this case study depend on a variety of factors that are unique to this organization. There is no guarantee that your results will be similar to this case study. Each party’s results will depend on the factors of its business. The success in this case study cannot be used as an indication of future success with these programs.
Family-owned since 1903, Central Drugs has been serving its community for more than 111 years. The pharmacy is best known for its mission of serving underserved populations, specifically individuals living with HIV and hepatitis C. Central Drugs provides medication synchronization, adherence packaging and health coaching. For individuals living with HIV and hepatitis C, medication adherence is greater than 90%.

**CHALLENGE**

In addition to focusing on adherence for people living with HIV and hepatitis C, Central Drugs wanted to scale to increase adherence rates for a broader set of patient populations, such as Medicare patients with chronic diseases. Already highly trained in specialized techniques, Central Drugs planned to transfer these skills to new target populations who would be seen in a traditional retail setting.

**SOLUTIONS**

- Deploy technology solutions from PrescribeWellness to facilitate proactive, high-quality interactions with each customer (e.g., expanding “specialty” adherence solutions to the rest of the patient population)
- Transfer skills used with specialty high-risk patients, such as behavioral coaching, medication synchronization, and adherence packaging to a broader audience with a focus on Medicare Part D patients with chronic diseases
- Use long-term care–type techniques such as med sync and chart reviews in a retail setting

**RESULTS: TOP PERFORMER FOR ALL ADHERENCE MEASURES**

- In the top 20% of all retail stores for RASA PDC

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**AT A GLANCE**

- **Health Mart member:** 2009
- **Owner:** Shelley Bailey
- **Number of locations:** 1
- **Specialties:** High-risk populations, long-term care, compounding
- **Quality measures focus:** Adherence
- **Key tools:** Behavioral coaching, medication synchronization
- **Results:** In top 20% for all adherence measures
HOW TO SUCCEED LIKE CENTRAL DRUGS

If you’re interested in implementing a behavioral coaching program, below are some suggested steps.

- **GET EDUCATED**
  - Take the CE course available on Health Mart University: “Coaching at the Counter ... Opportunities for Enhancing Communication with a Patient-Centered Approach”

- **REVIEW THE RESOURCES**
  - See Appendix B in this Playbook — Motivational Interviewing: Conversation Starters and Common Objections

- **INVOLVE THE WHOLE PHARMACY TEAM**
  - Educate team members on the program objectives and ask for their assistance in referring patients to the pharmacist for health coaching

If you are interested in implementing medication synchronization technology, below are some suggested steps:

- **Select a Champion but Involve the Whole Team**
  - Select a med sync champion, ideally a lead pharmacy technician. However, involve the whole pharmacy team in understanding the program and recruiting patients. Champions will keep everyone up to date on progress.
  - Leverage two to three key technicians (including champion) to be trainers. They will be the most proficient and can help others learn quickly.

- **Prepare for Go Live**
  - Identify a few patients with whom you have an established relationship that are taking three to five maintenance medications. Work with these patients to practice syncing and determining the short fills/anchor date.

- **Set Goals**
  - Set pharmacy team goal for how many patients you want to enroll in the first week, 30 days, etc. For example, at least one patient per day per pharmacy team member or a bigger team goal of 100 patients enrolled in the first 30 days. Consider a contest or a way to reward team members who enroll the most patients.
  - Understand that med sync is a long-term process. It takes time to reach enrollment goals and feel the benefits from med sync. The enrollment period from zero to about 100 patients requires investment and perseverance to overcome obstacles that may come up. The pharmacy owner must set expectations and lead the team past barriers to success.

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For 17 years, Flower Mound Pharmacy has taken a holistic approach to serving customers in an affluent suburb of the Dallas/Fort Worth area. Medications are just one part of a customer’s treatment, which includes addressing lifestyle issues such as nutrition, weight management and supplements, when appropriate. With 35 pharmacies within six miles, Flower Mound competes through service and patient care.

**CHALLENGE**

“We realize health plans are now looking at our performance,” said owner Dennis Song. He wants his pharmacy to not only reach the 5-star goals on the quality measures, but also be in the top 20% among all pharmacies.

A pharmacy can’t just wait for customers to ask questions; to drive adherence, it has to initiate conversations. In order to know when to initiate a conversation, with whom, and about what, a pharmacy has to integrate systems into its workflow.

**SOLUTIONS**

- Trained technicians to have a clinical focus. Technicians are trained to spot, when entering data, patients taking medication for specific disease states and refer to the pharmacist as needed.
- Flagged customers for intervention. Notes remind pharmacists to contact a physician if an older patient is on a high-risk medication, and an alert note on a prescription bag tells the clerk that the pharmacist would like to talk with the customer.
- Initiated conversations with customers. Using motivational interviewing techniques, staff members can uncover obstacles to patients’ taking medications as prescribed and can work with them to identify solutions.
- Collaborated with physician offices. When pharmacy staff identify an opportunity to improve care, they call the physician’s office. Flower Mound staff then follow up with a fax that details the pharmacy’s recommendations and reminds the physician about how such an intervention can improve the quality ratings for both the provider and pharmacy.

**RESULTS: AT OR ABOVE 5-STAR GOALS FOR FOUR OUT OF FIVE MEASURES**

- Flower Mound Pharmacy was among the top 20% of pharmacies in EQuIPP for two adherence measures: statins and diabetes medications
- Reached the 5-star goal for 2015 for all three adherence measures and the percentage of elderly patients taking high-risk medications
- Increased counseling led to increased supplement sales, such as coenzyme Q10 for patients on statins
### HOW TO SUCCEED LIKE FLOWER MOUND PHARMACY

If you’re interested in improving patient counseling, suggested steps are:

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<tr>
<th>PREPARE YOUR STAFF</th>
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<tbody>
<tr>
<td>• Educate staff about the importance of quality measures for your customers and pharmacy.</td>
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<tr>
<td>• Define each staff member’s role and organize the workflow to make taking action easy.</td>
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<tr>
<td>• Train the staff members on how to talk with customers.</td>
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<tr>
<td>• Allot time for staff to work on interventions. For example, one Flower Mound pharmacist has time on schedule specifically allotted to make medication therapy management calls.</td>
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<tr>
<th>USE EXISTING SYSTEMS</th>
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<tr>
<td>• Use your pharmacy software to identify patients for interventions.</td>
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<tr>
<td>• Set alerts in the software or on prescription bags for staff intervention.</td>
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<tr>
<th>UTILIZE TEMPLATES</th>
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<tbody>
<tr>
<td>• Consider a patient intake form to collect important medical, prescription OTC information.</td>
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<tr>
<td>• Use a template on your letterhead to fax recommendations to physicians. Consider leveraging the Health Mart physician fax templates available for each of the quality measure types you may be addressing.</td>
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<table>
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<tr>
<th>USE THE SYNC APPOINTMENT DATE TO SCHEDULE ADDITIONAL SERVICES</th>
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</thead>
<tbody>
<tr>
<td>• Leverage the med sync appointment time to drive improved health outcomes by offering services such as MTM, immunizations, etc.</td>
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</table>

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The three Tyson Drug Co. pharmacies in rural Mississippi serve a population with a large number of Medicare Part D and Medicaid patients. Before quality performance measures began, about six years ago, owner Bob Lomenick was burned out by the workload in his pharmacies. After visiting another pharmacy that had a medication synchronization program, Lomenick realized that adopting such a program could improve the workflow in his stores.

“The traditional community pharmacy business model is broken,” Lomenick said. It is a reactive operation that waits for customers to request refills and then tries to deal with any insurance and inventory issues. In contrast, medication synchronization offers a proactive model.

At Tyson Drug, pharmacy staff members call customers a week before their prescriptions are due to be refilled to ask how the patient is doing on their medications and if there have been any changes. This provides the pharmacy time to clear the insurance and ensure there is enough medication in its inventory to refill the prescription, without patients lined up at the counter waiting.

**CHALLENGE**

When staff members called patients and asked how many doses were left, sometimes they discovered that the patient had not been taking their medication according to the directions. This caused some customers to become defensive.

**SOLUTIONS**

- **Combine compliance packaging with medication synchronization.** With compliance packaging, customers can see at a glance if they have taken their medications when they should, which helps them stay on track. Lomenick requires customers on his store’s medication synchronization program to have and use compliance packaging. He explains the benefits to them and their caregivers of spending less time managing their medications and not worrying about whether they took a dose.

- **Deliver medications just in time.** Even with compliance packaging, patients sometimes began taking medications from the new month’s box as soon as they received it. Now Tyson Drug schedules deliveries so that when new medications are delivered each month, the first dose in the patient’s package is for that day.

- **Send letters to physicians when patients aren’t adherent.** “Physicians often just assume that patients are taking their medications correctly,” Lomenick said. With information from the pharmacy on patients’ adherence, they can adjust treatment as necessary.
RESULTS: IMPROVED PATIENT ADHERENCE AND PHARMACY WORKFLOW

• All three Tyson Drug pharmacies exceeded the 5-star goal for at least one adherence measure. However, because several of the health plans the pharmacies serve don’t participate in EQuIPP, the data is not complete. Lomenick’s own data shows 100% PDC.

• Pharmacy staff can now handle more prescriptions with less stress. By the time 60 patients were in the medication synchronization program, the staff saw the benefit. Lomenick worried that his pharmacy seemed “dead” one day around noon, but he discovered it had already filled 250 prescriptions that day through the synchronization program.

• Tyson Drug has realized increased volume. Aided by the medication synchronization program, in the past four years, the pharmacies have doubled the number of prescriptions they are filling.

HOW TO SUCCEED LIKE TYSON PHARMACY

If you’re interested in implementing a medication synchronization program, below are some suggested steps:

❑ IDENTIFY CUSTOMERS WHO CAN BENEFIT FROM MEDICATION SYNCHRONIZATION
  • Train your pharmacy staff to notice when patients are taking two or more medications.
  • Use your pharmacy software to flag patients for participation.
  • Market your service to physicians, payers and home health agencies.

❑ DELIVER BY ZONES
  • Divide your service area into regions and synchronize customers within each region on the same delivery schedule.
  • Update delivery areas as you grow. Lomenick started with a simple four-quadrant grid and now has 26 delivery areas with 30–40 customers in each.
  • Determine where a new synchronization customer fits within your delivery zones and short-fill prescriptions to get the customer on that schedule.
  • Call before delivery to let the customer know that their medications will be arriving that day.
  • Make delivery and compliance packaging free to participating medication synchronization customers. The patients who can benefit most from those services are probably those who are least able to pay for them. If payers see the value of improved adherence in healthcare cost savings, they may pay.

❑ MANAGE RESOURCES EFFICIENTLY
  • Dedicate staff to medication synchronization. Lomenick started with one technician in a back room with a phone line, computer and label printer. That person used an index-card file to manage the program.
  • Use your pharmacy software to generate reports on customer adherence and flag customers for inclusion in your medication synchronization program.

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Adherence Action Steps for Pharmacies

The following information is intended to be a general overview of some action steps a pharmacy can consider implementing to increase quality and performance in this area. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

1. **Do targeted interventions.** Participate in targeted interventions and comprehensive medication reviews (when applicable) where patient adherence can be accessed and addressed. These programs help identify patients for you.

2. **Use behavioral coaching.** Use motivational interviewing and behavioral coaching to reinforce medication adherence with each fill and to determine potential reasons for nonadherence.
   - Remember patients typically have multiple reasons for nonadherence. Adherence is a personal behavioral choice; therefore, the first step to improving adherence is having an open conversation with the patient to determine his or her reasons for not being adherent. Based on the cause, you can then select the right tool or action.
   - A motivational interviewing quick reference guide is provided in Appendix B to help you with conversation starters and handling common objections.
   - If you would like to learn more about or refresh your knowledge on behavioral coaching, take the “Coaching at the Counter ... Opportunities for Enhancing Communication with a Patient-Centered Approach” CE course available on Health Mart University.

Additional courses also available on Pharmacist’s Letter.
### 3. Match solution to cause. Select the right tool or action based on the cause of nonadherence.

<table>
<thead>
<tr>
<th>CAUSE FOR NONADHERENCE</th>
<th>Solution</th>
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<tbody>
<tr>
<td>DO NOT KNOW WHY I NEED TO TAKE THE MEDICATION</td>
<td><img src="image" alt="Disease state medication counseling using motivational interviewing approach" /></td>
</tr>
<tr>
<td>FORGET TO ORDER REFILLS</td>
<td>Use electronic refill reminders including IVR, calls, text messages and email (e.g., Your Pharmacy Online)</td>
</tr>
<tr>
<td>FORGET TO TAKE EACH DAY</td>
<td>Dose reminders, or if multiple meds, dose reminder (compliance) packaging</td>
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</tbody>
</table>
| INCONVENIENCE OF MULTIPLE MEDICATIONS AND MULTIPLE TRIPS TO PHARMACY | Medication synchronization  
  • Refer to the Health Mart Operations Manual medication synchronization page for resources on getting started with a manual method of med sync  
  • Consider taking the “Implementing Medication Synchronization” CE course on Health Mart University and refer to med sync resources available on Pharmacist’s Letter |
| INTOXERABLE SIDE EFFECTS                                   | Therapeutic interchange/prescriber collaboration                           |
| COST                                                        | ![Therapeutic interchange, formulary review, patient assistance programs](image) |
ADHERENCE ADDITIONAL RESOURCES

Pharmacist’s Letter has a plethora of additional resources related to medication adherence, disease states and specific therapies. Below is a selection of some of the applicable resources.

Improving Adherence

• Medication Adherence Toolbox (291202)
• Helping Patients Make the Most of Their Medications: A CE Review on Adherence (12-217)
• The Basics of Med Sync (301007)
• Using Motivational Interviewing to Create Change (CE 12-243)
• Enhancing Patient Counseling with Effective Communication Skills (CE 13-221)
• Guide for Helping Patients Afford Their Medications (300308)

RAS Antagonist Adherence

• Choosing Antihypertensive Therapy for Diabetes Patients (300302)
• New Hypertension Guidelines and Blood Pressure Goals (300201)

Statin Adherence

• 2013 ACC/AHA Cholesterol Guidelines (300702)
• Characteristics of the Various Statins (300702)

Diabetes Adherence

• Drugs for Type 2 Diabetes (300402)
• Improving Diabetes Outcomes and Meeting Quality Measures (300402)
• Stepwise Approach to Selecting Treatments for Type 2 Diabetes (ADA) (290807)
TABLE A: RAS ANTAGONISTS

Below are renin angiotensin system (RAS) antagonist medications for hypertension.

<table>
<thead>
<tr>
<th>ACE INHIBITORS</th>
<th>ARBS</th>
<th>DIRECT RENIN INHIBITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>• benazepril</td>
<td>• candesartan</td>
<td>• aliskiren</td>
</tr>
<tr>
<td>• fosinipril</td>
<td>• eprosartan</td>
<td></td>
</tr>
<tr>
<td>• perindopril</td>
<td>• losartan</td>
<td></td>
</tr>
<tr>
<td>• trandolapril</td>
<td>• valsartan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• enalapril</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• lisinopril</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• quinapril</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• moexipril</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ramipril</td>
<td></td>
</tr>
</tbody>
</table>

Excerpted from CMS Medicare 2015 Part C and D Star Rating Technical Notes¹

Note: The active ingredients are limited to oral and injectable formulations only (includes all dosage forms). Excludes nutritional supplement/dietary management combination products.

TABLE C: STATIN MEDICATIONS

Below are statin and statin combination medications utilized in the statin adherence measure.

<table>
<thead>
<tr>
<th>STATIN MEDICATIONS</th>
<th>STATIN COMBINATION PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• atorvastatin</td>
<td>• atorvastatin and amlodipine</td>
</tr>
<tr>
<td>• pitavastatin</td>
<td>• ezetimibe and simvastatin</td>
</tr>
<tr>
<td>• fluvastatin</td>
<td>• niacin and simvastatin</td>
</tr>
<tr>
<td>• pravastatin</td>
<td>• sitagliptin and simvastatin</td>
</tr>
<tr>
<td>• lovastatin</td>
<td></td>
</tr>
<tr>
<td>• simvastatin</td>
<td></td>
</tr>
</tbody>
</table>

Excerpted from CMS Medicare 2015 Part C and D Star Rating Technical Notes¹

Note: The active ingredients are limited to oral formulations only.
# TABLE B: ORAL DIABETIC AGENTS

Below are medications that are included in the diabetes PDC measure.

<table>
<thead>
<tr>
<th>BIGUANIDES AND BIGUANIDE COMBINATION PRODUCTS</th>
<th>• alogliptin and metformin</th>
<th>• glipizide and metformin</th>
<th>• glyburide and metformin</th>
<th>• linagliptin and metformin</th>
<th>• metformin</th>
<th>• pioglitazone and metformin</th>
<th>• repaglinide and metformin</th>
<th>• rosiglitazone and metformin</th>
<th>• saxagliptin and metformin SR</th>
<th>• sitagliptin and metformin IR and SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SULFONYLUREAS AND SULFONYLUREA COMBINATION PRODUCTS</td>
<td>• chlorpropanide</td>
<td>• glimepiride</td>
<td>• glipizide</td>
<td>• glipizide and metformin</td>
<td>• glipizide</td>
<td>• pioglitazone and glimepiride</td>
<td>• tolbutamide</td>
<td>• rosiglitazone and glimepiride</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THIAZOLIDINEDIONES AND THIAZOLIDINEDIONE COMBINATION PRODUCTS</td>
<td>• alogliptin and pioglitazone</td>
<td>• pioglitazone</td>
<td>• pioglitazone and glimepiride</td>
<td>• pioglitazone and metformin</td>
<td>• rosiglitazone and metformin</td>
<td>• tolbutamide</td>
<td>• rosiglitazone and glimepiride</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPP-IV INHIBITORS AND DPP-IV INHIBITOR COMBINATION PRODUCTS</td>
<td>• alogliptin</td>
<td>• alogliptin and metformin</td>
<td>• alogliptin and pioglitazone</td>
<td>• linagliptin</td>
<td>• linagliptin and metformin</td>
<td>• saxagliptin</td>
<td>• saxagliptin and metformin SR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCRETIN MIMETIC AGENTS</td>
<td>• albiglutide</td>
<td>• dulaglutide</td>
<td>• exenatide</td>
<td>• liraglutide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEGLITINIDES</td>
<td>• nateglinide</td>
<td>• repaglinide</td>
<td>• repaglinide and metformin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Excerpted from CMS Medicare 2015 Part C and D Star Rating Technical Notes

Note: The active ingredients are limited to oral and injectable formulations only (includes all dosage forms). Excludes nutritional supplement/dietary management combination products.

