
Care Coordination for Older Adults with Complex Chronic Illness

David A. Dorr, MD, MS

Dr. Dorr, a medical informatics research and faculty member at the Oregon Health & Science University, presented the following testimony to the Senate Special Committee on Aging on May 9, 2007, in Washington, DC.

Managing chronic and multiple illnesses is a crisis in health care today. Consider Ms. Viera, a 75-year-old patient with 5 chronic illnesses. In most clinics, coordination of the care for her multiple chronic illnesses would be limited, leading to worsening of her conditions, unnecessary hospitalizations, and significant cost. Guidelines of care for her illnesses may conflict, and she and her husband may struggle to integrate the sometimes conflicting recommendations of 6 different physicians with their own values. With careful care coordination as in Care Management Plus, a care manager can help educate and guide the Vieras through their options. Care coordination for people with these complex illnesses can help limit these costs, improve health, and provide better quality of life for the growing number of older adults in our country.

Care Management Plus is the in-

tegration of a tested information technology (IT) system with trained care managers in primary care clinics to treat older adults with complicated conditions respectfully and effectively. In its initial testing, Care Management Plus saved lives and improved health-care outcomes by reducing hospitalizations by 24%, improving patients' experience with care, and improving disease status. Savings were estimated at more than a quarter of a million dollars annually per clinic. If 2% of the nation's primary care providers adopted care coordination programs like Care Management Plus, Medicare would potentially save over \$100 million each year.

Consider again the case of Ms. Viera. She is 75 years old, has diabetes, high blood pressure, mild congestive heart failure, arthritis, and recently has had difficulty remembering to pay her bills and to take her pills. Her family practi-

tioner is Dr. Smith, but she also sees 5 other physicians sporadically for her various illnesses. Ms. Viera and her caregiver husband come to clinic to see Dr. Smith and have several new issues to discuss, including hip and knee pain, questions about her 12 medicines, dizziness, low blood sugars, and a recent fall. Dr. Smith knows there are separate guidelines that apply to many of her individual conditions, but he also knows that the studies behind this evidence often excluded patients like Ms. Viera. In addition, the caregiver often is exhausted. In a typical primary care physician's office, the ability to track these multiple concerns is limited. Likely, Dr. Smith, a busy practitioner, will focus on her joint pain, and have limited time to address other issues. Without a thorough care plan and follow-through, Ms. Viera's diseases are likely to cause frequent hospitalizations and emergency visits. In addition, her 6 physicians may fail to communicate about her plan, give conflicting recommendations, or order medications that interact, raising the risk of problems down the road. Without incentives to coordinate her care, Ms. Viera is at serious risk for avoidable complications.

Our care model, Care Management Plus (caremanagementplus.org) attempts to comprehensively address Ms. Viera's health and quality of life. Once Ms. Viera is enrolled in Care Management Plus, a specifically trained nurse or social worker care manager assesses her needs, co-creates a plan of care with her, acts as a catalyst to ensure the care plan takes place, and is a single point of contact for her healthcare needs. The model focuses on 3 themes: self-management and navigation over time, prevention of illness and disability, and IT. For the Vieras, the care manager may assess home safety, connect them to community resources that provide services to help the caregivers cope, use assessment protocols for chronic illnesses, and facilitate discussions with providers and other specialists. The IT will track the progress of the Vieras and others over time to ensure they will not be forgotten.

The Care Management Plus Model

Care Management Plus uses IT and care managers to help patients and caregivers self-manage their conditions, prioritize healthcare needs and prevent complications through structured protocols, and navigate an increasingly complex healthcare system. Specialized IT includes the care-manager tracking database, patient summary sheet, and messaging systems to help providers access care plans, remind providers about best practices, and facilitate communication among the healthcare team.

Other programs that use care management techniques, such as the Chronic Care Model, use team-based approaches to reorganize

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care. IT may also be used to remind physicians about best care for conditions. However, previous uses of IT and care management only address part of the issue; with the complexity of a patient's needs, IT alone may provide too many alerts without a clear plan.

