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Guided Care
A New Nurse–Physician Partnership in Chronic Care

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To the many brave patients who struggle every day to cope with chronic illnesses in the chaotic U.S. health care system
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The quality of medical care for older Americans and the future of American primary care are tightly linked. The vast majority of multiproblem older patients receive their care in primary care, and will continue to do so for the foreseeable future. But primary care is in crisis with looming physician shortages, and burnt out, unhappy practitioners working harder and harder. The burnout is almost certainly linked to their progressively older and sicker practice populations, which have made the work of primary care more complicated and time-consuming. Primary care has been described as being on a hamster wheel running faster and faster just to keep up. As a result, primary care physician visits are more rushed, which makes it even more difficult to meet the needs of older patients. The future of primary care and the quality of care for older, sicker adults may well depend on finding approaches to improving the efficiency and effectiveness of their primary care.

Several different strategies have been tried to remedy this problem with only limited success to date. The most common has been nurse care management, whereby nurses outside the practice provide educational, supportive, and some clinical services to high-risk patients. In most of these interventions, the nurses have little or no face-to-face contact with patients or their medical care team, which may account for their minimal impact on patient health and function (Chen, Brown, Esposito, Schore, & Shapiro, 2008). Three other tested interventions have attempted to locate nurses and other geriatric providers in primary care practices. Our group tested an intervention that had a geriatrician and geriatric nurse practitioner regularly see patients in primary care practices and make recommendations to the primary care team. We found no evidence of improvements in health or health care utilization such as reduced hospital visits (Phelan et al., 2007). We attributed the lack of impact to two factors: first, the team made recommendations rather than comprehensively managing the patient’s care; and second, though co-located, the geriatrician and geriatric nurse practitioner
were consultants rather than integral parts of the primary care team. Counsell and colleagues (2007) put a geriatric nurse practitioner and social worker in primary care clinics. Supported by explicit protocols and a multidisciplinary geriatric team, the nurse practitioner and social worker managed complex older patients in concert with the primary care practitioner. This intervention proved to be superior to usual care as measured by quality of care, patient health status, and health care utilization. But the high costs and complexity of the intervention raise important questions about its feasibility and dissemination.

The third intervention, Guided Care, also appears to be effective in improving care and reducing expensive health care utilization, but has the added advantage of being relatively low cost and simple, yet fully integrated with the primary care practice (Boult et al., 2008; Boyd et al., 2007). Because it only involves adding a registered nurse to the practice team, Guided Care may prove to be the most cost-effective way to respond to the needs of multiproblem older patients and their primary care teams. This book is an eminently practical and readable manual to help health care organizations fully consider Guided Care, and, if interested, implement it. It covers every aspect of the intervention from hiring nurses to assuring financial viability.

Until recently, many health care leaders and policy makers questioned whether primary care could ever provide high quality chronic illness or geriatric care. As a consequence, huge sums of money have been diverted to external nurse care management programs on the assumption that they would improve costs and outcomes by working around or bypassing primary care. On the one hand, evidence to date has not confirmed this assumption (Chen et al., 2008; Gravelle et al., 2007). On the other hand, Guided Care (Boult et al., 2008) and the work of Counsell and colleagues (2007) have reassured us that, with additional resources, primary care can provide quality geriatric care. The challenge now is to demonstrate that these interventions can be implemented and effective outside of the externally funded research context, and this book is an important step in that direction.

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This is a book about transformation. Its primary goal is to help medical practices transform their management of patients with several chronic health conditions from the fragmented, depersonalized, inefficient chronic care of today to a new model of coordinated, patient-centered, cost-effective chronic care for tomorrow. We hope that it helps catalyze the transformation of chronic care across America in time to meet the needs of the baby boom generation as its members grow older and experience the challenges of living with chronic diseases.

The book is designed to meet the informational needs of all of the people involved in providing chronic care in outpatient practices: nurses, physicians, practice administrators, office staff members, and executives of health care delivery systems. We encourage everyone to read the entire book, but some may choose to read only those sections that are most relevant to their individual needs. To accommodate these section readers, the book includes certain information in more than one chapter, so that each chapter is comprehensible regardless of whether it is read in sequence or in isolation.