# TABLE D: REASONS FOR MEDICATION NONADHERENCE

<table>
<thead>
<tr>
<th>CATEGORIES OF NONADHERENCE</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATIENT</td>
<td>Physical and cognitive impairment, age, race</td>
</tr>
<tr>
<td>SOCIOECONOMIC</td>
<td>Literacy rate, medication cost, social support</td>
</tr>
<tr>
<td>CONDITION</td>
<td>Asymptomatic, chronic, mental health</td>
</tr>
<tr>
<td>THERAPY</td>
<td>Complexity of regimen, side effects, understanding the reason for therapy</td>
</tr>
<tr>
<td>HEALTH SYSTEM</td>
<td>Quality of patient-provider relationship, communication, access, continuity of care</td>
</tr>
</tbody>
</table>
CORE MEASURE #4

High-Risk Medication Use in the Elderly
High-Risk Medication Use in the Elderly

Why is CMS focusing on high-risk medications in the elderly? Avoiding the use of certain drugs for this population is a simple and effective strategy for reducing medication-related problems. An American Geriatrics Society article about updated Beers Criteria published in 2012 highlights statistics from past studies that found that 27% of adverse drug events in primary care and 42% in long-term care were preventable. Total estimated healthcare costs related to use of potentially inappropriate medications was $7.2 billion in 2000–2001.33

MEASURE DESCRIPTION

2015 CMS 5-STAR GOAL: ≤ 7% (lower is better)

WHAT: This measure focuses on the percentage of plan members age 65 and older who received prescriptions for certain drugs with a high risk of side effects, when a safer drug choice may have been available.3

WHO: This metric calculates the percentage of Medicare Part D beneficiaries age 65 or older who received two or more prescription fills for the same high-risk medication (HRM) that has a high risk of serious side effects in the elderly.3

MEASURE CALCULATION

The measure is calculated based on Prescription Drug Event (PDE) data submitted to Medicare two years prior to the reporting year (e.g., data from January 1–December 31, 2013 for reporting year 2015). Data must be reported by June 30 of the year prior to the reporting year (e.g., June 30, 2014 for 2015).3*

THE FORMULA:

# member-years of enrolled beneficiaries 65 years or older who received two or more prescription fills for the same HRM during the period measured

# member-years of enrolled beneficiaries 65 years and older during the period measured

Two or more fills of a high-risk medication (HRM) during the measurement period (one year) means that the patient will negatively impact measure performance. Preventing the fill is key ... identify HRMs in patients over 65 before they are dispensed or refilled!

*The EQuIPP dashboard, which is provided to Health Mart members through Pharmacy Quality Solutions (PQS), is a 6-month rolling report as opposed to the 12-month reporting cycle used by CMS.
CLINICAL RELEVANCE: HIGH-RISK MEDICATION USE IN THE ELDERLY

The following is intended to be a brief overview of the clinical relevance of this measure. It should not be used as a treatment guide, but rather as a reference point for correct treatment guidelines. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

As patients age they become more vulnerable to adverse drug events. This is due to various reasons, including altered pharmacokinetics, diminished motor and cognitive skills, and exacerbation of multiple disease states. Adverse drug events in this population are sometimes referred to as “Potentially Inappropriate Medications” (PIMs) or high-risk medication (HRM) usage or medication-safety practices. PIMs are usually classified in three key categories:

i. Potentially inappropriate medications and classes to avoid in older adults;
ii. Potentially inappropriate medications and classes to avoid in older adults with certain diseases and syndromes that the drugs can exacerbate; and
iii. Medications to be used with caution in older adults.

The most common issues seen with patients taking the medications on these lists fall into broad categories of:

- Anticholinergic side effects
- Delirium
- Gastrointestinal bleeding
- Falls and fractures

The list utilized in this measure (see Table E on page 38) is a subset of the American Geriatrics Society 2012 Beers Criteria list. See Table F on page 39 for Rationale for Avoiding Use of High-Risk Medications in the Elderly by therapeutic category. The Beers Criteria is a great reference for understanding the impact and causes of PIMs. The goal is to ensure the safety of older patients and to review the drug list to determine if a safer alternative therapy exists.
Reducing High-Risk Medications in the Elderly

Beaver Health Mart Pharmacy, Brighton Health Mart Pharmacy and Beaver Falls Health Mart Pharmacy are family-owned pharmacies located in Pennsylvania. These pharmacies range in age from less than 2 years old to a recent anniversary of 25 years old. While each store harbors its own niche service (immunizations, compounding lab, long-term care services), the daily focus is on traditional retail customer health. By implementing the high-risk medications (HRM) program in February 2014, these stores have enjoyed success in helping keep their patients safe.

CHALLENGE

As they had done with successfully reducing ACE-ARB gaps in care for diabetes treatment, Beaver Health Mart and Beaver Falls Health Mart pharmacies wanted to improve their quality measures scores for HRM in the elderly. They realized that preventing the fill is key and that the team needed to identify HRM in patients over 65 before they were dispensed or refilled.

SOLUTIONS

• Educated and trained pharmacy team on list of high-risk medications and viable alternative treatment options
• Incorporated HRM identification into all drug utilization and chart reviews
• Identified HRM items in pharmacy-management system by character tag in item description
• Used standardized physician fax template to identify potential gaps in care to physicians
• Implementation of medication synchronization efforts afforded the time to perform the interventions

RESULTS: AT OR ABOVE 5-STAR GOALS FOR THREE OUT OF FOUR MEASURES

• Maintained for over a year top 20% across all retail pharmacies in the HRM measure.
• Focused on ACE/ARB and in one year, reached top 20% of performers across all retail stores.
• Intangible results emerged as prescribers began to ask for recommendations and assistance in their own practices to avoid HRMs.
• They also learned that success is not static; the performance scores slide if the program is not maintained. This is not a “one and done” effort. They saw their scores drop when they lost focus.
HOW TO SUCCEED LIKE BEAVER HEALTH MART AND BEAVER FALLS HEALTH MART

If you’re interested in implementing a high-risk medication program, here are some suggested steps:

- **EDUCATE THE TEAM**
  - Educate the pharmacy team on list of high-risk medications in the elderly
  - Identify alternative therapy recommendations to offer prescribers when requesting a therapy intervention
  - Identify HRM items in pharmacy-management system by color or alphanumeric tag in the item description for on-the-fly intervention targeting
  - Keep fax request template handy for staff to act immediately upon realization of intervention opportunity

- **POST THE HIGH-RISK MEDICATIONS LIST IN THE PHARMACY FOR EASY REFERENCE**
  - HRM list is available on the Health Mart Operations Manual

- **INVOLVE THE WHOLE PHARMACY TEAM AND ASK FOR THEIR ASSISTANCE IN RECRUITING PATIENTS**

This case study is for informational purposes only. The results of this case study depend on a variety of factors that are unique to this organization. There is no guarantee that your results will be similar to this case study. Each party’s results will depend on the factors of its business. The success in this case study cannot be used as an indication of future success with these programs.
Synchronizing Medications Improves High-Risk Medications and Adherence

Derek Tengan opened two 5 Minute Pharmacy retail locations in Hawaii in 2011, but before he learned about Star Ratings, he saw no reason to implement a medication synchronization program. After implementing med sync, he said the pharmacies are operating more efficiently and their quality measures performance has improved. “Synchronization is a driver for all of this,” he said. “It improved all aspects of the business.”

CHALLENGE

When Tengan first saw his pharmacies’ EQuIPP ratings, they were not meeting or exceeding any of the 5-star performance goals. These initial results motivated Tengan to find and implement a “perfect” system. Taking one step at a time, he quickly saw progress on these scores.

SOLUTIONS

• Offered medication synchronization, signing up 400 patients in the first four months.
• Provided medication therapy management (MTM) to all patients. This not only helps patients but provides an opportunity for the pharmacy to address the two quality measures not related to adherence.
• Added a pharmacist and 2.5 technicians dedicated to the med sync program.
• Assigned the pharmacist in charge of the med sync program to also conduct MTM by calling customers or talking with them when they pick up their prescriptions.

RESULTS: BETTER RATINGS AND EFFICIENCY

• Both pharmacies are at or above the 5-star goals for adherence for patients with diabetes and cholesterol, and for minimizing the use of high-risk medications in the elderly.
• Fewer calls from customers and fewer calls from the pharmacy to doctors for patients with synchronized medications.
• Fewer deliveries, which results in cost savings to the pharmacy. Before the pharmacy offered med sync, a driver might deliver to the same location six times per month.
• Demonstrated to a local health plan that by helping manage just 10 high-risk patients, the pharmacy could save the plan an estimated $180,000 over six months by reducing ER visits, hospital admissions and readmissions.

AT A GLANCE

Pharmacist: Derek Tengan
Number of locations: 2 retail, 1 long-term care
Quality measures focus: Adherence and high-risk medications in the elderly
Key tools: Medication synchronization, medication therapy management, compliance packaging
Results:
• Exceeded the 5-star goal levels at both retail locations for three measures: adherence to drug therapy for customers with diabetes and cholesterol, and minimizing the use of high-risk medications in the elderly
• Pharmacy volume increased
• Better inventory management
If you’re interested in offering med sync and MTM, below are some suggested steps:

- **EDUCATE ALL STAFF**
  - Take advantage of educational opportunities, such as town hall meetings, where they can hear people other than the pharmacy owner explain why performing well on these measures is critical
  - Train all staff members to be involved in identifying candidates for med sync and MTM

- **DEDICATE STAFF TO MED SYNC AND MTM**
  - Allow designated staff members to focus on only those programs without interruptions from other daily responsibilities
  - Assign to the program a pharmacist trained in performing MTM and working with physicians

- **IDENTIFY CANDIDATES FOR SYNCHRONIZATION**
  - Use your pharmacy software to identify patients who are on multiple medications
  - Offer med sync to all new customers on multiple chronic medications

- **EDUCATE PHYSICIANS**
  - Meet with local doctors to explain how med sync provides a holistic monthly view that allows the pharmacist to monitor each patient’s medication regimen and how it will benefit them through fewer calls from the pharmacy and better performance on quality measures
  - Dedicate a staff member’s time each month to meet with providers and discuss the programs

This case study is for informational purposes only. The results of this case study depend on a variety of factors that are unique to this organization. There is no guarantee that your results will be similar to this case study. Each party’s results will depend on factors of its business. The success in this case study cannot be used as an indication of future success with these programs.
High-Risk Medications in the Elderly Action Steps for Pharmacies

The following information is intended to be a general overview of some action steps a pharmacy can consider implementing to increase quality and performance in this area. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

1. IDENTIFY PATIENTS OVER 65

   - Identify patients over age 65 who are taking drugs or classes of drugs on the high-risk medications in the elderly list.
   - Participate in medication therapy management programs that include high-risk medication–targeted interventions and/or comprehensive medication reviews (CMRs).
   - Familiarize your staff with the high-risk medications list and common classes of high-risk medications and review medications for coaching opportunities during traditional counseling interactions.
   - When performing prospective DUR, look for these high-risk medications in patients who are 65 and older.

2. DISCUSS WITH PATIENT

   - If a high-risk medication is identified, discuss it with the patient at the pharmacy or by phone.
   - Ask open-ended questions to find out what the patient knows about the medication. Ask for permission to discuss the potential risk(s) of taking this medication for patients 65 and older.
   - Offer to call and/or fax the prescriber to find out if discontinuing the medication or taking another medication might be recommended.
   - Use the Beers Criteria and associated risks as clinical proof when discussing potential therapeutic interchange with prescribers.

3. CONTACT PHYSICIAN

   - If applicable, contact physician via phone or fax to let them know about the potential high-risk medication identified, as well as any pertinent information from the discussion with the patient.
   - Use physician fax templates (such as samples outlined in Appendix C) and customize as needed.
HRM ADDITIONAL RESOURCES

• Potentially Harmful Drugs in the Elderly: Beers List [Includes Alternate Therapy Suggestions] (300501)
• Drug Therapy Issues for Aging Patients (14-312)
• Chronic Meds in the Elderly: Taking a “Less Is More” Approach (301106)
• PL Letter: A Note from Your Pharmacist: Avoiding the Use of High-Risk Meds in Elderly Patients (301106)
• Effective Communication with Prescribers (310410)
• Communicating with Other Healthcare Professionals (14-307)
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PRESCRIPTION PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticholinergics (excludes TCAs)</td>
<td></td>
</tr>
<tr>
<td>First-generation antihistamines</td>
<td>Bropheniramine</td>
</tr>
<tr>
<td>(as single agent or as part of</td>
<td>Carbinoxamine</td>
</tr>
<tr>
<td>combination products) — excludes</td>
<td>Chlorpheniramine</td>
</tr>
<tr>
<td>OTC products</td>
<td>Clemastine</td>
</tr>
<tr>
<td></td>
<td>Cyproheptadine</td>
</tr>
<tr>
<td></td>
<td>Dextromethorphan</td>
</tr>
<tr>
<td></td>
<td>Diphenhydramine (oral)</td>
</tr>
<tr>
<td></td>
<td>Doxylamine</td>
</tr>
<tr>
<td></td>
<td>Hydroxyzine</td>
</tr>
<tr>
<td></td>
<td>Promethazine</td>
</tr>
<tr>
<td></td>
<td>Triprolidine</td>
</tr>
<tr>
<td>Anti-Parkinson’s agents</td>
<td>Benztropine (oral)</td>
</tr>
<tr>
<td></td>
<td>Trihexyphenidyl</td>
</tr>
<tr>
<td>Antithrombotics</td>
<td></td>
</tr>
<tr>
<td>Antithrombotics</td>
<td>Ticlopidine*</td>
</tr>
<tr>
<td></td>
<td>Dipyridamole, oral</td>
</tr>
<tr>
<td></td>
<td>short-acting*</td>
</tr>
<tr>
<td></td>
<td>(does not apply to the</td>
</tr>
<tr>
<td></td>
<td>extended-release</td>
</tr>
<tr>
<td></td>
<td>combination with</td>
</tr>
<tr>
<td></td>
<td>aspirin</td>
</tr>
<tr>
<td>Anti-infective</td>
<td>Nitrofurantoin (include</td>
</tr>
<tr>
<td></td>
<td>when cumulative days’</td>
</tr>
<tr>
<td></td>
<td>supply is &gt;90 days)</td>
</tr>
<tr>
<td></td>
<td>(A)</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td></td>
</tr>
<tr>
<td>Alpha blockers, central</td>
<td>Guanfacine*</td>
</tr>
<tr>
<td></td>
<td>Methylidopa*</td>
</tr>
<tr>
<td></td>
<td>Reserpine (&gt;0.1 mg/day)</td>
</tr>
<tr>
<td>Cardiovascular, other</td>
<td>Disopyramide*</td>
</tr>
<tr>
<td></td>
<td>Digoxin (&gt; 0.125 mg/day)</td>
</tr>
<tr>
<td></td>
<td>Nifedipine, immediate</td>
</tr>
<tr>
<td></td>
<td>release*</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td></td>
</tr>
<tr>
<td>Tertiary TCAs (as a single agent or</td>
<td>Amitriptyline</td>
</tr>
<tr>
<td>as part of a combination product)</td>
<td>Clomipramine</td>
</tr>
<tr>
<td></td>
<td>Doxepin (&gt;8mg/day)</td>
</tr>
<tr>
<td></td>
<td>Imipramine</td>
</tr>
<tr>
<td></td>
<td>Trimepramine</td>
</tr>
<tr>
<td>Antipsychotics, first-generation</td>
<td>Thoridiazine</td>
</tr>
<tr>
<td>(conventional)</td>
<td></td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Amobarbital*</td>
</tr>
<tr>
<td></td>
<td>Butabarbital*</td>
</tr>
<tr>
<td></td>
<td>Butalbital</td>
</tr>
<tr>
<td></td>
<td>Pentobarbital*</td>
</tr>
<tr>
<td></td>
<td>Phenobarbital</td>
</tr>
<tr>
<td></td>
<td>Secobarbital*</td>
</tr>
<tr>
<td>Central nervous system, other</td>
<td>Chloral hydrate*</td>
</tr>
<tr>
<td></td>
<td>Meprobamate</td>
</tr>
<tr>
<td>Nonbenzodiazepine hypnotics (include</td>
<td>Eszopiclone</td>
</tr>
<tr>
<td>when cumulative days’ supply is</td>
<td>Zolpidem</td>
</tr>
<tr>
<td>&gt;90 days) (E)</td>
<td>Zaleplon</td>
</tr>
<tr>
<td>Vasodilators for dementia</td>
<td>Ergoloid mesylates*</td>
</tr>
<tr>
<td></td>
<td>Isoxsuprine</td>
</tr>
<tr>
<td>Endocrine</td>
<td></td>
</tr>
<tr>
<td>Endocrine</td>
<td>Desiccated thyroid</td>
</tr>
<tr>
<td></td>
<td>Estrogens** with or</td>
</tr>
<tr>
<td></td>
<td>without progesterone</td>
</tr>
<tr>
<td></td>
<td>(oral and topical patch</td>
</tr>
<tr>
<td></td>
<td>products only)</td>
</tr>
<tr>
<td></td>
<td>Megestrol</td>
</tr>
<tr>
<td>Sulfonylureas, long duration</td>
<td>Chlorpropamide</td>
</tr>
<tr>
<td></td>
<td>Glyburide</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Trimethobenzamide</td>
</tr>
<tr>
<td>Pain Medications</td>
<td></td>
</tr>
<tr>
<td>Pain medications</td>
<td>Meperidine</td>
</tr>
<tr>
<td></td>
<td>Pentazocine*</td>
</tr>
<tr>
<td>Non-COX-selective NSAIDS***</td>
<td>Indomethacin</td>
</tr>
<tr>
<td></td>
<td>Ketonolac</td>
</tr>
<tr>
<td>Skeletal Muscle Relaxants</td>
<td></td>
</tr>
<tr>
<td>Skeletal muscle relaxants (as a</td>
<td>Carisoprodol</td>
</tr>
<tr>
<td>single agent or as part of a</td>
<td>Chlorzoxazone</td>
</tr>
<tr>
<td>combination product)</td>
<td>Cyclobenzapine</td>
</tr>
<tr>
<td></td>
<td>Metaxalone</td>
</tr>
<tr>
<td></td>
<td>Methocarbamol</td>
</tr>
<tr>
<td></td>
<td>Orphenadrine</td>
</tr>
</tbody>
</table>

* Infrequently used drugs. Abbreviations: TCAs, tricyclic antidepressants; OTC, over the counter. Note (in general — unless otherwise specified): Includes combination products and the following routes of administration: oral, transdermal, injectable (IJ, SC, IM, IV), rectal, sublingual, buccal and inhalation.
** Conjugated estrogen, esterified estrogen, estradiol, estriol (includes combination products and the following routes of administration: oral and transdermal).
*** Includes oral and injectable (IJ, SC, IM, IV) routes only.
**TABLE F: RATIONALE FOR AVOIDING USE OF HIGH-RISK MEDICATIONS IN THE ELDERLY**

Below are the reasons why certain medications are considered high risk in the elderly.