Care Management Plus focuses on 3 areas. First, care managers enhance a patient's and caregiver's self-management ability. The program has adapted other models to focus on needs of elders and patients with multiple chronic illnesses, for whom self-management is most difficult. It uses both computer-based tools and trained clinicians to enhance primary care. The primary IT tool—the Care Management Tracking database—organizes the delivery of care and tracks tasks and outcomes. This enables both the patient and family and the primary care team to proactively identify the patient's disease status, help them receive recommended care, and meet specific goals. For those patients who have greater barriers to self-management, care managers work collaboratively with them and with their physicians to develop

strategies to overcome these barriers, and then monitor progress. Physicians can refer patients in high numbers since the IT tools remind the care manager about the complex care plans and needs of patients. Some patients have substantial challenges that can interfere with their self-management ability and overall health. The care manager partners with patients to help them overcome these challenges. For example, patients who have multiple chronic diseases or lack sufficient confidence or social support to manage the diseases may have a difficult time following through on a doctor's counsel without extra help. The care manager empowers such patients to organize and prioritize their tasks, and then monitors their progress. The care manager collaborates with the patient, the family and their physician(s) to adjust the plan as needed. The benefits of improved self-management persist beyond the time that the care manager is involved, accounting for better outcomes even years later.

Second, prevention and early recognition is key in Care Management Plus. The primary care team treats patients' chronic diseases early, trying to prevent problems rather than treating them after they occur. IT tools help monitor the status and needs of an entire population of patients, and remind the team of what needs to be done. A Patient Summary Sheet (known as the patient worksheet) also identifies which patients may not be getting monitored or treated appropriately, lab work that is due, and indicated medications that should be prescribed. It can be used as a reminder and to reinforce

these goals when it is sent home with the patient.

Third, many patients seek care from urgent locations (the emergency department or the hospital) because the healthcare system can be complex and difficult to access. The care managers help patients and caregivers navigate the system, providing links to community resources, helping compile care plans from multiple different providers, and taking the time to ensure that patients at high risk receive best practice care. For example, if Mr. Viera were exhausted, the care manager could arrange for respite care and caregiver support classes to help him cope. If Ms. Viera were extremely depressed, the care manager would ensure that the patient was seen by a counselor and/or a psychiatrist, and then would communicate changes back to the primary care team. The combination of the integration of these care managers into the primary care team with these tools has led to improvement of health for thousands of persons and significant decreases in the exacerbations of illness for seniors.

The Benefits of Care Management Programs

The clinical and cost outcomes of the Care Management Plus approach are significant and positive. In our initial research and testing of Care Management Plus, care managers in 7 clinics cared for more than 23,000 patients over 5 years, rendering more than 100,000 services. People with diabetes had better control of their blood sugars and were more likely to be tested, which corresponded to 15% to 25% fewer long-term complications and significant savings in medical costs and

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social service costs. It also allowed patients like the Vieras to live independently far longer. Seniors with diabetes had a 20% reduction in mortality and a 24% reduction in hospitalizations, saving Medicare up to \$274,000 per clinic. Perhaps most important, patients and healthcare providers were extremely satisfied, referring to the program as a “lifesaver” and a “dramatic improvement in health care.”

The Care Transitions Model, developed by Eric Coleman, has also shown significant reductions in costs and significant improvements in patient-centered outcomes. During a 4-week program, patients with complex care needs and family caregivers receive specific tools and work with a “Transition Coach,” to learn self-management skills that will ensure their needs are met during the transition from hospital to home. Patients who received this program were also more likely to achieve self-identi-

fied personal goals around symptom management and functional recovery. These patients were also significantly less likely to be readmitted to the hospital, and the benefits were sustained for 5 months after the end of the 1-month intervention. Anticipated cost savings for 350 chronically ill adults with an initial hospitalization over 12 months is \$295,594.

To date, the Care Transitions Program team (www.caretransitions.org) has collaborated with 16 leading healthcare delivery organizations to adapt the model to their unique environments. This number exceeded 50 in September 2007.

