

Disease Management Approaches to Quality Improvement

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Physicians and other healthcare professionals correctly view good medical decision-making as the cornerstone of quality care for our patients. However, no matter how well-constructed a plan of treatment for an individual patient may be, optimal management of that disease may still not be achieved unless other, less obvious factors fall appropriately into place. Unfortunately, the pitfalls are numerous and commonplace.

The cost of medication may lead a patient to not fill a prescription. The patient may take the medication less often than prescribed due to real or perceived side effects. The patient may not understand that a chronic asymptomatic disease requires ongoing therapy and periodic medical re-evaluation. These and numerous other cultural, financial,

and social factors may strongly impact the management of a patient's disease and that patient's overall health status.

The number of Americans living with chronic disease is increasing dramatically. It is estimated that the number will reach 120 million in 2010, constituting 40% of the United States population.¹ Within the Medicare program, as much as two-thirds of the expenditures are estimated to go for the care of participants with five or more longstanding medical conditions.² Among younger populations, estimates of lost workplace productivity due to chronic disease are remarkably high.¹

The federal government, groups of employers, and providers of healthcare are all searching for innovative solutions that can improve health outcomes, reduce hospitalization rates,

provide cost savings, and reduce workplace absenteeism. More and more frequently they are looking to "disease management" as a key strategy in achieving these goals.

Disease management is a many-faceted process of organizing care with the intention of improving health outcomes for certain disease states and, when possible, lowering overall healthcare costs. Most of the cost reductions are achieved

through methods to prevent errors, limit long-term complications of diseases that are not being maximally managed and prevent duplication or overuse of services. It is usually designed for high-cost and/or high-volume diseases, such as diabetes, hypertension, asthma, HIV, and congestive heart failure.

Disease management can be as simple as a

patient education handout explaining the disease or as complex as a multidisciplinary team working together to establish a comprehensive plan of care for an individual with multiple chronic conditions.

Medical conditions that seem to be the best candidates for disease management approaches have some or all of the following characteristics:

- High volume or high cost (or both)
- Evidence that wide variations in care approaches exist among practitioners
- Evidence that particular defined care approaches lead to improvements in clinical outcomes

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Disease Management in Practice

Joe Taylor is a moderately overweight 58-year-old male who has been hypertensive for seven years. His hypertension is controlled with two medications. He presents to his family physician, Dr. Williams, complaining of increased urinary frequency and low energy. He is diagnosed with new-onset type II diabetes mellitus. Dr. Williams discusses with Mr. Taylor many aspects of diabetes—how it is treated, the importance of exercise and weight loss, the vital role diet plays, the potential complications that may arise. She provides written patient education materials. She asks Mr. Taylor to begin home glucose monitoring. Dr. Williams follows appropriate clinical practice guidelines in choosing an oral hypoglycemic agent and re-evaluates his hypertensive regimen in light of the newly diagnosed diabetes.

Through the disease management program already in place, Mr. Taylor is referred to a dietitian and to a local patient education program for diabetics that brings them in for a series of group sessions. A nurse with the disease management program contacts Mr. Taylor by phone two weeks after his diagnosis to ask how he is doing, answer questions he may have about diabetes, see if he is doing the home glucose monitoring, encourage adherence to diet and exercise recommendations, and to reinforce the reasons that long-term control of the diabetes is so important to his health.

A few days before his follow-up appointment with Dr. Williams, Mr. Taylor is contacted by phone reminding him of the day and time of the appointment. At that first follow-up appointment, Dr. Williams has triggered her diabetes software program in the electronic medical record for Mr. Taylor. The program provides for easy tracking over time of blood pressure, weight, hemoglobin A1Cs, annual dilated eye exams, and last flu and pneumococcal immunizations. It provides reminders to Dr. Williams for periodic checking of urine micro-albumin, foot/skin integrity and sensation, and other important aspects of diabetic care. Over the next several months, the pharmaceutical benefit manager monitors medication refill records to see if the patient appears to be taking his medication as prescribed.

Through the combined efforts of the patient and all those involved in his care, Mr. Taylor is given the best possible chance to control his diabetes and reduce the likelihood that he will develop vascular, renal, neurologic or other complications.

- Care by multiple physicians of different medical specialties
- Purchaser interest in reducing treatment variation/cost³

Disease management is in its early stages and, thus far, there is little firm evidence regarding outcomes.¹ Over 150 companies in the United States currently offer some form of disease management services or products.¹ Many of these are independent companies, but some have been developed by managed care organizations, e-Health technology companies and pharmacy benefit managers.

Future purchasers of disease management services will require detailed information on the effectiveness of these programs. This is especially important as the medical community strives for a more evidence-based approach to its medical decision-making. The disease management industry has the challenge of providing measurable and accurate data showing improved health outcomes and reduced healthcare costs.

Well-structured disease management programs should incorporate the following characteristics and goals.

- Improve outcomes by promoting the provision of timely and appropriate services.
- Utilize clinical information systems to help identify and track defined patient populations.
- Develop clinical practice guidelines by physicians and other healthcare personnel knowledgeable in treating chronic disease, utilizing evidence-based medicine, where available.
- Promote cooperation between primary care and specialty care physicians, including free flow of clinical information.
- Emphasize educating and empowering patients to successfully manage their own health, use self-monitoring techniques, and intelligently use care resources.
- Allow the choice of pharmaceuticals to be based on clinical judgment and validated outcomes studies rather than forcing strict adherence to program formularies.
- Allow informed and voluntary patient participation in the program.
- Incorporate ancillary medical services to support the physician's treatment plan.
- Allow physicians to deviate from disease management practice guidelines when appropriate, without incurring sanctions or jeopardizing coverage for services.
- Collect, evaluate, and disseminate information on outcomes to physicians and other providers of care.
- Support the primary care physician's authority for decisions to use or not use specialized care and ancillary services for patients.

Physicians have many opportunities within their own offices to establish disease management approaches to the care of their patients with chronic illnesses. Any disease management initiative should make the physician an integral part of the planning and implementation of that system. Without physician involvement and cooperation, the program is far less likely to be effective. A system without physician involvement may, in fact, be counterproductive, since it is the physician who is

ultimately responsible for the care plan and health of that patient.

The growing use of electronic medical records should facilitate more and more physicians in utilizing disease management strategies in their offices. Many primary care organizations and, more recently, the Centers for Medicare and Medicaid Services are encouraging the increased use of electronic medical records.² They rightly recognize the potential for decreasing errors, making periodic health maintenance (e.g., mammograms, immunizations) easier to track, and improving health outcomes. Current limitations for physician offices include its cost and the difficulties of getting such systems to allow for easy flow of information between all providers of care (primary care physicians, specialty care physicians, hospitals, pharmacies, and others).

Disease management is an evolving concept. Whether it will be successful is highly dependent on a collaborative effort among all members of the healthcare team (patients, physicians, allied health professionals, health insurers, and employers) to bring improved health outcomes. The need for such approaches will only grow with time, as our population ages and as the unfortunate trend of adult and childhood obesity leads to more Americans living with chronic disease states. The potential burden on society and on the healthcare system is great, and the need for innovative and meaningful new approaches is equally great. With a disease management system that is well-constructed, relatively easy to implement, and efficient in its consumption of time and resources, we have a tremendous opportunity to positively impact our patients' health. **NCMJ**

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