<table>
<thead>
<tr>
<th>THERAPEUTIC CATEGORIES</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticholinergics</td>
<td></td>
</tr>
<tr>
<td>First-generation antihistamines</td>
<td>Highly anticholinergic; clearance reduced with advanced age and tolerance develops when used as hypotonic; greater risk of confusion, dry mouth, constipation, and other anticholinergic effects and toxicity</td>
</tr>
<tr>
<td>Anti-Parkinson’s agents</td>
<td>Not recommended for prevention of extrapyramidal symptoms with antipsychotics; more effective agents available for treatment of Parkinson’s disease</td>
</tr>
<tr>
<td>Antithrombotics</td>
<td></td>
</tr>
<tr>
<td>Antithrombotics</td>
<td>Safer effective alternatives available</td>
</tr>
<tr>
<td>Anti-Infective</td>
<td></td>
</tr>
<tr>
<td>Nitrofurantoin</td>
<td>Potential for pulmonary toxicity; safer agents available</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td></td>
</tr>
<tr>
<td>Alpha blockers</td>
<td>High risk of orthostatic hypotension; not recommended for routine treatment of hypertension; alternative agents have superior risk benefit profile</td>
</tr>
<tr>
<td>Disopyramide*</td>
<td>Potent negative inotrope and therefore may induce heart failure in older adults; strongly anticholinergic; other antiarrhythmic drugs preferred</td>
</tr>
<tr>
<td>Digoxin &gt; 0.125 mg/d</td>
<td>In heart failure, higher dosages associated with no additional benefit and may increase risk of toxicity; slow renal clearance may lead to risk of toxic effects</td>
</tr>
<tr>
<td>Nifedipine, immediate release*</td>
<td>Potential for hypotension; risk of precipitating myocardial ischemia</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td></td>
</tr>
<tr>
<td>Tertiary TCAs (as a single agent or as part of a combination)</td>
<td>Highly anticholinergic, sedating, and cause orthostatic hypotension</td>
</tr>
<tr>
<td>Antipsychotics, first-generation (conventional)</td>
<td>Increased risk of cerebrovascular accident (stroke) and mortality in persons with dementia</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>High rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages</td>
</tr>
<tr>
<td>CNS, other</td>
<td>Chloral hydrate*: Tolerance occurs within 10 days and risks outweigh benefits in light of overdose with doses only three times the recommended dose Meprobamate: High rate of physical dependence; very sedating</td>
</tr>
<tr>
<td>Nonbenzodiazepine hypnotics (include when cumulative days’ supply is &gt; 90 days)</td>
<td>Benzodiazepine-receptor agonists that have adverse events similar to those of benzodiazepines in older adults (e.g., delirium, falls, fractures); minimal improvement in sleep latency and duration</td>
</tr>
<tr>
<td>Vasodilators for dementia</td>
<td>Lack of efficacy</td>
</tr>
<tr>
<td>Endocrine</td>
<td></td>
</tr>
<tr>
<td>Endocrine</td>
<td>Desiccated thyroid: Concerns about cardiac effects; safer alternatives available Estrogens with or without progestins (oral and topical patch products only): Evidence of carcinogenic potential (breast and endometrium); lack of cardioprotective effect and cognitive protection in older women Megestrol: Minimal effect on weight; increases risk of thrombotic events and possibly death in older adults</td>
</tr>
<tr>
<td>Sulfonylureas, long duration</td>
<td>Chlorpropamide: Prolonged half-life in older adults; can cause prolonged hypoglycemia; causes syndrome of inappropriate antidiuretic hormone secretion Glyburide: Greater risk of severe prolonged hypoglycemia in older adults</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Trimethobenzamide: One of the least effective antiemetic drugs; can cause extrapyramidal adverse effects</td>
</tr>
<tr>
<td>Pain Medications</td>
<td></td>
</tr>
<tr>
<td>Pain medications</td>
<td>Meperidine: Not an effective oral analgesic in dosages commonly used; may cause neurotoxicity; safer alternatives available Pentazocine*: Causes CNS adverse effects, including confusion and hallucinations, more commonly than other narcotic drugs; is also a mixed agonist and antagonist; safer alternatives available</td>
</tr>
<tr>
<td>Non-COX selective NSAIDs</td>
<td>Increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged &gt;75 or taking oral or parenteral corticosteroids, anticoagulants, or antiplatelet agents</td>
</tr>
<tr>
<td>Skeletal Muscle Relaxants</td>
<td></td>
</tr>
<tr>
<td>Skeletal muscle relaxants (as single agent or as part of combination)</td>
<td>Most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture; effectiveness at dosages tolerated by older adults is questionable</td>
</tr>
</tbody>
</table>

* Infrequently used drugs. Abbreviations: TCAs, tricyclic antidepressants; OTC, over the counter. Note (in general — unless otherwise specified): Includes combination products and the following routes of administration: oral, transdermal, injectable (IV, SC, IM), rectal, sublingual, buccal and inhalation.
Comprehensive Medication Review Completion Rate
In 2011, the Pharmacy Quality Alliance (PQA) endorsed a quality performance measure related to medication therapy management (MTM) services. This comprehensive medication review (CMR) completion measure identifies the percentage of MTM-eligible beneficiaries who have received a CMR during the eligibility period. Completion of a CMR was a Centers for Medicare and Medicaid Services (CMS) Star Ratings display rate measure for several years and will become a full measure for 2016 for Medicare plans. It’s important to note there is a two-year lag between the “action” and “reward” year for the Star Ratings, so 2016 ratings are based on 2014 data. Completion of MTM opportunities is more critical than ever, and what you’ve already done matters!

Medicare payers will be directly measured by CMS on their CMR completion rate, not the pharmacy teams. Payers complete CMRs in multiple ways, including using community pharmacists to deliver. Many payers use a third-party MTM portal such as MirixaTM, OutcomesMTM™ or Outcomes to provide CMR opportunities to community pharmacies, so they will also be monitoring pharmacies’ CMR case completion rates via the MTM portals. Payers will be looking even more closely at what partners and methods help to increase quality measures including CMR completion and ultimately patient outcomes. In addition to the activity fees that pharmacies receive from completing CMRs, some payers may include CMR completion rate as part of their pay-for-performance programs. 28,29

Complete any CMR opportunities available to you at the community pharmacy level.
MEASURE DESCRIPTION

<table>
<thead>
<tr>
<th>2016 CMS 5-STAR GOAL:</th>
<th>To be determined. As a previous display measure, the combined median rate for the CMR completion rate was 17.9%.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHAT:</td>
<td>A CMR consists of a review of a patient’s medications, including prescriptions, over-the-counter (OTC) medications, herbal therapies and dietary supplements to assess medication use and identify drug therapy–related problems. A CMR includes an interactive, person-to-person consultation with the patient to address and resolve findings to optimize patient outcomes. Patient receives a personal medication record (PMR) and medication-related action plan (MAP).</td>
</tr>
<tr>
<td>WHO:</td>
<td>This measure looks at the percentage of Medicare Part D (drug plan) beneficiaries 18 years and older who met eligibility criteria for MTM services and who received a CMR during the eligibility period.</td>
</tr>
<tr>
<td>NOTE:</td>
<td>EQuIPP will begin including CMR completion rate performance for select plans with pharmacy-facing MTM programs by 2016.</td>
</tr>
</tbody>
</table>

MEASURE CALCULATION

The CMR completion rate measure is calculated based on data submitted to Medicare two years prior to the reporting year (e.g., data from January 1–December 31, 2013 for reporting year 2015). Data must be reported by June 30 of the year prior to the reporting year (e.g., June 30, 2014 for 2015). As a new measure, it will be assigned a weight of “1”; in future years it will continue to receive a weight of “1” as a process measure.**

THE FORMULA:

\[
\text{CMR completion rate} = \frac{\text{The number of beneficiaries who were at least 18 years or older as of the beginning of the reporting period and who were enrolled in the MTM program for at least 60 days during the reporting period.}}{\text{The number of patients in the denominator that have received one or more CMRs during the measurement year.}}
\]

CLINICAL RELEVANCE: MTM AND CMRs

“Medication therapy management is a distinct service or group of services that optimize therapeutic outcomes for individual patients. MTM services are independent of, but can occur in conjunction with, the provision of a medication product,” according to a pharmacy profession–wide consensus definition.30 The core elements of an MTM service include medication therapy review, intervention and/or referral, personal medication record, medication-related action plan, documentation, and follow-up.31 Pharmacists have been providing a variety of MTM services for decades; however, recently even more emphasis
has been placed on the importance of the completion of MTM services, in particular, comprehensive medication reviews.

In fact, pharmacists are the leading provider of MTM services across all Medicare Part D MTM programs and are utilized by 100% of plans. In addition, an increasing number, almost 70% of programs, have contracted with third-party MTM vendors. Pharmacies can help positively impact both Medicare plans’ Star Ratings and patient outcomes through providing MTM services.

CMS requires payers to offer a minimum level of MTM services to each beneficiary including an annual CMR with written summaries in CMS’ standardized format, which includes a cover letter, personal medication record (PMR) and medication action plan (MAP). In addition, they require payers to provide quarterly targeted medication reviews (TMRs) with follow-up interventions to patients when necessary. Other medication-use-related pharmacy quality measures can also be impacted through targeted and comprehensive MTM including adherence (hypertension, statins, diabetes), gaps in therapy measures, and high-risk medications in the elderly.

CMR ACTION STEPS FOR PHARMACIES

The following information is intended to be a general overview of some action steps a pharmacy can consider implementing to increase quality and performance in this area. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment. Refer to the Medication Therapy Management 101 for more specific suggested action steps and resources.

1. REGISTER WITH MTM PORTALS

   • Register with third-party MTM portals such as Mirixa, Outcomes MTM or Socrates to see available CMR cases.

2. ENGAGE THE PHARMACY TEAM

   • Make MTM a daily part of your pharmacy workflow.
   • Designate a pharmacy technician to log onto the MTM website(s) daily and check for available cases
   • Technicians can also assist with scheduling, preparing pre-visit paperwork, documentation and billing for services.

3. COMPLETE CMRs

   • Pharmacist should complete CMR appointment with patient and/or caregiver within the specified time frame for that specific CMR program.
   • If patient is not already enrolled in med sync program, ask if they would like to enroll. Once you complete a CMR, you have all the information needed to get someone on sync. Future CMRs and follow-ups become easier to execute and schedule if the patient’s medications are already synced.
   • Refer to the Medication Therapy Management 101 and additional resources on the following page for tips on completing CMRs.
CMR ADDITIONAL RESOURCES

• More Opportunities to Provide Comprehensive Medication Reviews (300801)
• Implementing MTM into a Community Pharmacy Practice (14-234)
• Improving Patient Safety: Medication Reconciliation Basics (13-306)
• Technician Tutorial: Helping Patients with Medication Lists (281130)
Case Study: Joe’s Pharmacy

Educate Yourself to Build Relationships with Physicians and Customers

Joe’s Pharmacy, located in the multicultural area of Richmond in San Francisco, serves a largely high-risk, geriatric patient base. The average patient takes 15 prescriptions. Owner Tony Bastian decided 30 years ago to focus on patient care, and the pharmacy has only a small front end.

Challenges

Bastian recognized when Medicare added the prescription drug benefit, and again when CMS began Star Ratings, that pharmacies are in a position to play a much more active role in healthcare delivery. However, he also recognized that physicians may not always be open to recommendations from pharmacists. He also faced the challenge of serving a highly diverse community, with some cultures that are hesitant to trust a pharmacist.

Solutions

- **Become an expert resource.** Bastian devotes 30–60 minutes a day to staying up to date with the latest developments in pharmacy and healthcare. Physicians regularly call him with questions.
- **Build relationships with physicians.** Bastian has educated physicians about how MTM benefits them and their patients.
- **Connect with customers.** Because of the culturally diverse neighborhood the pharmacy serves, Bastian realized he would need to hire translators or learn to communicate with patients himself. He speaks seven languages fluently.
- **Take a broad view of MTM.** He discusses the lifestyle and behaviors that affect patients, and he works with them to find solutions that enable them to be adherent to their medications.

Results: At or above 5-star goals for four of five measures

- Joe’s Pharmacy was among the top 20% of pharmacies in EQuIPP on the measure of high-risk medications for the elderly.
- In the last six months of 2014, Joe’s Pharmacy reached the 5-star goal for 2015 for all three adherence measures and had zero elderly patients taking high-risk medications.
- Customers appreciate the time he takes to explain their medications, and they not only bring him more of their prescriptions but also refer family members to Joe’s Pharmacy.

At a Glance

- Pharmacist: Tony Bastian
- Number of locations: 1
- Quality measures focus: Adherence, high-risk medications in the elderly
- Key tools: MTM, close relationships with physicians
- Results: At or above 5-star goals for four of five quality measures
  - In top 20% for high-risk medications
  - Completed more MTM cases than any other pharmacy in the Health Mart network in 2014
A study in which Joe’s Pharmacy participated of MTM among high-risk Medicare patients showed that pharmacist interventions can improve cardiovascular and quality-of-life outcomes while reducing medication errors. The interventions included three meetings over six months during which the pharmacist conducted a comprehensive medication review, assessed patients’ physical condition by checking vital signs and testing cholesterol and glucose levels, and educated patients about their disease, medications, and diet. Patients left each visit with health goals, recommendations and an action plan. The pharmacist sent physicians information about the patients’ medications and biometrics, as well as any recommendations.

**HOW TO SUCCEED LIKE JOE’S PHARMACY**

If you’re interested in improving MTM and working more effectively with physicians:

- **INTEGRATE TARGETED REVIEWS INTO THE WORKFLOW AND SCHEDULE DEDICATED TIME FOR CMRs**
  - Review the patient’s profile before you dispense every prescription, and intervene with the physician if necessary
  - Schedule MTM meetings before or after regular business hours or when the pharmacy is less busy

- **EDUCATE YOURSELF, PHYSICIANS AND PATIENTS — AND SPEAK THEIR LANGUAGE**
  - Set aside time daily to learn about the latest developments in pharmacy and healthcare
  - Host dinners for physicians to explain how the MTMs you do can benefit them and their patients
  - Explain to patients in language they understand why they are taking medications and what can happen if they don’t take them as prescribed

**DISCLAIMER:** This case study is for informational purposes only. The results of this case study depend on a variety of factors that are unique to this organization. There is no guarantee that your results will be similar to this case study. Each party’s results will depend on factors of its business. The success in this case study cannot be used as an indication of future success with these programs.
CASE STUDY: Hayat Pharmacy

Medication Therapy Management to Boost Quality Measures

Hayat Pharmacy is one of the top providers of medication therapy management services in Wisconsin, with state and nationwide awards to prove it! The pharmacy has multiple locations in Wisconsin including six retail pharmacies that they own and two additional that they manage. Most of their locations are located in or near clinics with exam rooms in which to conduct on-site MTM visits, enabling easier physician collaboration. In addition, they provide MTM visits at patients’ homes for those unable to make it to the pharmacy.

CHALLENGES

Hayat Pharmacy wanted to extend their established Medicaid MTM services to other patient populations, including Medicare patients.

