Contract No.: 500-95-0047 (09)
MPR Reference No.: 8756-320

MATHEMATICA
Policy Research, Inc.

The Hospice of the Valley's Medicare Coordinated Care Demonstration Program After One Year

Final Report

April 29, 2005

Nancy Archibald
Jennifer Schore
Randall Brown
Deborah Peikes
Sean Orzol

Submitted to:

Centers for Medicare & Medicaid Services
Office of Strategic Planning
C30-20-17
7500 Security Boulevard
Baltimore, MD 21244

Project Officer:
Carol Magee

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile:(609) 799-0005

Project Director:
Randall Brown

ACKNOWLEDGMENTS

We would like to thank the many individuals who contributed to the preparation of this report. Hospice of the Valley's MediCaring project staff including Beth Hale, Dr. Gillian Hamilton, Deb Shumway, and Cheryl Thomas answered our many questions about the operation of their project. We also extend our thanks to MediCaring's care coordinators: Mary May and Marilynn Stabel. Their examples of typical care coordinator-patient interactions provided invaluable insight into the MediCaring project's care coordination model. We especially thank three CMS staff members—Carol Magee (project officer for the evaluation), Cindy Mason (project officer for the demonstration), and Renee Mentnech (Director, Division of Beneficiary Research) for their overall guidance and ongoing support.

Several other staff members at Mathematica Policy Research made important contributions to this report. Programmers Amy Zambrowski, Nazmul Khan, Stephanie Chin, and Licia Gaber skillfully processed Medicare claims data, Medicare enrollment data, and program data. Bob Schmitz provided valuable critical comments on an earlier draft of the report. Patricia Ciaccio edited and Jane Nelson produced this report. Any remaining errors or omissions are the responsibility of the authors.

CONTENTS

Page

EXECUTIVE SUMMARY ix

INTRODUCTION 1

DATA SOURCES AND METHODOLOGY 2

Implementation Analysis 2
Participation Analysis 2
Impact Analysis 3

OVERVIEW OF THE MEDICARING™ PROJECT 5

Project Organization and Relationship to Physicians 5
Project Approaches 7
Target Criteria and Patient Identification 7
Assessment, Care Planning, and Monitoring 10
Staffing and Project Quality Management 17

WHO ENROLLS IN THE PROJECT? 19

Enrollment After One Year 20
Percent of Eligible Beneficiaries Participating 22
Comparison of Participants and Eligible Nonparticipants 22
Satisfaction and Voluntary Disenrollment 26

TO WHAT EXTENT DOES THE PROJECT ENGAGE PHYSICIANS? 27

Working Relationships with Physicians 29
Improving Practice 31

HOW WELL IS THE PROJECT IMPLEMENTING KEY INTERVENTION APPROACHES? 32
Improving Communication and Coordination 32
Improving Patient Adherence 35
Increasing Access to Services 39

Page

WHAT WERE ENROLLEES' MEDICARE SERVICE USE AND COSTS? 40

CONCLUSION 46

Project Strengths and Unique Features 47
Potential Barriers to Project Success 48
Plans for the Second Site-Specific Report 50

REFERENCES 51

APPENDIX A: ADDITIONAL TABLES A.1

APPENDIX B: METHODS USED TO ANALYZE PARTICIPATION AND PROGRAM IMPACTS B.1

APPENDIX C: SELECTED PROGRAM DOCUMENTS C.1

TABLES

Table		Page
1	CARE COORDINATOR CONTACTS WITH PATIENTS DURING FIRST SIX MONTHS	13
2	CHARACTERISTICS OF ALL PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS DURING THE FIRST SIX MONTHS OF PROJECT ENROLLMENT	24
3	DISENROLLMENT FOR PATIENTS ENROLLED DURING FIRST SIX MONTHS	28
4	MEDICARE-COVERED SERVICE USE DURING THE TWO MONTHS AFTER THE MONTH OF RANDOMIZATION, FOR EARLY ENROLLEES	41
5	MONTHLY MEDICARE SERVICE USE FOR PARTICIPANTS WHO ENROLLED DURING THE FIRST SIX MONTHS OF PROJECT OPERATIONS	44
A.1	DEMONSTRATION PROGRAMS PARTICIPATING IN THE EVALUATION	A.3
A.2	DOCUMENTS REVIEWED FOR THIS REPORT	A.7
B.1	ELIGIBILITY CRITERIA	B.4
B.2	SAMPLE OF ALL ELIGIBLE BENEFICIARIES FOR PARTICIPATION ANALYSIS	B.9
B.3	SAMPLE OF ELIGIBLE PARTICIPANTS FOR PARTICIPATION ANALYSIS	B.10
B.4	CHARACTERISTICS OF ELIGIBLE PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS DURING THE FIRST SIX MONTHS OF PROJECT ENROLLMENT	B.13
B.5	SAMPLES FOR TREATMENT-CONTROL COMPARISONS	B.17
B.6	CHARACTERISTICS OF TREATMENT AND CONTROL GROUPS IN THE RESEARCH SAMPLE ENROLLED DURING THE FIRST FOUR MONTHS AND SIX MONTHS OF PROJECT ENROLLMENT	B.18

TABLES *(continued)*

Table **Page**

B.7 MEDICARE-COVERED SERVICE USE DURING THE MONTH OF RANDOMIZATION AND THE FOLLOWING TWO MONTHS FOR EARLY ENROLLEES B.22

EXECUTIVE SUMMARY

The Medicare Coordinated Care Demonstration, mandated by the Balanced Budget Act of 1997, is testing a range of models aimed at improving the care of chronically ill beneficiaries with Medicare fee-for-service coverage. Fifteen projects are participating in the demonstration sponsored by the Centers for Medicare & Medicaid Services (CMS). Mathematica Policy Research, Inc. (MPR) is evaluating the demonstration using both implementation analysis and impact analysis based on a randomized design. This report is one of a series that will describe each project during its first year and will provide estimates of its impact on Medicare service use and costs during the first six months of project operation.

Research over the past decade suggests that successful care coordination usually has several features. These include ***effective patient identification***, ***highly qualified staff***, ***physician buy-in***, and ***financial incentives*** aligned with project goals. Successful projects also offer a well-designed, structured intervention that typically includes:

- A multifaceted assessment whose end product is a ***written care plan*** that can be used to monitor patient progress and that is updated as the patient's condition changes
- A process for providing ***feedback to care coordinators, project leaders, and physicians*** about patient outcomes
- ***Patient education*** that combines the provision of factual information with techniques to help patients change self-care behavior
- Procedures for ***integrating fragmented care***, ***facilitating communication*** among providers, and, when necessary, ***arranging for community services***

The ultimate purpose of this report series is to assess the extent to which demonstration projects have these features, as well as describe early enrollees in the projects and their Medicare service use and costs during the first few months after enrollment. Information for the report comes from telephone and in-person contacts with project staff, and analysis of Medicare and project-generated data. The next report series will focus on Medicare service use and costs over a longer time and will include all first-year enrollees.

This report describes Hospice of the Valley's Medicare Coordinated Care Demonstration (MCCD) project, which it has called "MediCaring™". After presenting an overview of Hospice of the Valley's MCCD, the report addresses the following questions: Who enrolls in the project? To what extent does the project engage physicians? How well is the project implementing its approaches to improving patient health and reducing health care costs? What were enrollees' Medicare service use and costs during the project's first months of operation? Thereafter follows a discussion of the project's strengths and unique features, as well as potential barriers to project success.

Project Organization and Approaches. Hospice of the Valley was founded in 1977 and is now one of the largest hospices in the country. It provides home-based as well as in-patient hospice services to patients in the Maricopa County, Arizona area, which includes Phoenix and its suburbs. The prototype for the MediCaring™ project was PhoenixCare a demonstration of palliative care and care coordination developed by Hospice of the Valley under a Robert Wood Johnson Foundation *Excellence in End-of-Life Care* grant. PhoenixCare, which operated from 1999 to 2002, was a randomized, controlled study targeting patients with congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and cancer. The project enrolled 240 patients from Medicare+Choice, Medicaid, and commercial managed care plans. Hospice of the Valley's demonstration staff reported that the project successfully developed strong community support and received a positive response from patients. Data on the outcomes of the demonstration have not been released to date.

The staff for the current demonstration project consists of a project director, a medical director, an enrollment coordinator, five care coordinators, and a social worker. The project director also supervises the care coordinators; she will be referred to as the care coordination supervisor for the remainder of the report. The medical director is a geriatrician and clinical psychologist who was also the medical director for the PhoenixCare project. Her day-to-day involvement in the demonstration includes participation in the project team's care planning meetings; review of patient cases with the care coordinators; and communication with community physicians, patients, and families participating in the demonstration.

The project's goals are to improve patient health and reduce the use of costly health care services by (1) promoting better communication and coordination between patients and providers, (2) improving patients' self-care skills and adherence to treatment recommendations, and (3) increasing access to non-Medicare services. To this end, the project teaches patients strategies to better communicate with their physicians. The project also assesses patients' willingness to make behavioral changes and sets goals based on their readiness to change. While increasing access to services is not the project's primary focus, its care coordinators and social worker help patients to identify and arrange for the community-based support services they need to remain at home. The project would like to improve physicians' understanding and acceptance of care coordination but does not expect to influence clinical practice patterns.

Patient Identification. In August 2002, the MediCaring™ project began enrolling fee-for-service Medicare beneficiaries residing in Maricopa County, Arizona with advanced stages of CHF, COPD, cancer, or neurological disease. At the start of the project, all patients were required to have had an inpatient admission or emergency room visit (for any diagnosis) in the six months preceding enrollment. However, the project staff found that this requirement made many potential patients ineligible. In January 2003, the project received permission from CMS to extend the service use reference period to the year preceding enrollment. As in all MCCD demonstration projects, beneficiaries must also meet three CMS requirements: (1) be enrolled in Medicare Parts A and B, (2) not be in a Medicare managed care plan of any kind, and (3) have Medicare as their primary payer.

In its prototype project, Hospice of the Valley identified many individuals who had a declining health status and had been repeatedly hospitalized, but who were not terminally ill and did not qualify for hospice care. The project believed that these individuals could benefit from

care coordination, and thus, it chose to target the demonstration project to this group. However, Hospice of the Valley also found that these individuals did not necessarily see their health as being on a terminal course and so the project was entitled MediCaring™ to distance it from the association with hospice care.

In the first year of the demonstration, the project used two methods to identify potential participants. The first was to obtain lists of patients recently discharged from the hospital. These lists were obtained from six hospitals and a hospitalist physician group. The lists included the patient's name, address, telephone number, diagnosis, and hospital discharge date. In its hospice and PhoenixCare work, Hospice of the Valley had developed good working relationships with its area hospitals and the hospitalist physicians. Thus, the project staff believed that these would be the best sources of patients, especially given the project's original requirement for hospitalization within six months preceding enrollment. Its second method of identifying potential patients was to solicit direct referrals. Through its hospice projects and its PhoenixCare project, Hospice of the Valley had developed relationships with community physicians, skilled nursing facilities, and home health agencies. The project mailed an information packet describing the demonstration to these sources and used its business development staff to solicit patient referrals during contacts with providers.

After receiving potential patients' names from lists or direct referrals, the project staff verify their Medicare eligibility. Then the project's enrollment interviewers call patients to explain the project and gauge their interest. The project does not send any written material about itself to patients referred from lists prior to the call. The project had wanted referral sources that provided lists to explain the demonstration to patients and endorse it, but these referral sources have been unwilling to play that role, citing the time constraints faced by hospital discharge planners and the physicians caring for the patients in the hospital. In contrast, those sources providing direct referrals usually discuss the project with their patients or allow the project staff to send introductory letters to patients on their behalf. If a patient is interested in the project, the enrollment interviewer schedules an in-home visit to explain the project further and obtain informed consent. MPR then randomly assigns those who consent either to receive care coordination in addition to regular Medicare benefit (the treatment group) or to receive regular Medicare benefits only (the control group).

Assessment, Care Planning, and Monitoring. All patients receive a comprehensive assessment, based on the Outcome and Assessment Information Set (OASIS), the assessment tool used by all Medicare home health agencies. The assessment examines the patient's medical history, current clinical status, functional status, nutrition status, home safety, medication management, living arrangements, and social supports. The care coordinator reviews each medication the patient is taking and the reason he or she takes it. The care coordinator also does a physical assessment and a pain management assessment. The care coordinators will contact patients' primary care physicians to obtain copies of recent patient histories, physical examinations, or progress notes to more completely understand the information they obtain in the assessment. At the start of the project, the staff sent copies of the initial assessment and care plan to patients' primary care physicians. However, they discontinued this because the physicians said the plans were too nursing-oriented and contained too much unsummarized information.

Care coordinators use the results of the initial assessment to develop care plans for each patient. They use a template that identifies common care coordination challenges (for example, knowledge deficits, inadequate medical care, unsafe environment, or lack of social supports) to select the key issues that may lead to an individual being hospitalized. The care coordinator then selects a corresponding intervention(s) from the template that become the focus of care coordination for that patient. Then the care coordinator presents the patient's case to the care coordination supervisor and medical director, summarizing the assessment and outlining the care plan. Together they set specific objectives for the patient and a timeline for accomplishing these goals. The care coordinator establishes a preliminary schedule of patient monitoring contacts with which to work toward the care plan goals. The care coordinators involve patients in goal setting by asking patients what is important to them and incorporating patients' priorities into the care plan. The care coordinators review care plans with patients and their caregivers or family. The care coordinators update the care plans as patients' needs change, or after periodic review by the care coordination team.

For monitoring purposes, the project divides patients into two levels of care. For the first six months, all patients are placed in Level 2 in which they receive monitoring contacts based on their individual acuity and needs. However, the care coordinator may decide to monitor patients more frequently. After six months, if the patient's goals have been met and the patient has not had a hospital admission or emergency room visit, the project moves them to Level 1 in which they receive monthly telephone monitoring. During all monitoring contacts, the care coordinator informally reassesses the patient's symptoms using key items from the project's assessment form, identifies new service needs and changes in medications, provides patient education, monitors test results and services already in place, and provides emotional support.

The care coordinators are available to patients during normal working hours from Monday through Friday. If patients have questions or problems outside of normal office hours, they may call Hospice of the Valley's telephone triage nurses, who have been trained in the project's policies and protocols. The care coordinators also occasionally perform emergency in-home visits to provide hands-on care, such as administering medications or adjusting equipment. In such cases, the care coordinator calls the physician and receives a verbal order to provide the needed care.

Staffing and Project Quality Management. Both maintaining and improving care quality and ensuring that projects attain their goals require that staff have adequate qualifications, training, and supervision and that management has the tools and support to monitor project progress toward those goals. The MediCaring™ project requires its care coordinators to be registered nurses (preferably baccalaureate-prepared) with two years of recent experience in medical, surgical, or cardiac care nursing. The project also prefers (but does not require) some experience in telemedicine, disease management, home health, or hospice nursing. Training includes a week-long orientation to Hospice of the Valley and one day of training on the MCCD, which includes a review of the project's policies and protocols, forms, patient education resources, and information systems. New care coordinators also spend up to two months conducting joint patient visits with more experienced care coordinators. The care coordination supervisor, care coordinators, and medical director meet weekly to review patients, analyze significant adverse events, and discuss problems the care coordinators have encountered. In

addition, the care coordination supervisor meets on an ad hoc basis with individual care coordinators to discuss specific patients and care coordination issues.

The project uses HomeWorks™, its case management software, to collect data on nine quality measures (for example, the percent of referred patients who enroll in the project, the percent of patients who disenroll, and the ratio of clinical staff to patients). However, the care coordination supervisor has reported that, overall, the data from these indicators have not been very useful for project management. The one exception to this is the report of hospitalizations and emergency room visits. The care coordination supervisor is able to generate several other reports from HomeWorks that she does use to manage the project. These include reports of referrals, patient demographics, patients with more than two hospitalizations, summary of completed goals, and hospitalizations by diagnosis. In October 2004, the project began to collect data on patient outcomes, such as changes in wellness behaviors, disease knowledge, and medication management. The project has not begun to share these reports of patient outcomes with physicians or the care coordination staff because the details of data analysis are still being worked out.

WHO ENROLLS IN THE PROJECT?

After a year of operations, the project had enrolled 236 patients in the evaluation treatment group and 224 patients in the control group, or 74 percent of the 624 patients expected in the first year. The project faced three difficulties with enrollment. First, it lost its largest referral source when a large health system withdrew from the project due to concerns over patient privacy. Second, among the patients referred from hospital and hospitalist lists, 50 percent had incorrect contact information and another 23 percent were ineligible. Directly referred patients had better contact information (only 7 percent could not be contacted), but more were found to be ineligible for the project (39 percent). Third, in its first year, the project experienced a high rate of patient refusal to participate. Of those referred from lists who could be contacted and who were eligible for the project, only approximately 16 percent enrolled. It is likely that this high rate of patient refusal occurred because no one from the referring organization discussed the project with potential patients and the project did not send an introductory letter to patients before calling them to ask for their participation. In contrast, nearly all patients who were directly referred to the project and who could be contacted and were eligible went on to enroll. This is because direct referral sources either discussed the project with their patients or allowed the project to send letters of invitation to potential patients written on the referral source's letterhead.

Early in the demonstration, the project staff believed that their requirement for patients to have had a hospitalization or emergency room visit in the six months prior to enrolling may have been overly restrictive. In January 2003 they received permission from CMS to change the prior utilization criterion from six months to one year. However, the staff reported that this change made little difference in either the number of patients being referred to the project or the number of patients enrolling. In an effort to increase enrollment, the project staff tried to recruit patients from nonhospital, community-based providers. The yield of participants from these sources was higher than from hospitals because physician offices, nursing facilities, and home health agencies were more willing to discuss the project with their patients or to allow project staff to send introductory letters to patients on their behalf, as noted.

To gain another perspective on the proportion of eligible beneficiaries enrolling in the project and to describe their characteristics, the evaluation simulated the MediCaring™ project's eligibility criteria using Medicare enrollment and claims data. (November 15, 2002 was used as a pseudoenrollment date for nonparticipants; it is roughly the midpoint of the six-month enrollment period considered here.) The simulation showed that during the project's first six months of operation 184 (less than 1 percent) of an estimated 60,924 eligible beneficiaries enrolled. (The analysis did not distinguish between beneficiaries served by the participating referral sources and those served elsewhere in the project's service area, however, so the number of eligible nonparticipants who might truly have had access to the demonstration is probably smaller.) Nevertheless, we expect that eligible nonparticipants who could have been served by MediCaring™ are similar to the larger pool of nonparticipants identified in the claims data.

Project participants differed from eligible nonparticipants in several demographic characteristics and medical history (Table 1). Participants were significantly more likely to be over age 85 (23 percent versus 17 percent) and were more likely to be poor than eligible nonparticipants, as reflected by their eligibility for Medicaid (21 percent versus 9 percent). However, the two groups had similar gender and racial composition (about 40 percent were male and 5 percent were nonwhite). Participants were more likely than eligible nonparticipants to have certain chronic conditions. During the two years prior to enrolling, 60 percent of participants had been treated for CHF, 66 percent for COPD, 37 percent for stroke, and 16 percent for dementia—all target diagnoses for the MediCaring™ project. Nonparticipants had significantly lower rates of these chronic conditions.

As a result of their poorer health, participants had significantly higher hospitalization rates and total Medicare spending than eligible nonparticipants. About 79 percent of participants had a hospitalization in the year prior to enrolling, and participants had monthly Medicare reimbursements of $2,639 over the year prior to enrollment, compared with a 47 percent hospitalization rate and $965 in monthly Medicare reimbursements for eligible nonparticipants. Participants were also more than twice as likely as nonparticipants to have had a hospitalization in the month before intake (14 percent versus 6 percent).

When developing the cost estimate for the MediCaring™ waiver application, MPR estimated that Medicare reimbursements would average $1,026 per month for eligible beneficiaries who did not participate in the project. With average monthly reimbursements for participants of $2,639 prior to enrollment, it appears that the project has enrolled patients who have much higher costs than planned.

Participants appear to be satisfied with the MediCaring™ project. In August 2003, after a year of operations, the project mailed a satisfaction survey to all of the approximately 200 treatment group patients enrolled at that time. Fifty-six percent of patients responded to the survey. The care coordination supervisor reported that 87 percent of patients who responded were "satisfied" or "very satisfied" with the project overall. The project also tracks patient grievances as another method of gauging satisfaction. No patients reported grievances in the first year of the demonstration. Voluntary disenrollment during the first six months of operations was low, just 5 patients of 108, or approximately 5 percent.

TABLE 1

CHARACTERISTICS OF MEDICARING™ PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS DURING FIRST SIX MONTHS OF PROJECT INTAKE
(Percentage, Except as Noted)

	Participants[a]	Eligible Nonparticipants
Age at Intake		
Younger than 65[b]	0.0	0.0
65 to 84	77.0	82.5
85 or older	23.0	17.4
Male	39.2	41.7
Nonwhite	4.8	4.9
Medicaid Buy-In for Medicare A or B	21.1	8.9
Medical Conditions Treated in Last Two Years		
Congestive heart failure	59.6	20.1
Chronic obstructive pulmonary disease	65.5	32.7
Stroke	37.4	24.9
Cancer	27.1	29.1
Dementia (including Alzheimer's disease)	15.8	6.0
Hospital Admission in Last Year	78.8	46.6
Hospital Admission in Last Month	14.3	5.9
Total Medicare Reimbursement per Month During Year Before Enrollment (dollars)	$2,639	$965
Number of Beneficiaries	**208**	**60,740**

Source: Medicare Enrollment Database and National Claims History.

Note: For participants the intake date is their date of enrollment. For eligible nonparticipants it is November 15, 2002, the midpoint of the six-month enrollment period covered by the participation analysis.

[a]Participants who do not meet CMS's Medicare requirements for the demonstration or who had invalid Health Insurance Claim (HIC) numbers on MPR's enrollment file are excluded from this table because Medicare service use data were not available. Participants who are members of the same household as a research sample member are included above, but are not part of the research sample.

[b]The MediCaring™ project excludes individuals who are under age 65.

TO WHAT EXTENT DOES THE PROJECT ENGAGE PHYSICIANS?

The MediCaring™ care coordination model does not require close working relationships with physicians. The model is designed so that care coordinators interact with physicians but demand relatively little from them in order to minimize the burden placed on the physicians' time. The project expects that physicians will serve as a source of referrals, encourage their patients to enroll in the project, and be available to speak with the care coordinators as needed.

The project has developed several strategies to build relationships between physicians and care coordinators. As it hired more care coordinators, it assigned them to patients geographically so that the care coordinators could develop closer relationships with a smaller number of physicians. Also, when a patient is assigned to the project's treatment group, the care coordinator mails an introductory letter to the patient's primary care physician and follows up with a telephone call. (However, the care coordinators report that they seldom get to speak with physicians at this point.) Finally, the care coordinators identify physician preferences for frequency and mode of contact from the project. For example, some physicians prefer faxes to telephone calls.

One year into the demonstration, physicians were not a significant source of patient referrals. In addition, physicians were not discussing the project with their patients or encouraging them to enroll. Because the majority of patients are identified through hospital discharge lists or lists generated from the hospitalist physician practice, their physicians are unaware that they have been referred to the project and, therefore, cannot encourage them to enroll. Moreover, project staff believe that physicians would not have the time to devote to this task even if they were aware that their patients had been referred to the project. While physicians are not involved in the assessment process or care plan development, they have made themselves available to answer questions from the care coordinators.

The care coordination supervisor reported that the care coordinators have been able to develop good relationships with some physician groups but not with others. The project's key mechanism for building care coordinator-physician relationships is to have the care coordinators attend office visits with patients. The care coordinators try to attend all specialist visits and all primary care physician visits (except perhaps if the patient has appointments every week or two for routine checks). The care coordination supervisor reported that most physicians have been receptive to the care coordinators' presence, although one or two have asked them not to attend visits.

The project would like to make physicians more accepting of care coordination. Thus, the project staff focus on helping physicians to understand care coordination and how to integrate it into their practice. They relate anecdotes about their successes, emphasize that they can tell physicians about what is happening in patients' homes, and focus on their role in arranging services.

Changing physicians' clinical practices is not one of the project's goals. However, when the care coordinators feel a particular patient is not receiving optimal medical management, they communicate their recommendations to the patient's physician. The care coordinators have had a few cases where they believed the physician was not responding to their recommendations and

they asked the project's medical director to intervene. They cited instances when the medical director had been effective in helping physicians to understand and accept recommendations from care coordinators.

HOW WELL IS THE PROJECT IMPLEMENTING KEY INTERVENTION APPROACHES?

Improving Communication and Coordination. The project improves communication by teaching patients to communicate more effectively with their physicians: helping them overcome their reluctance to schedule an appointment, telephone their physicians with questions, and actually interact with their physicians. The care coordinators use three techniques to improve communication. First, the care coordinators role-play with the patients to help them rehearse what they want to say. The care coordinators give patients a list of questions to ask their physicians during a call or visit and then call the patients back to see if they were able to get answers to all their questions. They also teach patients how to correctly use medical terminology to describe signs and symptoms they may be experiencing. Second, the care coordinators teach patients what information to tell physicians when they visit for the first time. For example, patients should provide a list of medications they are taking, the dates and results of recent laboratory or diagnostic tests, examples of functional decline, and bring specific questions about medications or follow-up care. Finally, the care coordinators accompany patients on physician visits to model interactions for them. They tell the patient to watch what they do and say, so that the patient can model the care coordinator's behavior on the next visit.

MediCaring™ improves coordination of care through a variety of approaches. The project tracks adverse events such as hospitalizations and trips to the emergency room. Care coordinators find out about these events from the patient or caregiver or from hospital discharge planners. After a hospitalization or emergency room visit, the project requires the care coordinator to visit the patient at home within three days and then contact the patient daily as needed, usually by telephone. The care coordinator then leads the project team in an analysis of the circumstances that led to the event. If the project team concludes that the hospitalization was preventable, team members develop new interventions in the hope of avoiding a recurrence. The care coordinator works with the physician to create an emergency plan that includes standing orders, if needed. For example, for patients with CHF, the care coordinators have persuaded physicians to allow patients to take another dose of their diuretic medication to control their symptoms or to have antibiotics on hand to prevent pneumonia when they notice a change in their sputum. Depending on the patient's ability, either the patient or the care coordinator will implement these standing orders as needed.

The project also improves coordination of care by resolving polypharmacy issues affecting its patients. The care coordinators most often identify polypharmacy issues during their initial assessment. In addition, the project's medical director identifies problems when the project team discusses new patients in its weekly meetings. The care coordinators ensure that physicians have enough information to understand the issue and then they work with physicians to devise a solution. If the physicians do not correct the issue, the care coordinator will bring the matter to the project's medical director. However, the medical director commented that because she knows many of the physicians personally and because these issues are often judgment calls, she is wary of becoming involved. The project has a smaller role in other care coordination issues,

such as helping patients choose among alternative courses of treatment and addressing conflicting advice from physicians. The care coordination supervisor reported that these are not major issues for their patients.

Improving Patient Adherence. The focus of the project's patient education intervention is to determine patients' willingness to make behavioral changes and set appropriate goals for improving their self-care skills. Care coordinators use education checklists rather than a curriculum. The project staff developed checklists for CHF, COPD, Alzheimer's disease, and diabetes based on clinical practice guidelines approved by the major disease associations, and the teaching materials used by the care coordinators come from these associations. The checklists cover four areas: (1) understanding disease etiology as well as signs and symptoms and their relationship to patient behaviors, (2) learning self-care skills, (3) improving adherence to treatment recommendations, and (4) learning about the availability of community resources. Originally, the project had planned to specify the content of each patient contact using the checklists. However, as the project progressed, the staff realized that patients' varying needs required them to be more flexible. Now the checklists are used as guidelines for what material should be covered, but not necessarily when it should be covered.

The care coordinators adapt their teaching of the material in the checklists to patients' individual education needs. However, the project has not adapted its checklists or approach to teaching to larger subgroups within the population of Medicare beneficiaries. The care coordination supervisor reported that adaptations for such groups as non-English speakers or individuals with low literacy have not been necessary because the MediCaring™ project's enrollees exhibit very little demographic diversity. She explained that most of the project's participants are well-educated, non-Hispanic whites, many of whom have retired to the Phoenix area. Nevertheless, the care coordinators are able to adapt their teaching to individual patients' needs. They are able to choose from the project's extensive collection of both written and audiovisual teaching materials, and they conduct many patient visits in person. For example, if a patient has a cognitive deficit the care coordinator involves the patient's family. For patients with visual impairments, the care coordinators use talking books and other materials from the Association for the Blind.