The new model is called “Guided Care.” Shaped by the lessons of 30 years of research in chronic care, Guided Care is designed to translate the best available scientific evidence and the most effective health care processes into routine use in most primary care practices (and in some specialty practices) in the United States. Early studies have shown that Guided Care improves the quality of chronic care (Boult et al., 2008; Boyd et al., 2008) and tends to decrease the costs of care, primarily by reducing the use of inpatient facilities (Leff et al., 2008; Sylvia et al., 2008).

Guided Care is not the only model of comprehensive chronic care to show promise recently. Others, which share many features with Guided Care, include Care Management Plus (Dorr, Wilcox, Brunker, Burdon, & Donnelly, 2008), Geriatric Resources and Care for the Elderly (GRACE)
(Counsell et al., 2007), Improving Mood: Promoting Access to Collaborative Treatment (IMPACT) for depression (Unutzer et al., 2002), and team-based care for dementia (Callahan et al., 2006). Each of these models may improve the processes and outcomes of chronic care in the years ahead. Each deserves watching.

This book describes why and how we created the Guided Care model, how it operates, how it affects clinical and financial outcomes, how practice leaders can determine whether Guided Care is right for them and, if it is, how they can adopt and operate it in their practices. Based on the authors’ experience in developing and refining Guided Care, the book contains much pragmatic advice and many practical tools, which readers are encouraged to use in their practices. Chapter 7 contains descriptions of and numerous links to other sources of educational and technical assistance for those who wish to adopt the processes of Guided Care in their practices.

Perhaps most valuable, this book describes how practices that participate in the demonstrations of the medical home that are starting in 2009 can obtain supplemental payments to cover the many Guided Care health-related services that are not reimbursed under the contemporary fee-for-service system that pays for most health care in America. The book explains how adopting Guided Care could quickly help transform a struggling practice into a high-functioning medical home that could participate in (and receive supplemental payments from) medical home demonstrations being conducted across the United States by the Centers for Medicare & Medicaid Services (CMS), Blue Cross and Blue Shield plans, other health plans, state Medicaid agencies, and large self-insured employers.

In describing this process, the book points out the similarities and differences between the medical home and the Guided Care models of care. Both models seek to improve the quality and outcomes of care by providing chronically ill patients with easy access to comprehensive, continuous, patient-centered, evidence-based, cost-effective health care. Both rely on health information technology and interdisciplinary teams of physicians, nurses, and other health professionals to deliver care. Both must increase the efficiency of the health care system if they are to become widely adopted and sustainable throughout the decades ahead.

The medical home model, however, is broader than the Guided Care model. As defined by CMS, medical homes must provide certain technological processes—such as the use of electronic registries—that are not required in the Guided Care model. Medical homes also pro-
vide supplemental services to all chronically ill Medicare beneficiaries in the practice, whereas Guided Care focuses primarily on the 25% most high-risk beneficiaries. So far, only the Guided Care model has shown improvements in quality of care and trends toward lower health care costs in rigorous scientific studies.

In anticipation of an increasing demand for well-trained Guided Care nurses, the American Nurses Association’s American Nurses Credentialing Center (ANA/ANCC) has partnered with the Institute for Johns Hopkins Nursing to create an online course in Guided Care Nursing that will be available at http://www.ijhn.jhmi.edu/contEd_3rdLevel_Class.asp?id=SpecialtyHome&numContEdID=5 in April 2009. Upon completing this course, nurses will be eligible to take an online examination and, if successful, receive a Certificate in Guided Care Nursing from the ANCC. An outline of this course is presented in Appendix A: Online Courses.

The book’s Appendix D: Centers for Medicare & Medicaid Services’ Medicare Medical Home Demonstration (MMHD) provides many details about CMS’s MMHD that specify:

- Which services a practice must provide to be recognized as a fully implemented (Tier 2) medical home.
- The type of health information technology required to be a Tier 2 medical home.
- The diagnoses that make Medicare beneficiaries eligible to participate in the MMHD and, thereby, to generate supplemental payments to participating practices.
- Projections of the amount of supplemental payments a Tier 2 medical home will receive.
- How a practice could use these supplemental payments to cover the costs of providing Guided Care for its sickest patients, providing medical home services for its other chronically ill patients, and acquiring and operating the required health information technology.