SOLUTIONS

• Extended in-pharmacy and at-home Medicaid MTM services to Medicare patients, particularly targeting those with diabetes
• Used standardized forms and checklists to guide conversations with patients and physicians to identify gaps in care and close the gaps
• Once MTM established with patients, they applied medication synchronization as well

RESULTS:

• Three of their locations have more than one PDC measure in the top 20% of performers across all retail pharmacies
• Across all the locations they have enrolled over 1,100 patients in their medication synchronization program, most of which also benefit from MTM services
• As a result of their MTM services, in addition to helping their CMR completion rate, address adherence and close gaps in care, Hayat has also saved their patients from at least 10 emergency room visits through their clinical interventions

AT A GLANCE

Health Mart member: January 2011
Pharmacists: Hashim Ziabak and Omar Eliwa
Number of locations: 6, plus 2 additional locations managed
Quality measures focus: Diabetes treatment
Key tools: Medication therapy management, standardized checklists
Results: Maximized MTM case completion, closed gaps in care and avoided ER visits
HOW TO SUCCEED LIKE HAYAT PHARMACY

If you’re interested in implementing an MTM program, here are some suggested steps:

- **GET EDUCATED**
  - Take the CE course available on Health Mart University: “Practical Steps for Integrating MTM into Your Daily Practice” (CE)
  - Refer to the Medication Therapy Management IOI and Pharmacist’s Letter resources for more information

- **CHECK FOR AND COMPLETE MTM CASES DAILY**
  - Enroll with one or more MTM vendors such as:
    - Mirixa
    - Outcomes
    - State Medicaid
    - Other
  - Implement a process to check for cases on a daily basis and complete them within the specified time frame

- **INVOLVE THE WHOLE PHARMACY TEAM**
  - Consider assigning a specific pharmacy technician as the “MTM tech” to help implement and lead the program logistics (performing tasks that technicians are allowed to do under the state pharmacy laws)
  - Educate team members on the MTM program and ask for their assistance in identifying patients

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CASE STUDY: Towncrest

Data and Documentation Drive Results

Towncrest Pharmacies in Iowa have been focused on optimizing patient therapy — not just dispensing medication — for more than a decade. The Towncrest Pharmacy in Iowa City serves an older population with many chronic illnesses, while the Solon Towncrest location serves a more mixed population.

Well before Star Ratings began, Towncrest already had an extensive documentation system in place, and systems for continuous medication monitoring to identify and resolve drug therapy issues. Towncrest was already focused on adherence at the time of dispensing, and offered a medication synchronization program.

CHALLENGE

When Towncrest began faxing recommendations to physicians more than a decade ago, at first, none replied. “They weren’t used to seeing notes from pharmacists,” co-owner Randy McDonough said. Also, the first notes were too long and complicated, he learned.

A current challenge is that the claims data which is used for Star Ratings shows only part of the picture. This data shows “what” but doesn’t explain “why” a pharmacy may not be hitting some goals.

SOLUTIONS

• **Provide staffing for MTM.** A dispensing pharmacist at either of the Towncrest locations who is doing a prospective DUR can always consult with an MTM pharmacist on staff, either in person or by email, text or a phone call.

• **Talk to providers’ offices.** Towncrest learned one provider’s office wasn’t replying to the pharmacy’s recommendations because the provider’s legal advisor worried that any response from the provider would become “discoverable” information in the event of a lawsuit. Towncrest pointed out that its documents existed, whether the physician responded or not.

• **Simplify forms.** Towncrest strives to keep every form it sends to a provider’s office to less than one page. Its format allows the physician to see quickly why the pharmacy is contacting the office and to respond by faxing back the same form with check marks, signatures and any notes added.

• **Follow up.** Towncrest’s software flags customer files when the pharmacy is awaiting a response from a physician’s office. The staff also doesn’t file a hard copy of the patient’s chart while a response is pending. If a patient calls with questions about a sample medication received at a provider’s office, the staff will note to follow up with the customer about the new medication in a couple of weeks.

AT A GLANCE

Pharmacists: Randy McDonough

Number of locations: 2

Quality measures focus: Adherence

Key tools: Medication synchronization, data, fax forms for communicating with physicians

Results: 5-star ratings on four of five quality measures. In top 20% for two adherence measures in both pharmacy locations.
RESULTS: COORDINATION FOR CUSTOMER CARE

- Physicians respond to Towncrest Pharmacy 95% of the time.
- Both Towncrest and Solon reached the 5-star goal levels for four of five quality measures.
- Both Towncrest Pharmacy locations have been in the top 20% of pharmacies on two adherence measures.
- Towncrest has the ability to analyze why it isn’t at certain quality measure levels. For example, pharmacy documents may show a patient with diabetes and hypertension isn’t on a recommended medication because of an inability to tolerate it.

HOW TO SUCCEED LIKE TOWNCREST PHARMACY

If you’re interested in improving your communications with physicians, below are some suggested steps:

- **CAPTURE INFORMATION ABOUT CUSTOMERS**
  - Ensure you have a current medication list for every customer, including OTC medications.
  - Document patient history.
  - Update notes with every intervention and interaction.

- **COLLABORATE WITH PHYSICIANS**
  - Educate them about how your actions can improve their quality measures.
  - Respect their time and make it fast and easy for them to respond to the pharmacy.
  - Make your fax forms clear and specific.
  - Share information. After the pharmacy makes a change with the physician’s approval, it faxes back a copy of the new orders implemented so the provider’s office can update its records. The pharmacy also faxes a patient’s current medication list to physicians for them to check the medical records in their office and ensure the medications they prescribed are current. (Remember to comply with patient privacy laws.)

- **ANALYZE DATA TO PROVE YOUR VALUE**
  - Work with others to quantify the impact your pharmacy has on reducing health costs.
  - Tentative data from a pilot with BCBS/Wellmark showed that for a group of high-risk patients, those who used only Towncrest Pharmacy had health costs $790 per member/per month less than those served by another pharmacy, through outcomes such as fewer doctor and hospital visits.

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Display Measure: Statin Use in Persons with Diabetes
A pharmacy quality measure has been introduced for the treatment of cholesterol in patients with diabetes. The measure is a new CMS Star Ratings display measure for 2017, which means performance is based on 2015 data and actions. Statin Use in Diabetes is anticipated to become a full measure in 2018.

What are display measures? Display measures are not part of the Star Ratings. They include measures that have been transitioned from the Star Ratings, new measures that are tested before inclusion into the Star Ratings, or measures displayed for informational purposes.

Why is CMS targeting statin use in diabetes? According to the American Diabetes Association (ADA), diabetes costs us $176 billion per year in direct medical fees. Put another way, more than 1 in 10 healthcare dollars are spent on diabetes and its complications, and more than 1 in 5 healthcare dollars go to treating people with diagnosed diabetes. It’s a disease that affects more than 25 million Americans and is the seventh leading cause of death in the U.S. The American Heart Association (AHA) reports that diabetes is a major controllable risk factor of arteriosclerotic cardiovascular disease (ASCVD). Patients with diabetes are two to four times more likely to develop heart disease and stroke. In fact, heart disease and stroke are the leading cause of disability and death in diabetic patients.4-7,32

<table>
<thead>
<tr>
<th>MEASURE DESCRIPTION³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2017 DISPLAY MEASURE GOAL:</strong></td>
</tr>
<tr>
<td><strong>WHAT:</strong></td>
</tr>
<tr>
<td><strong>WHO:</strong></td>
</tr>
<tr>
<td><strong>NOTE:</strong></td>
</tr>
</tbody>
</table>

Only a single prescription fill for a statin medication during the measurement period (a year) is needed to positively impact this measure!
**MEASURE CALCULATION**

The statin use in persons with diabetes measure is calculated based on Prescription Drug Event (PDE) data submitted to Medicare two years prior to the reporting year (e.g., data from January 1–December 31, 2013 for reporting year 2015). Data must be reported by June 30 of the year prior to the reporting year (e.g., June 30, 2014 for 2015). 3*

**THE FORMULA:**

\[
\frac{\text{Number of patients in the denominator who were dispensed a prescription of a statin or statin combination medication during the measurement year.}}{\text{Patients age 41-75 on the last day of the measurement year who have received 2 or more fills of an oral hypoglycemic agent, insulin or incretin mimetic.}}
\]

**CLINICAL RELEVANCE: DIABETES AND CHOLESTEROL**

The following is intended to be a brief overview of the clinical relevance of this measure. It should not be used as a treatment guide, but rather as a reference point for correct treatment guidelines. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

Heart disease and stroke are the number one cause of death and disability among patients with diabetes. Diabetic patients often have high LDL-C, low HDL-C and high triglycerides. This triad often leads to premature coronary artery disease. It can also cause enhanced insulin resistance in diabetic patients. Insulin resistance has been positively linked to an increased risk of hypertension and obesity.

**TREATMENT GUIDELINES**

The 2013 American College of Cardiology/American Heart Association (ACC/AHA) guidelines for the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults recommended that all diabetic patients between the ages of 40 and 75 receive moderate- to high-dose statin therapy to reduce the risk of cardiovascular events. 32
### KEY TAKEAWAYS FROM 2013 ACC/AHA GUIDELINES FOR THE TREATMENT OF BLOOD CHOLESTEROL

| TREATMENT OF BLOOD CHOLESTEROL IN PATIENTS WITH DIABETES | Age 40–75 with LDL 70-189 mg/dL: Moderate-dose statin therapy  
If patients fall in any of the general populations that are recommended high-dose therapy, they should be treated as part of that group |
| TREATMENT OF BLOOD CHOLESTEROL IN THE GENERAL POPULATION | Age 21–75 with clinical ASCVD: High-dose statin therapy  
Age greater than or equal to 21 LDL>189: High-Dose statin therapy  
Age 40–75 without ASCVD or diabetes and estimated 10-year risk greater than or equal to 7.5%: Moderate- to high-dose |

### STATIN USE IN PERSONS WITH DIABETES ACTION STEPS FOR PHARMACIES

The following information is intended to be a general overview of some action steps a pharmacy can consider implementing to increase quality and performance in this area. It does not constitute legal or other professional advice by Health Mart. Each pharmacist should apply his or her own professional judgment.

#### I. IDENTIFY GAPS

Look for potential gaps in therapy — no statin.

- Participate in medication therapy management programs that include targeted interventions that help identify gaps in care. These types of programs can help identify patients for you.
- As part of your prospective drug utilization review for patients with diabetes who are on an oral diabetes agent, check to ensure they are also on a statin.
- Similarly, when counseling diabetic patients, review the patient profile or ask open-ended questions to determine if a potential gap in therapy exists.
- Leverage technicians and the whole pharmacy team to refer patients with diabetes to the pharmacist for counseling and the identification of potential gaps in therapy.
2. DISCUSS WITH PATIENT
If a gap is identified, discuss it with the patient at the pharmacy or by phone.

• Ask open-ended questions to find out what the patient might have tried in the past or may know about these types of medications. Ask for permission to discuss the benefits of using statin medications to reduce the risk of heart disease.

• Offer to call or fax the prescriber to request a new prescription.

3. CONTACT PHYSICIAN
If applicable, contact the prescriber by phone or fax to let him/her know about the potential gap in therapy identified, as well as any pertinent information from the discussion with the patient.

• Use physician fax templates (such as the sample in Appendix C) and customize as needed.

• This recommendation is supported by the 2013 American College of Cardiology/American Heart Association (ACC/AHA) guidelines for the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults. Use evidence-based information as needed to inform your discussions.
### Table G: Oral Hypoglycemic Agent, Insulin or Incretin Mimetic

#### Biguanides and Biguanide Combination Products
- Metformin
- Pioglitazone and metformin
- Rosiglitazone and metformin
- Repaglinide and metformin
- Sitagliptin and metformin IR and SR
- Saxagliptin and metformin SR
- Linagliptin and metformin
- Glyburide and metformin
- Glipizide and metformin
- Alogliptin and metformin

#### Sulfonylureas and Sulfonylurea Combination Products
- Chlorpropamide
- Glipizide and metformin
- Glimepiride
- Glyburide and metformin
- Glyburide
- Rosiglitazone and glimepiride
- Tolazamide
- Tolbutamide

#### Meglitinides and Meglitinide Combination Products
- Nateglinide
- Repaglinide
- Repaglinide and metformin

#### Alpha-Glucosidase Inhibitors
- Acarbose
- Miglitol

#### Thiazolidinediones and Thiazolidinedione Combination Products
- Pioglitazone
- Rosiglitazone and glimepiride
- Rosiglitazone and metformin

#### Incretin Mimetic Agents
- Exenatide
- Liraglutide
- Albilglutide

#### Amylin Analogs
- Pramlintide

#### DPP-IV Inhibitors and DPP-IV Inhibitor Combination Products
- Sitagliptin
- Linagliptin
- Alogliptin
- Saxagliptin
- Alogliptin and metformin
- Alogliptin and pioglitazone
- Linagliptin and metformin
- Sitagliptin and metformin IR and SR
- Saxagliptin and metformin SR
- Sitagliptin and simvastatin

#### Insulins
- Insulin aspart
- Insulin aspart Protamine and Aspart
- Insulin detemir
- Insulin glargine
- Insulin glulisine
- Insulin isophane and regular human insulin
- Insulin isophane (human N)
- Insulin lispro
- Insulin lispro Protamine and insulin lispro
- Insulin regular (human R)
- Insulin regular (human) inhalation powder

#### Sodium Glucose Co-Transporter2 (SGLT2) Inhibitors
- Canagliflozin
- Dapagliflozin
- Emagliflozin

*Note: Excludes nutritional supplement/dietary management combination products.*
### TABLE H: STATIN MEDICATIONS

Below are statin and statin combination medications utilized in the statin adherence measure.

<table>
<thead>
<tr>
<th>STATIN MEDICATIONS</th>
<th>STATIN COMBINATION PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• lovastatin</td>
<td>• niacin and lovastatin</td>
</tr>
<tr>
<td>• rosuvastatin</td>
<td>• atorvastatin and amlodipine</td>
</tr>
<tr>
<td>• fluvastatin</td>
<td>• niacin and simvastatin</td>
</tr>
<tr>
<td></td>
<td>• sitagliptin and simvastatin</td>
</tr>
<tr>
<td></td>
<td>• ezetimibe and simvastatin</td>
</tr>
<tr>
<td></td>
<td>• ezetimibe and atorvastatin</td>
</tr>
</tbody>
</table>

Excerpted from CMS Medicare 2015 Part C and D Star Rating Technical Notes

Note: The active ingredients are limited to oral formulations only.

### ADDITIONAL RESOURCES

- Statins for Patients with Diabetes (310406)
- The Current Cholesterol Controversy (300702)
- Improving Diabetes Outcomes and Meeting Quality Measures (300402)
References


Appendices
APPENDIX A

How to Identify Target Patients

1. USE MTM. Medication therapy management (MTM) programs help target patients for you and often provide a service or activity fee for completing cases.
   - If you are not already doing MTM, consider enrolling with a vendor such as:
     - Mirixa® (Call Mirixa at 866.218.6649, 8:30 a.m. to 5:30 p.m. ET Monday through Friday)
     - Outcomes MTM™ (click “pharmacy” tab on top, then “getting started” link)
     - Socrates®
     - Check with your state pharmacy association for any state or local MTM or pharmacy quality–related opportunities
   - If you are looking for additional training to help you or your pharmacy team integrate MTM into your pharmacy, consider taking the CE course available on Health Mart University titled “Practical Steps for Integrating MTM into Your Daily Practice.”
   - If your pharmacy is already doing both targeted and comprehensive medication reviews, it is critical to implement a process to check for new MTM cases daily (e.g., “open” cases) and complete the cases within the specified time frame.

2. LEVERAGE EQuIPP DATA. For help picking a measure where impacting even one patient can make a big difference, evaluate your pharmacy’s performance using EQuIPP. See Appendix E for a quick cheat sheet of how to read your EQuIPP dashboard. EQuIPP also provides outlier reporting for select plans that helps you identify patients. Refer to the EQuIPP FAQ tab for additional information.
   - When reviewing your Pharmacy Performance Report on EQuIPP consider, based on current performance, approximately how many patients are needed to affect your performance for a given measure and move it to at or above the 5-star goal level.
   - For example, for Diabetes Proportion of Days Covered (PDC), if your performance was currently based on 100 patients and the gap between current performance and the 5-star goal was 1%, just one patient would be needed to move the store to the 5-star level. Look for opportunities like this, where even small changes can make a big difference.
   - Remember that while you may move one patient in the correct direction, another may become an outlier if you only rely on retrospective data of outliers. Keep your patients on track by being proactive using behavioral coaching and look to go beyond the 5-star CMS threshold goal.

3. DO REPORTING. Use your pharmacy-management tools to run reports to help you identify patients. See Appendix G for more specifics on the MPS&A Adherence Performance Solution.
   - For all measures: Consider running NDC or drug-specific reports for the measure(s) you want to work on improving.
   - For PDC measures: Consider running compliance or past-due refill reporting.
   - Explore creating custom reports (if available in your pharmacy-management system) to help filter the list of patients to target even further (by NDC, by payer, etc.).
     - Use the “Analyze Performance” button in EQuIPP under the measure you are looking to improve to see from which payer(s) the patients who are contributing to your score are coming from. Consider targeting patients with that payer and running a report looking for patients taking those medications from the given payer.

4. CREATE FLAGGING SYSTEM. Flag patients who are identified outside of your workflow.
   - For patients who are identified outside of your workflow (e.g., through MTM cases or by running a report from your pharmacy-management system), consider a process for calling patients or placing a patient note in the pharmacy-management system to help identify those patients on their next visit.
This information on motivational interviewing (MI) approaches, conversation starters and common objections is just a starting point for increasing or refreshing your skills related to MI. Additional and ongoing CE in MI is often needed. Consider taking the session “Coaching at the Counter ... Opportunities for Enhancing Communication with a Patient-Centered Approach,” available for CE credit on Health Mart University.

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Medication adherence is a complex and personal issue, requiring a delicate discussion with patients. To facilitate these conversations, it’s important to use the right approach. Motivational interviewing has proven to be more effective than traditional approaches, leading to a higher success rate for more efficient and longer-lasting health behavior change. The first step in improving adherence is using a MI-based coaching session to have open conversations with patients to determine their personal reasons for not being adherent.