The care coordinators provide the majority of the patient education for the project. The project does not provide care coordinators with patient education training, nor does it require care coordinators to have specific patient experience. However, since most coordinators have care coordination or disease management experience, the project believes that they have the teaching skills necessary for patient education. The care coordinators sometimes refer patients to other education resources in the community, such as certified diabetes educators, pulmonary rehabilitation, or disease support groups.

The care coordinators determine if patients understand educational messages by asking them to explain or recall concepts that they were taught in previous contacts. If it appears that a patient's knowledge is not improving, the care coordinator will reassess the patient's stage of readiness to make behavioral changes and modify the care plan to focus on more attainable goals. However, if the care coordinator believes that the patient's behavior is creating a dangerous situation, she will ask the patient's permission to involve a family member.

Increasing Access to Services. Increasing access to services is not the project's primary focus, but it is still an important aspect of the MediCaring™ project. The care coordination supervisor estimated that 80 percent of the project's patients have service needs, most commonly long-term care placement and financial assistance. A Hospice of the Valley social worker who works 10 hours a week for the project helps patients apply for Medicaid, energy assistance, and other benefit programs. If a patient must pay directly for a service (such as private duty nursing or respite care), the care coordinator will research the particular service that the patient needs and provide contact information, but let the patient or caregiver arrange the service. The care coordinator then follows up with the patient to ensure that they have set up the service. For Medicare-covered services that must be arranged through the physician, the care coordinator will obtain the referral for the patient and arrange the service. If the patient is receiving home health care, the project prefers to let the agency arrange the services the patient needs. They feel that this eliminates the confusion of having too many people involved in the patient's care. The project does not pay for support services for patients, but it will occasionally pay for scales or medication cassettes. In the first six months of the demonstration, approximately 18 percent of patients received help from a care coordinator who referred them to, or arranged for, non-Medicare covered services. One year into the demonstration, the most commonly arranged services were home-delivered meals, support groups, and assisted living and long-term care placement.

WHAT WERE ENROLLEES' MEDICARE SERVICE USE AND COSTS?

This report presents preliminary estimates of Medicare service use and costs for individuals who enrolled in the MediCaring™ project in its first four months of operation. The follow-up period (the first two full months after random assignment) is too short to draw inferences about the true effects of the MediCaring™ project over a longer period. Total Medicare reimbursement for the 70 treatment group members, exclusive of demonstration costs, was $5,706 ($2,853 per month), on average, during the first two months after enrollment, compared with $4,186 ($2,093 per month) for the 65 control group members. The $1,520 difference between the groups over the two months, or $760 per month (36 percent), while sizable, is not statistically significant ($p = 0.42$). It is likely due to two particular treatment group patients who had per-month costs over $35,000. The net treatment-control difference in costs increases to $1,913, or $957 per month, when one takes into account the CMS project payment ($393 over two months, or $197 per month).

While there is no significant difference in reimbursements, there is some suggestion that the project is shifting treatment group patients to more appropriate services. For example, treatment group members were less likely to have emergency room visits that did not result in an admission and were more likely to enter hospice than control group members. Seven percent of treatment patients and 22 percent of control patients used the emergency room and were not admitted (p-value = 0.02). Twelve percent of treatment patients entered hospice services, compared with a lower 3 percent of controls (p-value = 0.07). It is too soon to tell whether this early difference in Medicare service use will continue and whether the intervention will ultimately result in lower costs and improved patient health.

CONCLUSION

Project Strengths and Unique Features. The MediCaring™ project has many features associated with effective care coordination projects, plus some unique features:

- The project enrolls patients with advanced stages of diagnoses typically associated with high health care costs and who have had a hospitalization or emergency room visit in the year prior to enrollment. The project has enrolled patients whose preenrollment Medicare expenditures are much higher than those estimated in the demonstration's waiver application.

- Care coordinators conduct comprehensive assessments to identify patient needs, upon which they base individualized care plans that are updated as patients' needs change. The project team reviews plans for every patient. The frequency of patient monitoring, both by telephone and in person, decreases the longer a patient is in the project, unless the patient's condition warrants greater frequency.

- The project's care coordination information system generates several reports for managing project operations. The care coordinators receive feedback through performance reviews conducted three months after they begin employment and then yearly thereafter. They also get the input of the project team during weekly meetings. Although the project has begun to collect data on patient outcomes, it has not determined when reports of these data will be available to care coordinators or patients' physicians.

- Care coordinators integrate fragmented care by resolving polypharmacy issues identified in the initial assessment's medication review. In addition, care coordinators' attendance at physician visits allows them to ask questions that might otherwise go unasked or follow up on issues that patients may not have realized were important. The care coordinators also analyze the cause of adverse events and work with patients' physicians to develop standing orders to prevent recurrences.

- Patient education is based on structured guidelines tailored to both the patient's readiness to change and his or her individual learning needs. However, because of the homogeneity of its patient population, the project had not made adaptations to the social, cultural, and demographic differences seen in the overall Medicare population. Care coordinators monitor whether patients' self-care knowledge and skills are improving and reassess patients' readiness to make behavioral changes and modify care plan goals if they are not progressing. The care coordinators help patients improve their ability to communicate with physicians. For example, a care coordinator might role-play and/or model interactions with the patient's physicians.

- All care coordinators are registered nurses, and most have community nursing experience in disease management, case management, or home health.

Potential Barriers to Project Success. The MediCaring™ project has many positive features, but it may face potential barriers to success. The project has had difficulty building relationships with physicians. It has tried to keep physician burdens to a minimum and

accommodate physician preferences in its communications. Although the staff describe some physicians as enthusiastic about care coordination, the opinion of the majority of physicians has been neutral; that is, they have ignored the presence of the project until a care coordinator has asked them a question. The project's leadership and the care coordinators have worked to introduce the project and its goals to physicians, but one year into the demonstration the care coordination supervisor did not believe that more physicians had changed their opinion from neutral to positive. However, only a small minority of physicians have been negative about the project, as evidenced by their either rejecting communications from the project or refusing to allow care coordinators to attend office visits with patients. The MediCaring™ demonstration requires a level of physician collaboration similar to that of the other MCCD projects. However, its care coordinators have the opportunity to interact productively with physicians during patients' office visits and to ask physicians to write standing orders for patients' care plans, both of which have the potential to show physicians the value of care coordination. Although the level of physician enthusiasm may not be what the project staff had hoped it would be, it should not affect the project's ability to improve communication and coordination of care.

Second, the MediCaring™ project has had difficulties identifying and enrolling patients. The project's largest source of referrals withdrew its participation in the first few months of the demonstration. In addition, the majority of potential patients who were identified through both generated lists and direct referrals could not be contacted or were ineligible. Moreover, the use of cold calls to potential patients resulted in a high refusal rate. Thus, the project expended significant staff time to locate and screen referred patients, but very few of these patients went on to enroll. The time and effort dedicated to patient enrollment distracted the staff's focus from project operations in the first year of the demonstration. While the project staff believe their enrollment difficulties have been a major problem, their problems with enrollment are similar to many other MCCD projects, and, in fact, this project's rate of patient enrollment is relatively higher than many of the MCCD projects.

Finally, the project is enrolling a patient population whose service use and costs in the year prior to enrollment are much higher than anticipated. It is too soon to measure the effect of this factor on the project's impacts. However, given the high service use and costs and advanced age of the enrollees, it is possible that many of those enrolled are too severely ill to benefit from the intervention. That is, their conditions may have already advanced to a stage where good self-care and adherence to medication and diet regimens may no longer be sufficient to have much effect on the number or severity of acute episodes requiring intensive services. Conversely, the project's emphasis on avoiding repeat hospitalizations and identifying individuals at high-risk may lead to a greater effect on the enrolled population. Future data analysis will provide more insight into this issue.

INTRODUCTION

The Medicare Coordinated Care Demonstration, mandated by the Balanced Budget Act of 1997, is testing models aimed at improving the care of chronically ill beneficiaries with Medicare fee-for-service coverage. Fifteen projects are participating in the demonstration sponsored by the Centers for Medicare & Medicaid Services (CMS). The projects are hosted by organizations as diverse as hospital systems, disease management vendors, and retirement communities and are serving patients in 16 states and the District of Columbia. Mathematica Policy Research, Inc. (MPR) is evaluating the national demonstration, through both impact and implementation analyses.[1]

This report is one of a series that will describe each project during its first year of implementation and provide preliminary estimates of its impact on Medicare service use and costs. First, it briefly describes the data and methodology used in this series of reports and presents an overview of the project that is the focus of this report. It then addresses the following questions: Who enrolls in the project? To what extent does the project engage physicians? How well is the project implementing approaches to improving patient health and reducing health care costs? What were enrollees' Medicare service use and costs in the first months of operation? The report concludes with a discussion of the project's strengths and unique features, as well as potential barriers to program success.

This report describes Hospice of the Valley's Medicare Coordinated Care Demonstration (MCCD), which it calls the "MediCaring™" project. Hospice of the Valley is a hospice located in Phoenix, Arizona. The MediCaring™ project began enrolling Medicare beneficiaries with

[1]Lovelace Health System's CMS Medicare Case Management Demonstration for Congestive Heart Failure and Diabetes Mellitus is also part of the MPR evaluation. Appendix Table A.1 lists the host for each demonstration project in the evaluation, as well as each project's service area and target diagnoses.

advanced congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), cancer, or neurological disease in August 2002.

DATA SOURCES AND METHODOLOGY

Implementation Analysis. The evaluation's implementation analysis uses information gathered during telephone interviews with project staff conducted approximately three months after the project began enrolling patients and in-person interviews conducted approximately six months later. For each site, one of three MPR implementation team members conducted the telephone and in-person interviews using semistructured protocols. The interviews covered the following topics: organization and staffing; targeting and patient identification; project goals; care coordination activities (such as assessment, patient education, and service arranging); physician attitudes toward the project and interventions with physicians; quality management; record keeping and reporting; and financial monitoring. Use of the protocols ensured that each interviewer collected as consistent a set of information for each project as possible, while allowing the interviewer to explore issues of specific importance to each project. The structure of the protocols also makes synthesizing findings across projects more efficient. MPR staff also reviewed written materials provided by each project, including its proposal to CMS, its operational protocol, materials it provided to patients and physicians, and forms used in its operation. (Appendix Table A.2 contains a full list.) This analysis also includes an examination of data each project collected specifically for the evaluation describing care coordinator contacts with patients, patient disenrollment, and services the project purchased for patients during its first six months of operation.

Participation Analysis. The evaluation uses Medicare claims and eligibility data to estimate the number of beneficiaries in the MediCaring™ project's service area who were eligible for the project and the percentage who actually enrolled during the project's first six

months of operations. Beneficiaries are identified as eligible if, for any month from August 2002 through February 2003, they (1) lived in the project's service area, (2) were enrolled in Medicare Parts A and B, (3) had Medicare as the primary payer, (4) were not in a Medicare managed care (Medicare + Choice) plan, and (5) met the project's target diagnosis and service use requirements (described in detail in Appendix B). The midpoint of the six-month enrollment period examined in this analysis—November 15, 2002—is used as a pseudo-enrollment date for nonparticipants; the actual enrollment date is used for participants. Participants and eligible nonparticipants were then compared with respect to demographic characteristics, diagnoses, and utilization histories to determine the extent to which participants are typical of the pool of eligible beneficiaries.

Impact Analysis. This report also presents early impact estimates based on key study outcomes. The evaluation's impact analysis is based on the random assignment of consenting, eligible Medicare beneficiaries to receive either the project intervention in addition to their regular Medicare benefits or their regular Medicare benefits alone. Comparison of outcomes for the two groups will yield unbiased estimates of the impact of care coordination. Disenrollees are not excluded from the analysis sample because doing so would introduce unmeasured, preexisting differences between the treatment and control groups that random assignment is meant to avoid.

The report provides two types of comparisons of estimated treatment and control group means for Medicare-covered service use and costs. The first uses outcomes measured over the first two months after random assignment for beneficiaries who enrolled in the project during its first four months. The second compares treatment and control group means for each calendar month after project startup, using all sample members enrolled through the end of each month, to observe any trends in treatment-control differences over time.

In this report, the impact of the project's intervention is estimated as the simple difference in mean outcomes between treatment and control patients. T- and chi-squared tests are used to establish whether differences are statistically significant. The next round of site-specific reports will use regression analysis to adjust for any chance baseline differences between the two groups that arose despite random assignment. (Appendix B describes in more detail the methods used to obtain Medicare data, construct variables, and choose analysis samples.)

The treatment-control comparisons presented in this report may not reflect the true long-term impacts of the project, for several reasons. First, the comparisons are based on a relatively small sample (only patients enrolling during the first four months of project operations). Second, the outcomes are measured too soon after patient enrollment to expect projects to be able to have sizable impacts. (The timetable for the evaluation's first report to Congress defined the observation period for this report.) Third, project interventions may change over time as staff gain more experience with the specific patients they have enrolled. Finally, if projects change their eligibility criteria or the type of outreach they conduct, they may enroll different types of patients over time.

Despite these shortcomings, the treatment-control differences are presented to provide some limited feedback to the projects on how the two groups compare. Later analyses will examine Medicare service use and cost impacts over a longer time and will include all enrollees during the project's first 12 months. These analyses will also examine patient outcomes based on telephone interviews with treatment and control group members. Interview-based outcomes include the receipt of preventive health services, general health behaviors, self-management, functioning, health status, and satisfaction with care, as well as disease-specific behaviors and health care.

OVERVIEW OF THE MEDICARING™ PROJECT

Project Organization and Relationship to Physicians. Hospice of the Valley was founded in 1977 and is now one of the largest hospices in the country. During 2000, Hospice of the Valley served more than 5,200 families (Hospice of the Valley, 2002). Its patients come from the highly-populated Maricopa County, Arizona area, which includes Phoenix and its suburbs. Hospice of the Valley provides home-based as well as in-patient hospice services in its 11 palliative care units located throughout the county.

The prototype for the MediCaring™ project was PhoenixCare a demonstration of palliative care and care coordination developed by Hospice of the Valley under a Robert Wood Johnson Foundation *Excellence in End-of-Life Care* grant. The PhoenixCare project, which operated from 1999 to 2002, was a randomized study targeting terminally ill patients with CHF, COPD, and cancer. The project enrolled 240 patients from Medicare+Choice, Medicaid, and commercial managed care plans. The PhoenixCare project emphasized patient and family education; coordination of services; symptom relief; and a holistic approach to physical, psychological, social, and spiritual care. Hospice of the Valley's MCCD staff reported that PhoenixCare successfully developed strong community support and received a positive response from patients. It collected outcomes data on quality of life, patient satisfaction, and the utilization and cost of health care services. Analysis of these data is ongoing; no results have been released to date.

In its prototype project, Hospice of the Valley identified many individuals who had a declining health status and had been repeatedly hospitalized, but who were not terminally ill and did not qualify for hospice care. The project believed that these individuals could benefit from care coordination, and thus, it chose to target the demonstration project to this group. However, Hospice of the Valley also found that these individuals did not necessarily see their health as

being on a terminal course and so the project was entitled MediCaring™ to distance it from the association with hospice care.

The staff for MediCaring™ consists of a project director, a medical director, an enrollment coordinator, five care coordinators, and a social worker. The project director also supervises the care coordinators, and will be referred to as the care coordination supervisor for the remainder of this report. All MediCaring™ staff are employed by Hospice of the Valley and work from its administrative office in Phoenix. While the care coordination supervisor, care coordinators, and enrollment coordinator all work full-time on the project, the medical director and social worker have other responsibilities in addition to the demonstration. The medical director is a geriatrician and clinical psychologist who was also the medical director for PhoenixCare. Her day-to-day involvement in the demonstration includes participation in the project team's care planning meetings; review of patient cases with the care coordinators; and communication with community physicians, patients, and families participating in the demonstration. One year after its start, the project had enrolled 236 treatment group patients and had 5 full-time care coordinators for a care coordinator-to-patient ratio of 1 to 47.

MediCaring™ initially planned to enroll patients by reviewing lists generated by hospitals. Later that plan was expanded to include direct referrals by community providers such as physicians, assisted living and skilled nursing facilities, and home health agencies. The project staff reported that Hospice of the Valley is well-known in the community and that the community-based providers' prior experiences with Hospice of the Valley's staff would lead them to support the MediCaring™ project. To further engage potential referral sources, both the care coordination supervisor and the medical director have made presentations to these organizations. The project distributed a fact sheet and referral form to physicians who had worked with Hospice of the Valley in the past (see Appendix C for a copy of the fact sheet and

referral form). In addition, representatives from Hospice of the Valley's Business Development Office regularly contact physicians and their office staff to promote the Hospice's services, including MediCaring™.

Project Approaches. The project's intervention focuses on improving patient health and reducing the use of costly health care services by (1) promoting better communication and coordination between patients and providers, (2) improving patients' self-care skills and adherence to treatment recommendations, and (3) increasing access to Medicare and non-Medicare covered services. To this end, the project teaches patients strategies to better communicate with their physicians. The project also assesses patients' willingness to make behavioral changes and sets goals based on their readiness to change. While increasing access to services is not the project's primary focus, its care coordinators and social worker help patients to identify and arrange for the community-based support services they need to remain at home. The project would like to improve physicians' understanding and acceptance of care coordination but does not expect to influence their clinical practice.

Target Criteria and Patient Identification. The MediCaring™ project targets patients who reside in Maricopa County, Arizona with advanced stages of CHF or other heart disease, COPD or other chronic lung disease, cancer, or neurological disease. At the start of the project, all patients were required to have had an inpatient admission or emergency room visit (for any diagnosis) in the six months preceding enrollment. However, the project staff found that this requirement made many potential patients ineligible. About four months after it started enrolling patients (January 2003), the project received permission from CMS to extend the service use reference period to one year preceding enrollment. In addition, beneficiaries participating in any of the MCCD demonstration projects must meet CMS's insurance payer and coverage

requirements for the demonstration, that is, be enrolled in Medicare Parts A and B, not be enrolled in a Medicare managed care plan of any type, and have Medicare as their primary payer.

The MediCaring™ project excludes individuals who are under age 65, have end-stage renal disease, or currently receive Medicare hospice benefits. At the start of the demonstration, the program excluded beneficiaries who did not speak English, but within the first six months of operation, the program removed this exclusion to prevent discrimination against this group of people. However, in the two years since the criterion was removed the program has enrolled only two patients who do not speak English. The care coordination supervisor reported that both Hospice of the Valley and the MediCaring™ project had difficulty attracting non-English speaking patients. She thought that this was especially true for the MediCaring™ project because it is part of a Medicare fee-for-service demonstration. She believes that many of the area's non-English speaking beneficiaries have enrolled in Medicare managed care plans, and, therefore, are not eligible for MediCaring™.

In the first year of the demonstration, the project used two methods to identify potential participants. The first was to obtain lists of patients recently discharged from hospitals. It obtained these lists from both hospitals and a hospitalist physician group. In its hospice and PhoenixCare work, Hospice of the Valley developed good working relationships with area hospitals and the hospitalist physicians. Thus, the project staff believed that these would be the best sources of patients, especially given the project's original requirement for hospitalization within six months preceding enrollment.

In its first year, the project received lists of patients from three hospitals within Banner Health System, a Phoenix-based nonprofit health care system. It also received patient lists from the two hospitals in the Scottsdale Healthcare System. The other major patient referral source was American Physicians, Inc. (API), a hospitalist physician group. On a quarterly basis, these

sources supplied the project with electronic lists of patients that met its diagnostic criteria. Each source provides different data to the project, but at a minimum lists include the patient's name, telephone number, diagnosis, and hospital admission date. The project also receives nonelectronic patient lists from the John C. Lincoln Hospital. Every week the care coordination supervisor meets with that hospital's discharge planner who provides her with a paper list of currently hospitalized patients who meet the project's eligibility criteria.

The project's second method of identifying potential patients is to solicit direct patient referrals. Again, through its hospice and PhoenixCare work, Hospice of the Valley had developed relationships with community physicians, skilled nursing facilities, and home health agencies. The project mailed an information packet describing the demonstration to all of these sources, and Hospice of the Valley's Business Development staff also solicit patient referrals during their regular contacts with these providers.

In addition, the MediCaring™ project accepts self-referred patients, as well as referrals from patients' families and friends. At the start of the demonstration, a local newspaper ran a feature article about the project. Then about six months after its start, the project placed advertisements in three local newspapers. The staff hoped the article and advertisements would raise public awareness of the demonstration project. However, the project has received only a small number of self-referrals.

After receiving potential patients' names either from lists or direct referrals, the project staff verify the patients' Medicare eligibility. Then the project's enrollment interviewers call patients to explain the project and gauge their interest. When staff call patients referred from lists, it is usually the first time the patients have heard about the project as the project does not send any written material about itself prior to the call. The project had wanted referral sources to explain the demonstration to patients and provide their endorsement, but the hospitals and hospitalists

have been unwilling or unable to play that role, citing the time constraints faced by both the physicians caring for the patients in the hospital and the hospital discharge planners. Project staff report that only about 5 percent of potential patients identified by hospitals or hospitalists express an interest in the project during the initial calls. In contrast, those sources that provide direct referrals usually discuss the project with their patients or allow the project staff to send introductory letters to patients on their behalf. If the patient is interested in the project, the enrollment interviewer will schedule an in-home visit to explain the project further and obtain informed consent (see Appendix C for a copy of the consent form). The project staff believe that the rate of patient acceptance is very high among patients who agree to the in-home visit.

After patients provide informed consent, the enrollment coordinator forwards the patients' information to the project's administrative assistant who submits the patients to MPR for randomization. MPR randomly assigns patients either to the treatment group, in which they receive care coordination in addition to their usual Medicare-covered services, or to the control group, in which they continue to receive their usual Medicare-covered services.

Assessment, Care Planning, and Monitoring. All patients receive a comprehensive assessment, based on CMS's Outcome and Assessment Information Set (OASIS), the assessment tool used by all home health agencies serving Medicare beneficiaries. The project has used OASIS to develop three assessment tools: (1) the Patient History Form, (2) the Comprehensive Care Coordinator's Assessment Form, and (3) the Management of Medications Form. (See Appendix C for copies). In addition to detailing the patient's medical history, the tools examine current clinical status, functional status, nutrition status, home safety, living arrangements, and social supports. The care coordinator reviews each medication the patient is taking and the reason he or she takes it, and she also conducts both a physical assessment and a pain management assessment. The information from the initial assessment allows the care

coordinator to establish the patient's condition, determine his or her education and support service needs, and gauge the risk of rehospitalization.

The care coordinators conduct the initial assessment in the patient's home. Due to its comprehensive nature, the assessment usually takes between 90 minutes and 2 hours to complete. The care coordinators sometimes contact patients' primary care physicians to obtain copies of recent patient histories, physical examinations, or progress notes to fill in information for the assessment. The care coordinators document the results of the assessment on paper. The project's administrative assistant then enters the assessment notes into discrete data fields in HomeWorks™ (the project's case management software) and provides the care coordinators with a printed assessment report for the patients' hard-copy files. (HomeWorks also has free-text fields for narrative notes.) At the start of the project, the staff sent copies of initial assessments to patients' primary care physicians. However, they discontinued this in the first year of the demonstration because of feedback from physicians that the assessment was too nursing oriented and that it contained too much unsummarized information, and, thus, was not useful to them.

By the start of its second demonstration year, the project had developed and begun to use a formal patient reassessment tool (see Appendix C for a copy). The care coordinators reassess patients every six months. The reassessment instrument contains a subset of the items from the initial assessment, including measures of patient fatigue, physical status, mental status, functional status, management of medications, and the availability of social supports. As with the initial assessment, the care coordinators document the results of the reassessment on paper and the project's administrative assistant enters their notes into HomeWorks. Although the project does not send physicians copies of the reassessments, the care coordinators do write a brief narrative summary of patients' progress to date and their current status. The project sends

these reports to physicians every six months and any time there is a change in patient status. (See Appendix C for an example of a physician report.)

Between August 15, 2002 and February 19, 2003, 108 patients enrolled and were randomly assigned to the MediCaring™ project's treatment group (Table 1). Eighty-nine percent of patients (96 of 108) had at least one contact for assessment; among these, approximately 75 percent had their assessment contact within one week of enrollment. Staff had hoped to complete all patient assessments within one week, but completing assessments took longer than expected because the care coordinators had difficulty contacting some patients or scheduling a time with them for the assessment visit. Only 5 percent of assessment visits took place more than two weeks after enrollment.

Care coordinators use the results of the initial assessment to develop care plans for each patient. The care coordinator, using a template that identifies common care coordination challenges, selects the specific problems that may contribute to the patient being hospitalized. (Problems include lack of knowledge about or adherence to a medication regimen, insufficient income to fulfill basic needs, and need for additional help with personal care or social support. See Appendix C for a copy of the MCCD Patient/Caregiver Care Plan Template.) The care coordinator then selects a corresponding intervention(s) from the template that will be the focus of care coordination for that patient. For example, the care plan may identify that the patient does not have the knowledge to appropriately manage exacerbations of their symptoms. The care manager may plan interventions to (1) help the patient understand that they can manage their condition, (2) provide education regarding symptom management and self-care, (3) review past management of emergencies to help the patient understand what they should do differently in the future, (4) help the patient to set self-care goals, or (5) provide support or encouragement to the patient or caregiver.

TABLE 1

CARE COORDINATOR CONTACTS WITH PATIENTS
DURING FIRST SIX MONTHS

Number of Patients Enrolled[a]	108
Number of Patients with at Least One Care Coordinator Contact (percentage)	105 (97)
Total Number of Contacts for All Patients	735
Average Number of Contacts per Patient, Among those Contacted	7
Number of Care Coordinators Contacting Patients[b]	10
Among Those Patients with at Least One Contact:	
Percentage of contacts care coordinator initiated	92.9
Percentage of contacts by telephone	64.6
Percentage of contacts in person at patient's residence	31.2
Percentage of contacts in person elsewhere	4.2
Of all Patients Enrolled, Percentage with Assessment Contact	88.9
Among Those Patients with an Assessment, Percentage of Patients Whose First Assessment Contact Is:	
Within a week of random assignment	75.0
Between one and two weeks of random assignment	19.8
More than two weeks after random assignment	5.2
Of All Patients Enrolled, Percentage of Patients with Contacts for:	
Routine patient monitoring	92.6
Providing emotional support	2.8
Providing disease-specific or self-care education	85.2
Explaining tests or procedures	6.5
Explaining medications	50.9
Monitoring abnormal results	1.9
Identifying need for non-Medicare service[c]	17.6
Identifying need for Medicare service	1.9
Monitoring services	0.9
Average Number of Patients Contacted per Care Coordinator	10.5
Average Number of Patient Contacts per Care Coordinator	73.5

Source: MediCaring project data received January 2003 and updated in April and July 2003. Covers six-month period beginning August 15, 2002 and ending February 10, 2003.

[a]Number of patients enrolled in the treatment group as of February 10, 2003.

[b]Includes five care coordinators and the telephone triage staff.

[c]Includes assistance applying for public programs.

After completing the care plan template, the care coordinator presents the patient's case to the care coordination supervisor and medical director, summarizing the assessment and outlining the key care coordination issues and selected interventions. Together they set specific objectives for the patient and a timeline for accomplishing these goals. The responsibility for each intervention is assigned to the appropriate project team member (care coordinator, medical director, or social worker). The project team may also ask one of Hospice of the Valley's spiritual counselors to work with the patient. The care plan also details any community-based resources that will be needed. The care coordinator then establishes a preliminary schedule of patient monitoring contacts to work toward care plan goals.

The care coordinators involve patients in goal setting by asking patients what is important to them and incorporating patients' priorities into the care plan. They review care plans with patients and their caregivers or family. However, patients do not receive copies of their care plans.

The project uses the care plan as a method of documenting planned interventions. As with the assessment, the care coordinators complete the care plan template by hand and give it to the project's administrative assistant who enters the information into HomeWorks. He then prints out a copy of the completed care plan for inclusion in the patient's paper chart. The project regards the care plan as a living document and as a method of communicating with the other members of the project's care coordination team. However, the care coordinators do not use care plans as a guide during patient contacts because they do not have access to the care plans in HomeWorks. Instead, they use their handwritten notes and flow sheets to guide their contacts with patients. The care coordinators update the care plans as patients' needs change, when patients have completed goals, or after periodic review by the care coordination team. Patients' physicians do not provide input to, or review, care plans. At the start of the demonstration, the

project had been sending a copy of the care plan to the patient's physician. However, as with the initial assessment, the physicians reported that they did not find the care plans to be useful.

For monitoring purposes, the project divides patients into two levels of care. For the first six months, all patients are placed in Level 2. The care coordinator decides the frequency and type of contact to monitor patients (in person or telephone) based upon the individual patient's acuity and needs. After six months, if the patient's goals have been met and the patient has not had a hospital admission or emergency room visit, the project moves them to Level 1. The care coordinator contacts Level 1 patients by telephone monthly. If patients have not met their goals within six months, then they continue on the more frequent Level 2 monitoring schedule.