We hope you find this book to be clear, concise, pragmatic, helpful, and reasonably up-to-date. Developments related to demonstrations of the medical home, studies of Guided Care, and advancements in chronic care are evolving rapidly, however, so we urge you to visit www.GuidedCare.org and the other Web sites provided throughout this book to keep abreast of the latest information.
REFERENCES


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Photo 1.1 Ben Baker, a Guided Care patient.

CREDIT: Photo by Larry Canner.
On January 1, 2011, the American baby boom generation will begin reaching age 65. By 2029, all surviving baby boomers will have entered their golden years, and the population of the United States will include a greater number of older persons than ever before. The U.S. Census Bureau projects that the population of Americans age 65 and older will number 40 million in 2010, nearly 55 million in 2020, and more than 70 million in 2030 (see Figure 1.1).

Some older Americans are healthy, but many others—especially the “oldest old”—have chronic conditions that require complex health care (see Figure 1.2). As the population ages, the number of people with common age-related chronic conditions, such as cancer, hypertension, heart failure, coronary disease, diabetes, stroke, obesity, depression, chronic obstructive pulmonary disease (COPD), and dementia, will rise rapidly. Unless scientists make unprecedented breakthroughs in preventing or curing these conditions soon, the United States will face a pandemic of chronic diseases in the approaching decades.

For 30 years, experts have warned that the United States’ health care system, which is focused primarily on caring for acute illnesses and injuries, will be unprepared to provide adequate chronic care for the aging baby boomers (Institute of Medicine, 1978; Institute of Medicine, 1987). Despite these admonitions, America’s health care
policy makers, providers, and insurers have not developed the capacity to provide good chronic care. Its hospitals, nursing homes, outpatient clinics, and home care agencies still operate as uncoordinated “silos” (Institute of Medicine, 2001), much of its physician workforce is inadequately trained in chronic care (Salsberg & Grover, 2006), and the quality and efficiency of chronic care in America remains “far from optimal” (Institute of Medicine, 2001; Salsberg & Grover, 2006; Wenger et al., 2003). In a recent study of health care in six developed nations (the United States, Australia, Canada, Germany, New Zealand, and the United Kingdom), the United States ranked fifth in quality and sixth in access, efficiency, and equity. Nevertheless, per capita health care expenditures were two to three times greater in the United States than in the other nations (see Figure 1.3) (Davis et al., 2007).

The cost of fragmented, chronic care is extraordinarily high. As shown in Figure 1.4, Medicare beneficiaries who have five or more chronic conditions generate two-thirds of all Medicare spending, and
those with four or more chronic conditions account for 80% (Wolff, Starfield, & Anderson, 2002). Much of this spending, which totaled $425 billion in 2007 (Paulson, Chao, Leavitt, Astrue, & Weems, 2008), could be avoided if patients with multiple chronic conditions—such as heart failure, coronary disease, COPD, depression, and diabetes—were monitored regularly, were provided with timely evidence-based ambulatory care, and therefore would require fewer hospital admissions (Wolff et al., 2002). Today, however, Medicare beneficiaries with four or more chronic conditions are 99 times more likely to be admitted to hospitals for “ambulatory care-sensitive conditions” than beneficiaries with only one condition (Wolff et al., 2002). The deteriorating finances of the Part B Medicare program recently mandated congressional intervention, and the trust fund that finances Medicare Part A was projected (before the 2008 recession) to become insolvent by 2019 (Paulson et al., 2008).

Medicare beneficiaries’ (and their families’) out-of-pocket costs are also high. In 2008, beneficiaries were responsible for paying the costs of:
Guided Care

Medicare Part A deductibles ($1,024 per benefit period, i.e., the first 60-day period following each admission).

Medicare Part A co-payments (20% for most services).

Medicare Part B premiums ($96 to $238 per month, depending on income).

Medicare Part B deductibles ($135 per year).

Medicare Part B co-payments (20% for most services).

Medicare Part D premiums (average of $300 per year).