**FOUR KEY MOTIVATIONAL INTERVIEWING SKILLS TO DEVELOP**

- **Engaging:** Establishing a connection and working relationship.
- **Focusing:** Developing and maintaining a specific direction in the conversation about change.
- **Evoking:** Eliciting the patient’s own motivations for change. Uncovering motivation is key to changing the conversation perspective from being an “expert” to being a “partner.”
- **Planning:** Developing commitment and formulating a plan of action.

**STEPS IN MOTIVATIONAL INTERVIEWING**

1. **Develop rapport**
   - Remember to use open-ended questions
     - What did the doctor tell you this medication is for?
     - What concerns do you have about your medication?
     - Tell me about how the past few weeks have gone with taking your medication ...

2. **Reflect back your understanding of the patient’s sense making**
   - What I am hearing you saying is ...

3. **Ask permission** to proceed in providing the patient with new information to promote a sense of collaboration

4. **Provide new information**
5. **Ask the patient** what he/she thinks of this new information

6. **Summarize** and discuss next steps
   - Reflect overall on what was discussed by patient and outline next steps

**MOTIVATIONAL INTERVIEWING CONVERSATION STARTERS: EXAMPLES**

Examples of open-ended questions and typical types of responses are listed below. Consider using these open-ended questions to begin an MI-based coaching session with patients.

<table>
<thead>
<tr>
<th>Suggested Question</th>
<th>Suggested Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiation of therapy conversation:</strong></td>
<td><strong>Response choices:</strong></td>
</tr>
</tbody>
</table>
| “What did the doctor tell you this medication is for (or what it does)? How important is that to you?” | a. Important: If the patient acknowledges importance, **AFFIRM** (“great”), and **REFLECT** back/restate what they know and its importance.  
b. Unsure of importance: Ask permission to offer what you know about medication and importance (i.e., benefits). Then, **ASK** patient how information applies to them.  
c. Resistant: **REFLECT** what the person says without arguing. “At the moment, you are still not certain you really need this medication. It’s true, only you can decide, and I do encourage you to talk to your physician.” |
| “What do you believe are the benefits of taking your medicine?” | **Response choices:**  
a. Provides benefits: **AFFIRM** and add, “What other reasons would you have for taking this medicine?”  
b. Unsure of benefits: **WITH PERMISSION**, offer possible benefits, and add, “How might any of these benefits be important to you?” |
| “Would you mind if I mention an area where some patients run into trouble?” | **EXAMPLE:** “You may know that feeling ‘well’ is not what [medication name] helps with. Thus, as you start to feel better, continue to take your medication every day.” |
### HANDLING COMMON OBJECTIONS ONCE ON THERAPY

<table>
<thead>
<tr>
<th>Potential Patient Objections</th>
<th>Potential Pharmacist Response: Reflection or Open-Ended Questions</th>
</tr>
</thead>
</table>
| Asymptomatic: “I feel fine and I’m tired of taking it.” | “It sounds like you are frustrated with having to take the medication every day, when you don’t feel any better or different when you take it.”  
Listen, Reflect, Ask Permission: “Would you mind if I share some information and you tell me what you think?”  
[Share benefits/risk reduction of taking medication] |
| Already implemented lifestyle changes: “I exercise and/or eat healthy every day to stay healthy; I don’t need my medication.” | “That is great that you are [exercising or eating healthy] regularly and there are definitely benefits to improving your blood sugar with [exercise/diet]. You’re feeling good, so you’re wondering if the [exercise/diet] has eliminated the need to take your [medication].”  
Listen, Reflect, Ask Permission: “You raise a good question. Would it be OK if we talk a little more about your medication, [exercise/diet], and how they can work together to manage your [condition]?” |
| Side effect(s): “I feel worse on the medication and I’ve developed this [side effect]. I don’t want to take my medicine anymore.” | “You sound worried about this side effect. It sounds like if you weren’t experiencing this side effect with the medication, that you would be more likely to take your medication.”  
Listen, Reflect, Ask Permission: “Would you be willing to discuss options for [side effect management] and/or a different medication to help [lower your blood pressure] that may have fewer [side effects]?” |
| Cost: “I can’t afford my medication anymore.” | “It sounds like you are worried about how you might be able to pay for your medications.”  
Listen, Reflect, Ask Permission: “Would you mind if I look into [patient assistance program, co-pay card, therapeutic interchange, etc.]?” |
| Forget to take: “It’s hard to remember to take my medication.” | “It sounds like it’s challenging to remember to take your medication(s) every day/ every time.”  
Listen, Reflect, Ask Permission: “You raise a valid concern. Some of my other patients who also find it hard to remember to take their medication have benefited from [pill box, compliance packaging, reminder technology].” |
| Forget to refill: “I was doing good taking it, but I was really busy with my grandkids and forgot to refill all my pills.” | “That is great that you were doing well remembering to take it before you ran out of pills. Would you mind if I [sign you up for refill reminders]? Some of my other patients who often forget to refill have benefited from it.” |

### Additional Resources

Consider taking or encouraging your staff to take CE courses on Health Mart University including  
“Coaching at the Counter ... Opportunities for Enhancing Communication with a Patient-Centered Approach.”


APPENDIX C
Sample Fax Templates

Appendix C contains four sample fax templates for communicating identified gaps in therapy or adherence medication issues to the patient’s physician.

Refer to the Health Mart Marketing Hub on McKesson Connect to find modifiable physician fax and letter templates that can be used to communicate with physicians and market your pharmacy services (search term = “physician”). To find other prescribers or to gather more information on prescribers, refer to the Physician Outreach Program.

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**Medication Adherence Inquiry**

**Working to improve medication adherence for your patient**

<table>
<thead>
<tr>
<th>Doctor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Name</td>
<td>DOB</td>
</tr>
<tr>
<td>Medication(s)</td>
<td></td>
</tr>
</tbody>
</table>

We are working with this patient to improve his/her medication adherence. Our approach is to tailor our medication adherence services to each patient. We wanted to let you know that we have been taking the following approach(es) with this patient so that you can update your patient records as appropriate:

- Behavioral coaching and disease state education
- Refill reminders via phone, email or text
- Dose reminder packaging
- Medication therapy management (MTM – comprehensive medication reviews)
- SimpleSync™ (medication synchronization to make prescription pickups more convenient)
- Disease state education
- Reviewed patient-specific barriers to adherence
- Patient-specific solutions
- Made plan for regular check-ins
- Other

What was discussed with your patient?

- [ ] SimpleSync™

Pharmacist Signature ______________________ Date ____________

---

Thank you for partnering with [Your Health Mart Pharmacy] to improve medication adherence and patient care. Please call us with any questions at [Insert Phone Number]

[INSERT PHARMACIST’S NAME]
1234 MAIN STREET
ANYTOWN, ST 00000
PHONE 415.555.1212
FAX 415.555.1212
PHARMACY WEBSITE

---

If you no longer want to receive faxes from [insert name of pharmacy] and want your name and fax number removed from the distribution list, please call [insert phone number]. Alternatively, opt-out of receiving faxes via [insert fax number] and check the box below. In order to process your opt-out request you must provide us the fax number for which the opt-out request applies. Pursuant to applicable law, you may process your request within the shortest reasonable time, not to exceed 30 days. Your opt-out request may be revoked if you subsequently provide us with express invitation or permission, in writing or otherwise, to send advertisements to that fax number.

Fax Opt Out | Fax Number ______________________ Date ____________
Statin Use in Persons with Diabetes Inquiry

Working to reduce your patient’s risk of heart disease

Doctor ___________________________ Date _______________

Patient Name _______________________ DOB _______________

Medication(s) ________________________________

On review of our mutual patient’s current prescription regimen, we noted that he/she is taking diabetes medication(s) indicated above, but is not currently taking a statin to reduce the risk of heart disease. Based on the American College of Cardiology and American Heart Association Practice Guidelines, we recommend that a statin be initiated for our mutual patient if you deem clinically appropriate. Please review this patient’s record, indicate your decision below and fax it back to [Insert Fax Number].

☐ Yes, initiate a statin as indicated in below prescription  ☐ No (please indicate why below)

Pharmacist Signature __________________________ Date _______________

Thank you for partnering with [Your Health Mart Pharmacy] to review use of statin medication for diabetes management. Please fax this form back to us at [Insert Fax Number] or call us with questions.

©Health Mart Systems, Inc. All rights reserved. HM-09524-05-15-B
Use of High-Risk Medications in the Elderly Inquiry

Working to reduce your patient’s high risk medication use

Doctor _______________________________ Date __________
Patient Name ___________________________ DOB __________
Medication(s) ____________________________

On review of our mutual patient’s current prescription regimen, we noted that he/she is currently prescribed a medication listed in the *American Geriatrics Society Beers Criteria for Potentially Inappropriate Medication Use in Older Adults*. We are contacting you because this medication presents a potential risk for this patient. Please review this patient’s record and indicate your decision below, and fax back to [Insert Fax Number].

☐ Discontinue current therapy and initiate prescription  ☐ Continue current therapy

Pharmacist Signature ____________________________ Date __________

Thank you for partnering with [Your Health Mart Pharmacy] to review use of high-risk medications in the elderly. Please fax this form back to us at [Insert Fax Number] or call us with questions.

Fax Opt Out  Fax Number ____________________________

If you no longer want to receive faxes from [insert name of pharmacy] and want your name and fax number removed from the distribution list, please call [insert phone number].
Alternatively, to opt out of receiving faxes, fax this document to [insert fax number], and check the box below. In order to process your opt-out request, you must provide us the fax number for which the opt-out request applies. Pursuant to applicable law, we must process your request within the shortest reasonable time, not to exceed 30 days. Your opt-out request may be revoked if you subsequently provide us with express invitation or permission, in writing or otherwise, to send advertisements to that fax number.
Now that you’ve accessed your pharmacy’s specific performance data on the EQuIPP™ platform, you may be wondering what to do next. There’s no one-size-fits-all solution. You’ll need to customize your approach depending on your current performance, the pharmacy services you offer and other factors. However, the Pharmacy Quality Measures: Action Steps for Improvement course on Health Mart University™ is a good starting point for everyone to understand performance as well as an approach to evaluating and targeting improvement. After that, take a closer look at the key medication use–related Star Rating measures your pharmacy can impact and evaluate what approaches you and your pharmacy team can take to most effectively affect health plans’ ratings — while also making your business more competitive and successful.

**KEY MEDICATION USE–RELATED STAR RATINGS MEASURES**

**How your pharmacy can drive improved performance**

Pharmacies significantly impact health plans’ core measures

1x weighted process measure:
- Comprehensive Medication Review Completion Rate

3x weighted outcomes measures:
- Adherence
- High-risk medications
Adherence Measures

These measures look at improving adherence in three key medication groups, including statins, oral diabetic agents and renin-angiotensin system (RAS) antagonists. Adherence is measured by proportion of days covered (PDC), which assesses the percentage of patients covered by prescription claims for the same drug or another drug in the same therapeutic class within a calendar range. Only patients with at least two fills are included.¹

Clinical importance: Statins, oral diabetic agents, RAS antagonists

Statin PDC ³
- Statin medications block converting enzymes in the pathway to produce endogenous LDL cholesterol. This decrease in endogenous cholesterol production offsets the influx of dietary cholesterol to reduce total cholesterol.
- Statins are recommended in patients with LDL >190 with atherosclerotic cardiovascular disease (ASCVD) or at high risk with ASCVD and comorbidities such as diabetes (2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults).

Oral Diabetic Agent PDC ¹
- Medications include biguanides, sulfonylureas, thiazolidinediones and DPP-IV inhibitors.
- These medications improve glycemic control through various mechanisms of action, including decreasing hepatic glucose production, decreasing glucose absorption, increasing insulin-mediated glucose uptake, increasing insulin secretion, decreasing insulin resistance and suppressing glucagon release.
- Detailed recommendations on when to use which agent can be found in the 2013 American Association of Clinical Endocrinologists (AACE) guidelines.

RAS Antagonist PDC ³
- Medications include ACE inhibitors, ARBs and renin inhibitors.

Suggested action steps
- Refer to the 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults for clinical treatment guidelines.
- Participate in MTM programs that offer targeted interventions and/or comprehensive medication reviews where patient adherence can be accessed and addressed.
- Adherence is a personal behavioral choice. Therefore, the first step to improving adherence is using behavioral-based coaching/interviewing to have open conversations with patients to determine their personal reasons for not being adherent.
- Based on the cause (typically patients have multiple reasons), you can then select the right tool or action:

Adherence measures: cause and action

<table>
<thead>
<tr>
<th>CAUSE</th>
<th>TOOL/ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not know why I need to take</td>
<td>Disease state — medication counseling</td>
</tr>
<tr>
<td>Forgot to order refills</td>
<td>Electronic refill reminders (calls, IVR, text, email)</td>
</tr>
<tr>
<td>Forgot to take each day</td>
<td>Dose reminders, or if multiple meds, compliance packaging</td>
</tr>
<tr>
<td>Inconvenience of multiple medications and multiple trips to pharmacy</td>
<td>Medication synchronization</td>
</tr>
<tr>
<td>Intolerable side effects</td>
<td>Therapeutic interchange/physician collaboration</td>
</tr>
<tr>
<td>Cost</td>
<td>Therapeutic interchange, formulary review, patient assistance programs</td>
</tr>
</tbody>
</table>

Enroll the patient in your medication synchronization program. If you do not have a med sync program already in place, refer to the Health Mart Operations Manual for more information.
High-Risk Medications Measure

This measure looks at patients aged 65 and older who received prescriptions for certain drugs that are considered to have a high risk of side effects in the elderly, when there are safer choices available. This is calculated as a percentage of patients who received two or more fills of a prescription for a high-risk medication on the CMS list.  

Clinical importance: High-risk medications for elderly  

• Centers for Medicare and Medicaid Services (CMS) has a one-page list of high-risk medications specific to this measure.
• The medications on this list cover a wide variety of therapeutic classes such as anticholinergics, barbiturates, certain antibiotics and calcium channel blockers, tricyclic antidepressants, estrogen without progesterin, long duration sulfonylureas, NSAIDS, muscle relaxants, hypnotics and others.
• Although the medication list is a subset of the 2012 Beers Criteria, the criteria are good for referencing increased risk of side effects from using the high-risk medication which include, but are not limited to, falls, gastrointestinal bleeds, hypotension, renal impairment and others.

Suggested action steps

• Participate in MTM programs that include interventions targeted at high-risk medications.
• Utilizing patient targeting methods that are listed on back can be helpful to drive prospective DUR interventions for these patients.
• Familiarize your staff with the list and common classes, and review medications for coaching opportunities during traditional counseling interaction.
• Utilize Beers guidelines as a clinical reference when making therapeutic interchange recommendations to providers.

REFERENCES


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This measure identifies the percentage of MTM-eligible beneficiaries who have received a CMR during the eligibility period. Completion of a CMR was a CMS Star Ratings display measure for several years and will become a full measure for 2016 for Medicare Part D plans. It’s important to note there is a two-year lag between “action” and reward year for the Star Ratings, so 2016 ratings are based on 2014 data. Completion of MTM opportunities is more critical than ever, and what you’ve already done matters!  

### Comprehensive Medication Review (CMR) Completion Rate

**Importance**

- In 2011, the Pharmacy Quality Alliance (PQA) endorsed a quality performance measure on the Medication Therapy Management Program Completion Rate for CMRs.
- A CMR is a scheduled appointment that includes collecting patient-specific information, assessing prescription and over-the-counter medications to identify medication-related problems, developing a prioritized list of medication-related problems, and creating a plan to resolve them with the patient, caregiver and/or prescriber. The patient receives a personal medication record (PMR) and medication-related action plan (MAP) and the physician receives follow-up communication that the visit occurred as well as requests related to any potential drug therapy problems identified.
- Medicare payers are the ones being directly measured by CMS on their CMR completion rate and they complete CMRs in multiple ways, including using community pharmacists to deliver them.
- Other medication-use–related pharmacy quality measures can also be impacted by completing a CMR including adherence (hypertension, statins, diabetes), gaps in therapy measures, and high-risk medications in the elderly.
- Payers will be looking even more closely at what partners and methods help to increase quality measures, including CMR completion and ultimately, patient outcomes.

**Suggested action steps**

- Many payers use a third-party MTM portal such as Mirixa® or OutcomesMTM™ to provide CMR opportunities to community pharmacies, so they will also be monitoring pharmacies’ CMR case completion rates via the MTM portals.
- Note: Your CMR completion rate will not be visible in EQuIPP until 2016 — you need to refer to your respective MTM portal(s).

- Register with third-party MTM portals such as Mirixa and OutcomesMTM to see available CMR cases.
- Designate a pharmacy technician to log onto the MTM website(s) daily and check for available cases. Technicians can also assist with scheduling, preparing pre-visit paperwork, documentation and billing for services.
- Pharmacist should complete CMR appointment with patient and/or caregiver within the specified time frame for that specific CMR program.
- Refer to Health Mart’s Medication Therapy Management 101 Guide (available on the Health Mart Operations Manual) for more specific suggested action steps and resources.
A new pharmacy quality measure has been introduced for the treatment of cholesterol in patients with diabetes. This measure looks at the percentage of patients between ages 40 and 75 that have been dispensed a medication for diabetes and a statin medication. The measure is a new CMS Star Ratings display measure for 2017, which means performance is based on 2015 data and actions. Statin Use in Diabetes is anticipated to become a full measure in 2018.