Each care coordinator has developed her own system to track patient contacts. One care coordinator set up a process in Microsoft Outlook, and others have created Microsoft Excel spreadsheets for this purpose. (The project's case management software does not have a calendar feature to remind the care coordinators when monitoring contacts are due, and the care coordinators do not access HomeWorks directly, in any case.)

During all monitoring contacts, the care coordinator reassesses the patient's status by asking about new or worsening symptoms, changes in medication, recent physician visits, and adverse events requiring hospital admission or emergency room care. In addition, the care coordinator follows up with the patient regarding issues upon which he or she has been working. The care coordinator also identifies new service needs, provides patient education, monitors test results and services already in place, and provides emotional support. Based on the monitoring contact, the care coordinator may add or modify interventions or modify the care plan. The results of all monitoring contacts are documented in a written Care Coordinator Contact Note (see Appendix C) and key elements of the note required for the evaluation are entered into HomeWorks by the project's administrative assistant.

The care coordinators are available to patients during normal working hours from Monday through Friday. If patients have questions or problems outside of normal office hours, they may call Hospice of the Valley's telephone triage nurses who have been trained in the project's policies and protocols. If callers to the telephone triage line have a medical emergency they are instructed to call either 911 or their physician's office. The care coordination supervisor reported that although approximately 90 percent of MediCaring™-related calls to the telephone triage line were from a single patient, two calls were from patients having heart attacks and they were directed to call 911. However, the care coordination supervisor related the example of a program patient who often called the telephone triage line with anxiety-related chest pain. Her care coordinator confirmed with the primary care physician that the patient had no heart disease. With the physician's consent, the care coordinator developed a protocol for when this particular patient called the triage line with chest pain. Now the triage nurse instructs the patient to make herself a cup of tea or take a warm bath. After one hour, the telephone triage nurse calls the patient back to determine if her anxiety has subsided. This protocol has eliminated the patient's almost monthly trips to the emergency room.

The care coordinators also occasionally perform emergency in-home visits to provide hands-on care such as administering medications or adjusting equipment. In such cases, the care coordinator calls the physician and receives a verbal order to provide the needed care. The care coordination supervisor remarked that these visits are more often motivated by psychological than medical issues. For example, they once received a request for an emergency visit from an overburdened caregiver who was having difficulty coping with a patient's needs.

The project also monitors patients through its weekly team meetings attended by the care coordinators, care coordination supervisor, medical director, and social worker. The team discusses all newly enrolled patients and all patients who have been hospitalized. In addition,

they discuss all Level 2 patients at least monthly and all Level 1 patients at least every two months. These discussions focus on pain management, social situations, or other areas about which the care coordinator requests guidance or input.

Of the 108 patients enrolled in MediCaring™ during the first six months of its operation, more than 97 percent had at least one contact with a care coordinator, and the average patient had seven contacts. Most patient contacts (93 percent) were initiated by care coordinators, and most (65 percent) were by telephone. Among all patients enrolled, 93 percent had received a contact from a care coordinator for routine monitoring, but just 3 percent had contacts in which the care coordinator provided emotional support.

Staffing and Project Quality Management. Maintaining and improving care quality and ensuring projects attain their goals both require that staff have adequate qualifications, training, and supervision and that managers have the tools and support to monitor the project's progress toward its goals. The MediCaring™ project requires its care coordinators to be registered nurses (preferably baccalaureate-prepared) with two years' recent experience in medical, surgical, or cardiac care nursing. The project also prefers some experience in telemedicine, disease management, home health, or hospice nursing, but this is not required.

New care coordinators receive extensive training. They attend a week-long training given to all new Hospice of the Valley employees that covers disease processes, pain management, advance directives, and the Health Insurance Portability and Accountability Act (HIPAA). In addition, care coordinators receive one day of training on the MCCD and on the elements of MediCaring™'s research design. They review the project's policies and protocols, forms, patient education resources, and information systems. (See Appendix C for a copy of the Case Coordinator Orientation schedule.) New care coordinators also spend up to two months conducting joint patient visits with more experienced care coordinators. Before care

coordinators are permitted to begin managing patients on their own, they must satisfactorily demonstrate their understanding of the project, its policies, and protocols. (See Appendix C for a copy of the Competency Inventory.)

The care coordination supervisor, care coordinators, and medical director meet weekly, as described earlier, to review patients, analyze significant adverse events, and discuss problems the care coordinators have encountered. In addition, the care coordination supervisor meets on an ad hoc basis with individual care coordinators to discuss specific patients and care coordination issues. The care coordinators receive a formal performance review after three months of service and yearly thereafter. The project also has "recognition forms" for documenting when care coordinators do an exemplary job.

The care coordination supervisor reports to Hospice of the Valley's associate executive director regarding operations. They do not have formal meetings, but the care coordination supervisor sends the associate executive director emails and written updates as needed. This communication includes monthly enrollment and targeting reports detailing the project's actual versus expected enrollment and reasons why identified patients did not enroll. The associate executive director reports to Hospice of the Valley's board of directors regarding the status of the project.

The project collects data on nine quality indicators to monitor its operations: (1) the percent of referred patients who enroll in the project, (2) the number of patients enrolled compared to the target enrollment, (3) the percent of patients who disenroll, (4) the ratio of clinical staff to patients, (5) the percent of staff who remain with the project, (6) the percent of clinical staff who successfully complete orientation and competency testing, (7) the rate of avoidable hospitalizations and emergency room visits, (8) the percent of patients who have contact with a care coordinator within two days of enrollment, and (9) the percent of patients who have a

documented discussion of advanced care planning in their records within three months of enrollment. The project collects the data used to calculate these indicators in its care coordination software, and reports these indicators of project quality to Hospice of the Valley's board of directors. However, the care coordination supervisor reported that, overall, the data from these indicators have not been that useful for project management. The one exception to this is the report of hospitalizations and emergency room visits. The care coordination supervisor is able to generate several other reports of quality indicators from HomeWorks that she does use to manage the project. These include reports of referrals, patient demographics, patients with more than two hospitalizaitons, summary of completed goals, and hospitalizations by diagnosis. (See Appendix C for copies of the reports of patients with more than two hospitalizations and hospitalizations by diagnosis.) In October 2004, the project began to collect data on patient outcomes, such as changes in wellness behaviors, disease knowledge, and medication management. The project has not begun to share these reports of patient outcomes with physicians or the care coordination staff because the details of data analysis are still being worked out.

WHO ENROLLS IN THE PROJECT?

The project was not able to meet its enrollment target within the first year of operation (August 2003). This shortfall is likely due to the loss of a major referral source and to the large numbers of referred patients whom the project either could not contact or that it found ineligible to participate. However, participants' Medicare expenses in the year before enrollment were substantially higher than those projected in the project's Medicare waiver estimates, suggesting that the project identified beneficiaries with more severe health problems than originally expected. Patients report being satisfied with the project and few disenrolled voluntarily in the project's first six months.

Enrollment After One Year. After one year of operation, the MediCaring™ project had enrolled 236 patients in the treatment group and 224 in the control group (MPR Weekly Enrollment Report, week ending August 17, 2003). This is roughly three-quarters of the project's one-year target of 624 beneficiaries. The project faced three main difficulties with patient enrollment: (1) a key source of patient referrals withdrew its support, (2) the project did not have accurate contact information for many referred patients and many of those whom the project could contact were later found to be ineligible to participate, and (3) many eligible patients declined to participate.

The biggest problem the project faced in its first year was the loss of its largest source of patient referrals. Banner Health System pulled out of the project five months into the demonstration citing concerns over patient privacy raised by HIPAA. While the project had been able to enter into confidentiality agreements with the Scottsdale Healthcare System and API, no such agreement could be reached with Banner. The project responded to the loss of referrals from Banner by trying to identify new sources of patient referrals, and it added the John C. Lincoln Hospital. The project staff simultaneously increased their efforts to recruit other types of organizations such as assisted living and skilled nursing facilities, home health agencies, and physicians groups for referrals. The project also approached patients who had applied for hospice care but who were not yet eligible.

The project had difficulty with the quality of the referrals it received. The project could not contact 50 percent of the patients referred on the lists provided by the hospitals and hospitalist physician practices. This was primarily because the patients' phones had been disconnected, there was no answer after repeated calls, the telephone number was incorrect, or the patient was deceased. Another 23 percent of patients on these lists were ineligible, most often because they either lived outside the project's catchment area or their conditions were nonchronic. Among

directly referred patients, fewer had bad contact data (7 percent), but more were ineligible (39 percent), either because they did not meet the project's diagnostic criteria or for other reasons that the project did not document. It does not appear that the referral sources fully understood the project's inclusion criteria. Had they done so, it may have decreased the amount of staff effort involved in pursuing patients who were ultimately ineligible to participate.

Early in the demonstration, the project staff believed that their requirement for patients to have had a hospitalization or emergency room visit within the prior six months may have been overly restrictive. In January 2003 they received permission from CMS to change the prior utilization criterion from six months to one year. However, the staff reported that this change made little difference in either the number of patients being referred to the project or in the number of patients enrolling.

Finally, in its first year, the project experienced a high rate of patient refusals to participate. Among those initially identified on hospital and hospitalist lists, only approximately 16 percent could be contacted, were eligible for the project, and decided to enroll. The project had envisioned that someone from the referring hospitals and hospitalist groups—a physician, nurse, or discharge planner—would discuss the MediCaring™ project with patients. However, this did not happen, probably because while the patients were in the hospital the staff were unaware of which patients' names would be on the lists provided to the MediCaring™ project. Moreover, because the project did not have patients' addresses, it did not send letters to patients referred by these organizations introducing itself before the enrollment staff made their calls to the patients. In contrast, nearly all eligible patients who were directly referred by a physician or other provider and whom the project could contact went on to enroll in the project. These sources either discussed the project with their patients or allowed the project to send letters of invitation to potential patients written on their letterhead. Although the approach used with directly

referred patients appeared to have resulted in a higher participation rate, the project continued to make "cold calls" to patients identified via hospital and hospitalist lists.

Percent of Eligible Beneficiaries Participating. To gain another perspective on the proportion of eligible beneficiaries enrolling in the project and to describe their characteristics, the evaluation simulated the project's eligibility criteria using Medicare enrollment and claims data. (Appendix B contains a detailed description of the simulation.) This simulation identified 60,924 beneficiaries eligible for the project between August 2002 and February 2003, the project's first six months of operation (see Table B.4). That is, they lived in the project's service area, met CMS's demonstration-wide eligibility criteria, and met the project's clinical eligibility criteria.[2] During the same six months, 184 eligible beneficiaries enrolled in the demonstration (about 0.3 percent of the 60,924 eligible beneficiaries).[3] (See Tables B.2 and B.3.)

Comparison of Participants and Eligible Nonparticipants. According to an analysis of Medicare enrollment and claims data, project participants differed from eligible nonparticipants

[2]From August 2002 through February 2003, 395,415 beneficiaries were living in the project's service area. Of those, 183,976 (46 percent) would have been ineligible for the project because they did not meet one of CMS's demonstration-wide criteria. Of the remaining 211,439 beneficiaries who met these criteria, 60,924 (29 percent) also met the project's diagnostic and service use criteria at some point during the project's first six months, and they had none of its exclusion criteria (to the extent the criteria could be simulated with the Medicare data). (See Table B.2.)

[3]In fact, 219 beneficiaries actually enrolled in the project during its first six months. When estimating the participation rate, the evaluation excluded one enrollee with an incorrect Health Insurance Claim (HIC) number on MPR's enrollment file, and those who did not meet the Medicare demonstration-wide criteria or the project's geographic, diagnostic, utilization, or exclusion criteria (as measured with Medicare data). These enrollees were excluded from the participation analyses in order to use a consistent definition of eligibility for the numerator and denominator of the ratio. (The one beneficiary with an invalid HIC number may well be eligible, but the beneficiary's Medicare data could not be obtained to assess that, so that person was excluded. The HIC number has since been corrected.) This leaves 184 known *eligible* participants. Most of the reduction was due to failure to meet Medicare demonstration-wide criteria or the project's service use criterion. The comparison of participants to eligible nonparticipants in Table 2, however, excludes only participants with invalid HIC numbers and those who did not meet Medicare demonstration-wide requirements, leaving 209 participants. Thus, the comparison more closely reflects the differences between all actual participants and those who were eligible to participate but did not. (See Table B.3.)

on several demographic characteristics. Participants were significantly older on average than eligible nonparticipants (78.6 years versus 77.1 years) and more likely to be over age 85 (23 percent versus 17 percent) [Table 2]. Participants were more likely than eligible nonparticipants to be poor, as reflected by their eligibility for Medicaid (21 percent versus 9 percent). In addition, participants also were significantly more likely to have received their Medicare entitlement through the disability or end-stage renal disease (ESRD) categories (18 percent versus 7 percent). However, the two groups had similar gender and racial composition (about 40 percent were male and 5 percent were nonwhite).

Participants were more likely than eligible nonparticipants to have certain chronic conditions. During the two years prior to enrolling, 60 percent of participants had been treated for CHF, 66 percent for COPD, 37 percent for stroke, and 16 percent for dementia—all target diagnoses for MediCaring™. Nonparticipants had significantly lower rates of these chronic conditions. Participants also had significantly higher rates for chronic conditions not targeted by the demonstration, including coronary artery disease, diabetes, peripheral vascular disease, and renal disease.

As a result of their poorer health, participants had significantly higher hospitalization rates and total Medicare spending than eligible nonparticipants. Nearly 80 percent of participants had a hospitalization in the year prior to enrolling, and participants had monthly Medicare reimbursements of $2,639 over the year prior to enrollment, compared with a 47 percent hospitalization rate and $965 in monthly Medicare reimbursements for eligible nonparticipants. Participants were also more than twice as likely as nonparticipants to have had a hospitalization in the month before intake (14 percent versus 6 percent).[4]

[4]November 15, 2002, the midpoint of the six-month enrollment period considered for this analysis, is used as a pseudoenrollment date for nonparticipants. Actual enrollment dates were used for participants.

TABLE 2

CHARACTERISTICS OF ALL PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS DURING THE FIRST SIX MONTHS OF PROJECT ENROLLMENT
(Percentages, Unless Otherwise Noted)

	Demonstration Participants (Treatments and Controls)[a]	Eligible Nonparticipants
Age at Intake		
Average age (in years)	78.6	77.1***
Younger than 65	0.0	0.0
65 to 74	30.1	39.4***
75 to 84	46.9	43.1
85 or older	23.0	17.4**
Male	39.2	41.7
Nonwhite	4.8	4.9
Original Reason for Medicare: Disabled or ESRD	17.7	6.6***
State Buy-In for Medicare Part A or B	21.1	8.9***
Newly Eligible for Medicare (Eligible Less than Six Months)	1.44	0.33***
Enrolled in Fee-for-Service Medicare Six or More Months During Two Years Before Intake	97.1	98.6*
Medical Conditions Treated During Two Years Before Month of Intake[b]		
Coronary artery disease	65.5	43.6***
Congestive heart failure	59.6	20.1***
Stroke	37.4	24.9***
Diabetes	37.9	21.3***
Cancer	27.1	29.1
Chronic obstructive pulmonary disease	65.5	32.7***
Dementia (including Alzheimer's disease)	15.8	6.0***
Peripheral vascular disease	27.1	12.8***
Renal disease	15.3	5.1***
Total Number of Diagnoses (number)	3.5	2.0***
Days Between Last Hospital Admission and Intake Date[b]		
No hospitalization in past two years	12.8	38.8***
0 to 30	14.3	5.9***
31 to 60	12.8	5.0***
61 to 180	42.4	15.8***
181 to 365	9.4	19.9***
366 to 730	8.4	14.6**
Annualized Number of Hospitalizations During Two Years Before Month of Intake[b,c]		
No hospitalization in past two years	14.3	40.1***
0.1 to 1.0	40.9	44.4
1.1 to 2.0	22.2	11.2***
2.1 to 3.0	14.3	2.9***
3.1 or more	8.4	1.5***

TABLE 2 *(continued)*

	Demonstration Participants (Treatments and Controls)[a]	Eligible Nonparticipants
Medicare Reimbursement per Month in Fee-for-Service During One Year Before Intake[b]		
Part A	$1,618	$549***
Part B	$1,020	$416***
Total	$2,639	$965***
Distribution of Total Medicare Reimbursement per Month in Fee-for-Service During One Year Before Intake[b]		
$0	0.0	0.8
$1 to 500	14.8	53.9***
$501 to 1,000	20.2	16.5
$1,001 to 2,000	19.2	14.6*
More than $2,000	45.8	14.3***
Number of Beneficiaries	**209**	**60,740**

Source: Medicare Enrollment Database and National Claims History File.

Note: The intake date used in this table is the date of enrollment for participants. For eligible nonparticipants, the intake date is November 15, 2002, the midpoint of the six-month enrollment period examined.

aParticipants who do not meet CMS's demonstration-wide requirements for the demonstration or who had an invalid HIC number on MPR's enrollment file are excluded from this table because we do not have Medicare data showing their reimbursement in the fee-for-service program. Members of the same households as the research sample members are included.

[b]Calculated among beneficiaries with six or more months in Medicare fee-for-service in the two years before intake. (See Note, above, concerning intake date definition.)

[c]Calculated as 12 x (number of hospitalizations during two years before month of intake) / (number of months eligible). For example, if a beneficiary was in fee-for-service all 24 months and had two hospitalizations during that time, they would have one hospitalization per year [(12 x 2) / 24]. If another beneficiary was in fee-for-service eight months during the previous two years, and had two hospitalizations during those eight months, they would have [(12 x 2) / 8], or three hospitalizations per year. The estimate of the proportion with no hospitalization in the two years before the month of intake may differ slightly from the proportion with no hospitalization in the two years before the date of intake because the two measure slightly different periods. Someone enrolled on September 20, 2003 whose only hospitalization in the preenrollment period occurred on September 5, 2003 would not be counted as hospitalized during the 24 months before the month of intake. Conversely, someone hospitalized on September 25, 2001 would be captured in the measure defined by month of enrollment, but not in the measure based on the day of enrollment.

*Difference between participants and eligible nonparticipants significantly different from zero at the .10 level, two-tailed test.

**Difference between participants and eligible nonparticipants significantly different from zero at the .05 level, two-tailed test.

***Difference between participants and eligible nonparticipants significantly different from zero at the .01 level, two-tailed test.

When developing MediCaring™'s expected costs for its waiver application, MPR estimated that Medicare reimbursements would average $1,026 per month for eligible beneficiaries who did not participate in the project.[5] With average monthly reimbursements of $2,639 prior to enrollment, the project has enrolled patients who have much higher costs than planned. This is likely because most patients were referred by hospitals.

Satisfaction and Voluntary Disenrollment. Participants appear to be satisfied with the MediCaring™ project. In August 2003, after a year of operations, the project mailed a satisfaction survey to all of the approximately 200 treatment group patients enrolled at that time. The survey asked questions about how helpful the care coordinator had been in helping the patient to take care of himself or herself and in helping the patient know when to contact a physician. In addition, it asked whether the care coordinator had helped to improve the patient's knowledge of his or her condition, medications, and management of symptoms. It also asked whether the information on community resources had been helpful (see Appendix C for a copy of the survey). Fifty-six percent of patients responded to the survey. The care coordination supervisor reported that in response to a question about overall satisfaction with MediCaring™, 87 percent of patients reported they were "satisfied" or "very satisfied." Also, 68 percent of patients said the care coordinator had been "very helpful" or "extremely helpful" in helping them take care of themselves, and 66 percent of patients said the care coordinator was "very helpful" or "extremely helpful" in teaching them when to contact a physician. The project planned another satisfaction survey for fall 2004.

[5]Waiver cost calculations for all the demonstration projects assume that each project will reduce Medicare costs by 20 percent. If the assumptions are correct, the project will save Medicare an average of $7 per patient, per month, or approximately $12,933 over the four-year life of the demonstration, assuming 1,092 beneficiaries will be randomly assigned to the treatment group. These estimates are net of the demonstration's costs of $224 per patient, per month (the fee paid by CMS to the project), but do not include the costs of the evaluation.

The project also tracks patient grievances as another method of gauging satisfaction, and no patients reported grievances in the first year of the demonstration.

Patients may stay in the MediCaring™ project for the duration of the demonstration (that is, until August 2006). Of the 108 (treatment group) patients who enrolled over the first six months of operation, 47 percent had been enrolled for 10 weeks or less, 29 percent had been enrolled between 11 and 20 weeks, and 24 percent had been enrolled for 21 weeks or more (Table 3). Voluntary disenrollment during the first six months of operations was low—just 5 patients of 108, or approximately five percent. (Another 11 patients died during the first six months of the project.)

TO WHAT EXTENT DOES THE PROJECT ENGAGE PHYSICIANS?

While the importance to project success of engaging eligible beneficiaries is self-evident, engaging physicians also is critical. Care managers must develop trusting, collaborative relationships with primary care physicians for physicians to feel comfortable communicating important information to them about their patients (for example, medication changes, new problems identified during office visits, or areas for additional patient education) and to feel that information they get from the care managers is credible and warrants their attention (for example, regarding problems in the home environment that affect patients' health, functional deficits that patients do not tell physicians about, or reminders about providing preventive care). A trusting, respectful relationship also will facilitate care manager access to physicians when urgent problems arise, and will facilitate communication and coordination across medical care providers (Chen et al. 2000). Moreover, to increase acceptance of care management among physicians in general, care managers would naturally need to engage physicians.

MediCaring™'s care coordination model is designed so that care coordinators interact with physicians only when the need arises concerning a specific patient problem; otherwise, it

TABLE 3

DISENROLLMENT FOR PATIENTS ENROLLED DURING FIRST SIX MONTHS

Number of Patients Enrolled[a]	108
Length of Enrollment as of February 10, 2003 (Percentage of Patients Enrolled)	
10 weeks or less	47
11 to 20 weeks	29
21 or more weeks	24
Mean Length of Enrollment (Weeks)	12
Number of Patients Who Disenrolled	16
Number Who Disenrolled Because:	
Patient died	11
Patient lost project eligibility[b]	0
Patient initiated disenrollment	5
Number Disenrolling:	
Within a week of random assignment	3
Between 1 and 4 weeks	3
Between 5 and 12 weeks	6
More than 12 weeks	4

Source: MediCaring™ project data received January 2003 and updated in April and July 2003. Covers six-month period beginning August 15, 2002 and ending February 10, 2003.

[a]Number of patients enrolled in the treatment group as of February 10, 2003.

[b]Patients can lose project eligibility for the following reasons: joined a managed care plan, Medicare no longer primary payer, developed renal disease treated with dialysis, moved to a skilled nursing facility, or moved out of the community or into hospice.

demands relatively little from physicians to minimize the burden placed on their time. The MediCaring™ project seeks to gain physician acceptance of care coordination as a means to making their practice more efficient, but does not try to change physicians' clinical practice.

Working Relationships with Physicians. MediCaring™'s emphasis on preventive care does not require close collaboration with physicians. However, care coordinators must build relationships with physicians to obtain their help in optimizing patients' medical management and symptom control. The project originally expected that physicians would (1) serve as a source of referrals, (2) encourage their patients to enroll in the project regardless of whether they were directly referred by the physician, and (3) be available to speak with the care coordinators as needed.

Although they provided few direct referrals at the start, the project expected physician referrals to increase as they become familiar with the project. In addition, the project staff had anticipated that physicians would discuss the project with their patients and encourage them to enroll. However, one year into the demonstration, physicians were the source of less than 3 percent of patient referrals. Hospitals and hospitalist groups accounted for 91 percent of referrals, nonphysician community-based providers represented 4 percent of referrals, and patient self-referrals were less than 3 percent.[6] In addition, physicians were not discussing the project with their patients or encouraging them to enroll. Because the majority of patients are identified through hospital discharge or hospitalist practice lists, most physicians are unaware that their patients have been referred to the project. Moreover, project staff now believe that physicians do not have the time to devote to this task even if they are aware that their patients have been referred to the project.

[6]The number of patients directly referred by physicians increased to 8 percent in the second year of the demonstration.

Physicians have made themselves available to answer questions from the care coordinators. As noted, physicians have not been involved in the assessment process or care plan development, although the project sends them patient progress summaries every six months or when the patient's condition changes.

The project's key mechanism for building care coordinator-physician relationships is to have the care coordinators attend office visits with patients. The care coordinators try to attend all specialist visits and all primary care physician visits (except perhaps if the patient has appointments every week or two for routine checks). They believe that accompanying patients on visits has benefits beyond just building physicians' trust in the care coordinator: physicians spend more time with patients and the care coordinators understand more about patients' conditions and treatment plans. The care coordination supervisor reported that one or two physicians (out of approximately 200 physicians caring for treatment group patients) have asked care coordinators not to attend visits. The care coordination supervisor speculated that these physicians either were worried that the care coordinator's presence would violate patient confidentiality or they felt that the care coordinators would question the quality of the care they provided. However, the care coordinators reported that almost all physicians were receptive to their presence during office visits.

The project has developed several other strategies for building good working relationships between care coordinators and physicians. First, as it hired more care coordinators it began to divide them geographically so that they worked with patients in different areas of the county. Although they were not assigned to specific physician practices, the patients in their area were concentrated in a smaller number of practices. This allowed the care coordinators to develop closer relationships with a smaller number of physicians. Second, when a patient is assigned to the project's treatment group, the care coordinator mails an introductory letter to the patient's

primary care physician and follows up with a telephone call. The care coordinators report that they do not often get to speak to physicians at this point and instead must speak with the office nurse or practice manager. However, they believe it is important to make an effort to contact the physicians. Finally, the care coordinators identify physician preferences for the frequency and mode of contact from the project. For example, some physicians prefer faxes to telephone calls. The project staff report that few physicians want to receive patient information by email.

Improving Practice. Changing physicians' clinical practice is not one of the project's goals, although care coordinators will alert physicians if they believe a patient is not receiving optimal medical management. In PhoenixCare, staff found it very difficult to change physician behaviors and thus decided that in MediCaring™ their resources were best used to accomplish other goals. The MediCaring™ care coordinators have had a few cases where they believed the physician was not responding to their recommendations and the project's medical director needed to intervene. However, when the need arises they believe that she is effective in helping physicians understand and accept their recommendations.

The project would like to make physicians more accepting of care coordination. To accomplish this goal, the project staff help physicians to understand care coordination and how to integrate it into their practice. They relate anecdotes about their successes, emphasize that care coordinators can tell physicians about what is happening in patients' homes that may be affecting their ability to follow the physicians' recommendations, and inform the physicians of their ability to help patients arrange for needed support services.

The care coordination supervisor reported that the care coordinators have been able to develop good relationships with some physician groups but not with others. She also reported that because the average patient stay in the project is only eight months, the care coordinators do

not believe that they have been able to develop long-term relationships with physicians.[7] She does not believe that physicians have become more accepting of care coordination over time.

HOW WELL IS THE PROJECT IMPLEMENTING KEY INTERVENTION APPROACHES?

Improving Communication and Coordination. MediCaring™ teaches patients to communicate better with their physicians by helping them overcome their reluctance to schedule an appointment, telephone their physicians with questions, and actually interact with the physicians. The care coordinator will prompt a patient to call his or her physician and then check back to be sure that the patient has made the call. The care coordinators use three techniques to teach patients to communicate better with their physicians. First, the care coordinators role-play with the patients to help them rehearse what they want to say. The care coordinators give patients a list of questions to ask their physicians during a call or visit and then call the patients back to see if they were able to get answers to all of the questions. They also teach patients how to correctly use medical terminology to describe signs and symptoms they may be experiencing. Second, the care coordinators teach patients what information to tell physicians they are visiting for the first time. For example, a list of medications they are taking, the dates and results of recent laboratory or diagnostic tests, examples of functional decline, and specific questions about medications or follow-up care. Finally, the care coordinators will accompany patients on physician visits to model interactions for them. They tell the patient to watch what they do and say, so that the patient can model the care coordinator's behavior on the next visit.

[7]In the second year of the demonstration, the MediCaring™ project faced a patient attrition rate of more than 30 percent due to death and transfer to hospice care. Therefore, the average patient stay in the project has been approximately eight months.

The project improves coordination of care through a variety of approaches. First, it tracks adverse events such as hospitalizations and trips to the emergency room. Care coordinators generally find out about these adverse events from patients or caregivers during their routine monitoring calls, but some patients have called their care coordinator to tell her they have been hospitalized or gone to the emergency room. Hospital discharge planners also sometimes call the care coordinators to tell them that project patients have been hospitalized. During each monitoring contact, the care coordinators routinely ask patients whether they were hospitalized or seen in the emergency room since their last contact. After a hospitalization or emergency room visit, the project requires the care coordinator to visit the patient at home within three days and then contact the patient daily as needed, usually by telephone.

