# Improving clinical outcomes and reducing health care costs under the Affordable Care Act - are enhanced medication management strategies part of the solution?

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Clinical Pharmacy Associates
A Prescription for Accountable Healthcare

The Affordable Care Act, signed into law in March 2010, includes policies to help physicians, hospitals and other health care providers improve the quality of care for patients with Medicare while reducing health care costs through the implementation of Accountable Care Organizations (ACOs). The proposed new rules provide incentives for health care providers to coordinate care across various settings. ACOs that lower health care costs while meeting health care quality performance measures will be financially rewarded. The proposed ACO initiative is scheduled to launch in January of 2012 and is estimated to save Medicare $960 million in the first three years. Although the proposed new rules focus on patients with Medicare, health care delivery systems forming ACOs or similar organized groups [e.g., health maintenance organizations (HMO's), Physician Groups, Insurer-Provider Collaborations] may elect to use the model for patients with private insurance as well.

***Pharmacy and Therapeutics (P&T) Committees will need to modify formulary management strategies and committee meeting processes to accommodate inpatient, ambulatory and overall outcomes.***

Whether participating in an ACO, quality incentive based contract or pay-for-performance (P4P) arrangement, health systems appear focused on improving health care quality and reducing costs while providing incentives to achieve these outcomes. Enhancing medication management strategies and information sharing to minimize medication-related problems are key factors in improving clinical outcomes while reducing health care costs. This also represents an opportunity to identify and evaluate innovative medication management processes that can be effective and implemented across various health care settings.

Medications, as well as problems associated with their use, can significantly influence the overall cost of care and ability to achieve desired clinical and economic outcomes. Ernest and Grizzle used a "decision-analytic model" and estimated drug-related morbidity and mortality cost-of-illness to be $177.4 billion ($159.6 billion to $195.1 billion) annually in the United States in 2000. The largest component of this cost (69%) was due to drug-related hospitalization. This updates the estimate from 1995 by Johnson and Bootman of $76.6 billion ($30.1 billion to $136.8 billion) spent annually in the ambulatory setting to resolve medication-related problems. Specific drug-related problems (DRPs) include:

- **Untreated indication**
- **Subtherapeutic dosage**
- **Overdosage**
- **Drug Interactions**
- **Improper Drug Selection**
- **Failure to Receive Drugs**
- **Adverse Drug Reactions**
- **Drug Use Without Indication**

The Institute of Medicine (IOM) recently held meetings with leading experts and summarized discussions and presentations focused on: "The Healthcare Imperative: Lowering Costs and Improving Outcomes." Preventing medical errors (e.g., adverse drug events, hospital acquired infections) was one potential strategy to reducing health care costs by 10 percent within 10 years.

Participants estimated that this intervention could provide an annual savings of $8-$12 billion dollars by 2018 (in 2009 dollars). It was noted that if ambulatory care medical errors were also reduced, savings would be substantially higher. Preventing avoidable hospital admissions and readmissions are examples of other potential strategies that were discussed. The annual health care cost savings in year 10 for these interventions were estimated to be $44-$48 billion and $16-$20 billion, respectively. Discharge follow-up and "coaching" interventions have been shown to reduce re-hospitalizations.

Many quality performance measures, including those proposed by the Centers for Medicare and Medicaid Services (CMS) for ACOs, include conditions that rely heavily on medications for optimal management. In addition, some focus on high risk medications or populations and care coordination related to medications (Table 1).