Medicare Part D deductibles ($285 per year).

Medicare Part D co-payments (25% of the first $2,000 after paying the deductible, then 100% of the next $5,000).

Goods and services not covered by Medicare, such as eyeglasses, hearing aids, dental care, and custodial long-term care at home, in assisted-living facilities, or in nursing homes (15.5% of beneficiaries’ income) (Boult, 2006; Neuman, Cubanski, Desmond, & Rice, 2007).

Figure 1.3 Health care ratings in six developed nations.

Consider the case history of Mr. Ben Baker, an 81-year-old widowed, retired teacher who has been living on Social Security, a modest pension, and traditional fee-for-service Medicare. Mr. Baker has hypertension, diabetes, heart failure, mild cognitive impairment, osteoarthritis, and depression, for which he takes eight prescription medications each day. His 46-year-old daughter, Helen, who lives across town with her husband and three teenage children, works as an elementary school teacher and is Mr. Baker’s primary source of assistance and emotional support. Dr. Lisa Simpson, a primary care physician, sees Mr. Baker approximately every 3 months at routine office visits. Mr. Baker also sees a cardiologist and an orthopedist regularly.

Unfortunately, exacerbations of heart failure have required three episodes of hospital care for Mr. Baker during the past year, each followed by 2 weeks in a skilled nursing facility and several weeks of home health care. Each time he has returned home, Mr. Baker has been weak, depressed, and confused about the medicines he should take and the diet he should follow. Although he has Medicare Parts A, B, and D, his out-of-pocket costs for premiums, deductibles, co-payments, and items not covered by Medicare have totaled more than $5,000 during the past year. Helen, stressed by the many tasks involved in caring for her father and her children, has decreased her teaching (and her income) by 50% and is considering placing her father in a nursing home.

Dr. Simpson is concerned that Mr. Baker may not be safe living alone and that he may not be taking all of his prescribed medications correctly or adhering to his low-salt diet. She is also not sure what medications, diet, or activities Mr. Baker’s other doctors have recommended.
Dr. Simpson wishes that she had more time to talk to Mr. Baker and his daughter, but the office visits (for each of which Dr. Simpson receives only $48 from Medicare) last barely long enough for her to do a cursory physical examination and renew the necessary prescriptions.

Older Americans like Mr. Baker need comprehensive, continuous, coordinated primary care, but the availability of primary care in the United States is declining. In 1998, more than half of internal medicine residents chose careers in primary care; now, about 80% become subspecialists or hospitalists (see Figure 1.5) (Bodenheimer, 2006). Similarly, between 1997 and 2008, the number of graduates of U.S. medical schools entering family medicine residencies dropped by 50% (see Figure 1.6). Further exacerbating this trend, many practicing primary care physicians are retiring early as a result of poor remuneration, administrative burdens, and competition from hospitalists, “SNFists” (physicians who practice primarily in skilled nursing facilities), midlevel practitioners, urgent care centers, and “retail clinics” located in large commercial stores.

As this worsening shortage of primary care converges with the growing pandemic of chronic disease, America stands at a dangerous

![Figure 1.5](Image)

**Figure 1.5** Proportions of 3rd-year internal medical residents choosing careers as generalists, subspecialists, and hospitalists.

crossroads (Kane, 2002). If the nation continues on its current course, health care (and health) for people with chronic conditions will deteriorate further and will soon become unsustainably expensive. To change course and confront the looming crisis in chronic care will require courage, leadership, and commitment by national leaders. Within the next 10 years, the United States needs to transform its health care delivery system (Martin et al., 2004) and train its health care professionals to practice the principles of high-quality chronic care (Boult, Christmas, et al., 2008).

So far, attempts to improve the care of Americans with chronic conditions have produced disappointing results. Case management has been used as a complement to primary care to coordinate health care for patients at risk for a variety of undesirable outcomes. Some programs have succeeded in containing costs and increasing patient satisfaction among certain groups of patients, but studies of case management programs

Figure 1.6 Family medicine positions offered and filled with U.S. medical school seniors in March 1997–2008.

that target older patients with multiple chronic conditions have reported little benefit. Significant obstacles to success have included lack of adherence to evidence-based “best practices” and poor coordination with primary care in planning care and sharing information (Pacala et al., 1995).