The care coordinator then leads the project team in an analysis of the circumstances that led to the adverse event with the goal of preventing repeat hospitalizations. (See Appendix C for a copy of the Re-Hospitalization Analysis Form.) If the multidisciplinary team concludes that the hospitalization was preventable, they develop new interventions in the hope of avoiding a recurrence. The care coordinator then contacts the physician to create an emergency plan that includes standing orders, if needed. For example, the project has a patient with Parkinson's disease who gets frequent urinary tract infections. When he gets an infection, he becomes lethargic and disoriented. These episodes have resulted in several hospitalizations, especially when they occur at night or on weekends. The care coordinator asked the patient's physician to write a prescription for antibiotics that the patient could keep at home so the patient's wife could give the medication to him when she recognized the onset of an infection. For patients with CHF, the care coordinators have asked physicians to allow patients to take another dose of their diuretic medication to control their symptoms or to have antibiotics on hand to prevent pneumonia when they notice a change in their sputum. Depending upon the confidence and skill

level of the patient, either the care coordinator or the patient implements the physician's standing orders when needed.

Second, the project acts to improve coordination of care by resolving polypharmacy issues affecting its patients. The care coordination supervisor estimated that polypharmacy is a problem for perhaps 80 percent of project patients. The care coordinators most often identify polypharmacy issues during their initial assessment. In addition, the project's medical director identifies problems when the project team discusses new patients in its weekly meetings. The project staff take slightly different approaches to resolving these problems depending upon whether the medications in question have been prescribed by multiple physicians or the primary care physician alone. If more than one physician is involved, the care coordinator will fax each physician a list of the patient's medications along with a note alerting them to the problem. She then makes follow-up calls with each physician to determine how they have decided to resolve the problem. If the medications have been prescribed by the primary care physician, the care coordinator will speak directly to the physician, and make recommendations for changing the patient's medications. The care coordinator will bring the matter to the project's medical director if the physician does not correct the problem. However, the medical director commented that because she knows many of the physicians personally and because these issues are often judgment calls, she must weigh her options carefully before becoming involved. She is reluctant to jeopardize the goodwill she has established with physicians over issues that may make no real clinical difference to patients.

Third, the project has a smaller role in other coordination of care issues such as helping patients choose among alternative courses of treatment. The care coordination supervisor reported that this is not a major issue for the project's patients. She said that its patients more often face issues of whether to continue or discontinue treatment or whether to begin treatment at

all. Occasionally, there is a situation where a physician does not recommend care, such as pulmonary rehabilitation, that would be beneficial to the patient. In such a case, the care coordinator would approach the physician to ask if this care would be appropriate for the patient. Similarly, the project seldom needs to help resolve situations where patients believe they are being given conflicting advice by their physicians. Although she did recall one case where there was a lack of communication between a cardiologist and a pulmonologist and the care coordinator was able to speak with both physicians and straighten out the misunderstanding.

In summary, the MediCaring™ project has implemented several interventions that seem likely to increase communication and coordination of care. The project's primary strategy is to teach patients to communicate more effectively with their physicians. The care coordinators attend most physician visits and help patients to model their interactions with physicians. The project team analyzes the causes of patient hospitalizations and emergency room visits and designs proactive interventions to prevent recurrences. Care coordinators resolve polypharmacy issues by providing physicians with information about the medications in question and by working with them to eliminate interactions and other problems.

Improving Patient Adherence. The MediCaring™ project takes two approaches to patient teaching. First, as discussed in the previous section, it teaches patients to communicate more effectively with their physicians. Second, the project uses Prochaska and DiClemente's (1982) transtheoretical model of behavior change to determine patients' willingness to make behavioral changes and set appropriate goals to help them improve their self-care skills.[8] The care

[8]This model describes behavior change as consisting of six stages: (1) precontemplation, no intention of taking action to change a behavior within the next six months; (2) contemplation, intends to take action within the next six months; (3) preparation or determination, intends to take action within the next 30 days and has taken some behavioral steps in this direction; (4) action, has changed overt behavior for less than six months; (5) maintenance, has changed overt behavior for more than six months; and (6) termination, overt behavior is permanently changed.

coordinators identify each patient's stage of readiness to change and adapt their interventions to those needs. The care coordinators do not use a formal assessment tool to determine patients' stage of readiness, but instead use their clinical judgment and experience to gauge patients' readiness to change and their educational needs. As the care coordination supervisor described it, the project's teaching is not just a straightforward presentation of facts, but instead focuses on finding creative ways for patients to incorporate what they have learned into their lives.

The project provides care coordinators with structured educational checklists, rather than a standard curriculum. The project has developed checklists for CHF, COPD, Alzheimer's disease, and diabetes education based on clinical practice guidelines approved by the major disease associations.[9] (See Appendix C for the CHF checklist.) The checklists cover four areas: (1) understanding disease etiology as well as signs and symptoms and their relationship to patient behaviors, (2) learning self-care skills, (3) improving adherence to treatment recommendations, and (4) learning about the availability of community resources. The teaching materials used by the care coordinators also come from the disease associations.

Originally, the project had planned to map out the content of each patient contact. For example, during the first contact with a patient with CHF, the care coordinator was to provide a medication schedule with the names, dosages, times, and purposes of the medications. During the second contact, they were to explain the effects and side effects of vasodilators, diuretics, and potassium supplements, as well as symptoms of hypotension. Then on the third contact they were to discuss the effects and side effects of beta-blockers and digoxin. However, as the project progressed, the staff realized that patients' varying needs required them to be more flexible.

[9]Although diabetes is not a target condition for the project, it is a common comorbid condition among enrolled patients.

Now the checklists are used more as guidelines for what material should be covered, but not necessarily when it should be covered.

The care coordinators adapt their teaching of the material in the project's disease-specific checklists to patients' individual education needs. However, the project had not adapted its checklists or approach to teaching to larger subgroups that exist within the population of Medicare beneficiaries. The care coordination supervisor reported that adaptations for such groups as non-English speakers and individuals with low literacy have not been necessary because the MediCaring™ project's enrollees exhibit very little demographic diversity.[10] She explained that most of the project's participants are well-educated non-Hispanic whites, many of whom have retired to the Phoenix area. Nevertheless, the care coordinators are able to adapt their teaching to individual patients' needs because they are able to choose from the project's extensive collection of both written and audiovisual teaching materials, and they conduct many patient visits in person. For example, if a patient has a cognitive deficit, the care coordinator involves the patient's family. For patients with visual impairments, the care coordinators use talking books and other materials from the Association for the Blind.

The care coordinators provide the majority of the project's patient education. The project does not require care coordinators to have specific patient education training or experience, but since all are registered nurses and most have care coordination or disease management experience, the project believes that they have the necessary teaching skills. The project does not train new care coordinators on how to conduct patient teaching. However, new care coordinators go on patient visits with more experienced care coordinators, and the care

[10]Approximately 10 percent of the project's participants speak English as a second language. However, none of the care coordinators speak Spanish.

coordination supervisor listens in on their telephone contacts with patients to ensure that education is being delivered appropriately.

The care coordinators sometimes refer patients to other education resources in the community. For example, they may refer patients with new-onset diabetes or patients whose glucose levels are out of control to certified diabetes educators. They may also refer patients to disease support groups and Medicare-covered cardiac or pulmonary rehabilitation programs.

The care coordinators determine if patients understand educational messages by asking them to explain or recall concepts that they were taught in previous contacts. For example, after several contacts with a patient with CHF, the care coordinator assesses the patient's understanding of the low sodium diet and his or her ability to plan meals that are low in sodium. If it appears that a patient's knowledge is not improving, the care coordinator will reassess the patient's stage of readiness to make behavioral changes and modify the care plan to focus on more attainable goals. However, if the care coordinator believes that the patient's behavior is creating a dangerous situation, she will ask the patient's permission to involve a family member.

The care coordinators provide education during nearly every patient contact. Among the 108 patients enrolled in the MediCaring™ project during its first six months, 85 percent had received at least one contact for self-care or disease-specific education, 51 percent had received a contact to explain a medication, and 7 percent had received at least one contact to explain a test or procedure (Table 1).

In summary, the MediCaring™ project has implemented an education intervention that should help patients improve their self-care skills and communicate more effectively with their physicians. The care coordinators assess patients' readiness to make behavioral changes and set goals to help them move toward desired changes. The project uses structured education checklists based on nationally recognized clinical practice guidelines. Care coordinators adapt

their teaching to individual patient needs, but the program's relatively homogeneous patient population has not required that it adapt itself to patient diversity in language, culture, or other socioeconomic differences that appear in the overall Medicare population. The project does not require care coordinators to have specific patient education training or experience, but it is confident that, because of their prior care coordination and disease management experience, they have the skills they need. If patients are not attaining education goals, the care coordinators reassess patients' stage of readiness to change and modify their care plan goals.

Increasing Access to Services. Increasing access to services is not the program's primary focus, but it is still an important aspect of the MediCaring™ project. The project's care coordinators and social worker identify patients' service needs and either arrange for or refer patients to these services. The care coordination supervisor estimated that 80 percent of the project's patients have service needs, most commonly long-term care placement and financial assistance. The MediCaring™ project staff have developed an extensive list of homemaker and other in-home services that they provide to patients. A Hospice of the Valley social worker, who works 10 hours a week for the project, helps patients apply for Medicaid, energy assistance, and other benefit programs. If a patient must pay directly for a service (such as private duty nursing or respite care), the care coordinator will research the particular service the patient needs and provide contact information, but let the patient or caregiver arrange the service. Then the care coordinator follows up with the patient to ensure that they have set up the service. For Medicare-covered services that must be arranged through the physician, the care coordinator will obtain the referral for the patient and arrange the service. If the patient is receiving home health care, the project prefers to let the agency arrange the services the patient needs. They feel that this eliminates the confusion of having too many people involved in the patient's care.

The project does not pay for support services for patients, but it will occasionally pay for scales or medication cassettes. In the first six months of the demonstration, MediCaring™ did not purchase either of these items for any project patients. However, approximately 18 percent of patients received help from a care coordinator who referred them to, or arranged for, non-Medicare covered services. A smaller proportion of patients (2 percent) received help arranging for Medicare-covered services (Table 1). One year into the demonstration, the most commonly arranged services were home-delivered meals, support groups, and assisted-living and long-term care placement.

WHAT WERE ENROLLEES' MEDICARE SERVICE USE AND COSTS?

This report provides preliminary estimates of the effect of the MediCaring™ project on Medicare service use and expenditures. These early estimates must be viewed with caution, as they are not likely to be reliable indicators of the true effect of the project over a longer period of time. Due to lags in data availability, analysis for this report included only an early cohort of enrollees (those enrolling during the first four months of project operation) and allowed observation of their experiences during their first two months in the project. The estimates thus include patients' experiences only during the project's first six months of operation, when staff still may have been fine-tuning the intervention. Moreover, the project may enroll patients with quite different characteristics over time.

Total Medicare Part A and B reimbursements for the treatment group, exclusive of demonstration payment, were $5,706 ($2,853 per month), on average, during the first two months after enrollment, compared with $4,186 ($2,093 per month) for the control group (Table 4). The treatment-control difference of $1,520 ($760 per month), or 36 percent, is not

TABLE 4

MEDICARE-COVERED SERVICE USE DURING THE TWO MONTHS AFTER THE MONTH OF RANDOMIZATION, FOR EARLY ENROLLEES

	Treatment Group	Control Group	Difference[a]
Inpatient Hospital Services			
Any admission (percentage)	24.6	21.9	2.8
Mean number of admissions	0.28	0.33	–0.05
Mean number of hospital days	2.04	2.06	–0.02
Emergency Room Services			
Any emergency room encounters (percentage)			
Resulting in admission	13.0	18.8	–5.7
Not resulting in admission	7.3	21.9	–14.6**
Total	18.8	32.8	–14.0*
Mean number of emergency room encounters			
Resulting in admission	0.13	0.23	–0.10
Not resulting in admission	0.07	0.23	–0.16**
Total	0.20	0.47	–0.27**
Skilled Nursing Facility Services			
Any admission (percentage)	4.4	9.4	–5.0
Mean number of admissions	0.04	0.09	–0.05
Mean number of days	1.01	1.20	–0.19
Hospice Services			
Any admission (percentage)	11.6	3.1	8.5*
Mean number of days	1.81	0.47	1.34
Home Health Services			
Any use (percentage)	13.0	21.9	–8.8
Mean number of visits	3.06	5.42	–2.36
Outpatient Hospital Services[b]			
Any use (percentage)	36.2	43.8	–7.5
Physician and Other Part B Services[c]			
Any use (percentage)	100.0	100.0	0.0
Mean number of visits or claims	12.2	11.8	0.4
Mortality Rate (percentage)	8.6	3.1	5.5
Total Medicare Reimbursement[d]			
Part A[e]	$4,281	$2,239	$2,042
Part B	$1,425	$1,947	–$522
Total	$5,706	$4,186	$1,520
Reimbursement for Care Coordination[f]	$393	$0	$393***
Number of Beneficiaries	**70**	**65**	

Table 4 *(continued)*

Source: Medicare National Claims History File.

Note: Sample includes those enrolled during the first four months of project operations. Participants were excluded from this table if they had an invalid HIC number on MPR's enrollment file, were identified as a member of the same household as a research sample member, or did not meet Medicare coverage and payer requirements (defined as having Medicare as a secondary payer, being in a Medicare managed care plan, or not having Part A and Part B coverage) during the month of randomization. Patient-months were excluded if the participant did not meet the above Medicare coverage and payer requirements that month, or had died in a previous month.

"Percentages with any medical encounter type" are the percent of treatment or control group members who have at least one encounter of a particular type; "mean numbers of medical encounter types" are the average number of encounters of a particular type per treatment or control group member.

[a]These estimates are based on preliminary data and will be updated in the second site-specific report.

The direction of the treatment-control difference does not by itself signify whether the project is "effective." That is, for some outcomes a statistically significant negative difference (such as lower hospitalization rates for the treatment group than for the controls) suggests that the project is working as intended. However, a positive difference for other outcomes, such as number of physician visits, does not necessarily mean the project is ineffective or having adverse effects, because the project may encourage patients to see their physician more regularly, for preventative care or to obtain recommended laboratory tests for their target conditions, than they would have in the absence of the demonstration.

Due to rounding, the difference column may differ slightly from the result when the control column is subtracted from the treatment column.

[b]Includes visits to outpatient hospital facilities as well as emergency room visits that do not result in an inpatient admission. Laboratory and radiology services are also included.

[c]Includes diagnostic laboratory and radiology services (including pathologist and radiologist services) from nonhospital providers, suppliers and devices, mammography, ambulance, covered medications, blood, and vaccines.

[d]Does not include reimbursement for care coordination services provided by demonstration projects.

[e]Includes reimbursement for inpatient, skilled nursing facility, hospice, and all home health care (including that paid under Medicare Part B). Excludes reimbursement for care coordination services provided by demonstration projects.

[f]This is the average amount paid to the project as recorded in the Medicare claims data for the two months following randomization. The difference between the recorded amount and two times the amount the project was allowed to charge per-member, per-month may reflect billing errors, delays, or payment adjustments for patients who disenrolled.

*Difference between treatment and control groups significantly different from zero at the .10 level, two-tailed test.
**Difference between treatment and control groups significantly different from zero at the .05 level, two-tailed test.
***Difference between treatment and control groups significantly different from zero at the .01 level, two-tailed test.

statistically significant (p-value = 0.42). The higher cost of the treatment group is due to two patients with Medicare reimbursements averaging over $35,000 per month.

While the difference in reimbursement between the treatment and control groups is not statistically significant, there is suggestive evidence that MediCaring™ may be shifting treatment group members to more appropriate service use. The treatment group was significantly less likely to have an emergency room visit that did not result in a hospital admission (7 percent as compared with 22 percent of the control group). The treatment group also was significantly more likely to begin hospice services in the two-month period: 12 percent of the treatment group and 3 percent of the control group began hospice. While these findings are promising, the early cohort and short followup raise the question of whether this is truly a project effect. Project-induced changes in service use may well occur only after a patient has been enrolled for several months and the project has had time to affect his or her behavior and health. In addition, the Medicare reimbursements for treatment group members increase by $393 when one takes into account the per-patient, per-month payment to MediCaring™ over the first two months (or $197 per month).[11] Thus, total treatment group costs per beneficiary are $1,913 more than control group costs over the two-month followup.

We also examined monthly trends in treatment-control differences from August 2002 through January 2003, the first six months of project operation (Table 5). The sample enrolled each month is large enough (at least 50 patients in each group) to warrant comparison only over the last four months. In three of these months, the treatment group incurred higher Medicare expenditures and had more hospitalizations than the control group, but none of the differences is statistically significant at the 10 percent level. It is too soon to tell whether the project will

[11]The per-patient, per-month fee charged by the project is $224, or $448 over the two-month period. The slightly lower means in Tables 4 and 5 may have resulted from billing errors, payment delays, or payment adjustments for patients who disenrolled or died.

TABLE 5

MONTHLY MEDICARE SERVICE USE FOR PARTICIPANTS WHO ENROLLED DURING THE FIRST SIX MONTHS OF PROJECT OPERATIONS

	Group	Aug 02	Sept02	Oct 02	Nov 02	Dec 02	Jan 03
Cumulative Enrollment Through Month-End	Treatment	19	40	54	67	84	103
	Control	18	38	50	62	78	98
Mean Number of Beneficiaries Enrolled Who Meet Medicare Coverage and Payer Requirements and Are Alive That Month	Treatment	19	38	49	62	76	92
	Control	15	35	46	56	69	86
Average Medicare Reimbursement During the Month[a]	Treatment	$2,408	$2,674	$2,973	$2,537	$3,512	$1,256
	Control	$1,198	$2,088	$2,594	$1,923	$2,945	$1,965
Average Reimbursement for Care Coordination During the Month[a,b]	Treatment	$224	$213	$211	$206	$204	$200
Whether Admitted to Hospital This Month[a] (Percentage)	Treatment	10.5	10.5	18.4	19.4	11.8	9.8
	Control	0.0	14.3	17.4	10.7	18.8	8.1
Treatment - Control Difference[c]							
Average Medicare Reimbursement[a]		$1,210	$587	$379	$614	$567	–$708
Average Reimbursement for Medicare plus Care Coordination[a]		$1,435	$799	$590	$820	$771	–$508
Percentage Hospitalized[a]		10.5	–3.8	1.0	8.6	–7.0	1.6

Source: Medicare National Claims History File.

[a]Participants were excluded if they died in a previous month or failed to meet the Medicare coverage and payer requirements during the month of randomization or the month examined—that is, if they were in a Medicare managed care plan, had Medicare as a secondary payer, or did not have both Part A and Part B coverage. Participants were also excluded entirely from this table if they had an invalid HIC number on MPR's enrollment file.

TABLE 5 *(continued)*

[b]This is the average amount paid to the project as recorded in the Medicare claims data. The difference between the recorded amount and the project's approved per-member, per-month fee may reflect billing errors, delays, or payment adjustments for patients who disenrolled.

[c]These estimates are based on preliminary data and will be updated in the second site-specific report.

The direction of the treatment-control difference does not by itself signify whether the project is "effective." That is, for some outcomes a statistically significant negative difference (such as lower hospitalization rates for the treatment group than for the controls) suggests that the project is working as intended. However, a positive difference for other outcomes, such as number of physician visits, does not necessarily mean the project is ineffective or having adverse effects, because the project may encourage patients to see their physician more regularly, for preventative care or to obtain recommended laboratory tests for their target conditions, than they would have in the absence of the demonstration.

*Difference between treatment and control groups significantly different from zero at the .10 level, two-tailed test.
**Difference between treatment and control groups significantly different from zero at the .05 level, two-tailed test.
***Difference between treatment and control groups significantly different from zero at the .01 level, two-tailed test.

reduce hospitalization and Medicare expenditures when it has more patients and a longer follow-up period is examined.

CONCLUSION

Research over the past decade suggests, but is by no means conclusive, that successful care coordination has many features. These include effective patient identification, a well-designed and structured intervention, highly qualified staff, physician buy-in, and financial incentives aligned with project goals.

First, to generate net savings over a relatively short period, effective projects tend to target high-risk people. These people may include those with recognized high-cost diagnoses such as heart failure, but also those with prevalent geriatric syndromes such as physical inactivity, falls, depression, incontinence, misuse of medications, and undernutrition (Rector and Venus 1999; Fox 2000).

Second, successful projects tend to have a comprehensive, structured intervention that can be adapted to individual patient needs. Key features include a multifaceted assessment whose end product is a written care plan that can be used to monitor patient progress toward specific long- and short-term goals and that is updated and revised as the patient's condition changes, as well as a process for providing aggregate- and patient-level feedback to care coordinators, project leaders, and physicians about patient outcomes (Chen et al. 2000). Another critical aspect is patient education that combines the provision of factual information with techniques to help patients change self-care behavior and better manage their care, as well as addressing affective issues related to chronic illness (Williams 1999; Lorig et al. 1999; Vernarec 1999; Roter et al. 1998; Aubry 2000). Finally, successful projects tend to have structures and procedures for integrating fragmented care and facilitating communication among providers, addressing the complexities posed by patients with several comorbid conditions, and, when

necessary, arranging for community services (Chen et al. 2000; Bodenheimer 1999; Hagland 2000).

The third and fourth characteristics that have been associated with successful projects are having highly trained staff and having actively involved providers. Strong projects typically have care coordinators who are baccalaureate-prepared nurses or who have case management or community nursing experience. They also tend to have the active support and involvement of patients' physicians (Chen et al. 2000; Schore et al. 1999).

Finally, periodic feedback during the demonstration period can motivate providers and care coordinators and enable the project to modify or intensify the intervention if it appears that it is not having the expected effect on intermediate or ultimate outcome indicators. Financial incentives can encourage physicians and project staff to look for creative ways both to meet patient goals and reduce total health care costs (Schore et al. 1999).

Project Strengths and Unique Features. The MediCaring™ project has many features associated with effective care coordination projects, plus some unique features:

- The project targets and enrolls patients with advanced stages of diagnoses typically associated with high health care costs and who have had a hospitalization or emergency room visit in the year prior to enrollment. The project has enrolled patients whose preenrollment Medicare expenditures are much higher than those estimated in the demonstration's waiver application, unlike most other MCCD projects.
- Care coordinators conduct comprehensive assessments to identify patient needs upon which they base individualized care plans that can be updated as patient needs change. The full project team reviews plans for every patient. The frequency of patient monitoring, both by telephone and in person, decreases the longer a patient is in the project unless patient conditions warrant greater frequency.
- The project's care coordination information system generates several reports that the care coordination supervisor uses to manage project operations. The care coordinators receive feedback on their performance in reviews conducted three months after they begin employment and then yearly thereafter. They also get the input of the project team during their weekly meetings. Although the project has begun to collect data on patient outcomes, it has not determined when reports of these data will be available to care coordinators or patients' physicians.

- Care coordinators integrate fragmented care by resolving polypharmacy issues identified in a medication review at initial assessment. In addition, the care coordinators' attendance at physician visits reduces fragmentation of care by allowing the care coordinators to ask questions that might otherwise go unasked or follow up on issues that patients may not have realized were important. The care coordinators also analyze the cause of adverse events and work with patients' physicians to develop standing orders for patients in order to prevent recurrences.
- Patient education is based on structured guidelines tailored to patients' readiness to change and their individual learning needs. However, because of the homogeneity of its patient population, the project had not made adaptations to the social, cultural, and demographic differences seen in the overall Medicare population. Care coordinators monitor whether patients' self-care knowledge and skills are improving and reassess patients' readiness to make behavioral changes and modify care plan goals if they are not progressing. The care coordinators use tools such as role-playing and modeling interactions with physicians to help patients improve their ability to communicate with physicians.
- All care coordinators are registered nurses, and most have community nursing experience in disease management, case management, or home health.

Potential Barriers to Project Success. The MediCaring™ project has many positive features, but it may face potential barriers to its success. The project has had difficulty building relationships with physicians. It has tried to keep physician burdens to a minimum and accommodate physician preferences in its communications. Although the staff describe some physicians as enthusiastic about care coordination, the opinion of the majority of physicians has been neutral: they have ignored the presence of the program until a care coordinator has asked them a question. The project's leadership and the care coordinators worked to introduce the project and its goals to physicians, but one year into the demonstration, the care coordination supervisor did not believe that more physicians had changed their opinion from neutral to positive. However, only a small minority of physicians have been negative about the project, either rejecting communications from the project or refusing to allow care coordinators to attend office visits with patients. The MediCaring™ demonstration requires a level of physician collaboration similar to that of the other MCCD projects. However, its care coordinators have

the opportunity to interact productively with physicians during patients' office visits and ask them to write standing orders for patients' care plans, both of which have the potential to show physicians the value of care coordination. Although the level of physician enthusiasm for the project may not be what the project staff had hoped it would be, it should not affect the project's ability to improve communication and coordination of care.

Second, the project has had difficulties identifying and enrolling patients. The project's largest source of referrals withdrew its participation in the first few months of the demonstration. In addition, the majority of potential patients who were identified through both generated lists and direct referrals were either uncontactable or ineligible. Moreover, the use of cold calls to potential patients resulted in a high refusal rate. Thus, the project expended significant staff time to locate and screen referred patients, but very few of these patients went on to enroll. The time and effort dedicated to patient enrollment distracted the staff's focus from project operations in the first year of the demonstration. The project staff believe their enrollment difficulties have been a major problem. However, MediCaring™'s problems with enrollment are similar to many other MCCD projects and, in fact, this project's rate of patient enrollment is relatively higher than many of the MCCD projects.

Finally, the project is enrolling a patient population whose service use and costs in the year prior to enrollment are much higher than anticipated. It is too soon to measure the effect of this factor on the project's impacts. However, given the high service use and costs and advanced age of the enrollees, it is possible that many of those enrolled are too severely ill to benefit from the intervention. That is, their conditions may have already advanced to a stage where good self-care and adherence to medication and diet regimens may no longer be sufficient to have much effect on the number or severity of acute episodes requiring intensive services. Conversely, the project's emphasis on avoiding repeat hospitalizations and identifying individuals at high-risk

may lead to a greater effect on the enrolled population. Future data analysis will provide more insight into this issue.

Plans for the Second Site-Specific Report. A second report will be prepared on the MediCaring™ project's activities during the second and third years of operation. That report will focus more heavily on project impacts based on survey and claims data. It will also describe changes made to the project over time and the reasons for those changes, as well as staff impressions of project successes and shortcomings. The report is due in mid-2005.

REFERENCES

Aubry, Barbara. "Bolstering Disease Management Programs." *Healthplan*, July-August 2000, pp. 11-12.

Bodenheimer, Thomas. "Disease Management—Promises and Pitfalls." *New England Journal of Medicine*, vol. 340, no. 15, April 15, 1999, pp. 1202-1205.

Brown, Randall, Deborah Peikes, Eric Schone, Nazmul Khan, Arnie Aldridge, and Lucy Lu. "Waiver Cost Estimates for the Medicare Coordinated Care Demonstration." Princeton, NJ: Mathematica Policy Research, Inc., August 31, 2001.

Chen, Arnold, Randall Brown, Nancy Archibald, Sherry Aliotta, and Peter Fox. "Best Practices in Coordinated Care." Princeton, NJ: Mathematica Policy Research, Inc., February 29, 2000.

Fox, Peter. "Screening: The Key to Early Intervention for High-Risk Seniors." *Healthplan*, November-December 2000, pp. 56-61.

Hagland, Mark. "Integrating Disease Management." *Healthplan*, January-February 2000, pp. 43-46.

Hospice of the Valley. "Mission and History." Available at [http://www.hov.org/know.html]. Accessed December 30, 2002.

Lorig, Kate, David Sobel, Anita Stewart, et al. "Evidence Suggesting That a Chronic Disease Self-Management Program Can Improve Health Status While Reducing Hospitalization." *Medical Care*, vol. 37, no. 1, 1999, pp. 5-14.

Prochaska, James, and Carlo DiClemente. "Transtheoretical Therapy Toward a More Integrative Model of Change." *Psychotherapy: Theory, Research and Practice*, vol. 19, no. 3, 1982, pp. 276-287.

Rector, Thomas, and Patricia Venus. "Judging the Value of Population-Based Disease Management." *Inquiry*, vol. 36, summer 1999, pp. 122-126.

Roter, Debra, Judith Hall, Rolande Merisca, et al. "Effectiveness of Interventions to Improve Patient Compliance." *Medical Care*, vol. 36, no. 8, 1998, pp. 1138-1161.