Table 1. Examples of "Proposed Quality Measure(s) for ACOs For the First Year of The Medicare Shared Savings Program"

| Domain | Examples of Proposed Quality Measure(s)* |
|---|---|
| Patient/Caregiver Experience | Health Promotion and Education |
| Care Coordination | Medication Reconciliation; Ambulatory Sensitive Conditions Admissions: Heart Failure, Uncontrolled Diabetes, Urinary Infections |
| Patient Safety | Health Care Acquired Conditions: Postoperative DVT/PE, hip fracture |
| Preventative Health | Blood Pressure Measurement, Tobacco Use Assessment and Cessation Intervention; Influenza Immunization |
| At-Risk Population/Frail Elderly | Diabetes Composite: A1C < 8%, LDL < 100 mg/dL, Blood Pressure < 140/90 mm Hg, Tobacco Non Use, Aspirin Use.<br><br>CAD Composite: Oral Antiplatelet Therapy, Drug Therapy for Lowering LDL-Cholesterol, Beta-Blocker Therapy for patient with CAD and Prior MI, LDL Level < 100 mg/dL, ACE Inhibitor or ARB Therapy for patients with CAD and DM and/or LVSD.<br><br>Osteoporosis Management in Women Who had a Fracture<br><br>Monthly INR for patient on warfarin |

*A1C - hemoglobin A1c/glycated hemoglobin, ACE - angiotensin-converting enzyme, ARB - angiotensin receptor blocker, CAD - coronary artery disease, DM - diabetes mellitus, DVT - deep venous thrombosis, INR - international normalized ratio, LDL - low density lipoprotein, LVSD - left ventricular systolic dysfunction, MI - myocardial infarction, PE - pulmonary embolism

Some strategies to prevent medication errors recommended by the IOM in the report entitled "Preventing Medication Errors" include: improving communication with patients, encouraging patients to take a more active role in their care (e.g., keeping updated, accurate records of all medications), providing patients with opportunities to learn and consult about their medications across the continuum of care, providing quality and accessible drug information, and increasing the use of information technologies when prescribing and dispensing medications. Pharmacists, in collaboration with other health care providers, can help optimize medication use throughout the continuum of care.

Formulary development and management may also influence whether clinical and economic outcomes are achieved by an ACO or other health system. Depending on the specific entities working collaboratively, Pharmacy and Therapeutics (P&T) Committees will need to modify formulary management strategies and committee meeting processes to accommodate inpatient, ambulatory and overall outcomes.

Committees will likely require expanding membership to include representatives from various components of a collaborative care model. For example, in a setting where a hospital has its own formulary, the hospital's P&T Committee may need to modify its membership to include providers who work within the health system, including ambulatory settings. Formulary evaluation criteria for a medication under review should be viewed from different perspectives and new factors taken into consideration, such as:

- Economic impact across the continuum of care rather than a specific setting or budget,
- Ability of a medication to achieve desired quality performance measures,
- Level of access (e.g., tier status) and ease of prescribing a medication (e.g., whether restrictions such as prior authorization are required),
- Impact of changing a medication due to formulary preferences during a care transition, and
- The cost versus benefit profile of a medication from various perspectives, including patients.

With the increasing use of genetic based individualized drug/biologic treatments, pharmacogenomic considerations could also lead to modifications in the formulary management process and impact a health system's ability to improve care while lowering costs. These potential formulary management and P&T Committee changes will lead to a more effective process with greater collaboration for health systems.

There are a number of factors that can result in successfully improving the quality of care and ultimately patients' health status while reducing health care expenditures, with medication management strategies being an important component influencing clinical and economic outcomes. As health systems and insurers strive to improve quality and reduce cost, preventing and/or minimizing medication-related problems across the continuum of care is an important consideration to achieve desired outcomes.

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Sandra's clinical pharmacy training and experience has included roles in academia, ambulatory care, managed care, inpatient settings, home health care, and informatics. Sandra developed and oversaw various clinical pharmacy programs and initiatives as well as technology to support clinical processes. Her work has focused on strategies to improve medication use and clinical and economic outcomes in and across a variety of health care settings and with various populations, including seniors.

Sandra has worked with various health care providers, residents and students. She has lectured and published in the areas of drug information, formulary development and management, Pharmacy and Therapeutics (P&T) Committee processes, medication management, reconciliation and safety, and Medicare Part D.