Clinical importance: Diabetes and cholesterol treatment

- In support of the 2013 American College of Cardiology/American Heart Association (ACC/AHA) treatment guidelines, it is now recommended that all diabetic patients between the ages of 40 and 75 receive moderate- to high-dose statin therapy to reduce the risk of cardiovascular events.
- AHA considers diabetes to be one of the major controllable risk factors of cardiovascular disease.
- Adults with diabetes have a two- to four-times increase in risk of heart disease or stroke.
- Heart disease and stroke are the number one cause of death and disability among patients with diabetes.
- Diabetic patients often have high LDL-C, low HDL-C and high triglycerides. This triad often leads to premature coronary artery disease. It can also cause enhanced insulin resistance in diabetic patients.
- Diabetic patients without atherosclerotic cardiovascular disease (ASCVD) with LDL between 70–189mg/dL are recommended to be on moderate-dose statin therapy.

Suggested action steps

- Patients with or without diabetes between 40–75 years old with an estimated 10-year coronary heart disease (CHD) risk of equal to or greater than 7.5% are recommended to be prescribed high-dose statin therapy.
- It is recommended that all patients with LDL-C greater than 189mg/dL receive high-dose statin therapy.
- Participate in medication therapy management (MTM) programs that include targeted interventions that help identify gaps in care.
- Perform a prospective drug utilization review (DUR) when checking oral diabetic agent prescriptions to see if patient is on a statin medication.
- When counseling diabetic patients, review profiles to determine if a gap in therapy exists.
- If a gap is found, discuss the benefits and offer to contact a prescriber to request a prescription. This recommendation is supported by the 2013 ACC/AHA treatment guidelines.
How to identify which patients could benefit

REPORTING
Utilize your pharmacy-management system to run reports to help you identify patients.

- For all measures: Consider running NDC or drug-specific reports for the measure(s) you want to work on improving.
- For PDC measures: Consider running compliance or past-due refill reporting.
- Explore creating custom reports (if available in your pharmacy-management system) to help filter the list of patients to target even further (by NDC, by payer, etc.).
- EQuIPP tip: On your Pharmacy Performance Report under each measure, if you click the Analyze Performance button, you will be able to see which plan(s) the patients impacting your performance are coming from. This can help you customize reporting and patient targeting efforts. Select plans also provide outlier reports so you can see the specific patients that are negatively impacting your performance.

FLAGGING SYSTEM
For patients who are identified outside of workflow (e.g., through MTM cases or by running reporting from your pharmacy-management system), consider a process for calling patients and/or placing a patient note in the pharmacy-management system to help identify those patients on their next visit.

How will you drive improved performance?
For questions, contact your retail sales manager or HealthMartOperations@mckesson.com.

Reviewed by:
Pharmacy Quality Solutions (PQS)

MTM RESOURCES
There are a variety of MTM vendors and resources your pharmacy can leverage.

- MTM Vendor Contact Information
  - MirixaPro: http://www.mirixa.com/for_pharmacists or 866.218.6649
  - OutcomesMTM: http://www.outcomesmtm.com or 515.237.0001
  - Socrates: http://socrxates.com
  - Check with your state pharmacy association for any state or local MTM or pharmacy quality–related opportunities
  - If you are a Health Mart® member, you have additional value-added member benefits including:
    - Health Mart University
      - Training for your pharmacy team including “Practical Steps for Integrating MTM into Your Daily Practice Routine” CE
    - Pharmacist’s Letter®
      - Variety of MTM-related CE and clinical detail documents
      - Visit the Pharmacist’s Letter page in the Health Mart Operations Manual for more information and direct access
APPENDIX E

EQuIPP: How to Read Your Dashboard

Red dot means you are trending below goal; green dot means you are trending on target.

1. Number of patients impacting your score.
2. Click “Analyze Performance” to get more details about each score.
3. Gap between your performance and goal.
4. Average score of other Health Mart pharmacies.
5. Average score of pharmacies in your state.
6. The trend line is looking at the most current movement compared to the six-month data set. If a metric is red but is trending in the right direction, the end of the line will be green.
7. Indicates number of patients aged 65 years+ who received medications with high risk of side effects vs. safer choices.
### APPENDIX F

2015 Quality Measures Goals Cheat Sheet

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>Goal Direction</th>
<th>5-Star Goal%*</th>
<th>Top 20%**</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH RISK MEDICATIONS IN THE ELDERLY:</td>
<td></td>
<td>7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>PDC: RAS ANTAGONISTS:</td>
<td></td>
<td>85%</td>
<td>92.3%</td>
</tr>
<tr>
<td>PDC: STATINS</td>
<td></td>
<td>83%</td>
<td>91%</td>
</tr>
<tr>
<td>PDC: DIABETES</td>
<td></td>
<td>81%</td>
<td>90.4%</td>
</tr>
</tbody>
</table>

* Based on 2015 CMS 5-Star Goals, subject to change with each plan year, and in addition, individual payers may set their own goals relative to specific initiatives.

**Top 20% of retail pharmacies as reflected in EQuIPP (as of May 2015).
APPENDIX G

MPS&A Adherence Offering

Leverage MPS&A Adherence Performance Solution. The adherence performance solution calculates an adherence rating of 1–5 by pharmacy location, plan and benefit group; indicates how to improve that rating; and provides a list of nonadherent patients to target for adherence.

- Review your dashboard report to understand your pharmacy’s current adherence rating, how that compares to the rest of the market segment (for members of the MPS&A data community), and a six-month rolling trend of your pharmacy’s adherence rating for the CMS Part D Measures.
- Use the threshold summary report to know how many more patients you need to get adherence for each of the measures to increase your adherence rating by one point and all the way to a five rating.
- The target patient list provides a list of target patients sorted by PDC. The patients with the highest PDC scores, therefore closer to being adherent, appear at the top of the list. Target these patients first in order to move your adherence rating faster.

REPORTING

EnterpriseRx®

- Compliance Report — Measures whether patient is getting fills on time
- Persistency Report — Measures long-term compliance
- Waiting in Bin Report — Measures how many days an Rx has been waiting for the customer to pick up
- Counseling Notes Report
- Refill Planning Report — Last fill date, next refill date

Pharmaserv®

- Refill Reminder Report — Alerts the pharmacy to prescriptions that are up for refill in any desired date range
- Will Call Management Report — Track Rx’s that are ready for pickup
- Counseling Register Report
- Mailing List Report — Provides data on patients that have not visited pharmacy in a specified time period; also capable of giving the pharmacy data around birthday mailers and other marketing opportunities around medical conditions

PharmacyRxSM

- Refill Reminder Report — Provides a list of the prescriptions that are due to be refilled based on the fill date and days’ supply
- Prefill functionality — Pulls scripts that are due for refill and automatically places them in a Work Queue for processing
- Patient Rx History Report
- Unpaid Rx Report — Provides a listing of prescriptions that have not yet been paid for by the customer.
- Patient export — Allows user to directly import patient data into a spreadsheet application, providing the ability to create custom patient reports
**MPS&A Performance Metrics**

How adherence ratings are calculated:

- Disease states currently measured
  - Adherence to oral diabetes medication
  - Adherence to hypertension medication
  - Adherence to cholesterol medication

- Based on algorithms and use cases similar to the ones CMS uses for calculation of Star Ratings at the plan level

- Patient fill information is pulled from the pharmacy-management system (MPS&A system or any other system) and PDC is calculated for each patient that has been prescribed a medication on the NDC list published by CMS for the specific disease state

- 80%+ PDC is considered adherent

- The patients are rolled up to the pharmacy level, and based on the percentage of adherent patients for each disease state, a 1–5 adherence rating is assigned to the pharmacy based on the same criteria that CMS uses to assign Star Ratings to Medicare plans

- Published monthly and uses rolling 12 months of data

- The reports contain:
  - Adherence by pharmacy chain
  - Adherence by pharmacy location
  - Adherence by plan
  - Adherence by benefit group
  - Number of adherent patients needed to improve rating
  - Target patient list
How to Read Your MPS&A Adherence Reports

Multi-Location Dashboard

Compare pharmacy adherence ratings to market and trends over six months.

ADHERENCE SUMMARY FOR MULTIPLE LOCATIONS

1. Adherence rating — 1–5 adherence rating across all locations. Percentage of locations achieving 1–5 rating. Includes benchmark information to compare against the rest of the market segment.

2. Adherence rating — Same information as shown in 1 displayed in pie chart format. Shows the breakdown of percentage of locations achieving 1–5 rating.

3. Adherent vs. nonadherent patients — Breakdown of adherent patients vs. nonadherent patients across all locations. Includes benchmark information to compare against the rest of the market segment.

4. Six-month rolling trend — The six-month rolling trend for all locations to show changes in adherence rating over time.
Single Store Dashboard

ADHERENCE SUMMARY
FOR INDIVIDUAL LOCATIONS

1. Adherence rating — 1–5 adherence rating for individual store. Includes benchmark information to compare against the rest of the market segment.

2. Threshold information — Number of additional patients that need to be adherent for each disease state in order to increase location’s adherence rating.

3. Adherent vs. nonadherent patients — Breakdown of adherent patients vs. nonadherent patients for specific location. Includes benchmark information to compare against the rest of the market segment.

4. Six-month rolling trend — The six-month rolling trend for the location to show changes in adherence rating over time.

Compare pharmacy adherence ratings to market, trends over six months, and information on how to improve adherence rating at location.
Threshold Summary

For multi-store chains, shows the number of additional patients that need to be adherent for each disease state to increase the adherence rating for each specific location.

Example: Facility 101

- Current adherence rating is 1 for oral diabetes adherence
- There were 500 patients included based on the list of NDCs published by CMS
- 300 of those patients were considered adherent based on PDC
- This location needs to get 50 more patients adherent to move to a rating of 2
- This location needs to get 100 more patients adherent to move to a rating of 5
**Target Patient List**

For each location, lists the patients by disease state, identified by Rx number, that are considered nonadherent based on their PDC. Patients are listed starting with those that are closest to being adherent. Target those patients first since they will require less work to get them adherent in order to increase pharmacy adherence rating faster.

<table>
<thead>
<tr>
<th>Facility ID</th>
<th>Rx Number</th>
<th>DIAB PDC</th>
<th>Plan</th>
<th>Ranking</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>123456</td>
<td>0.79</td>
<td>1234 ABC</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123467</td>
<td>0.78</td>
<td>56789 DEF</td>
<td>2</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123458</td>
<td>0.77</td>
<td>13579 GHD</td>
<td>3</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123469</td>
<td>0.76</td>
<td>24682 JKL</td>
<td>4</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123460</td>
<td>0.75</td>
<td>1234 ABC</td>
<td>5</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123471</td>
<td>0.74</td>
<td>56789 DEF</td>
<td>6</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123462</td>
<td>0.73</td>
<td>13579 GHD</td>
<td>7</td>
<td>101</td>
</tr>
<tr>
<td>101</td>
<td>123473</td>
<td>0.72</td>
<td>24682 JKL</td>
<td>8</td>
<td>101</td>
</tr>
</tbody>
</table>
Plan Summary Report

Contains information to share with plans on rating and goals for improvement — with potential impact on reimbursements. Includes all plans (private and Medicare) and cash groupings for plans associated with patients filling prescriptions across all of the pharmacy locations.

- Plan name, bin, code
- Medicare indicator
- Total patients (sorted by number of patients)
- By disease state
  - Measured patients
  - Adherent patients
  - Adherence rating for plan (based on patients coming into all organization’s locations)
  - Average PDC for patients in that plan

Example: Health Plan A

- Private plan
- 150,000 patients
- 3,000 measured for oral diabetes based on CMS list of NDCs
- 1,200 were adherent based on PDC
- Current plan adherence rating is 1
- Average PDC for those patients measured is 80%
Plan Group Summary

Same information presented at the plan level, taken one step down to the benefit group level. Provides information to share with benefit groups on patient adherence.

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Bin</th>
<th>Code</th>
<th>Benefit Group</th>
<th>Medicine</th>
<th>Total Patients</th>
<th>BMI Adherent Patients</th>
<th>BMI Rating</th>
<th>BMI Avg PDC</th>
<th>Hypertension BMI</th>
<th>Hypertension Rating</th>
<th>Hypertension Avg PDC</th>
<th>Cholesterol BMI</th>
<th>Cholesterol Rating</th>
<th>Cholesterol Avg PDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan A</td>
<td>1254S</td>
<td>ABC</td>
<td>OPPADEC</td>
<td>N</td>
<td>8000</td>
<td>3000 - 5000</td>
<td>2</td>
<td>3.08</td>
<td>5000</td>
<td>2000</td>
<td>3</td>
<td>3.08</td>
<td>5000</td>
<td>2000</td>
</tr>
<tr>
<td>Plan A</td>
<td>1254S</td>
<td>ABC</td>
<td>GPPADEC</td>
<td>N</td>
<td>7000</td>
<td>2000 - 3000</td>
<td>3</td>
<td>3.08</td>
<td>3000</td>
<td>2000</td>
<td>2</td>
<td>3.08</td>
<td>4000</td>
<td>1000</td>
</tr>
<tr>
<td>Plan A</td>
<td>1254S</td>
<td>ABC</td>
<td>OPPAHC</td>
<td>N</td>
<td>6000</td>
<td>2000 - 1000</td>
<td>4</td>
<td>3.08</td>
<td>2000</td>
<td>1000</td>
<td>2</td>
<td>3.08</td>
<td>4000</td>
<td>1000</td>
</tr>
<tr>
<td>Plan A</td>
<td>1254S</td>
<td>ABC</td>
<td>OPPVHC</td>
<td>N</td>
<td>30000</td>
<td>1500 - 1000</td>
<td>2</td>
<td>3.08</td>
<td>1500</td>
<td>1000</td>
<td>2</td>
<td>3.08</td>
<td>5000</td>
<td>2000</td>
</tr>
</tbody>
</table>
APPENDIX H

Pharmacist’s Letter

This appendix contains a sample of selected resources available to Health Mart members from Pharmacist’s Letter. Throughout the playbook, you saw the Pharmacist’s Letter icon, indicating that additional related resources are available from Pharmacist’s Letter. For more information and instructions on how to access these resources, visit the Pharmacist’s Letter page on the Health Mart Operations Manual.
Potentially Harmful Drugs in the Elderly: Beers List

In 1991, Dr. Mark Beers published a methods paper describing the development of a consensus list of medicines considered to be inappropriate for long-term care facility residents.1 The Beers criteria or “Beers list” is now in its fourth permutation.2 The latest version is intended for use by clinicians in outpatient as well as inpatient settings to improve the care of patients age 65 years and older. The new version includes medications that should be used with extra caution, as well as medications that should be avoided, either in all elderly or in certain populations.2 An additional tool for improving prescribing in the elderly is the START and STOPP criteria. Neither has been convincingly shown to reduce morbidity, mortality, or cost but are often used by organizations as measures of the quality of prescribing. Use these criteria to identify red flags that might require intervention or close monitoring, not the final word on medication appropriateness. Prescribing decisions must be individualized.2 The following chart summarizes the updated Beers list and provides potential therapeutic alternatives and other considerations.

C=Drug on the “to be used with caution” list.2
H=High-risk meds in the elderly per CMS Quality Measure (CMS156v1) and Star Ratings Measure (D11).4

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analgesics (also see NSAIDs, below)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meperidine (H) <em>(Demerol)</em></td>
<td>Neurotoxicity, delirium, cognitive impairment, poor efficacy (orally)</td>
<td>Alternatives for mild to moderate pain: codeine, acetaminophen, short-term NSAID (see NSAIDs, below), topical capsaicin or NSAIDs (osteoarthritis), salicylates3,4,10,26</td>
</tr>
<tr>
<td>Pentazocine (H) <em>(Talwin)</em></td>
<td>More CNS effects (e.g., confusion, hallucinations) than other opioids; ceiling to analgesic effect</td>
<td>Alternatives for moderate to moderately severe pain: hydrocodone/APAP <em>(Vicodin, etc [U.S.]</em>), oxycodone/APAP *(Percocet, etc)*4</td>
</tr>
<tr>
<td>Tramadol <em>(Ultram, etc)</em> in patients with seizures</td>
<td>Lowers seizure threshold. May be acceptable if seizures are well controlled and alternative cannot be used.2</td>
<td>Alternatives for neuropathic pain: duloxetine, venlafaxine, pregabalin, gabapentin (see Anticonvulsants, below), topical lidocaine, capsaicin, desipramine, nortriptyline (see Tricyclics, below)6,10</td>
</tr>
<tr>
<td><strong>Antidepressants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bupropion in patient with seizures</td>
<td>Lowers seizure threshold</td>
<td>Alternatives for depression: SSRI, SNRI, mirtazapine5</td>
</tr>
<tr>
<td>Mirtazapine <em>(Remeron)</em> (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.2</td>
</tr>
<tr>
<td>Paroxetine in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, worsen urinary retention, worsen cognitive impairment due to anticholinergic activity</td>
<td>Alternatives: another SSRI, SNRI, mirtazapine, bupropion (not for anxiety)5</td>
</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>SSRI or SNRI (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.</td>
</tr>
<tr>
<td>SSRIs in patient with history or falls or fracture</td>
<td>Unsteady gait, psychomotor impairment, syncope, falls</td>
<td>Alternatives: SNRI, mirtazapine, bupropion</td>
</tr>
<tr>
<td>Tricyclic antidepressant, tertiary (H): amitriptyline, clomipramine, doxepin (&gt;6 mg/day), imipramine, trimipramine</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation), cognitive impairment, delirium, sedation, orthostatic hypotension</td>
<td>Alternative tricyclic: nortriptyline (Aventyl, etc), desipramine, low-dose doxepin, trazodone</td>
</tr>
<tr>
<td>Tricyclic antidepressants in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, high risk of delirium, or history of falls or fractures</td>
<td>Cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention, unsteady gait, syncope, falls</td>
<td>Alternatives for depression: SSRI, SNRI, mirtazapine, bupropion</td>
</tr>
<tr>
<td>Anticholinergic antihistamines (H): Brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, dexbrompheniramine, dextromethorphan, diphenhydramine (oral), doxylamine, hydroxyzine triprolidine</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention), cognitive impairment, delirium, clearance reduced in elderly</td>
<td>Diphenhydramine may be appropriate in some situations (e.g., severe allergic reaction).</td>
</tr>
</tbody>
</table>

**Antihistamines**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI or SNRI (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.</td>
</tr>
<tr>
<td>Tricyclic antidepressant (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.</td>
</tr>
</tbody>
</table>

**Anticholinergic antihistamines (H):** Brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, dexbrompheniramine, dextromethorphan, diphenhydramine (oral), doxylamine, hydroxyzine triprolidine

Anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention), cognitive impairment, delirium, clearance reduced in elderly

Diphenhydramine may be appropriate in some situations (e.g., severe allergic reaction).