Schore, Jennifer, Randall Brown, and Valerie Cheh. "Case Management for High-Cost Medicare Beneficiaries." *Health Care Financing Review*, vol. 20, no. 4, summer 1999, pp. 87-102.

Vernarec, Emil. "Health Care Power Shifts to the People." *Business and Health: The State of Health Care in America 1999*, pp. 8-13.

Williams, Mark. "Chronic Care Clinics: Why Don't They Work?" *Journal of the American Geriatric Society*, vol. 47, no. 7, July 1999, pp. 908-909.

APPENDIX A

ADDITIONAL TABLES

A.1 DEMONSTRATION PROGRAMS PARTICIPATING IN THE EVALUATION

A.2 LIST OF DOCUMENTS REVIEWED FOR THIS REPORT

TABLE A.1

DEMONSTRATION PROGRAMS PARTICIPATING IN THE EVALUATION

Host Organization	Organization Type	Service Area	Targeted Diagnoses
Avera Research Institute/Avera McKennan Hospital and University Health Center	Hospital	49 counties in South Dakota and 22 contiguous counties in Minnesota, Nebraska, and Iowa	CHF
Carle Foundation	Integrated delivery system	11 counties in east central Illinois and 2 counties in west central Indiana	Heart conditions Diabetes Chronic lung disease
CenVaNet	Provider of care coordination services owned by hospitals and physicians	Richmond, Virginia, metropolitan area	Heart conditions Diabetes Chronic lung disease Cerebrovascular disease
Charlestown Retirement Community	Part of Erickson Retirement Communities	2 retirement communities in the Baltimore, Maryland, metropolitan area[a]	Heart conditions Diabetes COPD
CorSolutions	Provider of disease management services	Harris, Fort Bend, Bruzoria, and Montgomery counties, Texas (Houston area)	CHF
Georgetown University Medical School	Academic institution in partnership with Medstar, owner of Georgetown University Hospital and Washington Hospital Center	Washington, DC, and parts of Maryland and Virginia	CHF
Health Quality Partners	Provider of quality improvement services	Four counties in eastern Pennsylvania	Heart conditions Diabetes Asthma Moderate to severe hyperlipidemia or hypertension
Hospice of the Valley	Hospice	Maricopa County, Arizona (greater Phoenix)	CHF COPD Cancer Neurological conditions

TABLE A.1 *(continued)*

Host Organization	Organization Type	Service Area	Targeted Diagnoses
Jewish Home and Hospital Lifecare System	Long-term care provider, in partnership with the medical practices of St. Luke's and Mt. Sinai hospitals as referral sources	Manhattan and the Bronx, New York City	Heart conditions Diabetes Chronic lung disease Cancer Liver disease Stroke or other cerebrovascular disease Psychotic disorder Major depressive or anxiety disorder Alzheimer's or other cognitive impairment
Lovelace Health Systems	Integrated delivery system	Albuquerque metropolitan statistical area (Bernalillo, Valencia, and Sandoval counties in New Mexico)	CHF Diabetes
Medical Care Development	Consortium of 17 Maine hospitals hosted by a health services research organization	Rural areas of Maine	Heart conditions
Mercy Medical Center/North Iowa	Hospital	Rural areas of Iowa	CHF Chronic lung disease Liver disease Stroke Vascular disease Renal failure
QMed	Provider of disease management services	2 counties in northern California	CAD
Quality Oncology, Inc.	Provider of disease management services	Broward and Dade counties, Florida	Cancer
University of Maryland Medical School	Academic institution	Baltimore, Maryland, metropolitan area, two counties in western Maryland, four in eastern Maryland, and two in Pennsylvania	CHF
Washington University School of Medicine	Academic institution in partnership with American Healthways, a disease management services provider	St. Louis, Missouri, metropolitan area	No specific diagnoses targeted[b]

TABLE A.1 *(continued)*

Note: Each program's service area and targeted diagnoses refer to its first year of operations.

Heart conditions may include congestive heart failure (CHF); coronary artery disease (CAD); atrial fibrillation; and ischemic, hypertensive, or other heart diseases. Chronic lung disease includes asthma and chronic obstructive pulmonary disease (COPD). Neurological conditions include stroke, Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis.

[a]Charlestown added a third retirement community in April 2003.

[b]Washington University uses an algorithm developed by its demonstration partner, American Healthways, to target Medicare beneficiaries who are likely to become clinically unstable and to require hospitalization during the next 12 months.

TABLE A.2

DOCUMENTS REVIEWED FOR THIS REPORT

Hospice of the Valley Application for the Medicare Coordinated Care Demonstration Project (proposal submitted to the Health Care Financing Administration, October 2000)

Site operational protocols (January 2002)

Project organizational chart

Position descriptions:
- Program director (care coordination supervisor)
- Medical director
- RN Case coordinator (care coordinator)

Project fact sheet and referral form*

Informed consent for participation*

Initial assessment instruments
- Initial patient history form*
- Comprehensive care coordinator assessment*
- Management of medications form*

Coordinator reassessment form*

Six month report to physicians*

MCCD patient/caregiver care plan template*

Care coordinator contact note*

Case coordinator orientation schedule*

Competency inventory*

Care coordination training manual*

Reports generated at the program level
- MediCaring project performance improvement summary
- Quality indicator report (April, May, June 2004)
- MediCaring enrollment status (Year 1 and 2)
- MediCaring referral and conversion rates (Year 1 and 2)
- MCCD patients with more than two hospitalizations
- MCCD hospitalizations by diagnosis

MediCaring satisfaction survey*

Outcome measurement data (draft)

Rehospitalization analysis form*

Patient education checklists
- CHF*
- COPD

* Included in Appendix C of this report

APPENDIX B

METHODS USED TO ANALYZE PARTICIPATION AND PROJECT IMPACTS

This appendix describes the methods and data sources used to analyze participation and treatment-control service use and reimbursement differences using Medicare data.

A. METHOD FOR CALCULATING PARTICIPATION RATE AND PATTERNS

We measured the proportion and types of beneficiaries attracted to the project by calculating the participation rate and patterns. The participation rate was calculated as the number of beneficiaries who met the project's eligibility criteria and actually participated during the first six months of the project's operations, divided by the number who met the eligibility criteria. The six-month window spanned 179 days, August 15, 2002 through February 10, 2003. We then explored patterns of participation by comparing eligible participants and eligible nonparticipants, noting how they differed on demographics, the reason for Medicare eligibility, and the costs and use of key Medicare services over the previous two years.

1. Approximating Project Eligibility Criteria

We began by identifying the project's eligibility criteria, reflecting CMS's insurance coverage and payer criteria for all projects and the MediCaring project's specific criteria. CMS excluded beneficiaries from the demonstration who were not at risk for incurring full costs in the fee-for-service (FFS) setting because they (1) were enrolled in a Medicare managed care plan, (2) did not have both Part A and B coverage, or (3) did not have Medicare as the primary payer.

In addition to the Medicare coverage and payer requirements, MediCaring applied project-specific criteria to identify the target population. Table B.1 summarizes these criteria, which were approved by CMS and by the Office of Management and Budget (Brown et al. 2001). The project confirmed these criteria in spring 2003. To be considered for the MediCaring demonstration, beneficiaries must have had a diagnosis of at least one of the following conditions during the previous six months: CHF or other heart disease with a New York Heart

TABLE B.1

ELIGIBILITY CRITERIA

Inclusion Criteria	During the previous six months (changed to one year in January 2003), the patient had (1) A diagnosis of any of the following conditions: CHF or other heart disease with NY Heart Association Class III or IV, COPD or lung disease required to use home oxygen or have oxygen saturation < 88%, cerebrovascular disease or stroke, and terminal cancer, and "neurological disease" - covering ALS, Parkinson's, other deteriorating neurological diseases including Alzheimer's and dementia that require help with at least 2 of 4 ADL's. (2) An inpatient or emergency room visit for any condition.
Exclusion Criteria	Meets any of the following criteria: 1. Under age 65 2. ESRD 3. Hospice claim
Providers/Referral Sources	Hospitals, physician groups, assisted living and skilled nursing facilities, and home health agencies.
Geographic location	Maricopa County, Arizona

Association (NYHA) class of III or IV; COPD or other lung disease with either an oxygen saturation level of less than 88 percent or requiring the use of home oxygen; cerebrovascular disease or stroke; metastatic cancer without curative potential (but not hospice eligible), or amyotrophic lateral sclerosis (ALS), Parkinson's disease, or other deteriorating neurological diseases including Alzheimer's and other dementias that require help with at least 2 of 4 activities of daily living (ADLs). In addition, the beneficiary must have had an inpatient hospitalization or emergency room visit for *any* condition in the six months preceding

enrollment.[1] Along with meeting the diagnosis and utilization criteria, at the time of enrollment beneficiaries could not (1) be under the age of 65, (2) have end-stage renal disease (ESRD), or (3) be receiving Medicare's hospice benefit.

We could approximate most of the MediCaring project's criteria using Medicare data with some exceptions. We implemented the requirement that a patient must have had one of the target conditions by examining whether a beneficiary had such an encounter at any point during the 30-month period beginning September 1, 2000—two years before enrollment began—and ending six months after enrollment started (February 28, 2003). To identify whether a beneficiary met the project's utilization (inpatient and emergency room visits) or medical exclusion criteria, we examined hospital claims over a 18-month period starting September 1, 2001 and ending February 28, 2003. We were unable to observe the complete diagnostic history for beneficiaries who had not been in FFS Medicare during the full year before the six-month enrollment window.[2] In addition, we could not restrict our inclusion criteria to "high risk" beneficiaries because we could not identify beneficiaries' NYHA class, oxygen level, use of home oxygen, or need for help with ADLs. We therefore expect that the estimates we present in this interim report will understate the actual service use and cost for both the treatment and control groups, to a similar extent. Future analyses will allow for a longer lag time, ensuring that the data are essentially complete for the followup period examined.

[1]In January 2003, the MediCaring project received permission from CMS to change the prior utilization criterion from 6 months to one year.

[2]Among the 209 beneficiaries who enrolled in the first six months, had valid HIC numbers reported, and met CMS's insurance requirements, 9.1 percent were enrolled in Medicare FFS less than a year before they enrolled in the demonstration; 2.9 percent of participants were in FFS fewer than 6 of the 12 months before enrolling.

2. Identifying Health Insurance Claim (HIC) Numbers and Records of Participants and All Beneficiaries

We used Medicare claims and eligibility data and data submitted by the project to identify participants and eligible nonparticipants. For all participants, we used the Medicare enrollment database (EDB) file to confirm the HIC number, name, and date of birth submitted by the project when beneficiaries were randomized. We identified potentially eligible nonparticipants by identifying the HIC numbers of all Medicare beneficiaries who were alive and living in the catchment counties during the six-month enrollment window. Initially, three years of Denominator records (1999-2001) and one year of HISKEW records (2002) were used to identify people living in the catchment area at any time in the 1999-2002 period. HIC numbers of potentially eligible nonparticipants and all participants together formed a "finder file." The finder file was used to gather data on the beneficiary's state and county of residence during the six-month enrollment period, and obtain eligibility information from the EDB. Using this information, we limited the sample to people living in the catchment area at any point during the six-month enrollment window. This finder file was also used to make a "cross-reference" file to ensure that we obtained all possible HIC numbers the beneficiary may have been assigned. This was done using Leg 1 of CMS's Decision Support Access Facility. At the end of this step, we had a list of HIC numbers for all participants, as well as all beneficiaries living in the catchment area during the six-month enrollment period.

3. Creating Variables from Enrollment and Claims Data

We obtained eligibility information from the EDB and diagnostic and utilization data from the National Claims History (NCH)[3]. All claims files were accessed through CMS's Data

[3]Occasionally, the HIC number in the cross-reference file was not in the EDB file that we used. Because data from the EDB were needed for the analyses, such beneficiaries were dropped from the sample. One reason for

Extract System. At the end of July 2003, we requested Medicare claims from 2000 through 2003. We received all claims that were updated by CMS through March 2003. This allowed a minimum of a one-month lag between a patient's receipt of a Medicare-covered service in the last month we examined—February 2003—and the appearance of the claim on the Medicare files. Because of lags to when the NCH is updated, it is likely we do not have fully complete claims for January and February 2003. We therefore expect that the estimates we present in this interim report will understate the actual service use and cost for both the treatment and control groups, to a similar extent. Future analyses will allow for a longer lag time, ensuring that the data are essentially complete for the followup period examined.

Medicare claims and eligibility information were summarized as monthly variables from September 2000 through February 2003, for a total of 30 months. This enabled us to look at the eligibility status and the use of Medicare-covered services during any month in the two years before the project's start, to analyze participation in the first six months of project operation and to analyze treatment-control differences in Medicare service use and reimbursement following enrollment.

The EDB file provided the information with which to construct measures of beneficiaries' demographic characteristics (age, sex, race), dates of death, original reason for Medicare entitlement, Medicare managed care enrollment, Part A and B coverage, whether Medicare was the primary payer, and the state buy-in proxy measure for enrollment in Medicaid.

The Medicare claims data in the NCH files were used to construct measures of Medicare-covered service use and reimbursement by type of service (inpatient hospital, skilled nursing

---

(continued)

differences between the HIC numbers in the EDB and cross-reference files was that the two files were updated at different times. CMS created the cross-reference file using the unloaded version of the EDB, which was updated quarterly. We extracted data using the production version of the EDB, which was updated every night.

facility, home health, hospice, outpatient hospital, and physician and other Part B providers). When the services spanned months, the monthly variables were allocated, based on the number of days served in that month as documented in the CLAIM FROM and CLAIM THRU dates. The length of stay for a month represented actual days spent in the facility in that month, and costs were prorated according to the share of days spent in each month. Ambulatory visits were defined as the unique counts of the person-provider-date, as documented in the physician/supplier and hospital outpatient claims. Durable medical equipment (DME) reimbursements were counted in other Part B reimbursement. A small number of negative values for total Part A and Part B reimbursements during the past two years occurred for some of the demonstration projects. Any negative Part A and Part B amounts were truncated to zero. The few patients with a different number of months in Part A and Part B were dropped from the analysis of reimbursement in the two years before intake.

When we examined a beneficiary's history from the month during which they were randomized, we used the actual date of randomization for participants, and a simulated date of randomization for nonparticipants, picked to be November 15, or roughly the midpoint of the six-month enrollment window.

4. Defining Eligible Nonparticipants and Eligible Participants

We used target criteria information to pare down the group of beneficiaries who lived in the catchment area to those who met the project's eligibility criteria that we could measure using the Medicare data. Tables B.2 and B.3 illustrate the exclusions used to identify the sample of eligible participants and nonparticipants used to analyze participation patterns.

TABLE B.2

SAMPLE OF ALL ELIGIBLE BENEFICIARIES FOR PARTICIPATION ANALYSIS

Sample	Number
Full Sample of Eligible Beneficiaries Who Live in Catchment Area One or More Months During the First Six Months of Enrollment	395,415
Minus those who:	
During 6-month enrollment period, either (1) were always in a Medicare managed care plan, or (2) never had Medicare Part A coverage, or (3) never had Medicare Part B coverage, or (4) Medicare was not primary payer during one or more months	–183,976
Did not have one or more of the target diagnoses on any claim during the two years before the project started or during the six-month enrollment window	–38,529
Did not meet the inpatient hospital or emergency room utilization criteria during the 18 months from September 2001 through February 2003	–97,932
Met at least one of the exclusion criteria during the 18 months from September 2001 through February 2003	–14,054
Eligible Sample	**60,924**

TABLE B.3

SAMPLE OF ELIGIBLE PARTICIPANTS FOR PARTICIPATION ANALYSIS

Sample	Treatment Group	Control Group	All
Full Sample of Participants Randomized During the First Six Months of Enrollment	114	105	219
Minus those who:			
Had an invalid HIC number on MPR's enrollment file	–0	–1	–1
Not in geographic catchment area during the month of intake	–5	–4	–9
In a Medicare managed care plan, or did not have Medicare Part A and B coverage, or Medicare is not primary payer during the month of intake	–3	–6	–9
Did not have one or more of the target diagnoses on any claim during the two years before the project started or during the six-month enrollment window	–0	–0	–0
Did not meet the inpatient hospital or emergency room utilization criteria during the 18 months from September 2001 through February 2003	–6	–4	–10
Met at least one of the exclusion criteria during the 18 months from September 2001 through February 2003	–4	–2	–6
Eligible Sample	**96**	**88**	**184**

Note: The number of sample members reported as excluded at each point reflects *people in the previous line* who did not meet the additional eligibility criteria according to Medicare data. Thus, the table applied sequential criteria. The project actually used patient self-reports of diagnosis and service use.

We identified 395,415 beneficiaries who lived in the MediCaring project's catchment area at some point during the first six months of enrollment (Table B.2). We then excluded 183,976 people (46.5 percent) who did not meet the insurance requirements set by CMS for participation in the project during one or more months during the six-month enrollment window. Another 38,529 of the remaining people (9.7 percent of all area beneficiaries) were dropped from the sample of eligibles, since they were not treated for one or more of the target diagnoses that the project identified as necessary for inclusion during the two years before the project began or the first six months of enrollment. Fifty-seven percent of the remaining 172,910 beneficiaries (97,932 people) did not meet the inpatient or emergency room utilization requirements we measured during the 18 months from September 2001 through February 2003 (which includes the year before the project began, as well as the six-month enrollment window). Finally, 14,054 people were identified as having at least one of the MediCaring project's exclusion criteria, leaving us with a sample of 60,924 beneficiaries we estimated would have been eligible to participate in the MediCaring project.

The MediCaring project randomized 219 beneficiaries who enrolled in the demonstration project during the first six months of operation (Table B.3). Of these, 1 person could not be matched to their Medicare claims data due to problems with their reported HIC number and was therefore excluded from the participation sample.[4] The MediCaring project randomized nine beneficiaries who had an address on the EDB that was outside its catchment area. We excluded these cases from the participation analysis to maintain comparability to the eligible nonparticipant sample. We also excluded the nine participants who did not meet CMS's

[4]Either the MediCaring project reported this beneficiary's HIC number incorrectly or the beneficiary's claims could not be obtained when we extracted the files due to the way the Medicare files are created (described in footnote 3). In either case, claims for this beneficiary will be included in the final report.

insurance requirements for participation in the project during the month of intake. We also dropped 10 beneficiaries for not meeting the inpatient or emergency room utilization criteria during the 18-month period, September 2001 through February 2003. Finally, six participants were dropped from the participation analysis because they met one of the project's exclusion criteria during the same 18-month period. Thus, among the 219 participants randomized by MediCaring into the project during its first six months of operations, after exclusions, 184 people are included in the participation analyses as eligible participants.

MediCaring's participation rate for the first six months of enrollment is therefore calculated as the number of participants who met the eligibility requirements (184), divided by the number of eligibles who live in the catchment area (60,924), or 0.3 percent.

Table B.4 describes the characteristics of the 184 participants who were enrolled by the MediCaring project during the first six months and appear to meet its eligibility requirements, as measured in Medicare data, and the 60,740 eligible nonparticipants. This table is identical to Table 2 in the text, except that the participant sample has been restricted to the beneficiaries who meet the eligibility criteria according to Medicare claims data. Because almost 90 percent of the participants in Table 2 are included in this table, the results for the two tables are similar.[5]

[5]Nonparticipants were identified as eligible if they met the target criteria anytime during the six-month enrollment window, as well as the year before the window. When we calculated pre-enrollment use of Medicare services for nonparticipants, we measured use over the time before a pseudo-enrollment date fixed at three months after the project began enrollment (that is, the middle of the six-month window). As a result, for nonparticipants who became eligible based on service use in the latter three months of the six month enrollment window, this method does not capture that service use. We tested the sensitivity of the findings to this approach. For the sensitivity test, we limited the eligible nonparticipants to those who met the diagnostic and service-use criteria before their pseudo-enrollment date. This subsample of eligible nonparticipants had slightly higher reimbursements and service use than the sample shown in Tables 2 and B.4. For most projects, reimbursements for the eligible nonparticipants increased between 2 and 10 percent, and hospitalizations stayed the same or increased up to 10 percent.

TABLE B.4

CHARACTERISTICS OF ELIGIBLE PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS DURING THE FIRST SIX MONTHS OF PROJECT ENROLLMENT
(Percentages, Unless Otherwise Noted)

	Eligible Demonstration Participants (Treatments and Controls)[a]	Eligible Nonparticipants
Age at Intake		
Average age (in years)	78.5	77.1**
Younger than 65	0.0	0.0
65 to 74	31.0	39.4**
75 to 84	46.2	43.1
85 or older	22.8	17.4*
Male	37.0	41.7
Nonwhite	4.9	4.9
Original Reason for Medicare: Disabled or ESRD	17.9	6.6***
State Buy-In for Medicare Part A or B	21.7	8.9***
Newly Eligible for Medicare (Eligible Less than Six Months)	1.09	0.33*
Enrolled in Fee-for-Service Medicare 6 or More Months During Two Years Before Intake	97.8	98.6
Medical Conditions Treated During Two Years Before Month of Intake[b]		
Coronary artery disease	66.7	43.6***
Congestive heart failure	62.2	20.1***
Stroke	38.9	24.9***
Diabetes	36.7	21.3***
Cancer	27.2	29.1
Chronic obstructive pulmonary disease	67.2	32.7***
Dementia (including Alzheimer's disease)	16.1	6.0***
Peripheral vascular disease	26.1	12.8***
Renal disease	15.0	5.1***
Total Number of Diagnoses	3.6	2.0***
Days Between Last Hospital Admission and Intake Date[b]		
No hospitalization in past two years	10.6	38.8***
0 to 30	13.9	5.9***
31 to 60	13.3	5.0***
61 to 180	44.4	15.8***
181 to 365	10.6	19.9***
366 to 730	7.2	14.6***
Annualized Number of Hospitalizations During Two Years Before Month of Intake[b,c]		
0	12.2	40.1***
0.1 to 1.0	42.2	44.4
1.1 to 2.0	22.8	11.2***
2.1 to 3.0	14.4	2.9***
3.1 or more	8.3	1.5***

Table B.4 (continued)

	Eligible Demonstration Participants (Treatments and Controls)[a]	Eligible Nonparticipants
Medicare Reimbursement per Month in Fee-for-Service During One Year Before Intake[b]		
Part A	$1,649	$549***
Part B	$973	$416***
Total	$2,622	$965***
Distribution of Total Medicare Reimbursement per Month Fee-for-Service During One Year Before Intake[b]		
$0	0.0	0.8
$1 to 500	13.9	53.9***
$501 to 1,000	19.4	16.5
$1,001 to 2,000	20.0	14.6**
More than $2,000	46.7	14.3***
Number of Beneficiaries	**184**	**60,740**

Source: Medicare Enrollment Database and National Claims History File.

Note: The intake date used in this table is the date of enrollment for participants. For eligible nonparticipants, the intake date is November 15, 2002, the midpoint of the six-month enrollment period examined.

[a]Participants who do not meet CMS's demonstration-wide requirements for the demonstration, or who had an invalid HIC number on MPR's enrollment file, are excluded from this table because we do not have Medicare data showing their reimbursement in the fee-for-service project. Members of the same households as the research sample members are included.

[b]Calculated among beneficiaries with six or more months in Medicare fee-for-service in the two years before intake. (See Note, above, concerning intake date definition.)

[c]Calculated as 12 x (number of hospitalizations during two years before month of intake) / (number of months eligible). For example, if a beneficiary was in fee-for-service all 24 months and had two hospitalizations during that time, they would have one hospitalization per year [(12 x 2) / 24]. If another beneficiary was in fee-for-service eight months during the previous two years, and had two hospitalizations during those eight months, they would have [(12 x 2) / 8], or three hospitalizations per year. The estimate of the proportion with no hospitalization in the two years before the month of intake may differ slightly from the proportion with no hospitalization in the two years before the date of intake because the two measure slightly different periods. Someone enrolled on September 20, 2003, whose only hospitalization in the preenrollment period occurred on September 5, 2003, would not be counted as hospitalized during the 24 months before the month of intake. Conversely, someone hospitalized on September 25, 2001, would be captured in the measure defined by month of enrollment but not in the measure based on the day of enrollment.

*Difference between eligible participants and eligible nonparticipants significantly different from zero at the .10 level, two-tailed test.

**Difference between eligible participants and eligible nonparticipants significantly different from zero at the .05 level, two-tailed test.

***Difference between eligible participants and eligible nonparticipants significantly different from zero at the .01 level, two-tailed test.

B. METHOD FOR CALCULATING TREATMENT-CONTROL DIFFERENCES

Sample sizes are too small and the follow-up period is too short to estimate project impacts. However, comparing the treatment and control groups on mean outcomes provides an early indication of potential effects. The analysis draws on the data and variables constructed for the participation analysis, but it is restricted to the project's participants (treatments and controls). The cost of the intervention was estimated as the amount CMS paid to the MediCaring project for treatment group patients, using G-coded claims in the physician claims file.

1. Treatment-Control Differences

We used two approaches to estimate treatment-control differences in Medicare-covered service use and cost outcomes. First, we estimated differences over a two-month follow-up period for all the beneficiaries randomized by the MediCaring project during the first four months of enrollment. The four-month enrollment window covers August 16, 2002 through December 13, 2002—the follow-up period that covers the two calendar months after the month of randomization. For example, for a beneficiary randomized on September 15, we examined outcomes in October and November.

Second, we estimated treatment-control differences by calendar month over the first six months of MediCaring's enrollment, to look at how cost effectiveness might vary over the life of a project. One might expect projects to have little effect at first, since it takes time for patients to be assessed, the project to become fully functional, patients to adopt care coordinators' recommendations, and behavior changes to affect the need for health care. Analyzing costs by project month will allow us to examine such patterns. For each month from August 2002 through January 2003, we identified the patients who were enrolled in the MediCaring project and analyzed their Medicare-covered service use. For example, a beneficiary randomized in August would be present in August through January, provided he or she is eligible and alive in

each month.[6] Someone randomized in September would not be part of the calculations for August but would be included in September through January, again, provided that person is eligible in those months.

The sample used to analyze treatment-control differences in outcomes differs from that used to analyze participation. Like the participation analyses, we excluded from the analysis sample the participant for whom we have an invalid HIC number, because we could not obtain their Medicare claims data. We also excluded those who enrolled but were ineligible for the demonstration according to CMS's insurance criteria (as determined from data on the EDB). However, we also excluded beneficiaries flagged as a household member of a participant, since they were not part of the research sample and thus were not used for the outcomes analysis.[7] Also, in contrast to the participation analyses, participants who did not meet the project's target criteria, according to the claims and EDB data, were not excluded from the outcomes analyses. Given this, of the 145 people randomized in the first four months of the MediCaring demonstration, the sample for analyzing treatment-control differences contained 135 people. For the six-month sample, 202, or 92 percent of the 219 randomized beneficiaries, were included in the final sample (Table B.5). In addition to excluding beneficiaries, we excluded months during which we could not observe the beneficiaries' full costs in FFS (described in footnote 6).

[6]Patients were excluded as ineligible during months when we could not observe their full costs (when they were enrolled in a Medicare managed care plan).

[7]To keep the two groups balanced, household members were excluded from treatment-control comparisons. Household members were assigned to the same experimental status to avoid the contamination that might occur if one person in the household was in the treatment group and another was in the control group. As a result, we expected to find fewer household members in the control group than in the treatment group, because household members have less incentive to join the demonstration if they know a household member has already been assigned to the control group and they will not receive care coordination.

TABLE B.5

SAMPLES FOR TREATMENT-CONTROL COMPARISONS

	First Four Months	First Six Months
Number of beneficiaries who were randomized	145	219
Minus those who:		
Were members of the same household as research sample members	–3	–8
Had invalid HIC numbers on MPR's enrollment file	–1	–1
In a Medicare managed care plan, or did not have Medicare Part A and B coverage, or Medicare is not primary payer during the month of intake	–6	–8
Number of usable sample members	**135**	**202**

2. Integrity of Random Assignment

Eligible applicants to the project were randomly assigned to the treatment or control group. To assess whether random assignment successfully produced treatment and control groups with similar baseline characteristics, we used two-tailed t-tests and chi-squared tests to compare the two research groups. Table B.6 presents the baseline characteristics for both the four-month and the six-month sample.