Disease management programs have sought to improve the quality and outcomes of health care for chronically ill populations defined by specific diagnoses. Disease management programs identify eligible patients from insurance records, compile extensive information about their health, and use it to monitor, educate, empower, and remind (usually by telephone) patients to engage in behaviors that are likely to lead to desirable health outcomes. They also send current clinical information about patients and guidelines for treatment to patients’ physicians to encourage them to follow best practices in treating chronic conditions like diabetes and heart failure. Studies of disease management programs for nonelderly patients have reported improvements in outcomes, but most studies of disease management for older patients with several chronic conditions have reported effects on costs that are inconclusive, negative, or difficult to apply to the general population of older persons (Holtz-Eakin, 2004; Ofman et al., 2004).

In the Centers for Medicare & Medicaid Services’ large national Medicare Health Support pilot program (Linden & Adler-Milstein, 2008), disease management of beneficiaries with diabetes, heart failure, or COPD failed to achieve the short-term (3-year) cost savings for Medicare that were required for the program to progress from phase one to phase two. Thus, the program stopped providing disease management services in 2008 while debate about the interpretation of its results continued.

Other attempts to improve chronic care have been based on the principle of “pay-for-performance.” In these programs, health care providers receive bonus payments if they document (usually on insurance claims) their adherence to preestablished performance standards, such as prescribing appropriate medications and performing appropriate laboratory tests, and if their patients adhere to their recommendations. Studies have confirmed that sufficient payment does induce providers to increase their documented adherence to the agreed upon performance standards (Campbell et al., 2007), but the effects of pay-for-performance on patients’ health status, quality of life, and costs of care remain uncertain. Unfortunately, it is very difficult to define, document, and reward excellence in some of the most essential elements of good chronic care, such as care coordination, proactive monitoring, and patient empower-
As a result, there is serious concern that pay-for-performance incentives for prescribing and testing may lead providers to shift their attention away from care coordination, monitoring, and empowerment. Of equal concern is the possibility that pay-for-performance incentives may discourage physicians from caring for patients who have difficulty adhering to their recommendations.

A conceptual model for improving chronic care is known as the Chronic Care Model (CCM) (see Figure 1.7). This model posits that redesign of the delivery system, enhanced decision support, improved clinical information systems, support for self-management, and better access to and communication with community resources would improve clinical and financial outcomes for people with multiple chronic conditions (Bodenheimer, Wagner, & Grumbach, 2002).

In support of the Chronic Care Model, a review of numerous studies (Bodenheimer, 2003) has shown that improvements in its individual components can improve clinical outcomes and efficiency in outpatient services.
settings (Boult et al., 2001; Boult, Green, et al., 2008; Callahan et al., 2006; Cohen et al., 2002; Lorig et al., 2001; Phelan, Williams, Penninx, LoGerfo, & Leveille, 2004; Reuben, Frank, Hirsch, McGuigan, & Maly, 1999; Sommers, Marton, Barbaccia, & Randolph, 2000; Unutzer et al., 2002), in the home (Stuck, Egger, Hammer, Minder, & Beck, 2002), and during transitions between sites of care (Coleman, Parry, Chalmers, & Min, 2006; Naylor et al., 1999). Promising new models of comprehensive chronic care include Care Management Plus (Dorr, Wilcox, Brunker, Burdon, & Donnelly, 2008), and Geriatric Resources and Care for the Elderly (GRACE) (Counsell et al., 2007).

Unfortunately, current insurance reimbursement for such services is very limited, and most general internal medicine (GIM) and family medicine physicians have not been trained to provide them (Darer, Hwang, Pham, Bass, & Anderson, 2004; Rubin, Stieglitz, Vicoso, & Kirk, 2003; Warshaw, Bragg, Brewer, Meganathan, & Ho, 2007). As a result, few medical practices offer these progressive services to their patients.

“Medical home” is a term that denotes health care practices that provide comprehensive, coordinated, continuous care to their patients, including those with chronic conditions that require complex health services. Sometimes referred to as “the advanced medical home” or “the patient-centered medical home,” the medical home operationalizes most of the concepts of the Chronic Care Model by incorporating the operative principles of many of the above cited innovations.