Alternative antihistamines: cetirizine, fexofenadine (Allegra), loratadine (Claritin, etc), desloratadine (Clarinex [U.S.], Aerius [Canada]), levocetirizine (U.S.; Xyzal)
<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loratadine</td>
<td>Cause or worsen delirium, cognitive impairment, worsen constipation, worsen urinary retention</td>
<td>Alternative antihistamines: cetirizine, fexofenadine (Allegra), desloratadine (Clarinex [U.S.], Aerius [Canada]), levocetirizine (U.S.; Xyzal)</td>
</tr>
</tbody>
</table>

**Antihypertensives**

- **Alpha-blockers** (doxazosin [Cardura], prazosin [Minipress], terazosin [Hytrin])
  - Orthostatic hypotension, urinary incontinence

- **Clonidine (Catapres)**, as first-line antihypertensive
  - Orthostatic hypotension, bradycardia, CNS adverse effects

- **Guanabenz (H)**
  - Orthostatic hypotension, bradycardia, CNS adverse effects

- **Guanfacine (H)**
  - Orthostatic hypotension, bradycardia, CNS adverse effects

- **Methyldopa (H)**
  - Orthostatic hypotension, bradycardia, CNS adverse effects

- **Nifedipine, short-acting (H)**
  - Hypotension, myocardial ischemia

- **Reserpine >0.1 mg (H)**
  - Orthostatic hypotension, bradycardia, CNS adverse effects

- **Triamterene in patients with CrCl <30 mL/min.**
  - Kidney injury

  - Use potassium-sparing diuretics (e.g., amiloride, spironolactone) with caution (i.e., frequent potassium monitoring, low dose, slow titration) if CrCl <30 mL/min.

- **Vasodilators in patient with history of syncope (C)**
  - More frequent episodes of syncope

  - Alternative antihypertensives: thiazide, ACE inhibitor, ARB, beta-blocker, calcium channel blocker, or combination

**Antiplatelet Agents and Anticoagulants**

- **Aspirin for primary prevention in patients age 80 years and up (C)**
  - Lack of evidence of benefit for primary prevention in patients 80 years and older

  - Use with caution in this population.

- **Dabigatran in patients ≥75 years of age, and in patients with CrCl <30 mL/min (C)**
  - Higher bleeding risk in patients 75 years of age and older; lack of efficacy/safety evidence in CrCl<30 mL/min

  - Use with caution in this population.

  - Alternative: warfarin
### Drug Concern(s) Considerations

<table>
<thead>
<tr>
<th>Drug2</th>
<th>Concern(s)2</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipyridamole, oral short-acting (H) <em>(Persantine [U.S.])</em></td>
<td>More effective options available, orthostatic hypotension</td>
<td>For secondary prevention of noncardioembolic stroke or TIA: clopidogrel <em>(Plavix)</em> (preferred), aspirin/dipyridamole <em>(Aggrenox)</em> (preferred), low-dose aspirin, or cilostazol9</td>
</tr>
<tr>
<td>Prasugrel <em>(Effient)</em> (C)</td>
<td>Bleeding risk</td>
<td>Use caution in patients 75 years of age and older. Benefit may balance bleeding risk in patients with high cardiac risk. Alternatives: clopidogrel <em>(Plavix)</em>, ticagrelor <em>(Brilinta)</em> (post-ACS)</td>
</tr>
<tr>
<td>Ticlopidine <em>(Ticlid)</em> (H)</td>
<td>Safer alternatives available</td>
<td>Alternatives: clopidogrel <em>(Plavix)</em>, prasugrel <em>(Effient)</em> (post-ACS) (C), ticagrelor <em>(Brilinta)</em> (post-ACS)31</td>
</tr>
</tbody>
</table>

### Antipsychotics

Antipsychotics (any), for dementia-related behavioral problems, unless nondrug therapy has failed and patient may harm self or others

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipsychotic in patient with dementia, cognitive impairment, chronic constipation, history of fall or fracture, or Parkinson’s disease</td>
<td>Unsteady gait, cognitive impairment, worsen constipation, syncope, falls, worsen Parkinson’s disease</td>
<td>Quetiapine or clozapine may be the best choice for Parkinson’s disease patients if antipsychotic needed. All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia.2 See our <em>PL Chart, Pharmacotherapy of Dementia Behaviors</em>, for alternatives.</td>
</tr>
<tr>
<td>Chlorpromazine in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, high risk of delirium, syncope, or seizures</td>
<td>Orthostatic hypotension, bradycardia, delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention, lowers seizure threshold</td>
<td>May be acceptable for patient with seizures if seizures are well controlled and safer alternative cannot be used. Alternatives (less anticholinergic): aripiprazole <em>(Abilify)</em>, asenapine <em>(Saphris)</em>, haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone <em>(Invega)</em>, quetiapine, risperidine, ziprasidone <em>(Geodon</em> [U.S.],...</td>
</tr>
<tr>
<td><strong>Drug</strong></td>
<td><strong>Concern(s)</strong></td>
<td><strong>Considerations</strong></td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Chlorpromazine, continued</td>
<td>Zeldox (Canada)</td>
<td>All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia. See our PL Chart, Pharmacotherapy of Dementia Behaviors, for alternatives.</td>
</tr>
<tr>
<td>Clozapine (Clozaril) in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, high risk of delirium, or seizures</td>
<td>Cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention, lowers seizure threshold</td>
<td>May be acceptable if seizures are well controlled and alternative cannot be used. Alternatives (less anticholinergic): aripiprazole (Abilify), asenapine (Saphris), haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone (Invega), quetiapine, risperidone, ziprasidone (Geodon [U.S.], Zeldox [Canada])</td>
</tr>
<tr>
<td>Fluphenazine in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention</td>
<td>Alternatives (less anticholinergic): aripiprazole (Abilify), asenapine (Saphris), haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone (Invega), quetiapine, risperidone, ziprasidone (Geodon [U.S.], Zeldox [Canada])</td>
</tr>
<tr>
<td>Loxapine (Canada) in patient with dementia, cognitive impairment, BPH, chronic constipation, delirium, or high risk of delirium</td>
<td>Orthostatic hypotension, bradycardia, cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention</td>
<td>All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia. See our PL Chart, Pharmacotherapy of Dementia Behaviors, for alternatives.</td>
</tr>
<tr>
<td>Olanzapine (Zyprexa) in patient with syncope, dementia, chronic constipation, cognitive impairment, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention</td>
<td></td>
</tr>
<tr>
<td>Perphenazine in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, or high risk of delirium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pimozide (Orap) in patient</td>
<td>See above</td>
<td>See above</td>
</tr>
<tr>
<td>with dementia, cognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>impairment, BPH, chronic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>constipation, delirium, or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high risk of delirium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thioridazine (H) (U.S.)</td>
<td>QT prolongation, orthostatic hypotension, bradycardia, lowers seizure threshold, cause or worsen delirium, worsen cognitive impairment, anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention)</td>
<td>Aripiprazole (Abilify), olanzapine, and lurasidone (U.S.; Latuda) may pose relatively lower torsades risk vs other antipsychotics based on product labeling and literature review. Risperidone may pose more moderate risk vs higher-risk atypical antipsychotics.(^{11}) Alternatives (less anticholinergic): aripiprazole (Abilify), asenapine (Saphris), haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone (Invega), quetiapine, risperidone, ziprasidone (Geodon [U.S.], Zeldox [Canada]) All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia.(^{2}) See our PL Chart, Pharmacotherapy of Dementia Behaviors, for alternatives.</td>
</tr>
<tr>
<td>Thiothixene (Navane), in</td>
<td>Lowers seizure threshold, cause or worsen delirium, worsen cognitive impairment, worsen constipation, worsen urinary retention</td>
<td>May be acceptable in patient with seizure disorder if seizures are well controlled and alternative cannot be used. Alternatives (less anticholinergic): aripiprazole (Abilify), asenapine (Saphris), haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone (Invega), quetiapine, risperidone, ziprasidone (Geodon [U.S.], Zeldox [Canada]) All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia.(^{2}) See our PL Chart, Pharmacotherapy of Dementia Behaviors, for alternatives.</td>
</tr>
<tr>
<td>patient with seizure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disorder, dementia, cognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>impairment, BPH, chronic</td>
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<tr>
<td>constipation, delirium, or</td>
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<tr>
<td>high risk of delirium</td>
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</tr>
<tr>
<td><strong>Drug</strong></td>
<td><strong>Concern(s)</strong></td>
<td><strong>Considerations</strong></td>
</tr>
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</tr>
</tbody>
</table>
| Trifluoperazine, in patient with dementia, cognitive impairment, BPH, chronic constipation, delirium, or at high risk of delirium | Cause or worsen delirium, worsen constipation, worsen cognitive impairment, worsen urinary retention | Alternatives (less anticholinergic): aripiprazole (Abilify), asenapine (Saphris), haloperidol, iloperidone (U.S.; Fanapt), lurasidone (U.S.; Latuda), paliperidone (Invega), quetiapine, risperidone, ziprasidone (Geodon [U.S.], Zeldox [Canada])  
All antipsychotics associated with increased stroke and mortality risk when used to treat behavioral problems in elderly with dementia.² See our PL Chart, Pharmacotherapy of Dementia Behaviors, for alternatives. |

**Anxiolytics**

<table>
<thead>
<tr>
<th><strong>Drug</strong></th>
<th><strong>Concern(s)</strong></th>
<th><strong>Considerations</strong></th>
</tr>
</thead>
</table>
| Benzodiazepines (any) for agitation or delirium, or in patients with dementia, cognitive impairment, or a history of falls | Cognitive impairment, delirium, unsteady gait, syncope, falls, accidents, fractures | Benzodiazepines may be appropriate for severe anxiety, seizure disorders, REM sleep disorders, benzodiazepine or alcohol withdrawal, end-of-life care, or perioperative anesthesia.  
Alternatives for anxiety: SSRI, SNRI, buspirone¹² |
| Meprobamate (H) | Dependence, sedation | Alternatives for anxiety: SSRI, SNRI, buspirone¹² |

**Cardiac Drugs**

<table>
<thead>
<tr>
<th><strong>Drug</strong></th>
<th><strong>Concern(s)</strong></th>
<th><strong>Considerations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amiodarone (Cordarone)</td>
<td>QT prolongation, hypo- or hyperthyroidism, pulmonary toxicity</td>
<td>Rate control preferred for atrial fibrillation.²</td>
</tr>
<tr>
<td>Antiarrhythmics, first-line for atrial fibrillation: dofetilide, flecanide, ibutilide, procainamide, propafenone, quinidine, sotalol</td>
<td>Rate control preferred over rhythm control in elderly (better risk/benefit ratio)</td>
<td>Rate control preferred for atrial fibrillation.²</td>
</tr>
</tbody>
</table>
| Cilostazol (U.S.; Pletal) in patient with heart failure | May worsen heart failure | Intermittent claudication: pentoxifylline¹⁴  
For secondary prevention of noncardioembolic stroke or TIA: clopidogrel (Plavix) (preferred), aspirin/dipyridamole (Aggrenox) (preferred), low-dose aspirin⁹ |
<p>| Digoxin (Lanoxin) doses &gt;0.125 mg/day, in heart failure (H) | No additional efficacy vs lower doses; toxicity due to reduced renal clearance | Dose reduction, with monitoring¹⁵ |
| Diltiazem in patient with systolic heart failure or chronic constipation | May worsen systolic heart failure or constipation | Alternatives for heart failure: Diuretic, ACE inhibitor, ARB, appropriately titrated beta-blocker¹⁶ |</p>
<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diltiazem, continued</td>
<td></td>
<td>Alternative antihypertensives: thiazide, ACE inhibitor, ARB, dihydropyridine calcium channel blocker, or combination⁷</td>
</tr>
<tr>
<td>Disopyramide (H) (Norpace [U.S.], Rythmodan [Canada])</td>
<td>Negative inotrope; anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention)</td>
<td>Rate control preferred for atrial fibrillation.⁵</td>
</tr>
<tr>
<td>Dronedarone (Multaq) in permanent atrial fibrillation or heart failure</td>
<td>Worse outcome</td>
<td>Rate control preferred for atrial fibrillation.² Consider amiodarone if rhythm control is needed.¹³</td>
</tr>
<tr>
<td>Spironolactone &gt;25 mg/day in heart failure or CrCl &lt;30 mL/min</td>
<td>Hyperkalemia, especially with NSAID, ACEI, ARB, or potassium supplement</td>
<td>Use with caution (i.e., frequent potassium monitoring, low dose, slow titration) if CrCl &lt;30 mL/min.⁸,e</td>
</tr>
<tr>
<td>Verapamil in patient with systolic heart failure or chronic constipation</td>
<td>May worsen systolic heart failure or constipation</td>
<td>Alternatives for heart failure: Diuretic, ACE inhibitor, ARB, appropriately titrated beta-blocker¹⁶ Alternative antihypertensives: thiazide, ACE inhibitor, ARB, beta-blocker, dihydropyridine calcium channel blocker, or combination⁷</td>
</tr>
<tr>
<td>Central Nervous System Agents, misc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetylcholinesterase inhibitors (e.g., donepezil, etc), in patient with syncope</td>
<td>Orthostatic hypotension or bradycardia</td>
<td>Alternative: memantine (Namenda [U.S.], Ebixa [Canada])</td>
</tr>
<tr>
<td>Anticonvulsants in patient with history of fall or fracture</td>
<td>Unsteady gait, psychomotor impairment, syncope, falls</td>
<td>Acceptable for seizure disorders or if safer alternative cannot be used.²</td>
</tr>
<tr>
<td>Carbamazepine (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.²</td>
</tr>
<tr>
<td>Dimenhydrinate in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, worsen urinary retention, cognitive impairment</td>
<td>Alternatives for Meniere’s disease: Sodium restriction, diuretics¹⁸</td>
</tr>
<tr>
<td>Meclizine (U.S.) in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, worsen urinary retention, cognitive impairment</td>
<td>Alternatives for Meniere’s disease: Sodium restriction, diuretics¹⁸</td>
</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
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</tr>
<tr>
<td><strong>Chemotherapy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carboplatin (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.²</td>
</tr>
<tr>
<td>Cisplatin (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.²</td>
</tr>
<tr>
<td>Vincristine (C)</td>
<td>SIADH</td>
<td>Check sodium when starting or changing dose.²</td>
</tr>
<tr>
<td><strong>Diabetes Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorpropamide (H) (Diabinese [U.S.])</td>
<td>Long half-life; prolonged hypoglycemia; SIADH³</td>
<td>Alternative sulfonylureas: Glimepiride (Amaryl), glipizide (Glucotrol),¹⁵ gliclazide (Canada)³² Avoid Glucotrol XL (U.S.) due to hypoglycemia risk.¹⁹</td>
</tr>
<tr>
<td>Glyburide (H) (Diabeta, Glynase [U.S.])</td>
<td>Prolonged hypoglycemia</td>
<td>Alternative sulfonylureas: Glimepiride (Amaryl), glipizide (Glucotrol [U.S.]),¹⁵ gliclazide (Canada)³² Avoid Glucotrol XL (U.S.) due to hypoglycemia risk.¹⁹</td>
</tr>
<tr>
<td>Insulin, sliding scale</td>
<td>Hypoglycemia; poor efficacy</td>
<td>Alternatives: Basal insulin with or without rapid-acting mealtime insulin; premixed insulin daily or twice daily²⁰</td>
</tr>
<tr>
<td>Pioglitazone (Actos) in heart failure</td>
<td>Edema may worsen heart failure</td>
<td>Alternatives: metformin (if heart failure stable), other oral agent, GLP-1 receptor agonist, insulin¹⁷</td>
</tr>
<tr>
<td><strong>Gastrointestinal Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antispasmodics: belladonna alkaloids (Donnatal [U.S.], etc), clidinium (in Librax), dicyclomine (Bentyl), hyoscyamine (U.S.; Levsin, etc), propantheline (U.S.), scopolamine</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention), delirium, questionable efficacy</td>
<td>Acceptable to reduce oral secretions in palliative care patients.² Alternatives for chronic constipation: fiber, fluids, psyllium, polyethylene glycol (Miralax [U.S.], Lax-A-Day [Canada], etc), lactulose Alternatives for diarrhea: loperamide (Imodium, etc), aluminum hydroxide, cholestyramine¹⁵,²¹</td>
</tr>
<tr>
<td>H₂-blocker in patient with dementia, cognitive impairment, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen cognitive impairment</td>
<td>Alternatives: antacid or proton pump inhibitor</td>
</tr>
<tr>
<td>Metoclopramide (Reglan [U.S.])</td>
<td>Extrapyramidal side effects, tardive dyskinesia</td>
<td>Acceptable for gastroparesis. Alternatives for nausea: prochlorperazine (see below), ondansetron (Zofran), granisetron (Kytril), dolasetron (Anzemet)</td>
</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
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</tr>
<tr>
<td>Mineral oil, oral</td>
<td>Aspiration</td>
<td>Alternatives: fiber, fluids, psyllium, polyethylene glycol (Miralax [U.S.], Lax-A-Day [Canada], etc), lactulose</td>
</tr>
<tr>
<td>Prochlorperazine in patient with dementia, cognitive impairment, chronic constipation, Parkinson’s disease, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, cognitive impairment, worsen Parkinson’s disease</td>
<td>Alternatives for nausea: ondansetron (Zofran), granisetron (Kytril), dolasetron (Anzemet)</td>
</tr>
<tr>
<td>Promethazine (H)</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation), delirium, cognitive impairment, worsen Parkinson’s disease, clearance reduced in elderly</td>
<td>Alternatives for nausea: prochlorperazine (see above), ondansetron (Zofran), granisetron (Kytril), dolasetron (Anzemet)</td>
</tr>
<tr>
<td>Trimethobenzamide (H) (U.S.; Tigan)</td>
<td>Extrapyramidal side effects; poor efficacy</td>
<td>Alternatives for nausea: prochlorperazine (see above), ondansetron (Zofran), granisetron (Kytril), dolasetron (Anzemet)</td>
</tr>
</tbody>
</table>