As expected under random assignment, the treatment and control groups had similar characteristics in both the four- and six-month samples. There were statistically significant differences in only one baseline characteristic for the four-month sample: the proportion of people who had monthly total Medicare reimbursements in the year before intake of between

TABLE B.6

CHARACTERISTICS OF TREATMENT AND CONTROL GROUPS
IN THE RESEARCH SAMPLE ENROLLED DURING
THE FIRST FOUR MONTHS AND SIX MONTHS
OF PROJECT ENROLLMENT

	Four-Month Sample			Six-Month Sample		
	Treatment Group	Control Group	Total Research Sample	Treatment Group	Control Group	Total Research Sample
Age at Intake						
Average age (in years)	78.8	77.6	78.2	79.4	77.7	78.6
Younger than 65	0.0	0.0	0.0	0.0	0.0	0.0
65 to 74	27.1	33.9	30.4	26.4	33.3	29.7
75 to 84	52.9	44.6	48.9	48.1	47.9	48.0
85 or older	20.0	21.5	20.7	25.5	18.8	22.3
Male	44.3	36.9	40.7	41.5	36.5	39.1
Nonwhite	5.7	3.1	4.4	5.7	4.2	5.0
Original Reason for Medicare: Disabled or ESRD	17.1	23.1	20.0	13.2	22.9*	17.8
State Buy-In for Medicare Part A or B	22.9	18.5	20.7	20.8	21.9	21.3
Newly Eligible for Medicare (Eligible Less than Six Months)	1.4	1.5	1.5	1.9	1.0	1.5
Enrolled in Fee-for-Service Medicare Six or More Months During Two Years Before Intake	97.1	96.9	97.0	96.2	97.9	97.0
Medical Conditions Treated During Two Years Before Month of Intake[a]						
Coronary artery disease	75.0	65.1	70.2	67.7	64.9	66.3
Congestive heart failure	64.7	68.3	66.4	57.8	62.8	60.2
Stroke	44.1	33.3	38.9	44.1	29.8**	37.2
Diabetes	47.1	41.3	44.3	35.3	39.4	37.2
Cancer	27.9	27.0	27.5	25.5	26.6	26.0
Chronic obstructive pulmonary disease	61.8	66.7	64.1	63.7	67.0	65.3
Dementia (including Alzheimer's disease)	14.7	11.1	13.0	19.6	12.8	16.3
Peripheral vascular disease	30.9	22.2	26.7	32.4	22.3	27.6
Renal disease	13.2	22.2	17.6	11.8	20.2	15.8
Total Number of Diagnoses (number)	3.8	3.6	3.7	3.6	3.5	3.5

TABLE B.6 *(continued)*

	Four-Month Sample			Six-Month Sample		
	Treatment Group	Control Group	Total Research Sample	Treatment Group	Control Group	Total Research Sample
Days Between Last Hospital Admission and Intake Date[a]						
No hospitalization in past two years	7.4	7.9	7.6	14.7	8.5	11.7
0 to 30	14.7	9.5	12.2	17.7	10.6	14.3
31 to 60	7.4	15.9	11.5	8.8	18.1*	13.3
61 to 180	50.0	49.2	49.6	41.2	43.6	42.3
181 to 365	11.8	7.9	9.9	9.8	9.6	9.7
366 to 730	8.8	9.5	9.2	7.8	9.6	8.7
Annualized Number of Hospitalizations During Two Years Before Month of Intake[a,b]						
0	7.4	7.9	7.6	17.7	8.5*	13.3
0.1 to 1.0	48.5	39.7	44.3	42.2	41.5	41.8
1.1 to 2.0	20.6	23.8	22.1	18.6	25.5	21.9
2.1 to 3.0	11.8	15.9	13.7	13.7	14.9	14.3
3.1 or more	11.8	12.7	12.2	7.8	9.6	8.7
Medicare Reimbursement per Month in Fee-for-Service During One Year Before Intake[a]						
Part A	$1,746	$1,697	$1,723	$1,712	$1,600	$1,658
Part B	$1,247	$1,014	$1,135	$1,098	$967	$1,035
Total	$2,993	$2,711	$2,857	$2,810	$2,568	$2,693
Distribution of Total Medicare Reimbursement per Month in Fee-for-Service During One Year Before Intake[a]						
$0	0.0	0.0	0.0	0.0	0.0	0.0
$1 to 500	11.8	7.9	9.9	18.6	8.5**	13.8
$501 to 1,000	13.2	25.4*	19.1	15.7	25.5*	20.4
$1,001 to 2,000	22.1	19.1	20.6	17.7	20.2	18.9
More than $2,000	52.9	47.6	50.4	48.0	45.7	46.9
Location During Project Intake Period						
Arizona						
Maricopa	97.1	96.9	97.0	95.3	95.8	95.5
Outside catchment area	2.9	3.1	3.0	4.7	4.2	4.5
Number of Beneficiaries	**70**	**65**	**135**	**106**	**96**	**202**

Source: Medicare Enrollment Database and National Claims History File.

Notes: The intake date used in this table is the date of enrollment for participants. For eligible nonparticipants, the intake date is November 15, 2002, the midpoint of the six-month enrollment period examined.

Participants who do not meet CMS's demonstration-wide requirements, had an invalid HIC number on MPR's enrollment file, or were identified as a member of the same household as a research sample member were excluded from this table.

[a]Calculated among beneficiaries with six or more months in Medicare fee-for-service in the two years before intake. (See Note, above, concerning intake date definition.)

[b]Calculated as 12 x (number of hospitalizations during two years before month of intake) / (number of months eligible). For example, if a beneficiary was in fee-for-service all 24 months and had two hospitalizations during that time, they would have one hospitalization per year [(12 x 2) / 24]. If another beneficiary was in fee-for-service eight months during the previous two years, and had two hospitalizations during those eight months, they would have [(12 x 2) / 8], or three hospitalizations per year. The estimate of the proportion with no hospitalization in the two years before the month of intake may differ slightly from the proportion with no hospitalization in the two years before the date of intake because the two measure slightly different periods. Someone enrolled on September 20, 2003, whose only hospitalization in the preenrollment period occurred on September 5, 2003, would not be counted as hospitalized during the 24 months before the month of intake. Conversely, someone hospitalized on September 25, 2001, would be captured in the measure defined by month of enrollment, but not in the measure based on the day of enrollment.

ESRD = end-stage renal disease.

*Difference between treatment and control groups significantly different from zero at the .10 level, two-tailed test.

**Difference between treatment and control groups significantly different from zero at the .05 level, two-tailed test.

***Difference between treatment and control groups significantly different from zero at the .01 level, two-tailed test.

$501 to $1,000. For the six-month sample, there were several statistically significant differences: (1) the proportion of beneficiaries whose original reason for Medicare was a disability or ESRD, (2) the proportion of beneficiaries who were treated for stroke in the two previous years, (3) the proportion of beneficiaries whose last hospital discharge before intake occurred 31 to 60 days earlier, (4) the proportion of beneficiaries who had no hospitalizations a year during the two years before intake, and (5) the proportion of beneficiaries whose total Medicare reimbursement per month enrolled during the two years before the month of intake was between $1 to $500 and between $501 to $1,000. We would expect this number of false-positive differences to occur by chance, given the number of characteristics examined. Thus, none of the differences in this fairly small, early sample create any cause for concern.

3. Sensitivity Tests

To assess outcomes, we calculated Medicare-covered service use and cost in the two months after the month of randomization. For example, for an individual who was randomized in the month of August, we tabulated the individual's outcomes in August and September. To examine whether our results were affected by not including costs and services that occurred closer to the randomization date, we conducted a sensitivity analysis examining outcomes for three months—during the month the individual was randomized, as well as the two months after randomization (Table B.7). Other than the difference in the proportion with any emergency room encounters, which is insignificant at the 10 percent level in the three-month period and significant in the two-month period shown in Table 5, the results were similar to those for outcomes measured over the two-month period (text Table 4). Thus, the results are not sensitive to how the month of randomization is treated.

TABLE B.7

MEDICARE-COVERED SERVICE USE DURING THE MONTH OF RANDOMIZATION AND THE FOLLOWING TWO MONTHS FOR EARLY ENROLLEES

	Treatment Group	Control Group	Difference[a]
Inpatient Hospital Services			
Any admission (percent)	32.9	26.2	6.7
Mean number of admissions	0.46	0.40	0.06
Mean number of hospital days	2.87	2.57	0.30
Emergency Room Services			
Any emergency room encounters (percent)			
Resulting in admission	22.9	20.0	2.9
Not resulting in admission	10.0	27.7	–17.7***
Total	28.6	36.9	–8.4
Mean number of emergency room encounters			
Resulting in admission	0.26	0.28	–0.02
Not resulting in admission	0.13	0.40	–0.27**
Total	0.39	0.68	–0.29*
Skilled Nursing Facility Services			
Any admission (percent)	5.7	12.3	–6.6
Mean number of admissions	0.06	0.12	–0.07
Mean number of days	1.41	1.58	–0.17
Hospice Services			
Any admission (percent)	11.4	3.1	8.4*
Mean number of days	2.03	0.46	1.57
Home Health Services			
Any use (percent)	30.0	23.1	6.9
Mean number of visits	7.70	8.00	–0.30
Outpatient Hospital Services[b]			
Any services (percent)	50.0	58.5	–8.5
Physician and Other Part B Services[c]			
Any use (percent)	100.0	98.5	1.5
Mean number of visits or claims	18.2	17.0	1.2
Mortality Rate (percent)	10.0	4.6	5.4
Total Medicare Reimbursement[d]			
Part A[e]	$5,905	$2,895	$3,010
Part B	$2,948	$2,996	–$48
Total	$8,853	$5,891	$2,962
Reimbursements for Care Coordination[f]	$612	$0	$612***
Number of Beneficiaries	**70**	**65**	

Source: Medicare National Claims History File.

Note: Sample includes those enrolled during the first four months of project operations. Participants were excluded from this table if they had an invalid HIC number on MPR's enrollment file, were identified as a member of the same household as a research sample member, or did not meet Medicare coverage and payer requirements (defined as having Medicare as a secondary payer, being in Medicare managed care plan, or not having Part A and Part B coverage) during the month of randomization. Patient-months were excluded if the participant did not meet the above Medicare coverage and payer requirements that month or had died in a previous month.

"Percents with any medical encounter type" are the percent of treatment or control group members who have at least one encounter of a particular type; "mean numbers of medical encounter types" are the average number of encounters of a particular type per treatment or control group member.

[a]These estimates are based on preliminary data and will be updated in the second site-specific report.

The direction of the treatment-control difference does not by itself signify whether the project is "effective." That is, for some outcomes a statistically significant negative difference (such as lower hospitalization rates for the treatment group than for the controls) suggests that the project is working as intended. However, a positive difference for other outcomes, such as number of physician visits, does not necessarily mean the project is ineffective or having adverse effects, because the project may encourage patients to see their physician more regularly for preventative care or to obtain recommended laboratory tests for their target conditions than they would have in the absence of the demonstration.

Due to rounding, the difference column may differ slightly from the result when the control column is subtracted from the treatment column.

[b]Includes visits to outpatient hospital facilities as well as emergency room visits that do not result in an inpatient admission. Laboratory and radiology services are also included.

[c]Includes diagnostic laboratory and radiology services (including pathologist and radiologist services) from nonhospital providers, suppliers and devices, mammography, ambulance, covered medications, blood, and vaccines.

[d]Does not include reimbursement for care coordination services provided by demonstration projects.

[e]Includes reimbursement for inpatient, skilled nursing facility, hospice, and all home health care (including that paid under Medicare Part B). Excludes reimbursement for care coordination services provided by demonstration projects.

[f]This is the average amount paid to the project as recorded in the Medicare claims data for the month of randomization and the two following months. The difference between the recorded amount and three times the amount the project was allowed to charge per-member-per-month may reflect billing errors, delays, or payment adjustments for patients who disenrolled.

*Difference between treatment and control groups significantly different from zero at the .10 level, two-tailed test.

**Difference between treatment and control groups significantly different from zero at the .05 level, two-tailed test.

***Difference between treatment and control groups significantly different from zero at the .01 level, two-tailed test.

APPENDIX C

SELECTED PROGRAM DOCUMENTS

Project fact sheet and referral form

Informed consent for participation

Initial assessment instruments
- Initial patient history form
- Comprehensive care coordinator assessment
- Management of medications form

Coordinator reassessment form

Six month report to physicians

MCCD patient/caregiver care plan template

Care coordinator contact note

Case coordinator orientation schedule

Competency inventory

MCCD patients with more than two hospitalizations

MCCD hospitalizations by diagnosis

MediCaring satisfaction survey

Rehospitalization analysis form

Patient education checklist - CHF

*Medi*Caring ™

"Enhancing Medicare for the Future"

A Medicare Coordinated Care Demonstration Project
2002-2006 -- Maricopa County, Arizona

Goals of Program

1. **Improve care for Medicare recipients who have advanced, chronic, progressive illness:**
   - **Reduce unnecessary hospitalizations**
   - **Educate patient/family about their disease and care**
   - **Facilitate advance care planning**
   - **Provide medical, psychosocial and spiritual support**
   - **Assist to access community resources**
2. **Assist in development of a Medicare benefit for advanced chronic illness**

- 600 patients admitted per year for four years: 300 in the case management group, 300 in the usual care group (randomized)
- Case management includes RNs (caseload 35 patients per nurse), MSW, 24 hour nursing availability, and other services
- Measurement: health care utilization in both groups

Criteria for Admission

- Medicare A and B beneficiary (no managed care)
- Age 65 or over
- Hospitalization or ER visit within 6 months

Diagnoses:

CHF or other heart disease
Symptoms with activity (Class III or IV) – (symptoms walking across room)

COPD or other chronic lung disease
Home oxygen (or meets criteria = O2 sat 88% or less on RA)

Metastatic cancer or cancer with no curative potential

Neurological disease
(CVA, Alzheimer's or other dementias, Parkinson's, ALS, other) with need for help with at least 2 of 4 ADLs (mobility, transfer, toileting, eating) and a declining course

For Referrals: Call the MediCaring Office at 602-636-6300

Project Director: Beth Hale, RN, MS
Project Medical Director: Gillian Hamilton, MD PhD
Enrollment Coordinator: Cheryl Thomas, MA

Information for Health Care Providers

*Medi*Caring ™

"Enhancing Medicare for the Future"

A Medicare Coordinated Care Demonstration Project
2002-2006
Maricopa County, Arizona

Why is Medicare conducting a demonstration program to look at coordinated care?

- The Centers for Medicare and Medicaid Services (CMS) is interested in improving care for Medicare beneficiaries with multiple complex and/or chronic health conditions
- Complex health care needs and lack of service coordination for the chronically ill often lead to fragmented care with poorer outcomes, higher health care costs
- The Balanced Budget Act of 1997 authorized the Medicare Coordinated Care Demonstration (MCCD) to determine whether providing and paying for coordination of care for beneficiaries with complex health care needs and chronic conditions could result in cost savings for Medicare and better patient outcomes
- Fifteen sites across the country selected to conduct demonstration project, including Hospice of the Valley, the only hospice provider selected

What are the GOALS of Hospice of the Valley's MediCaring Program?

1. **Improve care for Medicare recipients who have advanced, chronic, progressive illness:**
   - Reduce unnecessary hospitalizations and ER visits
   - Educate patient/family about their disease and care
   - Facilitate advance care planning
   - Provide medical, psychosocial and spiritual support
   - Assist to access community resources
2. **Assist in development of a Medicare benefit for advanced chronic illness**

How will the program work?

- 600 patients admitted per year for four years: 300 in the case management group, 300 in the usual care group (randomized)
- Case management includes RNs (caseload 35 patients per nurse), MSW, pastoral counselor, 24 hour nursing availability, and other services
- Measurement: health care service utilization in both groups

What are the CRITERIA FOR ADMISSION?

- ✓ Medicare A and B beneficiary (no managed care)
- ✓ Age 65 or over
- ✓ Hospitalization or ER visit within 6 months
- ✓ Diagnoses:

CHF or other heart disease

Symptoms with activity (Class IIIB or IV) – (symptoms walking across room)

COPD or other chronic lung disease

Home oxygen (or meets criteria=02 sat 88% or less on RA)

Metastatic cancer or cancer with no curative potential

Neurological disease

(CVA, Alzheimer's or other dementias, Parkinson's, ALS, other) with need for help with at least 2 of 4 ADLs (mobility, transfer, toileting, eating) and a declining course

What are the benefits to health care providers and their patients?

- Providers and patients will be part of a project that could have significant positive impact on the delivery and quality of health care services for Medicare beneficiaries, and that may lead to the creation of a chronic care benefit for Medicare beneficiaries
- Patients of health care providers referred to the MediCaring Program may receive coordinated care services that could positively impact their quality of care and reduce unnecessary hospitalizations and ER visits
- The MediCaring Program can potentially assist the overburdened health care system by managing patients in the most appropriate setting

How can health care providers help?

Identify and refer patients meeting the criteria for admission for possible participation in the MediCaring program

What about HIPAA and protection of confidential information?

- MediCaring is part of a program development and quality improvement activity for Medicare, and is considered an additional program of care
- Release of information is covered under health care provider's Condition of Admission form
- Participation is optional for Medicare beneficiaries
- MediCaring Enrollment Coordinator will work with each provider to ensure proper encryption/protection of all patient information

What information is needed when making a referral to MediCaring?

MediCaring needs only that information necessary to determine initial eligibility and to contact the patient:

- ✓ Patient Name, Address, and Phone Number
- ✓ Medicare Number
- ✓ Hospitalization(s) and/or ER visit(s) within previous six months
- ✓ Patient diagnosed with one (or more) of given diagnosis categories listed under Criteria for Admission

Who do I contact for more information or to make a referral?

Call the MediCaring office at (602) 636-6300:

For General Project Information:

Project Director:	Beth Hale, RN, MS
Project Medical Director:	Gillian Hamilton, MD, PhD

For Information About the Referral Process and to Make Referrals:

Enrollment Coordinator:	Cheryl Thomas, MA

MediCaring™
Referral Information

Patient Name: _____

Patient Address: _____
Street

_____
City State Zip

Patient Phone Number: _____

Should we contact someone other than patient? If yes:
Other Contact: _____
Relationship to patient: _____
Phone number: _____

Patient Medicare Number: _____

Patient Social Security Number: _____

Approximate Dates of Hospitalization(s) and or ER Visit(s): _____
*Indicate facility and approximate dates

Diagnosis Category(s):

- ☐ CHF or other heart disease
- ☐ COPD or other chronic lung disease
- ☐ Metastatic cancer or cancer with no curative potential
- ☐ Neurological disease (CVA, Alzheimer's or other dementias, Parkinson's, ALS, other)

Referring Person & Phone: _____

Please fax patient referral information to (602) 636-6303

Thank you for your patient referral and assistance in "enhancing Medicare for the future"!

8/26/02

MEDICARE COORDINATED CARE DEMONSTRATION
"MediCaring"
INFORMED CONSENT FOR PARTICIPATION

PROJECT TITLE:	Medicare Coordinated Care Demonstration
SOURCE OF SUPPORT:	Centers for Medicare & Medicaid Services
PROJECT DIRECTOR:	Beth Hale, RN (602) 636-6300

PURPOSE: The purpose of this project is to evaluate whether a new type of service called Coordinated Care will help Medicare beneficiaries with chronic illnesses to have better coordination of their medical treatment plans, fewer hospital stays, and a better quality of life. Coordinated Care services may include assessment, care planning, patient education, physician education, monitoring of patient's symptoms, service arrangement, and attempts to improve communication among the multiple health care providers caring for the patient.

PROCEDURES: Coordinated Care services will be provided by the MediCaring program and are described in the MediCaring brochure. This project will randomly assign participants to two groups. One group will receive coordinated care services in addition to their usual Medicare benefits. The other group will receive their usual Medicare benefits without the additional coordinated care services. Random assignment helps to ensure that selection of the two project groups is fair and that the project results are not biased by differences between the groups at the start of the project. Your assignment to the coordinated care or usual care group will take place after you sign this consent form and your eligibility for participation is confirmed. As a participant in this project, you will not receive experimental medication, diagnostic tests, or treatments.

ABOUT THE PROJECT: This project is funded by the Centers for Medicare & Medicaid Services (formerly the Health Care Financing Administration), the Federal agency that runs the Medicare program. The Centers for Medicare & Medicaid Services has funded a private company, Mathematica Policy Research, Inc., to evaluate the MediCaring program.

Six months from now someone from Mathematica will call you to conduct a telephone interview. All the participants in both the coordinated care and the usual care groups will be interviewed. The interviewer will ask you about: (1) how you are feeling, (2) recent doctor visits you have had, (3) your understanding of your illness, and (4) your satisfaction with the health care and supportive services you receive. The interview will take about 20 minutes. If you are not able to speak on the telephone, a family member or friend may answer the questions for you.

In addition to the interview, Mathematica will get information from the Centers for Medicare & Medicaid Services about the Medicare services you use during the project. Mathematica will use this information to see if the coordinated care services provided by the MediCaring program were able to improve the quality of care for project participants and lower Medicare costs.

PROJECT DURATION: This project, including any coordinated care services you may receive, is scheduled to end April 2006.

RISKS: This project has no identified risks. All of the Medicare benefits and other coverage for which you are eligible will be available to you during and after the project.

BENEFITS: This project addresses issues important to the future of the Medicare program: increasing the quality of patient care and holding down Medicare costs. Participants in the program will not be required to change their doctors or restricted in their choice of providers for Medicare services in any way. Participants in the coordinated care group will receive services that may improve their health and quality of life. Participants in the usual care group will help to determine if coordinated care services are beneficial. If the project results show that coordinated care services are beneficial, they may be added as a routine benefit of the Medicare program.

PROJECT COSTS AND COMPENSATION: There are no costs to you for participating in the project. You will not be paid for your participation in this project.

CONFIDENTIALITY: The information about you collected for this project is confidential and protected by law. The information collected by the MediCaring program will be used for your medical care and for evaluation and will be shared only with your doctor, the MediCaring program staff, Mathematica, and the Centers for Medicare & Medicaid Services with your written consent. The information collected by Mathematica will be used for evaluation purposes only and will not be shared with either the MediCaring program or with the Centers for Medicare & Medicaid Services in a way which can identify you. You will not be identified in reports about the project written by the MediCaring program or Mathematica.

VOLUNTARY PARTICIPATION: You do not have to take part in this project. Your decision to be in the project is completely voluntary. If you change your mind about participating, you can withdraw from the project at any time. Your decision to not participate or to withdraw will not affect your Medicare benefits in any way. Signing this consent form does not waive any of your legal rights.

I have read and understood this entire consent form. I have been given the chance to ask questions about the MediCaring program and all my questions have been answered to my satisfaction. I understand that if I have other questions about this study I can call Beth Hale, RN at 602-636-6300.

I agree to participate in this project, and will respond to the confidential survey by Mathematica in approximately six months.

Participant Name (Please Print): _____

Participant Signature: _____ Date: _____

☐ Check here if the participant is unable to provide consent.

Signature of Authorized Representative: _____ Date: _____

Program Representative: _____ Date: _____

Contact Information for: _____(please print patient name)

Please provide the following information:

1) Participant's Medicare identification number: _____

2) Participant's Sex: ☐ Female ☐ Male

3) Participant's date of birth: _ _ / _ _ / _ _ _ _ (Month/Day/Year)

4) Participant's mailing address: _____

_____

_____

5) Participant's telephone number: (_ _ _) _ _ _ - _ _ _ _

6) Name, address, and phone number of proxy decision-maker or someone who will know how to reach the participant:

Name: _____

Address: _____

_____

Telephone number: (_ _ _) _ _ _ - _ _ _ _

7) Participant's personal physician (that is, the doctor the participant usually goes to when he or she is sick or needs advice about his or her health):

Name: _____

Address: _____

_____

Telephone number: (_ _ _) _ _ _ - _ _ _ _

Participant Name (Please Print): _____

First M.I. Last

THIS SECTION FOR PROGRAM USE ONLY:

Eligibility criteria met: ☐Yes ☐No

Program-Specific Patient Classification Information: (collected at in-take)

Stratification: _____

Diagnosis: _____

Stage of Illness: _____

*Medi*Caring™

Enhancing Medicare for the Future

RELEASE OF INFORMATION AUTHORIZATION

I hereby authorize the *Medi*Caring™ Program at Hospice of the Valley to disclose my medical information to any health care provider or insurance company as needed for continuity of care and payment.

I grant *Medi*Caring™ Program at Hospice of the Valley permission to obtain all medical information that any health care provider may have on record.

For the purposes hereof "medical information" shall include all:

Confidential AIDS, HIV related/communicable disease related information (as defined ARS 36-661)
Confidential alcohol or drug abuse related information (as defined in 42 CFR Sect 2.1 ET SEQ).
Confidential mental health diagnosis/treatment information.
(Line through and initial any information you do not wish released)

I may withdraw this authorization at any time providing I notify Hospice of the Valley in writing.

Signature of Patient or Legal Representative: _____ Date: _____
(circle one)

Legal Representative Name: _____ Relationship to Patient: _____
(Please Print)

Reason Patient Unable to sign: ☐ Lacks decision making capacity ☐ Unresponsive ☐ Other: _____

Signature of Witness: _____
(HOV Employee)

If patient unable to sign, but able to give verbal consent:

How patient indicated consent: _____ Date consent given: _____

Reason Patient Unable to sign: ☐ Incapacitated by fatigue or other symptoms ☐ Other: _____

Signature of Witness No. 1: _____ Date: _____
(HOV Employee)

Signature of Witness No 2: _____ Date: _____

Phone Consent of Legal Representative if he/she unavailable to sign at the time of admission. Phone number called: _____

Legal Representative Name: _____ Relationship to patient: _____

Reason Patient Unable to sign: ☐ Lacks decision making capacity ☐ Unresponsive ☐ Other: _____

Signature of Witness No. 1: _____ Phone No: _____
(HOV Employee)

Signature of Witness No. 2: _____ Phone No: _____

Patient Name: _____ ID No: _____

Original – Medical Records **Copy** - Patient

MEDICARING

INITIAL PATIENT HISTORY

DIAGNOSES

Primary Diagnosis:_____ ICD-9 Code:_____ Start Date:_____

Other Diagnosis: _____ ICD-9 Code:_____ Start Date:_____

Other Diagnosis: _____ ICD-9 Code:_____ Start Date:_____

Other Diagnosis: _____ ICD-9 Code:_____ Start Date:_____

Other Diagnosis: _____ ICD-9 Code:_____ Start Date:_____

■ LAST HOSPITALIZATION

When _____

Where _____

What caused the hospitalization? _____

What happened in the hospital? _____

_____

■ RECENT COURSE OF ILLNESS

Recent decline in functional status or health condition? □ No □ Yes

Summary of Health Status:_____

_____

_____

■ IMMUNIZATIONS

Flu: □Yes □No Date: __/__/____ Pneumonia: □Yes □No Date: __/__/____

■ HIGH RISK FACTORS

Do you smoke now? □ No □ Yes

History of smoking : When did you quit? _____ How much did you smoke? _____

Do you drink alcohol? □Yes □No If yes, how many drinks do you have per week:_____

History of Falls/Fall Risk:_____

Other high risk factors identified: _____

■ TB SCREENING

Pre-Admit TB Screening: □ Negative CXR □ Physician statement indicating no demonstrations of TB □ egative TB Screen

Clinical Screening: If at least one *italic* item is checked with poor/unclear history, screening is positive. **Bold** items are supportive of *italic* and indicate the need for further investigation. Contact HOV Medical Director or Infection Control Nurse if necessary.

- ☐ *Night Sweats*
- ☐ *Hemoptysis*
- ☐ *Fever (unknown or unspecified origin)*
- ☐ *Hx. Positive Mantoux Test*
- ☐ *Productive cough (of more than 3 weeks duration)*
- ☐ **Foreign born (Mexico, South America, Asia)**
- ☐ **Recent travel outside the U.S.**
- ☐ **Previous BCG immunization**
- ☐ **Family Member with TB or history of TB**
- ☐ **COPD, DM, Lung CA, HIV**
- ☐ **Illegal IV drug use**
- ☐ **Resident Homeless Shelter**
- ☐ **Resident Mental Health Facility**
- ☐ **Resident of Correctional Facility**
- ☐ **Long-term Resident of Mult-Patient Facility**

☐ Physician's statement indicating that the patient has been examined within the last 90 days and demonstrates no symptoms of active TB.

☐ **Positive** clinical screen – Comment below: _____

_____

■ EMERGENCY CONTACT (If Indicated)

Name: _____ Relationship: _____

Address: _____ Telephone: _____

■ ADVANCED CARE PLANNING

☐ MPOA Name: _____ Relationship _____

☐ DNR ☐ Orange Form ☐ Hospice care when eligible

☐ Full CPR ☐ Resuscitation not discussed ☐ Hospice care not discussed

■ SPIRITUAL ASSESSMENT

Do you belong to a church or religious community? ☐ Yes ☐ No Specify: _____

Are you able to attend religious services? ☐ Yes ☐ No

Would you like to talk to anyone about any spiritual or religious issue? ☐ Yes ☐Not at this time ☐No

■ OTHERS LIVING IN HOUSEHOLD

ne	Age	Sex	Relationship	Able & Willing to Assist?
		M F		YES NO
		M F		YES NO
		M F		YES NO
		M F		YES NO

■ SUPPORTIVE ASSISTANCE FROM COMMUNITY RESOURCES

Family Involvement/Support Systems Present? ☐ Yes ☐ No

(Describe)_____

Names of Persons/Organizations Providing Assistance:

☐Home Delivered Meals:	Agency:
☐Attendant Care:	Agency:
☐Skilled Home Health:	Agency:
☐Custodial Home Care:	Agency:
☐Adult Day Care:	Agency:
☐ Pharmacy:	Agency:
☐HME/Oxygen (specify Services):	Agency:
☐Other (specify Services):	Agency:

■ PHYSICIANS

Primary Care (Attending) Physician _____

Other Physician _____

Other Physician _____

■ OTHER INSURANCE INFORMATION (Optional) ☐Supplemental ☐ LTC ☐ ALTECS

Name:_____ Policy Number:_____

Address:_____

Telephone Number:_____

■ COMMENTS

_____

_____

_____

_____

Patient Name:_____ ID Number:_____

Staff Signature:_____ Date:_____

MediCaring™
Enhancing Medicare for the Future

COMPREHENSIVE CARE
Coordinator Assessment

Assessment Date: _____

PHYSICAL ASSESSMENT

Eyes: ☐ No problem assessed
Surgery: _____ ☐ Glasses ☐ Contact Lenses ☐ Blurred / Double Vision ☐ Glaucoma
☐ Eye Drainage: R L ☐ Cataracts ☐ PERRL ☐ Other (specify): _____

Vision (with corrective lenses if the patient usually wears them):	0	☐	Normal vision: Sees adequately in most situations; can see medication labels, newsprint.
	1	☐	Partially impaired: Cannot see medication labels or newsprint, but can see obstacles in path, and the surrounding layout; can count fingers at arm's length.
	2	☐	Severely impaired: Cannot locate objects without hearing or touching them; or patient is non-responsive.

Ears: ☐ No problem assessed
☐ Hearing Aid: R L ☐ Tinnitus ☐ Other (specify): _____

Hearing and ability to understand spoken language in patient's own language (with hearing aids if the patient usually uses them):	0	☐	No observable impairment. Able to hear and understand complex or detailed instructions and extended or abstract conversation.
	1	☐	With minimal difficulty, able to hear and understand most multi-step instructions and ordinary conversation. May need occasional repetition, extra time, or louder voice.
	2	☐	Has moderate difficulty hearing and understanding simple, one-step instructions and brief conversation. Needs frequent prompting or assistance.
	3	☐	Has severe difficulty hearing and understanding simple greetings and short comments. Requires multiple repetitions, restatements, demonstrations, and additional time.
	4	☐	**Unable** to hear and understand familiar words or common expressions consistently; or patient is non-responsive.

Oral: ☐ No problem assessed
☐ Gum problems ☐ Edentulous ☐ Poor dentation ☐ Chewing difficulties ☐ Halitosis
☐ Dysphagia ☐ Dentures: Upper Lower ☐ Tongue: Red Dry Swollen Coated
☐ Mucous Membranes: Dry Bleeding Lesions ☐ Hx / other: _____

Speech and oral (verbal) expression of language (in patient's own language):	0	☐	Expresses complex ideas, feelings, and needs clearly, completely, and easily in all situations with no observable impairment.
	1	☐	Minimal difficulty in expressing ideas and needs; may take extra time. Makes occasional errors in word choice, grammar, or speech intelligibility. Needs minimal prompting or assistance.
	2	☐	Expresses simple ideas or needs with moderate difficulty. Needs prompting or assistance; errors in word choice, organization or speech intelligibility. Speaks in phrases or short sentences.
	3	☐	Has severe difficulty expressing basic ideas or needs and requires maximal assistance or guessing by listener. Speech limited to single words or short phrases.
	4	☐	Unable to express basic needs even with maximal prompting or assistance but is not comatose or unresponsive (e.g., speech is nonsensical or unintelligible.)
	5	☐	Patient is non-responsive or unable to speak.

Nose and Sinus: ☐ No problem assessed
☐ Epistaxis ☐ Sinus irritation ☐ Altered olfactory senses ☐ Other (specify): _____

MUSCULOSKELETAL / NEUROLOGICAL ☐ No problem assessed

☐ Hx arthritis ☐ Gout ☐ Stiffness ☐ Swollen Joints ☐ Unequal grasp ☐ Joint pain
☐ Weakness ☐ Leg cramps ☐ Numbness ☐ Temp changes ☐ Syncope ☐ Tenderness
☐ Deformities ☐ Comatose ☐ Tremors ☐ Aphasia / Inarticulate speech
☐ Paralysis (describe): _____

Patient Name: _____ Patient ID: _____

MUSCULOSKELETAL / NEUROLOGICAL *Continued*

☐ Amputation (where/when): _____
☐ Other (specify): _____
Coordination, gait, balance deficit (describe): ☐ No deficit noted _____
Assistive devices: _____
Surgery: _____

☐ Seizures	☐ Blackouts	☐ Headaches	☐ Palsy	☐ Vertigo	☐ Dysarthria
☐ Sensory Loss	☐ Tingling	☐ Numbness	☐ Paraplegia	☐ Syncope	☐ Speech problem
☐ Quadriplegia	☐ Balance problems	☐ Paresis			

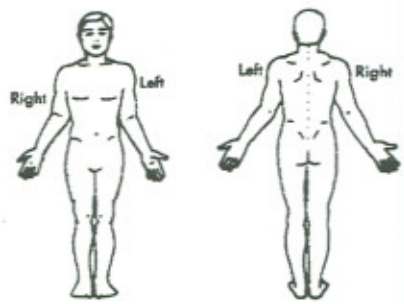
PHYSICAL PAIN ASSESSMENT ☐ No current history of pain

Pain R/T: _____

Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches.) Have you had pain *other* than these everyday kinds of pain during the last week? ☐ Yes ☐ No

IF THE PATIENT ANSWERED YES TO THIS QUESTION, COMPLETE PHYSICAL PAIN ASSESSMENT.

1. On the diagram, shade in the areas where the patient feels pain. Put an X on the area that hurts the most.



2. Does pain interfere with your activities of daily living? How? _____

3. What kinds of things make the patient's pain feel better (for example, heat, medicine, rest)? _____

4. What kinds of things make the patient's pain worse (for example, walking, standing, lifting)? _____

5. What treatments or medications is the patient receiving for pain? _____

6. Do the treatments or medications work? _____

7. In the last week, how much **relief** have pain treatments or medications provided? Circle the one percentage that most shows how much relief the patient has received. _____

8. For each of the following words, check yes or no if it applies to the patient.

Aching	☐ Yes	☐ No	Sharp	☐ Yes	☐ No	Penetrating	☐ Yes	☐ No
Throbbing	☐ Yes	☐ No	Tender	☐ Yes	☐ No	Nagging	☐ Yes	☐ No
Shooting	☐ Yes	☐ No	Burning	☐ Yes	☐ No	Numb	☐ Yes	☐ No
Stabbing	☐ Yes	☐ No	Exhausting	☐ Yes	☐ No	Miserable	☐ Yes	☐ No
Gnawing	☐ Yes	☐ No	Tiring	☐ Yes	☐ No	Unbearable	☐ Yes	☐ No

Patient Name: _____ Patient ID: _____

FATIGUE

Throughout our lives, most of us experience times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? ☐ Yes ☐ No If no, skip fatigue scale.

		NO FATIGUE			AS BAD AS YOU CAN IMAGINE
1	Please rate your fatigue (weariness, tiredness) that best describes your **usual** level of fatigue during the past week.	0 1 2 3 4 5 6 7 8 9 10			
2	Please describe how, during the past week, fatigue has interfered with your:	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	A. General **activity**	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	B. **Mood**	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	C. **Walking** ability	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	D. **Relationships** with other people	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	E. **Enjoyment** of life	☐ All the Time	☐ Some of the Time	☐ A Little Bit	

Has your fatigue level changed? ☐Yes ☐No

INTEGUMENT ☐ No problem assessed

Integumentary Status: ☐ Dry ☐ Scaly ☐ Itching ☐ Tears ☐ Fragile ☐ Bruising ☐ Lesions ☐ Rash ☐ Petechiae
Turgor: ☐ Poor ☐ Hot ☐ Clammy / Diaphoretic
Colors: ☐ Ashen ☐ Flushed ☐ Pale ☐ Jaundice ☐ Mottled ☐ Cyanotic
Comments: _____

CARDIO-RESPIRATORY

Temperature: _____ Respirations: _____ Weight (☐Stated ☐Actual): _____ Height (Stated): _____

Blood Pressure: ☐ Hx of Hypertension
☐ Lying: _____ ☐ Sitting: _____ ☐ Standing: _____

Pulse:
☐ Apical rate: _____ ☐ Rhythm: _____ ☐ Radial rate: _____ ☐ Quality: _____
☐ Pulse deficit

Pulse Oximetry: Reading on room air: _____ Reading on _____ L/Min O_2: _____
☐ Palpitations ☐ Intermittent Claudication ☐ Hx of chest pain ☐ Cyanosis ☐ Pacemaker OR ☐ AICD ☐ Varicosities
☐ Cardiac surgery (specify): _____
☐ Edema (indicate location & severity): _____
☐ Other (specify): _____

Respiratory: ☐ No problem assessed
Crackles: ☐ R ☐ L Rhonchi: ☐ R ☐ L Wheezing: ☐ R ☐ L Diminished: ☐ R ☐ L
Other (specify): _____
☐ Dyspnea on exertion ☐ Paroxysmal nocturnal dyspnea ☐ Othopnea (# of pillows)

Cough: ☐ Dry ☐ Productive ☐ Frequent ☐ Occasional
Sputum: Amount: _____ Color: _____ ☐ Hemoptysis

Chest: ☐ Barrel ☐ Asymmetrical
☐ Trach: _____ ☐ Stoma size: _____ ☐ Drainage: _____

History of: ☐ TB ☐ Bronchitis ☐ Asthma ☐ Pleurisy ☐ Thoracentesis ☐ Pulmonary surgery
☐ Pneumonia ☐ Emphysema ☐ Other (specify): _____

Patient Name: _____ Patient ID: _____

When is the patient dyspneic or noticeably short of breath?	0	☐	Never, patient is not short of breath.
	1	☐	When walking more than 20 ft, climbing stairs.
	2	☐	With moderate exertion (e.g., while dressing, using commode or bedpan, walking distance less than 20 ft.)
	3	☐	With minimal exertion (e.g., while eating, talking, or performing other ADLs) or with agitation.
	4	☐	At rest (during day or night)
Respiratory treatments utilized at home	1	☐	Oxygen (intermittent or continuous) _____ L/Min.
	2	☐	Ventilator (continually or at night)
	3	☐	Continuous positive airway pressure
	4	☐	BIPAP
	5	☐	SVN
	6	☐	Inhalers

GENITO-URINARY ☐ No problem assessed

Urination: ☐ Frequency ☐ Pain / dysuria ☐ Hematuria ☐ Urgency ☐ Incontinence ☐ Retention
☐ Polyuria ☐ Oliguria ☐ Nocturia ☐ Other (specify): _____

☐ Urinary Ostomy (specify type / location / supplies used): _____
☐ Patient independent in management ☐ Patient requires assistance in management

☐ Foley ☐ Suprapubic Cath
☐ Cath / Balloon size: _____ Date of last Δ: _____ Insertion site: ☐ Red ☐ Drainage

☐ Hx hysterectomy ☐ Vaginal discharge / bleeding ☐ Prostate disorder ☐ Lesions

GASTRO-INTESTINAL TRACT

G.I. ☐ No problem assessed
☐ Bowel routine: _____
☐ Heartburn ☐ Flatulence ☐ Hemorrhoids ☐ Diarrhea ☐ Constipation ☐ Impaction
☐ Stool Changes ☐ Rectal Bleeding ☐ Incontinent ☐ Ostomy ☐ Patient independent in management
☐ Patient requires assistance with management

Hx of bowel surgery: _____
Hx of bowel problems: _____
Other (specify): _____

Abdomen ☐ No problem assessed
Bowel sounds: ☐ Hyperactive ☐ Hypoactive ☐ Absent ☐ Rigid ☐ Firm ☐ Tender ☐ Concave ☐ Ascites
☐ Distended ☐ Abd. Girth: _____ ☐ Other (specify): _____

ENDOCRINE / HEMATOPOIETIC / METABOLIC ☐ No problem assessed

Diabetes: ☐ Type 1 ☐ Type 2
Capillary bloodsugar checks: ☐ Self ☐ Caregiver Frequency: _____
☐ Hx thyroid ☐ Hx Hepatitis ☐ Hx blood disorder ☐ Hx Liver disease ☐ Prev. blood transfusion
☐ Immuno suppressed ☐ Hx excessive bleeding ☐ Hx Anemia

NUTRITIONAL SCREENING ☐ No problem assessed

Oral diet prescribed: _____
☐ Enteral feeding: _____
☐ Nutritional supplements: _____
In the past few months have you gained or lost significant weight? _____

Patient Name: _____ Patient ID: _____

NEURO – EMOTIONAL BEHAVIORAL

Neurological Assessment ☐ No problem assessed

Hx: _____ Other: _____

Sleep Disturbances: Patient: ☐ Yes ☐ No PCG: ☐ Yes ☐ No

Comments: _____

Cognitive functioning (Patient's current level of alertness, orientation, comprehension, concentration, and immediate memory for simple commands):	0	☐	Alert / oriented, able to focus and shift attention, comprehends and recalls task directions independently.
	1	☐	Requires prompting (cueing, repetition, reminders) only under stressful or unfamiliar conditions.
	2	☐	Requires assistance and some direction in specific situations (e.g., on all tasks involving shifting or attention), or constantly requires low stimulus environment due to distractibility.
	3	☐	Requires considerable assistance in routine situations. Is not alert and oriented or is unable to shift attention and recall directions more than half the time.
	4	☐	Totally dependant due to disturbances such as constant disorientation, coma, persistent vegetative state, or delirium.
When confused (reported or observed):	0	☐	Never
	1	☐	In new or complex situations only
	2	☐	On awakening or at night only
	3	☐	During the day and evening, but not constantly
	4	☐	Constantly
	5	☐	N/A – Patient is non-responsive
When anxious (reported or observed):	0	☐	None of the time
	1	☐	Less often than daily
	2	☐	Daily, but not constantly
	3	☐	All of the time
	4	☐	N/A – Patient is non-responsive
Depressive feelings (reported or observed): (Mark all that apply.)	0	☐	No depressive feelings reported or observed
	1	☐	Depressed mood (e.g., feeling sad, tearful)
	2	☐	Sense of failure or self reproach
	3	☐	Hopelessness
	4	☐	Recurrent thoughts of death
	5	☐	Thoughts of suicide
Behaviors demonstrated at least once a week (reported or observed): (Mark all that apply.)	0	☐	No abnormal behaviors demonstrated.
	1	☐	Memory deficit: failure to recognize familiar persons/places, inability to recall events of past 24 hours, significant memory loss so that supervision is required
	2	☐	Impaired decision-making: failure to perform usual ADLs or IADLs, inability to appropriately stop activities, jeopardizes safety through actions
	3	☐	Verbal disruption: yelling, threatening, excessive profanity, sexual references, etc.
	4	☐	Physical aggression: aggressive or combative to self and others (e.g., hits self, throws objects, punches, dangerous maneuvers with wheelchair or other objects)
	5	☐	Disruptive, infantile, or socially inappropriate behavior (**excludes** verbal actions)
	6	☐	Delusional, hallucinatory, or paranoid behavior
Patient behaviors (reported or observed): (Mark all that apply.)	0	☐	No abnormal behaviors observed or reported.
	1	☐	Indecisiveness, lack of concentration
	2	☐	Diminished interest in most activities.
	3	☐	Sleep disturbances
	4	☐	Recent change in appetite or weight
	5	☐	Agitation
	6	☐	A suicide attempt
Frequency of behavior problems (reported or observed): (e.g., wandering episodes, self abuse, verbal disruption, physical aggression, etc.)	0	☐	Never
	1	☐	Less than once a month
	2	☐	Once a month
	3	☐	Several times each month
	4	☐	Several times a week
	5	☐	At least daily

Is the patient receiving Psychiatric Nursing Service at home provided by a qualified psychiatric nurse?	0	☐	No
	1	☐	Yes

Mini Mental Stats Exam Score: _____

History of previous psychiatric illness: ☐ No ☐ Yes

If yes, was previous treatment received? ☐ Psychiatric institutionalization ☐ EST ☐ Psychotherapy ☐ Psycho-active medications

Describe: _____

_____

FUNCTIONAL ASSESSMENT

Check the box that most closely indicates the patient's **current** functional status.

M0640 Grooming: ability to tend to personal hygiene needs (e.g., washing face and hands, hair care, shaving or make up, teeth or denture care, fingernail care.)	0	☐	Able to groom self – unaided, with or without the use of assistive devices or adapted methods.
	1	☐	Grooming utensils must be placed within reach before able to complete grooming activities.
	2	☐	Someone must assist the patient to groom self.
	3	☐	Patient depends entirely upon someone else for grooming needs.
	4	☐	Unknown
M0650 Ability to dress upper body (with or without dressing aids) including undergarments, pullovers, front-opening shirts and blouses, managing zippers, buttons, and snaps:	0	☐	Able to get clothes out of closets and drawers, put them on and remove them from the upper body without assistance.
	1	☐	Able to dress upper body without assistance if clothing is laid out or handed to the patient.
	2	☐	Someone must help the patient put on upper body clothing.
	3	☐	Patient depends entirely upon another person to dress the upper body.
	4	☐	Unknown
M0660 Ability to dress lower body (with or without dressing aids) including undergarments, slacks, socks or nylons, shoes:	0	☐	Able to obtain, put on, and removes clothing and shoes without assistance.
	1	☐	Able to dress lower body without assistance if clothing and shoes are laid out or handed to the patient.
	2	☐	Someone must help the patient put on undergarments, slacks, socks or nylons, and shoes.
	3	☐	Patient depends entirely upon another person to dress the lower body.
	4	☐	Unknown
M0670 Bathing: ability to wash entire body. Excludes grooming (washing face and hands only.)	0	☐	Able to bathe self in shower or tub independently.
	1	☐	With the use of devices, is able to bath self in shower or tub independently.
	2	☐	Able to bathe in shower or tub with the assistance of another person: (a) For intermittent supervision or encouragement or reminders, OR (b) To get in and out of the shower or tub, OR (c) For washing difficult to reach areas.
	3	☐	Participates in bathing self in shower or tub, but requires presence of another person throughout the bath for assistance or supervision.
	4	☐	**Unable** to use the shower or tub and is bathed in **bed or bedside chair**.
	5	☐	Unable to effectively participate in bathing and is totally bathed by another person.
	6	☐	Unknown
M0680 Toileting: ability to get to and from the toilet or bedside commode.	0	☐	Able to get to and from the toilet independently with or without a device.
	1	☐	When reminded, assisted, or supervised by another person, able to get to and from the toilet.
	2	☐	Unable to get to and from the toilet but is able to use a bedside commode (with or without assistance.)
	3	☐	Unable to get to and from the toilet or bedside commode but is able to use a bedpan/urinal independently.
	4	☐	Is totally dependent in toileting.
	5	☐	Unknown
M0690 Transferring: ability to move from bed to chair, on and off toilet or commode, into and out of tub or shower, and ability to turn and position self in bed if patient is bedfast.	0	☐	Able to independently transfer.
	1	☐	Transfers with minimal human assistance or with use of an assistive device.
	2	☐	Unable to transfer self but is able to bear weight and pivot during transfer process.
	3	☐	Unable to transfer self and is unable to bear weight or pivot, when transferred by another person.
	4	☐	Bedfast, unable to transfer but is able to turn and position self in bed.
	5	☐	Bedfast, unable to transfer and is unable to turn and position self.
	6	☐	Unknown

M0700 Ambulation/Locomotion: ability to SAFELY walk, once in a standing position, or use a wheelchair, once in a seated position, on a variety of surfaces.	0	☐	Able to independently walk on even and uneven surfaces and climb stairs with or without railings (e.g., need no human assistance or assistive devices.)
	1	☐	Requires use of a device (e.g., cane, walker) to walk alone or requires human supervision or assistance to negotiate stairs or steps or uneven surfaces.
	2	☐	Able to walk only with the supervision or assistance of another person at all times.
	3	☐	Chair-fast, unable to ambulate but is able to wheel self independently.
	4	☐	Chair-fast, unable to ambulate and is unable to wheel self.
	5	☐	Bedfast, unable to ambulate or be up in a chair.
	6	☐	Unknown
M0710 Feeding or eating: ability to feed self meals and snacks. Note: This refers only to the process of eating, chewing, and swallowing, not preparing the food to be eaten.	0	☐	Able to independently feed self.
	1	☐	Able to feed self independently but requires: (a) Meal set-up; OR (b) Intermittent assistance or supervision from another person; OR (c) A liquid, pureed or ground meat diet.
	2	☐	Unable to feed self and must be assisted or supervised throughout the meal/snack.
	3	☐	Able to take in nutrients orally and receives supplemental nutrients through a nasogastric tube or gastrostomy.
	4	☐	Unable to take in nutrients orally and is fed nutrients through a nasogastric tube or gastrostomy.
	5	☐	Unable to take in nutrients orally or by tube feeding.
	6	☐	Unknown
M0720 Planning and preparing light meals (e.g., cereal, sandwich) or reheat delivered meals:	0	☐	(a) Able to independently plan and prepare all light meals for self or reheat delivered meals; OR (b) Is physically, cognitively, and mentally able to prepare light meals on a regular basis but has not routinely performed light meal preparation in the past (e.g., prior to this home care admission.)
	1	☐	Unable to prepare light meals on a regular basis due to physical, cognitive, or mental limitations.
	2	☐	Unable to prepare any light meals or reheat any delivered meals.
	3	☐	Unknown
M0730 Transportation: Physical and mental ability to safely use a car, taxi, or public transportation (bus, train, subway.)	0	☐	Able to independently drive a regular or adapted car; OR uses a regular or handicap-accessible public bus.
	1	☐	Able to ride in a car only when driven by another person: OR able to use a bus or handicap van only when assisted or accompanied by another person.
	2	☐	Unable to ride in a car, taxi, bus or van, and requires transportation by ambulance.
	3	☐	Unknown
M0740 Laundry: Ability to do won laundry – to carry laundry to and from washing machine, to use washer and dryer, to wash small items by hand.	0	☐	(a) Able to independently take care of all laundry tasks; OR (b) Physically, cognitively, and mentally able to do laundry and access facilities, but has not routinely performed laundry tasks in the past (e.g., prior to this home care admission.)
	1	☐	Able to do only light laundry, such as minor hand wash or light washer loads. Due to physical, cognitive, or mental limitations, needs assistance with heavy laundry such as carrying large loads of laundry.
	2	☐	Unable to do any laundry due to physical limitation or needs continual supervision and assistance due to cognitive or mental limitation.
	3	☐	Unknown
M0750 Housekeeping: Ability to safely and effectively perform light housekeeping and heavier cleaning tasks.	0	☐	(a) Able to independently perform all housekeeping task; OR (b) Physically, cognitively, and mentally able to do laundry and access facilities, but has not routinely performed laundry tasks in the past (e.g., prior to this home care admission.)
	1	☐	Able to perform only light housekeeping (e.g., dusting, wiping kitchen counters) tasks independently.
	2	☐	Able to perform housekeeping tasks with intermittent assistance or supervision from another person.
	3	☐	Unable to consistently perform any housekeeping tasks unless assisted by another person throughout the process.
	4	☐	Unable to effectively participate in any housekeeping tasks.
	5	☐	Unknown

Patient Name: _____ Patient ID: _____

M0760 Shopping: Ability to plan for, select, and purchase items in a store and to carry them home or arrange delivery.	0	☐	(a) Able to plan for shopping needs and independently perform shopping tasks, including carrying packages; OR (b) Physically, cognitively, and mentally able to take care of shopping, but has not done shopping in the past (i.e., prior to this home care admission.)
	1	☐	Able to go shopping, but needs some assistance: (a) By self is able to do only light shopping and carry small packages, but needs someone to do occasional major shopping; OR (b) Unable to go shopping alone, but can go with someone to assist.
	2	☐	Unable to go shopping, but is able to identify items needed, place orders, and arrange home delivery.
	3	☐	Needs someone to do all shopping and errands.
	4	☐	Unknown
M0770 Ability to use telephone: ability to answer the phone, dial numbers, and effectively use the telephone to communicate.	0	☐	Able to dial numbers and answer calls appropriately and as desired.
	1	☐	Able to use a specially adapted telephone (i.e., large numbers on the dial, teletype phone for the deaf) and call essential numbers.
	2	☐	Able to answer the telephone and carry on a normal conversation but has difficulty with placing calls.
	3	☐	Able to answer the telephone only some of the time or is able to carry on only a limited conversation.
	4	☐	Unable to answer the telephone at all but can listen if assisted with equipment.
	5	☐	Totally unable to answer the telephone.
	6	☐	N/A – Patient does not have a telephone.
	7	☐	Unknown

HOME SAFETY ASSESSMENT

Hazards and Barriers

M0330 Sanitation hazards found in the patient's current place of residence: (Mark all that apply.)	0	☐	None
	1	☐	No running water
	2	☐	Contaminated water
	3	☐	No toileting facilities
	4	☐	Outdoor toileting facilities only
	5	☐	Inadequate sewage disposal
	6	☐	Inadequate/improper food storage
	7	☐	No food refrigeration
	8	☐	No cooking facilities
	9	☐	Insects/rodents present
	10	☐	No scheduled trash pick up
	11	☐	Cluttered/soiled living area
	12	☐	Other (specify):
M0310 Structural barriers in the patient's environment limiting independent mobility: (Mark all that apply.)	0	☐	None
	1	☐	Stairs inside home which must be used by the patient (e.g., to get to toileting, sleeping, eating areas.)
	2	☐	Stairs inside home which are used optionally (e.g., to get to laundry facilities.)
	3	☐	Stairs leading from inside house to outside.
	4	☐	Narrow or obstructed doorways
M0320 Safety hazards found in the patient's current place of residence: (Mark all that apply.)	0	☐	None
	1	☐	Inadequate floor, roof, or windows
	2	☐	Inadequate lighting
	3	☐	Unsafe gas/electric appliance
	4	☐	Inadequate heating
	5	☐	Inadequate cooling
	6	☐	Lack of fire safety devices
	7	☐	Unsafe floor coverings
	8	☐	Inadequate stair railings
	9	☐	Improperly stored hazardous materials
	10	☐	Lead-based paint
	11	☐	Other (specify):

Patient Name: _____ Patient ID: _____

Mobility: ☐ Chair bound ☐ Bed bound ☐ Limitations ☐ Other: _____

Fall Risk: ☐ Increased ☐ Decreased ☐ No Change ☐ Comments: _____

LOC: ☐ Alert ☐ Oriented X _____ ☐ Forgetful ☐ Confused ☐ Hallucinating
☐ Semi-Conscious ☐ Non-responsive

Neuro Status: ☐ Dizziness ☐ Restless ☐ Agitated ☐ Tremors ☐ Myoclonus ☐ Seizures ☐ Lethargy
☐ Anxiety

ADL's Assist: ☐ Min ☐ Mod ☐ Total Is this a change: ☐ Yes ☐ No

MANAGEMENT OF HOME EQUIPMENT

Durable Medical Equipment In Home

Durable Medical Equipment provider: _____

Infusion provider: _____

☐ Cane: Straight Quad ☐ Incentive spirometer ☐ Suction: Intermittent Continuous On demand
☐ Elevated Toilet seat ☐ Walker: FWW Plattern ☐ Small volume nebulizer (SVN)
☐ Hoyer lift ☐ Bedside commode ☐ Wheelchair ☐ Hospital bed
☐ Specialty bed (specify): _____ ☐ Trapeze ☐ Side rails
☐ Specialty mattress (specify): _____
Oxygen: ☐ Concentrator ☐ Portable tanks ☐ Liquid O2 ☐ Oxylite portable ☐ Other: _____

MANAGEMENT OF MEDICATIONS

Management of oral medications: patient's ability to prepare and take all prescribed oral medications reliably and safely, including administration of the correct dosage at the appropriate times/intervals. Excludes injectable and IV medications. (Note: This refers to ability, not compliance or willingness.)	0	☐	Able to independently take the correct oral medication(s) and proper dosage(s) at the correct times.
	1	☐	Able to take medication(s) at the correct times if: (a) Individual dosage are prepared in advance by another person; OR (b) Given daily reminders; OR (c) Someone develops a drug diary or chart.
	2	☐	Unable to take medication unless administered by someone else.
	3	☐	No oral medications prescribed.
	4	☐	Unknown
Management of inhalant/mist medications: Patient's ability to prepare and take all prescribed inhalant/mist medications (nebulizers, metered dose devices) reliably and safely, including administration of the correct dosage at the appropriate times/intervals. Excludes all other forms of medication (oral tablets, injectable and IV medications.)	0	☐	Able to independently take the correct medication and proper dosage at the correct times.
	1	☐	Able to take medication at the correct times if: (a) Individual dosage are prepared in advance by another person; OR (b) Given daily reminders.
	2	☐	Unable to take medication unless administered by someone else.
	3	☐	N/A – No inhalant/mist medications prescribed.
	4	☐	Unknown
Management of injectable medications: Patient's ability to prepare and take all prescribed injectable medications reliably and safely, including administration of correct dosage at the appropriate times/intervals. Excludes IV medications.	0	☐	Able to independently take the correct medication and proper dosage at the correct times.
	1	☐	Able to take injectable medication at the correct times if: (a) Individual syringes are prepared in advance by another person; OR (b) Given daily reminders.
	2	☐	Unable to take injectable medication unless administered by someone else.
	3	☐	N/A – No injectable medications prescribed.
	4	☐	Unknown
Patient management of equipment (includes ONLY oxygen, IV/infusion therapy, enteral / parenteral nutrition equipment or supplies): Patient's ability to set up, monitor and change equipment reliably and safely, add appropriate fluids or medication, clean/store/dispose of equipment or supplies using proper technique. (Note: This refers to ability, not compliance or willingness.)	0	☐	Patient manages all tasks related to equipment completely independently.
	1	☐	If someone else sets up equipment (i.e., fills portable oxygen tank, provides patient with prepared solutions), patient is able to manage all other aspects of equipment.
	2	☐	Patient requires considerable assistance from another person to manage equipment, but not independently completes portions of the task.
	3	☐	Patient is only able to monitor equipment (e.g., liter flow, fluid in bag) and must call someone else to manage the equipment.
	4	☐	Patient is completely dependent on someone else to manage all equipment.
	5	☐	N/A – No equipment of this type used in care.