Senior Health and Wellness Centers, like the one developed by Ron Stock at PeaceHealth in Oregon, use interdisciplinary team approaches to coordinate care for frail elders. Such centers have been shown to improve function of patients, an important quality outcome. Other models, such as the Virtual Integrated Practice team model from Steven Rothschild at Rush University in Chicago, the IMPACT model by Jürgen Unutzer from the University of Washington, and many others have great promise for delivering the kind of chronic disease coordination that brings benefits to patients. Developing the expertise in care coordination takes time and effort; any reimbursement changes and healthcare reform initiatives should take into account the dissemination of expertise required to successfully implement them.

The Challenges of Dissemination

The positive results of our Care Management Plus model have caused many stakeholders to take

notice. With a grant from The John A. Hartford Foundation, we now are disseminating the Care Management Plus model with our coordinating center at Oregon Health & Science University, increasing 7 pilot clinics to more than 40 clinics nationwide. However, adoption of Care Management Plus requires primary care clinics to make a substantial investment: hiring a care manager, upgrading or acquiring IT, and devoting the time and resources of other staff members to training and protocol implementation. In all, each clinic's investment is about \$100,000 over the first year of the program.

We see a number of challenges as we translate our research into broader practice. First, these models provide cost savings, but the services are minimally reimbursed. Smaller clinics run a serious risk of a net loss by providing coordination without healthcare reimbursement reform. Second, the ability to track and coordinate care requires a system that is currently in place in few clinics. Use of IT is essential, but even with an EHR, the specific needs of care managers—care plan creation, best practices reminders and tracking, and facilitation of communication with the entire team—are not met. Understanding these IT needs, encouraging their further development, and helping clinics implement them was crucial to our success and should be encouraged.

Finally, and most salient to the discussion today, is that we found significant variation in the goals of the patients and the roles of the care managers. In developing Care Management Plus, we created pro-

ocols for and focused on the management of specific diseases. But patients have more holistic concerns about the overall quality of their life and health, as well as the interactions among their multiple conditions. We found that care managers' ability to spend face-to-face time with patients and offer a variety of services (eg, education, motivation, addressing of barriers) was strongly correlated with better disease and health outcomes. Not every patient's trajectory was changeable, but thoughtful, experienced care managers improved most patients' quality of life and care.

Continued work on our capacity to care for older adults is required. In recent testimony to the Institute of Medicine, Corinne Rieder, the executive director of The John A. Hartford Foundation, highlighted the ongoing issues of building capacity to care for our vulnerable

elders. She discusses three strategies that are pertinent to our discussion today. First, the numbers of our geriatrics specialists—physicians, social workers, nurses, pharmacists, and others—are insufficient to meet current and future needs. Second, creating capacity to deliver better care to older adults also requires investment in research in models like Care Management Plus. Research and development in such models has not developed through traditional business models and requires support by the government and foundations. Third, excellent researchers need to be encouraged to pursue research in efficiently and effectively providing care for older adults.

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David A. Dorr, MD, MS, is Principal Investigator, Care Management Plus, and Assistant Professor, Medical Informatics and Clinical Epidemiology / General Internal Medicine and Geriatrics, Oregon Health & Science University.

PROVIDER ACTION

Impact to You

As baby boomers become Medicare beneficiaries and age in the program, they will increasingly require care oversight of their chronic comorbid conditions. Care coordination for patients with these complex illnesses can help limit costs, improve health, and provide better quality of life for the growing number of older Americans.

What You Need to Know

Care Management Plus uses IT and care managers to help patients and caregivers self-manage their conditions, prioritize healthcare needs and prevent complications through structured protocols, and navigate an increasingly complex healthcare system.

What You Need to Do

Political pressure is required to ensure that resources are invested in needed areas. First, the numbers of our geriatrics specialists—physicians, social workers, nurses, pharmacists, and others—are insufficient to meet current and future needs. Second, creating capacity to deliver better care to older adults requires research investment in models like Care Management Plus. Research and development in such models has not developed through traditional business models and requires support by the government and foundations. Third, excellent researchers need to be encouraged to pursue research in efficiently and effectively providing care for older adults.