In December 2006, the Congress passed and the President signed into law the Tax Relief and Health Care Act (Public Law 109–432), which requires the Centers for Medicare & Medicaid Services (CMS) to conduct a 3-year Medicare Medical Home Demonstration (MMHD) in eight states for “high-need Medicare beneficiaries” with “multiple chronic conditions.” This law requires CMS to provide care management fees and shared savings (in addition to traditional fee-for-service payments) to qualified medical homes whose physicians and staff members provide at a minimum the following four medical home services:

- Comprehensive, integrated, cross-disciplinary care.
- Evidence-based medicine.
- Tracking patients’ health status and providing them with convenient access to care through the use of health information technology.
Supporting patients’ management of their own conditions.

To become recognized as a medical home and, therefore, eligible to participate in the MMHD, practices must provide numerous supplemental services required by CMS (see Appendix D: CMS’s Medicare Medical Home Demonstration). Practices have the discretion to decide how they will provide these services; some options include:

- Outsourcing certain services (e.g., contracting with disease management companies that track patients’ health status and encourage patients and physicians to adhere to best practice guidelines).
- Training and reorganizing their current physicians and other staff members to provide the supplemental medical home services (e.g., coordinating patients’ care and coaching patients and families in self-management).
- Adding to their office staff new clinicians who provide medical home services (e.g., Guided Care nurses [Boyd et al., 2007]).

Outsourcing medical home services is appealing in its simplicity. For example, a practice could contract with a commercial disease management company to monitor its diabetic patients and provide them with health education and reminders to adhere to best practice guidelines in managing their diabetes and other conditions. Disadvantages to this approach include: its disappointing results in the recent Medicare Health Support pilot; its inability to provide “comprehensive, integrated, cross-disciplinary care”; its dissociation from primary care; and its cost to the practice.

Upgrading a practice to the status of medical home by training and redeploying its current physicians and other staff members to provide the required medical home services is another option. An attractive advantage of this approach is economic: the practice would retain all supplemental medical home fees without incurring the costs of hiring additional staff members or paying a third party to provide disease management services.

Disadvantages include the cost, feasibility, and uncertain effectiveness of training and redeploying the practice’s physicians and other staff members. Although most physicians could learn to provide medical home services, the costs associated with their learning and providing these services (including the revenue lost by shifting effort from office
visits to supplemental medical home services) might exceed the medical home revenue to the practice. The practice’s clerical staff and medical assistants would be less expensive to train and redeploy, but the outcomes of assigning such staff to monitor the health status of patients with multiple morbidities, coordinate their care with other providers, and coach them in behavior modification are doubtful and have never been evaluated.

Integrating new clinicians into the office staff is a third option for helping to upgrade practices to medical home status. As described in the next chapter, a specially trained registered nurse, for example, a Guided Care nurse (Boyd et al., 2007), and a licensed practical nurse, could work in partnership with the practice’s physicians and other staff members to provide most medical home services to patients with chronic conditions. Advantages to this approach include: simplicity (specialist nurses are responsible for most services), compatibility with current practice (it requires only minor role changes for existing physicians and office staff), efficiency (it aligns nursing roles with nursing skills), accessibility (free online training is available for registered nurses, further explained in Appendix A: Online Courses), improved quality of care (Boult, Reider, et al., 2008; Boyd et al., 2008), high job satisfaction by physicians and nurses (Boult, Reider, et al., 2008), and lower health care costs (Leff et al., 2008; Sylvia et al., 2008). A disadvantage of adding clinicians is the cost of the clinicians, that is, salary, benefits, space, equipment, and travel. Such costs can be covered, however, by the care management fees and shared savings payments made by CMS to qualified medical homes that participate in the MMHD.

The following chapters provide detailed descriptions of how Guided Care operates clinically and financially, how it fits (or not) in different practices, how it affects outcomes, and how traditional practices could provide many medical home services by adopting the Guided Care model.
Photo 2.1 A Guided Care nurse conducting an initial health assessment in a patient’s home.