### Hormones

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corticosteroids in patient with delirium or high risk of delirium</td>
<td>Cause or worsen delirium</td>
<td>Alternatives depend on indication.</td>
</tr>
<tr>
<td>Estrogen (H) (oral, transdermal), with or without progesterin (Premarin, etc)</td>
<td>Breast cancer, endometrial cancer, worsen incontinence, not cardioprotective, lacks cognitive protection</td>
<td>Hot flashes: nondrug therapy (cool environment, layered clothing), SSRIs, gabapentin, venlafaxine Bone density: calcium, vitamin D, bisphosphonates, raloxifene (Evista) Vaginal symptoms, recurrent UTI: vaginal estrogen cream</td>
</tr>
<tr>
<td>Growth hormone, except after pituitary removal</td>
<td>Edema, arthralgia, carpal tunnel syndrome, gynecomastia, insulin resistance; little effect on muscle mass</td>
<td>Alternatives: feeding assistance, liberalizing food choices, nutritional supplements or snacks between meals, environment conducive to optimal oral intake, mirtazapine for depressed patient</td>
</tr>
<tr>
<td>Megestrol (H)</td>
<td>Thrombosis, death; minimal effect on weight</td>
<td>Alternatives: feeding assistance, liberalizing food choices, nutritional supplements or snacks between meals, environment conducive to optimal oral intake, mirtazapine for depressed patient</td>
</tr>
<tr>
<td>Testosterone, methyltestosterone (U.S.)</td>
<td>Prostatic hyperplasia, cardiac events</td>
<td>Acceptable for moderate to severe hypogonadism</td>
</tr>
<tr>
<td>Thyroid, desiccated (H)</td>
<td>Cardiac adverse effects (safer alternatives available)</td>
<td>Levothyroxine (Levoxyl [U.S.], Euthyrox [Canada], etc)</td>
</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
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</tr>
<tr>
<td>Barbiturates (any)</td>
<td>Dependence, tolerance, delirium, risk of overdose (narrow therapeutic window)</td>
<td>Alternatives for insomnia: non-drug therapy, low-dose trazodone, low-dose doxepin, ramelteon (U.S.), short-term use of eszopiclone (U.S.), zolpidem, zaleplon (U.S.), or zopiclone (Canada) (see entries under Hypnotics, below, and our PL Chart, Benzodiazepine Toolkit, for geriatric dosing)</td>
</tr>
<tr>
<td>Benzodiazepines (any) for insomnia</td>
<td>Cognitive impairment, delirium, unsteady gait, syncope, falls, accidents, fractures</td>
<td>Alternatives for insomnia: non-drug therapy, low-dose trazodone, low-dose doxepin, ramelteon (U.S.)</td>
</tr>
<tr>
<td>Chloral hydrate (H)</td>
<td>Tolerance, delirium, risk of overdose (narrow therapeutic window)</td>
<td></td>
</tr>
<tr>
<td>Eszopiclone (U.S.; Lunesta) use for more than 90 days (H) or in patient with history of falls or fracture</td>
<td>Cognitive impairment, delirium, unsteady gait, syncope, falls, motor vehicle accidents, fractures, minimal benefit</td>
<td>Alternatives for insomnia: non-drug therapy, low-dose trazodone, low-dose doxepin, ramelteon (U.S.)</td>
</tr>
<tr>
<td>Zaleplon (U.S.; Sonata) use for more than 90 days (H) or in patient with history of falls or fracture</td>
<td>Cognitive impairment, delirium, unsteady gait, syncope, falls, motor vehicle accidents, fractures, minimal benefit</td>
<td></td>
</tr>
<tr>
<td>Zolpidem (Ambien [U.S.], Sublinox [Canada], etc) use for more than 90 days (H) or in patients with dementia, cognitive impairment, or history of falls or fracture</td>
<td>Cognitive impairment, delirium, unsteady gait, syncope, falls, motor vehicle accidents, fractures, minimal benefit</td>
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</tr>
<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
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<tr>
<td><strong>Musculoskeletal Agents</strong></td>
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</tr>
<tr>
<td>Benztropine (H) (oral; U.S.)</td>
<td>Delirium, worsen cognitive impairment, worsen constipation, worsen urinary retention; not recommended to prevent antipsychotic-associated extrapyramidal effects; not very effective for Parkinson’s disease</td>
<td>Decrease antipsychotic dose or discontinue;&lt;sup&gt;22&lt;/sup&gt; atypical antipsychotic (see Antipsychotics section, above, for more information)</td>
</tr>
<tr>
<td>Muscle relaxants (H): carisoprodol (U.S.; Soma), chlorzoxazone, cyclobenzaprine (Flexeril [U.S.]), metaxalone (U.S.; Skelaxin), methocarbamol (Robaxin), orphenadrine (Norflex)</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention), sedation, fractures, delirium, cognitive impairment, questionably efficacious at doses tolerated in elderly</td>
<td>Alternatives: treat underlying problem, physiotherapy, application of heat or cold; correct seating and footwear&lt;sup&gt;15,25&lt;/sup&gt; For spasticity: antispasmodics (e.g., baclofen, tizanidine [see below]), nerve blocks&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
<tr>
<td>Tizanidine (Zanaflex) in patient with dementia, cognitive impairment, chronic constipation, BPH, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, cognitive impairment, worsen urinary retention</td>
<td>Alternatives: treat contributing problems, proper seating and footwear, baclofen, nerve blocks&lt;sup&gt;8&lt;/sup&gt;</td>
</tr>
<tr>
<td>Trihexyphenidyl (H)</td>
<td>Delirium, worsen cognitive impairment, worsen constipation, worsen urinary retention; not recommended to prevent antipsychotic-associated extrapyramidal effects; not very effective for Parkinson’s disease</td>
<td>Decrease antipsychotic dose or discontinue;&lt;sup&gt;22&lt;/sup&gt; atypical antipsychotic (see Antipsychotics section, above, for more information)</td>
</tr>
<tr>
<td><strong>NSAIDs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirin at doses over 325 mg daily (chronic use)</td>
<td>GI bleeding/peptic ulcer in high-risk patients.&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Alternatives for mild to moderate pain: codeine, acetaminophen, short-term NSAID (see NSAIDs, below), celecoxib (except in heart failure; also consider GI and CV risk), topical capsaicin or NSAIDs (osteoarthritis), tramadol, salicylates&lt;sup&gt;3,4,10,26&lt;/sup&gt; Continued…</td>
</tr>
<tr>
<td>Celecoxib in heart failure</td>
<td>Edema may worsen heart failure</td>
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<tr>
<td>Drug</td>
<td>Concern(s)</td>
<td>Considerations</td>
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</tr>
<tr>
<td>Indomethacin (H)</td>
<td>GI bleeding/peptic ulcer in high-risk patients. Has more adverse effects than other NSAIDs. Edema may worsen heart failure.</td>
<td>Alternatives for moderate to moderately severe pain: hydrocodone/APAP (Vicodin, etc [U.S.]), oxycodone/APAP (Percocet, etc)</td>
</tr>
<tr>
<td>Ketorolac (H)</td>
<td>GI bleeding/peptic ulcer in high-risk patients. Edema may worsen heart failure.</td>
<td>Alternatives for neuropathic pain: duloxetine, venlafaxine, pregabalin, gabapentin (see Anticonvulsants, above), topical lidocaine, capsaicin, desipramine, nortriptyline (see Tricyclics, above)</td>
</tr>
<tr>
<td>NSAIDs, non-COX-2 selective (e.g., diclofenac, etodolac, ibuprofen, meloxicam, nabumetone, etc), chronic use, use in patients with heart failure, or use in patients with Class IV or V chronic kidney disease</td>
<td>GI bleeding/peptic ulcer in high-risk patients. Edema may worsen heart failure. Kidney injury in advanced renal disease.</td>
<td>Alternatives for coronary event prevention: aspirin 81 mg (see aspirin under Antiplatelet agents, above, for more information)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alternatives for acute gout: alternative NSAID (i.e., not indomethacin or ketorolac), celecoxib (except in heart failure; also consider GI and CV risk), colchicine, prednisone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If chronic NSAID use is necessary, avoid ketorolac and indomethacin, and use gastroprotection (i.e., misoprostol or proton pump inhibitor). Or use celecoxib (except in heart failure; also consider GI and CV risk).</td>
</tr>
</tbody>
</table>

**Respiratory Drugs**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticholinergics, inhaled (tiotropium, ipratropium) in men with BPH</td>
<td>Urinary retention</td>
<td>Alternatives for COPD: albuterol as-needed, long-acting beta-2 agonist with albuterol as needed +/- inhaled corticosteroid</td>
</tr>
<tr>
<td>Atropine or homatropine in patient with dementia, cognitive impairment, chronic constipation, delirium, high risk of delirium</td>
<td>Anticholinergic effects (e.g., confusion, dry mouth, constipation, urinary retention), delirium, worsen constipation, worsen cognitive impairment</td>
<td>Acceptable to reduce oral secretions in palliative care patients.</td>
</tr>
<tr>
<td>Phenylephrine in patient with insomnia</td>
<td>CNS stimulation</td>
<td>Alternatives: saline nasal spray or irrigation, nasal steroids</td>
</tr>
</tbody>
</table>
### Drug Concern(s) Considerations

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern(s)</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pseudoephedrine in patient with insomnia</td>
<td>CNS stimulation</td>
<td>Alternatives: saline nasal spray or irrigation, nasal steroids⁵⁰</td>
</tr>
<tr>
<td>Theophylline in patient with insomnia</td>
<td>CNS stimulation</td>
<td>Alternatives for COPD: albuterol as-needed, long-acting beta-2 agonist with albuterol as needed +/- inhaled corticosteroid⁵⁰</td>
</tr>
</tbody>
</table>

### Stimulant Drugs

<table>
<thead>
<tr>
<th>Amphetamines in patient with insomnia</th>
<th>CNS stimulation</th>
<th>For weight control: Diet and lifestyle modification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Alternatives for depression: mirtazapine, trazodone³</td>
</tr>
</tbody>
</table>

| Methylphenidate in patient with insomnia                     | CNS stimulation | Alternatives for depression: mirtazapine, trazodone³  |

### Urinary Drugs

<table>
<thead>
<tr>
<th>Nitrofurantoin, chronic use (H) or use in patients with CrCl &lt;60 mL/min.</th>
<th>Pulmonary toxicity; inadequate concentration in urine if CrCl &lt;60 mL/min.</th>
<th>See our PL Charts, Choosing a UTI Antibiotic for Elderly Patients and Prevention of Recurrent Urinary Tract Infections (U.S. subscribers; Canadian subscribers).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary antimuscarinics (e.g., darifenacin, oxybutynin, trospium, etc) in patient with dementia, cognitive impairment, chronic constipation, delirium, or high risk of delirium</td>
<td>Cause or worsen delirium, worsen constipation, cognitive impairment</td>
<td>Incidence of constipation differs among antimuscarinics. Consider trying another agent if constipation occurs.²</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See our PL Chart, Antimuscarinic Medications for Overactive Bladder (U.S. subscribers; Canadian subscribers).</td>
</tr>
</tbody>
</table>

### Vasodilators (CNS)

<table>
<thead>
<tr>
<th>Ergot mesylate (H)</th>
<th>Lack of efficacy</th>
<th>See our PL Detail-Document, Pharmacotherapy of Dementia Behaviors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoxsuprine (H)</td>
<td></td>
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</tr>
</tbody>
</table>

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a. High-risk: age over 75 years; use of systemic corticosteroid, anticoagulant, or antiplatelet agent.² 

b. Some experts do not feel loratadine exhibits significant anticholinergic activity. 

c. Also use caution with rivaroxaban (Xarelto) in the elderly.³⁵ 

d. Zopiclone (Canada; Rhovane, Imovane) not included in Beers, but prudent to consider same precautions as for eszopiclone. 

e. Note that product labeling contraindicates spironolactone in “significant” renal impairment.³⁶,³⁷ 

f. Designated CMS high-risk meds current as of April 2014. 

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Users of this PL Detail-Document are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.
References


More...


Tips for Sticking With Your Meds

It’s very important for you to take your medicines the right way. This means taking the right dose of each medicine the right number of times every day. It also means following any special directions, such as taking a medicine with food, on an empty stomach, or at bedtime.

Taking your medicines the right way can help you stay as healthy as possible. For example, taking your full course of medicine for an infection will help you get completely cured. Taking your blood pressure medicine the right way will help prevent heart attacks and strokes in the long run. Taking your diabetes medicine the right way will help prevent problems with your eyes, kidneys, and nerves as years pass.

There are a lot of reasons why it might be hard for you to take your medicines the right way. Be open and honest with your pharmacist or prescriber about any problems you have taking your medicines. They want to help you. They can work with you so you get the most benefit from your medicines. Below are some “road blocks” that might come up, and some useful tips to help you get past them.

The schedule for taking my medicines is complicated.
- Ask if there are medicines you can take just once or twice a day to replace any that you take three or four times a day.
- Ask if there are any pills you can take that combine two or more of your medicines.
- Ask if any of the medicines you take can be stopped.

I forget to take my medicines.
- Ask for help matching your medicine schedule with your daily routines, such as eating meals and going to bed.
- Use a pill organizer.
- Try using technology, such as a reminder alarm or “app” on your smartphone.
- Ask if your pharmacy or the company who makes your medicine has any special programs to help you remember.

I have trouble paying for my medicines.
- Ask if there are options that cost less, such as generics.
- Ask if there are any programs or discount cards that will help you pay for your medicines.

I don’t like the side effects from my medicines.
- Ask how long the side effects will last. Some side effects go away after you’ve been taking a medicine for a few weeks or so.
- Ask what you can do to prevent the side effects or make them easier to deal with.
- Ask if there is a similar medicine that won’t have the side effect you don’t like.
- If you have an allergic reaction or a very bad side effect, seek medical attention right away.

DO NOT stop taking any of your meds on your own. Always speak with your prescriber and/or pharmacist about ANY problems you’re having. Then together you can make sure your meds are the best ones for you.

[November 2013]
Blood Pressure Medications and You

Blood pressure medicines are some of the most commonly used drugs. However, about one-quarter of people who take meds to lower their blood pressure stop taking them within six months. Up to one-half stop taking them within one year.

Why are blood pressure medicines so important?
Keeping your blood pressure normal can help you stay healthy. People with high blood pressure are more likely to be sent to the hospital, to have strokes or heart attacks, and have other health problems than those who keep their blood pressure normal.

Why do people stop taking their blood pressure medicines?
Like most drugs, blood pressure meds can have side effects. Around two-thirds of people who take blood pressure meds will have a side effect when the drugs are first started. For example, diuretics (or “water pills”) can increase how often you need to pee. Cutting back on the amount of salt in your diet will help to reduce this side effect and make the water pill work better. Water pills can also cause dizziness or make you feel light-headed when you stand up too fast. Other blood pressure drugs might make you feel tired. Be sure to ask your prescriber or pharmacist what types of side effects you can expect with your blood pressure drugs and how long the side effects will last.

Another reason people stop taking blood pressure meds is that they forget to take them. Some drugs must be taken more than once each day. If you have trouble remembering to take your medicine, tell your prescriber or pharmacist. He or she can help you get a medicine that fits best with your lifestyle.

Some drugs can cost a lot of money. However, there is at least one generic drug available for every type of blood pressure medicine. If you have trouble paying for your blood pressure drugs (or any type of drug), let your prescriber or pharmacist know. He or she can help you get a drug that costs less and/or recommend a patient assistance program to help you pay for your medicine.

What can happen if I stop taking my blood pressure medicine?
Besides increasing your chance for a heart attack or stroke, there are other things that can happen if you stop taking your blood pressure drugs. When you re-start your drug, your dose may have to be lowered for a time to help prevent some side effects. Your prescriber will tell you how to slowly work your way back up to your usual dose.

If you stop taking some blood pressure meds all at once (or “cold turkey”) your blood pressure can get too high.

What should I do if I have a problem with my blood pressure medicines?
Never stop taking your blood pressure meds without letting your prescriber know. Speak with your prescriber and/or pharmacist to let them know about any problems you’re having. Then together you can make sure your blood pressure meds are the best ones for you.

[February 2011]
APPENDIX I

Retirement of Quality Measures

Retired Measure: Diabetes Treatment

Both CMS and PQA have retired the diabetes treatment measure regarding appropriate treatment of hypertension in patients with diabetes. This measure was retired secondary to the release of new treatment guidelines by the 8th meeting of the Joint National Committee. The new recommendations added two additional drug classes into the appropriate treatment group. When tested by PQA, this addition led to greater than 90% of all diabetes treatment patients to be on the appropriate therapy, and therefore it was retired.12

Reviewed by: