

## Concept Series Paper on Disease Management

Disease management is the concept of reducing health care costs and improving quality of life for individuals with chronic conditions by preventing or minimizing the effects of the disease through integrated care. Disease management programs are designed to improve the health of persons with chronic conditions and reduce associated costs from avoidable complications by identifying and treating chronic conditions more quickly and more effectively, thus slowing the progression of those diseases.

Disease management is a system of coordinated health care interventions and communications for defined patient populations with conditions where self-care efforts can be implemented. Disease management empowers individuals, working with other health care providers to manage their disease and prevent complications.

Disease management has emerged as a promising strategy for improving care for those individuals with chronic conditions. People with chronic conditions usually use more health care services which often are not coordinated among providers, creating opportunities for overuse or underuse of medical care.

Disease management is a proactive, multidisciplinary, systematic approach to health care delivery that:

- Includes all members with a chronic disease
- Supports the provider-patient relationship and plan of care
- Optimizes patient care through prevention and proactive interventions based on evidence-based guidelines
- Incorporates patient self-management
- Continuously evaluates health status
- Measures outcomes
- Strives to improve overall health and quality of life and lower cost of care

Components of disease management programs include:

- Population identification processes
  - Programs designed to target individuals with specific diseases
  - Chronic and costly conditions
- Evidence-based practice guidelines
- Collaborative practice involvement
  - Multidisciplinary teams that may include physicians, pharmacists, nurses, dietitians and psychologists
- Risk identification and matching of interventions to need
- Patient self-management education
  - Self management may include behavior modification, support groups and primary prevention

- Process and outcomes measurement and evaluation
  - A method for the measurement of outcomes may include health care service use, expenditures and patient satisfaction
- Tracking and monitoring system
  - Routine reporting and feedback loops that include patients and providers
  - Appropriate use of information technology

As a first step, a disease management program must identify the population group. Demographic characteristics, health care use and health care expenditures are generally reviewed to identify individuals who will benefit from a disease management program.

Programs target individuals with a specific disease that is chronic in nature and costly. Individuals with multiple conditions may also benefit from a disease management program.

Providers within disease management programs are critical to educating patients about their disease and how to better manage their conditions. Practice guidelines based on clinical evidence ensure consistency in treatment across the targeted population.

Chronic disorders commonly managed through disease management programs are:

- Diabetes Mellitus
- Congestive Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease (COPD)
- Coronary Artery Disease (CAD)
- Asthma
- Hypertension

Disease management generally entails using a multidisciplinary team of providers (for example, physicians, pharmacists, nurses, dieticians, psychologists) to assist individuals in managing their condition(s).

Disease management programs are based on the concept that individuals who are educated about managing their disorder seek and receive better care.

### **Disease Management Programs**

Care coordination is one of the primary concerns of health care payors and providers. Individuals with chronic conditions require appropriate management and interventions to ensure optimal health outcomes. Disease management programs should emphasize the prevention of exacerbations and complications using evidence-based practice guidelines and patient empowerment strategies, while evaluating clinical, economic and humanistic outcomes to improve overall health and quality of life for patients.

The goal of disease management is to encourage patients to use medications properly, to understand and monitor their symptoms more effectively, and possibly, to change behavior.

Comprehensive disease management programs can:

- Improve the safety and quality of care
- Improve access to care
- Improve patient self-management

- Improve financial cost containment without sacrificing quality or patient satisfaction
- Enhance efforts to provide health improvement programs on a population basis

### **Focus on Patient Populations**

In traditional fee-for-service settings, health care professionals typically focus on specific, isolated medical events and the health care status of *individual* patients. For example, a physician who diagnoses and treats a patient with congestive heart failure (CHF) may believe he or she has fulfilled their responsibility once the patient's symptoms are resolved. The physician would then prescribe appropriate medications and suggest ways to manage CHF symptoms. Generally, physicians or other health care professionals only have the opportunity to evaluate patients when the patient complains of symptoms, when the patient is seen during an office visit or when the patient is hospitalized.

By contrast, disease management programs focus on multiple facets of patient care and maximize the health status of *defined patient populations*. Successful disease management programs coordinate care for the disease among all providers, physicians, pharmacists, hospitals and laboratories. They also develop and implement a partnership with patients, because all of these individuals understand the value and relative contribution each brings to the program. A disease management program for a health plan's CHF patients often involves instruction for daily weigh-ins to monitor minor weight fluctuations due to fluid retention. Programs may involve a daily telephone call from a nurse verifying a patient's weight. Such programs are then able to notify the patient's physician of weight changes before such changes cause hospitalizations.

Managed care organizations are well positioned to practice disease management because they are dedicated to comprehensive, coordinated care. They focus on improving the health of entire patient populations, use available resources effectively, and are held accountable by patients, purchasers and regulators for the quality of their medical services. Managed care organizations integrate key health care services, including patient and health care professional education, as well as ambulatory care, acute care, home health care and nursing home services. Such integration provides greater continuity of patient care, leading to better health care outcomes.

### **Evaluation of Disease Management Programs**

Health outcomes affect both the quality of life and the use of health care services. Disease management programs are objectively evaluated based on previously defined outcome points and the collection of baseline data on the natural course of the targeted disease. Performance indicators and outcome measures should be analyzed to determine if the program is achieving quality improvement. Performance indicators assess a specific performance at regular intervals and compare performance to predefined indicators. These indicators measure the intermediate success of an action or intervention. Outcome measures determine the end result of an action or intervention. Obtaining meaningful outcomes should improve the overall quality of the program. Health outcomes can be measured from several perspectives:

- Clinical outcomes and health care utilization, such as a change in the incidence of medical outcomes, e.g., heart attacks, increase or decrease in use of medications
- Humanistic outcomes (quality of life) measure the patient's own assessment of the impact of the program on his or her physical, social and emotional well-being
- Economic outcomes, defined as the cost of the intervention less any savings from health improvements

Based on continuous, objective evaluation by health care professionals, the most effective programs are retained. Marginally effective or ineffective programs are either modified or abandoned.

### **Medication Therapy Management Programs**

In discussions involving patient care, a common question that arises is the distinction between disease management programs and medication therapy management (MTM) programs. Medication therapy management is a distinct service or group of services that optimize therapeutic drug outcomes for individual patients. MTM services are independent of, but can occur in conjunction with, the provision of a medication. MTM programs are not intended to focus on one disease state but cover the full spectrum of medications a specific patient may be taking.

### **The Role of the Pharmacist in Disease Management Programs**

Pharmacists are important team members of the disease management process. As members of the health care team, pharmacists can provide education, as well as screening and medication monitoring services. Pharmacists are involved in disease management programs in numerous ways. Individual pharmacist involvement will vary according to each practice setting. Pharmacists:

- Assist in the identification of individuals
- Conduct monitoring for specific diseases, for example, diabetes, cholesterol, blood pressure
- Provide patient education
  - Glucose monitoring
  - Peak flow monitoring
- Assist with medication adherence
- Provide direct patient care
- Evaluate outcomes of programs

By working as a member of a health care team, the pharmacist can provide ongoing, comprehensive assessment of drug therapy and can share the results of that assessment with patients and other health care professionals.

### **Patient Interaction**

A trained pharmacist can evaluate medication therapies, identify and manage drug-related problems for the patient, as well as provide advice on a disease and its management. Examples include:

- *Asthma Management*
  - Provide educational programs to patients about the disease,
  - Conduct periodic review of the patient's inhaler technique,
  - Perform ongoing monitoring of peak-flow function tests,
  - Manage chronic medication use, including compliance assistance.
- *Diabetes Management*
  - Provide educational programs to patients about the disease,
  - Regularly monitor both self-tested and laboratory tested blood glucose levels,
  - Educate patients on how to use home blood glucose monitoring equipment,

- Monitor patient compliance with prescribed therapies and scheduled clinic and laboratory appointments,
  - Screen for drug/drug, drug/food, drug/lab and drug/disease interactions and adverse drug reactions,
  - Provide medication management and review.
- *Hypertension & Cholesterol Management*
    - Educate patients about these silent diseases,
    - Monitor compliance with medications, diet and exercise regimens,
    - Screen for drug/drug, drug/food, drug/lab and drug/disease interactions and adverse drug reactions,
    - Perform periodic blood pressure checks,
    - Perform periodic cholesterol level checks.

### **Health Care Professionals Interaction**

Along with performing disease-specific clinical activities, pharmacists can also have a significant impact on the development, implementation and improvement of disease management programs.

Examples include:

- Target high-risk and high-utilizing patients for education and/or intervention,
- Conduct outcomes research to form the basis for treatment guidelines,
- Ensure the ongoing involvement of the pharmacy and therapeutics (P&T) committee in the disease management process,
- Influence prescribing patterns,
- Educate other pharmacists and physicians about treatment guidelines,
- Provide expert information on medications and pharmacotherapy,
- Use health system databases to track drug expenditure patterns and health care professionals' adherence to health care management regimens.

### **Conclusion**

Disease management is an approach to patient care that seeks to limit preventable events by maximizing patient adherence to prescribed treatment and health-promoting behaviors. These programs produce significant clinical improvements, as well as financial savings. Disease management programs provide opportunities to improve patient outcomes. True disease management can be achieved only with the complete commitment of the health care team. As the trained medication management specialist, the pharmacist has a leadership role to play in the collaborative development, implementation and improvement of disease management programs.