Effective Health Care

Medication Therapy Management
Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Medication therapy management (MTM) programs will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.

- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/.

Topic Description

Nominator: Organization

Nomination Summary: The nominator is interested in a synthesis of the existing evidence and identification of knowledge gaps for Medication Therapy Management (MTM) services.

Staff-Generated PICO:
Population(s): Patients with chronic disease, especially Medicare patients with multiple conditions; the nominator is also interested in minority populations
Intervention(s): Different models for assisting patients in managing their medications for chronic diseases (MTM services)
Comparator(s): See interventions above
Outcome(s): More appropriate prescribing of medications; improved patient adherence to medication regimens; improved clinical outcomes (e.g., blood pressure, HbA1c, cholesterol levels, etc.); reduced incidence of drug-related adverse events; and lower rates of hospitalizations, re-hospitalizations or nursing home admissions

Key Questions from Nominator:
1. Which patients benefit the most from MTM services?
    1.1. Which factors, or combinations of factors, are most predictive of the clinical benefit of MTM services?
        1.1.1. Disease factors (e.g., diabetes vs. COPD, multi-morbidity vs. single disease, recent diagnosis vs. long-standing illness)
        1.1.2. Patient characteristics (e.g., age, gender, cognitive function, race/ethnicity, education level, health literacy, income)
        1.1.3. Medication factors (e.g., number of medications, total expenditures on medications, patient out-of-pocket expenditures on medications, type of medication [high-risk drugs])?

       1.1.4. System factors (e.g., number of prescribers for patient, geographic location [rural vs. urban], dual-eligibility for Medicaid/Medicare, undergoing transition in care)?

    1.2. What is the relative importance of disease state vs. patient characteristics vs. socioeconomic vs. medication variables in predicting the cost-effectiveness of MTM services? What are the interactive effects of these variables?

2. What is the optimal structure and process for delivering MTM services?

    2.1. What are the relative clinical effectiveness and cost-effectiveness of different delivery modes (e.g., telephonic vs. face-to-face vs. blended)? How does the delivery mode interact with the characteristics of the population in predicting the effectiveness of MTM?

    2.2. What is the optimal timing of MTM services relative to events or diagnosis (e.g., initiation of drug therapy, gap in adherence, care transition, time from diagnosis) and what are the most successful approaches to patient enrollment in each of these situations?

    2.3. What are the key components of MTM services and how can these be matched appropriately to the needs of the patient (e.g., comprehensive medication review upon addition of new therapy, medication reconciliation during care transition)?

    2.4. What is the optimal frequency of follow-up consultations after the initial MTM consultation? Does this vary by disease or by patient characteristic?

    2.5. How can MTM services be coordinated with the patient-centered medical home? What MTM services should be provided to physicians versus directly to patients?

3. How do we enhance patient engagement in MTM services?

    3.1. What reasons are cited by patients for participation in MTM services or for declining an offer for MTM services?

    3.2. What are the optimal methods for informing patients about MTM services and for extending offers for the services?

    3.3. To what extent do physician referrals for MTM services affect patient participation in MTM?

    3.4. What incentives are effective in boosting patient participation/engagement in MTM services?

    3.5. Are there racial/ethnic or gender differences in participation rates in MTM services? How can we create culturally-appropriate messages to encourage participation in MTM services?

    3.6. What are consumer preferences for the delivery process of MTM (e.g., telephonic, face-to-face, home visit, web-chat) and how do these preferences vary by sub-population?

    3.7. How can caregivers and/or family members be appropriately integrated into MTM services?

4. What methods and performance measures are useful in evaluating MTM services?

    4.1. Which MTM performance measures are most useful for continuous quality improvement of MTM services or for ongoing comparison of MTM programs?

    4.2. What are the crucial data elements for evaluating MTM programs (e.g., drug claims, medical claims, laboratory data, clinical measurements [blood pressure,

pulmonary function], health status) and how can these data elements be integrated most efficiently?

    4.3. What are the barriers to aggregation of MTM program data across health plans and how can these barriers be overcome in an efficient manner?

    4.4. What methods are useful for estimating the duration of impact of MTM interventions and how can multiple endpoints be combined in one model for robust evaluation of the duration of effect? Can this multi-variable model be used to identify the optimal timing of follow-up MTM consultations for different sub-groups of patients?

    4.5. How can health status measurements (e.g., quality of life, activities of daily living) be efficiently integrated into MTM programs for patient management as well as program evaluation? How can assessments of patient experiences/satisfaction be conducted?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- As the population ages, more people are living with multiple chronic conditions for which pharmaceutical care and safety is important. It has been reported that a high percentage of people older than 65 years have two or more chronic conditions, such as diabetes, asthma, heart, and kidney failure. Advanced age, comorbidities, and increased drug utilization place patients at greater risk for adverse outcomes from medication use in a variety of care settings.

- MTM is a distinct service or group of services that aim to optimize therapeutic outcomes for individual patients by helping them manage prescription drug use and identify, prevent, and resolve medication-related errors and adverse events. MTM is broadly defined, and programs remain very heterogeneous in terms of delivery method, setting, duration, intensity, level of patient and family involvement, and other factors.

- A conceptual framework that represents the breadth and context of MTM services, a synthesis of what is currently known about the comparative effectiveness of MTM programs and program components, and a delineation of the gaps in the existing evidence base are needed at this time. Therefore, this topic will move forward for a new comparative effectiveness review.