Date Comprehensive Assessment Completed: _____

Staff Signature: _____ Employee ID: _____

Patient Name: _____ Patient ID: _____

MediCaring
Enhancing Medicare for the Future

MANAGEMENT OF MEDICATION

ALLERGIES: _____ ☐ NKDA

MEDICATIONS	DOSAGE	FREQUENCY	ROUTE	PHYSICIAN ORDERING	REASON FOR USE
NEW MEDICATION ORDERS OBTAINED AT TIME OF ADMISSION					

Pharmacy: _____ Phone Number: _____

Location (intersections): _____

Medication: ☐Picked up by patient / family ☐Home delivery ☐Mail delivery

Staff Signature: _____ ID No: _____ Date: _____

Patient Name: _____ ID No: _____

Original: Medical Records **Yellow:** Patient Record

MediCaring™

Enhancing Medicare for the Future

COORDINATOR RE-ASSESSMENT

Assessment Date:_____

FATIGUE

Throughout our lives, most of us experience times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? ☐ Yes ☐ No If no, skip fatigue scale.

		NO FATIGUE			AS BAD AS YOU CAN IMAGINE
1	Please rate your fatigue (weariness, tiredness) that best describes your **usual** level of fatigue during the past week.	0 1 2 3 4 5 6 7 8 9 10			
2	Please describe how, during the past week, fatigue has interfered with your:	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	A. General **activity**	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	B. **Mood**	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	C. **Walking** ability	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	D. **Relationships** with other people	☐ All the Time	☐ Some of the Time	☐ A Little Bit	
	E. **Enjoyment** of life	☐ All the Time	☐ Some of the Time	☐ A Little Bit	

Has your fatigue level changed? ☐Yes ☐No

INTEGUMENT ☐ No problem assessed

Integumentary Status: ☐ Dry ☐ Scaly ☐ Itching ☐ Tears ☐ Fragile ☐ Bruising ☐ Lesions ☐ Rash ☐ Petechiae

Turgor: ☐ Poor ☐ Hot ☐ Clammy / Diaphoretic

Colors: ☐ Ashen ☐ Flushed ☐ Pale ☐ Jaundice ☐ Mottled ☐ Cyanotic

Comments: _____

CARDIO-RESPIRATORY

Temperature: _____ Respirations: _____ Weight (☐Stated ☐Actual): _____ Height (Stated): _____

Blood Pressure: ☐ Hx of Hypertension

☐ Lying: _____ ☐ Sitting: _____ ☐ Standing: _____

Pulse:

☐ Apical rate: _____ ☐ Rhythm: _____ ☐ Radial rate: _____ ☐ Quality: _____

☐ Pulse deficit

Pulse Oximetry: Reading on room air: _____ Reading on _____ L/Min O_2: _____

☐ Palpitations ☐ Intermittent Claudication ☐ Hx of chest pain ☐ Cyanosis ☐ Pacemaker OR ☐ AICD ☐ Varicosities

☐ Cardiac surgery (specify): _____

☐ Edema (indicate location & severity): _____

☐ Other (specify): _____

Respiratory: ☐ No problem assessed

Crackles: ☐ R ☐ L Rhonchi: ☐ R ☐ L Wheezing: ☐ R ☐ L Diminished: ☐ R ☐ L

Other (specify): _____

☐ Dyspnea on exertion ☐ Paroxysmal nocturnal dyspnea ☐ Othopnea (# of pillows)

Cough: ☐ Dry ☐ Productive ☐ Frequent ☐ Occasional

Sputum: Amount: _____ Color: _____ ☐ Hemoptysis

Chest: ☐ Barrel ☐ Asymmetrical

☐ Trach: _____ ☐ Stoma size: _____ ☐ Drainage: _____

History of: ☐ TB ☐ Bronchitis ☐ Asthma ☐ Pleurisy ☐ Thoracentesis ☐ Pulmonary surgery

☐ Pneumonia ☐ Emphysema ☐ Other (specify): _____

Patient Name: _____ Patient ID: _____

When is the patient dyspneic or noticeably short of breath?	0	☐	Never, patient is not short of breath.
	1	☐	When walking more than 20 ft, climbing stairs.
	2	☐	With moderate exertion (e.g., while dressing, using commode or bedpan, walking distance less than 20 ft.)
	3	☐	With minimal exertion (e.g., while eating, talking, or performing other ADLs) or with agitation.
	4	☐	At rest (during day or night)
Respiratory treatments utilized at home	1	☐	Oxygen (intermittent or continuous) _____ L/Min.
	2	☐	Ventilator (continually or at night)
	3	☐	Continuous positive airway pressure
	4	☐	BIPAP
	5	☐	SVN
	6	☐	Inhalers

GENITO-URINARY ☐ No problem assessed

Urination: ☐ Frequency ☐ Pain / dysuria ☐ Hematuria ☐ Urgency ☐ Incontinence ☐ Retention
☐ Polyuria ☐ Oliguria ☐ Nocturia ☐ Other (specify): _____

☐ Urinary Ostomy (specify type / location / supplies used): _____
☐ Patient independent in management ☐ Patient requires assistance in management

☐ Foley ☐ Suprapubic Cath
☐ Cath / Balloon size: _____ Date of last Δ: _____ Insertion site: ☐ Red ☐ Drainage

☐ Hx hysterectomy ☐ Vaginal discharge / bleeding ☐ Prostate disorder ☐ Lesions

GASTRO-INTESTINAL TRACT

G.I. ☐ No problem assessed
☐ Bowel routine: _____
☐ Heartburn ☐ Flatulence ☐ Hemorrhoids ☐ Diarrhea ☐ Constipation ☐ Impaction
☐ Stool Changes ☐ Rectal Bleeding ☐ Incontinent ☐ Ostomy ☐ Patient independent in management
☐ Patient requires assistance with management

Hx of bowel surgery: _____
Hx of bowel problems: _____
Other (specify): _____

Abdomen ☐ No problem assessed
Bowel sounds: ☐ Hyperactive ☐ Hypoactive ☐ Absent ☐ Rigid ☐ Firm ☐ Tender ☐ Concave ☐ Ascites
☐ Distended ☐ Abd. Girth: _____ ☐ Other (specify): _____

ENDOCRINE / HEMATOPOIETIC / METABOLIC ☐ No problem assessed

Diabetes: ☐ Type 1 ☐ Type 2
Capillary bloodsugar checks: ☐ Self ☐ Caregiver Frequency: _____
☐ Hx thyroid ☐ Hx Hepatitis ☐ Hx blood disorder ☐ Hx Liver disease ☐ Prev. blood transfusion
☐ Immuno suppressed ☐ Hx excessive bleeding ☐ Hx Anemia

NUTRITIONAL SCREENING ☐ No problem assessed

Oral diet prescribed: _____
☐ Enteral feeding: _____
☐ Nutritional supplements: _____
In the past few months have you gained or lost significant weight? _____

NEURO – EMOTIONAL BEHAVIORAL

Neurological Assessment ☐ No problem assessed
Hx: _____ Other: _____
Sleep Disturbances: Patient: ☐ Yes ☐ No PCG: ☐ Yes ☐ No
Comments: _____

Patient Name: _____ Patient ID: _____

Cognitive functioning (Patient's current level of alertness, orientation, comprehension, concentration, and immediate memory for simple commands):	0	☐	Alert / oriented, able to focus and shift attention, comprehends and recalls task directions independently.
	1	☐	Requires prompting (cueing, repetition, reminders) only under stressful or unfamiliar conditions.
	2	☐	Requires assistance and some direction in specific situations (e.g., on all tasks involving shifting or attention), or constantly requires low stimulus environment due to distractibility.
	3	☐	Requires considerable assistance in routine situations. Is not alert and oriented or is unable to shift attention and recall directions more than half the time.
	4	☐	Totally dependant due to disturbances such as constant disorientation, coma, persistent vegetative state, or delirium.
When confused (reported or observed):	0	☐	Never
	1	☐	In new or complex situations only
	2	☐	On awakening or at night only
	3	☐	During the day and evening, but not constantly
	4	☐	Constantly
	5	☐	N/A – Patient is non-responsive
When anxious (reported or observed):	0	☐	None of the time
	1	☐	Less often than daily
	2	☐	Daily, but not constantly
	3	☐	All of the time
	4	☐	N/A – Patient is non-responsive
Depressive feelings (reported or observed): (Mark all that apply.)	0	☐	No depressive feelings reported or observed
	1	☐	Depressed mood (e.g., feeling sad, tearful)
	2	☐	Sense of failure or self reproach
	3	☐	Hopelessness
	4	☐	Recurrent thoughts of death
	5	☐	Thoughts of suicide
Behaviors demonstrated at least once a week (reported or observed): (Mark all that apply.)	0	☐	No abnormal behaviors demonstrated.
	1	☐	Memory deficit: failure to recognize familiar persons/places, inability to recall events of past 24 hours, significant memory loss so that supervision is required
	2	☐	Impaired decision-making: failure to perform usual ADLs or IADLs, inability to appropriately stop activities, jeopardizes safety through actions
	3	☐	Verbal disruption: yelling, threatening, excessive profanity, sexual references, etc.
	4	☐	Physical aggression: aggressive or combative to self and others (e.g., hits self, throws objects, punches, dangerous maneuvers with wheelchair or other objects)
	5	☐	Disruptive, infantile, or socially inappropriate behavior (**excludes** verbal actions)
	6	☐	Delusional, hallucinatory, or paranoid behavior
Patient behaviors (reported or observed): (Mark all that apply.)	0	☐	No abnormal behaviors observed or reported.
	1	☐	Indecisiveness, lack of concentration
	2	☐	Diminished interest in most activities.
	3	☐	Sleep disturbances
	4	☐	Recent change in appetite or weight
	5	☐	Agitation
	6	☐	A suicide attempt
Frequency of behavior problems (reported or observed): (e.g., wandering episodes, self abuse, verbal disruption, physical aggression, etc.)	0	☐	Never
	1	☐	Less than once a month
	2	☐	Once a month
	3	☐	Several times each month
	4	☐	Several times a week
	5	☐	At least daily
Is the patient receiving Psychiatric Nursing Service at home provided by a qualified psychiatric nurse?	0	☐	No
	1	☐	Yes

Mini Mental Stats Exam Score: _____

Patient Name: _____ Patient ID: _____

FUNCTIONAL ASSESSMENT

Check the box that most closely indicates the patient's **current** functional status.

M0640 Grooming: ability to tend to personal hygiene needs (e.g., washing face and hands, hair care, shaving or make up, teeth or denture care, fingernail care.)	0	☐	Able to groom self – unaided, with or without the use of assistive devices or adapted methods.
	1	☐	Grooming utensils must be placed within reach before able to complete grooming activities.
	2	☐	Someone must assist the patient to groom self.
	3	☐	Patient depends entirely upon someone else for grooming needs.
	4	☐	Unknown
M0650 Ability to dress upper body (with or without dressing aids) including undergarments, pullovers, front-opening shirts and blouses, managing zippers, buttons, and snaps:	0	☐	Able to get clothes out of closets and drawers, put them on and remove them from the upper body without assistance.
	1	☐	Able to dress upper body without assistance if clothing is laid out or handed to the patient.
	2	☐	Someone must help the patient put on upper body clothing.
	3	☐	Patient depends entirely upon another person to dress the upper body.
	4	☐	Unknown
M0660 Ability to dress lower body (with or without dressing aids) including undergarments, slacks, socks or nylons, shoes:	0	☐	Able to obtain, put on, and removes clothing and shoes without assistance.
	1	☐	Able to dress lower body without assistance if clothing and shoes are laid out or handed to the patient.
	2	☐	Someone must help the patient put on undergarments, slacks, socks or nylons, and shoes.
	3	☐	Patient depends entirely upon another person to dress the lower body.
	4	☐	Unknown
M0670 Bathing: ability to wash entire body. Excludes grooming (washing face and hands only.)	0	☐	Able to bathe self in shower or tub independently.
	1	☐	With the use of devices, is able to bath self in shower or tub independently.
	2	☐	Able to bathe in shower or tub with the assistance of another person: (a) For intermittent supervision or encouragement or reminders, OR (b) To get in and out of the shower or tub, OR (c) For washing difficult to reach areas.
	3	☐	Participates in bathing self in shower or tub, but requires presence of another person throughout the bath for assistance or supervision.
	4	☐	**Unable** to use the shower or tub and is bathed in **bed or bedside chair**.
	5	☐	Unable to effectively participate in bathing and is totally bathed by another person.
	6	☐	Unknown
M0680 Toileting: ability to get to and from the toilet or bedside commode.	0	☐	Able to get to and from the toilet independently with or without a device.
	1	☐	When reminded, assisted, or supervised by another person, able to get to and from the toilet.
	2	☐	Unable to get to and from the toilet but is able to use a bedside commode (with or without assistance.)
	3	☐	Unable to get to and from the toilet or bedside commode but is able to use a bedpan/urinal independently.
	4	☐	Is totally dependent in toileting.
	5	☐	Unknown
M0690 Transferring: ability to move from bed to chair, on and off toilet or commode, into and out of tub or shower, and ability to turn and position self in bed if patient is bedfast.	0	☐	Able to independently transfer.
	1	☐	Transfers with minimal human assistance or with use of an assistive device.
	2	☐	Unable to transfer self but is able to bear weight and pivot during transfer process.
	3	☐	Unable to transfer self and is unable to bear weight or pivot, when transferred by another person.
	4	☐	Bedfast, unable to transfer but is able to turn and position self in bed.
	5	☐	Bedfast, unable to transfer and is unable to turn and position self.
	6	☐	Unknown
M0700 Ambulation/Locomotion: ability to SAFELY walk, once in a standing position, or use a wheelchair, once in a seated position, on a variety of surfaces.	0	☐	Able to independently walk on even and uneven surfaces and climb stairs with or without railings (e.g., need no human assistance or assistive devices.)
	1	☐	Requires use of a device (e.g., cane, walker) to walk alone or requires human supervision or assistance to negotiate stairs or steps or uneven surfaces.
	2	☐	Able to walk only with the supervision or assistance of another person at all times.
	3	☐	Chair-fast, unable to ambulate but is able to wheel self independently.
	4	☐	Chair-fast, unable to ambulate and is unable to wheel self.
	5	☐	Bedfast, unable to ambulate or be up in a chair.
	6	☐	Unknown

Patient Name: _____ Patient ID: _____

M0710 Feeding or eating: ability to feed self meals and snacks. Note: This refers only to the process of eating, chewing, and swallowing, not preparing the food to be eaten.	0	☐	Able to independently feed self.
	1	☐	Able to feed self independently but requires: (a) Meal set-up; OR (b) Intermittent assistance or supervision from another person; OR (c) A liquid, pureed or ground meat diet.
	2	☐	Unable to feed self and must be assisted or supervised throughout the meal/snack.
	3	☐	Able to take in nutrients orally and receives supplemental nutrients through a nasogastric tube or gastrostomy.
	4	☐	Unable to take in nutrients orally and is fed nutrients through a nasogastric tube or gastrostomy.
	5	☐	Unable to take in nutrients orally or by tube feeding.
	6	☐	Unknown
M0720 Planning and preparing light meals (e.g., cereal, sandwich) or reheat delivered meals:	0	☐	(a) Able to independently plan and prepare all light meals for self or reheat delivered meals; OR (b) Is physically, cognitively, and mentally able to prepare light meals on a regular basis but has not routinely performed light meal preparation in the past (e.g., prior to this home care admission.)
	1	☐	Unable to prepare light meals on a regular basis due to physical, cognitive, or mental limitations.
	2	☐	Unable to prepare any light meals or reheat any delivered meals.
	3	☐	Unknown
M0730 Transportation: Physical and mental ability to safely use a car, taxi, or public transportation (bus, train, subway.)	0	☐	Able to independently drive a regular or adapted car; OR uses a regular or handicap-accessible public bus.
	1	☐	Able to ride in a car only when driven by another person: OR able to use a bus or handicap van only when assisted or accompanied by another person.
	2	☐	Unable to ride in a car, taxi, bus or van, and requires transportation by ambulance.
	3	☐	Unknown
M0740 Laundry: Ability to do won laundry – to carry laundry to and from washing machine, to use washer and dryer, to wash small items by hand.	0	☐	(a) Able to independently take care of all laundry tasks; OR (b) Physically, cognitively, and mentally able to do laundry and access facilities, but has not routinely performed laundry tasks in the past (e.g., prior to this home care admission.)
	1	☐	Able to do only light laundry, such as minor hand wash or light washer loads. Due to physical, cognitive, or mental limitations, needs assistance with heavy laundry such as carrying large loads of laundry.
	2	☐	Unable to do any laundry due to physical limitation or needs continual supervision and assistance due to cognitive or mental limitation.
	3	☐	Unknown
M0750 Housekeeping: Ability to safely and effectively perform light housekeeping and heavier cleaning tasks.	0	☐	(a) Able to independently perform all housekeeping task; OR (b) Physically, cognitively, and mentally able to do laundry and access facilities, but has not routinely performed laundry tasks in the past (e.g., prior to this home care admission.)
	1	☐	Able to perform only light housekeeping (e.g., dusting, wiping kitchen counters) tasks independently.
	2	☐	Able to perform housekeeping tasks with intermittent assistance or supervision from another person.
	3	☐	Unable to consistently perform any housekeeping tasks unless assisted by another person throughout the process.
	4	☐	Unable to effectively participate in any housekeeping tasks.
	5	☐	Unknown
M0760 Shopping: Ability to plan for, select, and purchase items in a store and to carry them home or arrange delivery.	0	☐	(a) Able to plan for shopping needs and independently perform shopping tasks, including carrying packages; OR (b) Physically, cognitively, and mentally able to take care of shopping, but has not done shopping in the past (i.e., prior to this home care admission.)
	1	☐	Able to go shopping, but needs some assistance: (a) By self is able to do only light shopping and carry small packages, but needs someone to do occasional major shopping; OR (b) Unable to go shopping alone, but can go with someone to assist.
	2	☐	Unable to go shopping, but is able to identify items needed, place orders, and arrange home delivery.
	3	☐	Needs someone to do all shopping and errands.
	4	☐	Unknown
M0770 Ability to use telephone: ability to answer the phone, dial numbers, and effectively use the telephone to communicate.	0	☐	Able to dial numbers and answer calls appropriately and as desired.
	1	☐	Able to use a specially adapted telephone (i.e., large numbers on the dial, teletype phone for the deaf) and call essential numbers.
	2	☐	Able to answer the telephone and carry on a normal conversation but has difficulty with placing calls.
	3	☐	Able to answer the telephone only some of the time or is able to carry on only a limited conversation.
	4	☐	Unable to answer the telephone at all but can listen if assisted with equipment.
	5	☐	Totally unable to answer the telephone.
	6	☐	N/A – Patient does not have a telephone.
	7	☐	Unknown

Patient Name: _____ Patient ID: _____

Mobility: ☐ Chair bound ☐ Bed bound ☐ Limitations ☐ Other: _____

Fall Risk: ☐ Increased ☐ Decreased ☐ No Change ☐ Comments: _____

LOC: ☐ Alert ☐ Oriented X _____ ☐ Forgetful ☐ Confused ☐ Hallucinating
☐ Semi-Conscious ☐ Non-responsive

Neuro Status: ☐ Dizziness ☐ Restless ☐ Agitated ☐ Tremors ☐ Myoclonus ☐ Seizures ☐ Lethargy
☐ Anxiety

ADL's Assist: ☐ Min ☐ Mod ☐ Total Is this a change: ☐ Yes ☐ No

MANAGEMENT OF MEDICATIONS

Management of oral medications: patient's ability to prepare and take all prescribed oral medications reliably and safely, including administration of the correct dosage at the appropriate times/intervals. Excludes injectable and IV medications. (Note: This refers to ability, not compliance or willingness.)	0	☐	Able to independently take the correct oral medication(s) and proper dosage(s) at the correct times.
	1	☐	Able to take medication(s) at the correct times if: (a) Individual dosage are prepared in advance by another person; OR (b) Given daily reminders; OR (c) Someone develops a drug diary or chart.
	2	☐	Unable to take medication unless administered by someone else.
	3	☐	No oral medications prescribed.
	4	☐	Unknown
Management of inhalant/mist medications: Patient's ability to prepare and take all prescribed inhalant/mist medications (nebulizers, metered dose devices) reliably and safely, including administration of the correct dosage at the appropriate times/intervals. Excludes all other forms of medication (oral tablets, injectable and IV medications.)	0	☐	Able to independently take the correct medication and proper dosage at the correct times.
	1	☐	Able to take medication at the correct times if: (a) Individual dosage are prepared in advance by another person; OR (b) Given daily reminders.
	2	☐	Unable to take medication unless administered by someone else.
	3	☐	N/A – No inhalant/mist medications prescribed.
	4	☐	Unknown
Management of injectable medications: Patient's ability to prepare and take all prescribed injectable medications reliably and safely, including administration of correct dosage at the appropriate times/intervals. Excludes IV medications.	0	☐	Able to independently take the correct medication and proper dosage at the correct times.
	1	☐	Able to take injectable medication at the correct times if: (a) Individual syringes are prepared in advance by another person; OR (b) Given daily reminders.
	2	☐	Unable to take injectable medication unless administered by someone else.
	3	☐	N/A – No injectable medications prescribed.
	4	☐	Unknown
Patient management of equipment (includes ONLY oxygen, IV/infusion therapy, enteral / parenteral nutrition equipment or supplies): Patient's ability to set up, monitor and change equipment reliably and safely, add appropriate fluids or medication, clean/store/dispose of equipment or supplies using proper technique. (Note: This refers to ability, not compliance or willingness.)	0	☐	Patient manages all tasks related to equipment completely independently.
	1	☐	If someone else sets up equipment (i.e., fills portable oxygen tank, provides patient with prepared solutions), patient is able to manage all other aspects of equipment.
	2	☐	Patient requires considerable assistance from another person to manage equipment, but not independently completes portions of the task.
	3	☐	Patient is only able to monitor equipment (e.g., liter flow, fluid in bag) and must call someone else to manage the equipment.
	4	☐	Patient is completely dependent on someone else to manage all equipment.
	5	☐	N/A – No equipment of this type used in care.

Community Resource Update: _____

_____

_____

_____

SOCIAL SUPPORT

Update: _____

_____

_____

_____

Staff Signature: _____ Employee ID: _____

Patient Name: _____ Patient ID: _____

*Medi*Caring™ Physician Report — Date: 11/29/04

Thank you for your support of the *Medi*Caring™ program! Please let us know if you would like us to help you with additional activities with this patient. We can monitor health status, provide education, and be your extension in the patient's home.

Patient:
DOB: 08/18/1922
Physician: Dr. Pete Coury
Diagnosis: MS
Case Manager:

Summary of Care/Issues

VS: 148/80- 80 occ. irreg. beat; 20. LE's with 2+ pitting edema to mid calf, lungs clear. Mental status eval –2=normal. Memory becoming poorer. Word location difficult at times, requires frequent repetition. Has received instructions on measures to minimize peripheral edema, low Na diet, use of support stockings, elevation of LE's, medications effects/SE's, safety factors.

Other Physician Involvement

None

Recent Hospitalizations / Emergency Room Visits

None

Planned Priority Interventions

Continue with diet teaching, disease management, care coordination as needed.

If you have any other patients you would like to refer to the *Medi*Caring™ program, please call us at 602-636-6300.

Sincerely,

MCCD Patient / Caregiver Care Plan Template

Issue #1: Lack of knowledge / compliance re routine medication management

Intervention:

- ☐ Provide medication information sheets and review medication safety
- ☐ Implement assisted medication delivery system (i.e. medi-set)

Issue #2: Ineffective medication regimen

Intervention:

- ☐ Review medication regimen with Medical Director
- ☐ Communicate medication / medical treatment recommendations to patient's physician

Issue #3: Lack of skill to identify early changes indicative of worsening illness

Intervention:

- ☐ Introduce concept of self-management to improve health
- ☐ Provide disease or symptom specific educational materials appropriate to patient/caregiver learning level
- ☐ Review past management of emergencies
- ☐ Facilitate patient goal-setting
- ☐ Provide support and encouragement to patient / caregiver
- ☐ Develop written Symptom Management Plan with patient / caregiver
- ☐ Obtain physician consent of Symptom Management Plan interventions

Issue #4: Lack of knowledge re management of symptom exacerbations

Intervention:

- ☐ Introduce concept of self-management to improve health
- ☐ Provide disease or symptom specific educational materials appropriate to patient/caregiver learning level
- ☐ Review past management of emergencies
- ☐ Facilitate patient goal-setting
- ☐ Provide support and encouragement to patient / caregiver

- ☐ Provide support and encouragement to patient / caregiver
- ☐ Social Services consult

Issue #10: Environmental safety concerns / Poor environmental support

Intervention:

- ☐ Identify home safety concerns
- ☐ Provide written educational materials on home safety and emergency preparedness
- ☐ Refer patient/caregiver to community resources to house cleaning/home repair
- ☐ Social Services consult

Issue #11: Poor social support / social isolation

Intervention:

- ☐ Provide intermittent social support
- ☐ Refer patient/caregiver to community resources of socialization / support
- ☐ Refer patient/caregiver to HOV volunteer program
- ☐ Social Service consult

Issue #12: High anxiety level in response to worsening illness

Intervention:

- ☐ Provide written educational materials on anxiety and stress management
- ☐ Provide support and encouragement to patient / caregiver
- ☐ Complete referral for professional counseling
- ☐ Social Service consult

Issue #13: Lack of Advance Care decisions and/or documents

Intervention:

- ☐ Provide educational materials on Advance Care Planning and initiate discussion of preferences
- ☐ Review Advance Directives previously completed by patient
- ☐ Notify physician of patient's treatment choices
- ☐ Provide written Advance Directives to physician

CASE COORDINATOR CONTACT NOTE

FOCUS/REASON FOR VISIT: _____

_____

CONTACT INITIATED BY CARE COORDINATOR ☐ YES ☐ NO

☐ H (Patient's home) ☐ I (In person, not patient's home) ☐ T (Telephone or email)
(Circle location) MD Office, Hospital, SNF

PROVIDED BY CARE COORDINATOR AT THIS CONTACT
(INCLUDE CAREGIVER CONTACTS IF FOCUS IS ON PATIENT'S NEEDS):

☐ ASSESSMENT - Complete appropriate sections of the Care Coordinator Comprehensive Assessment form

☐ IDENTIFICATION OF SERVICE NEEDS / ARRANGE SERVICES

Non-Medicare services: ☐ PC (Personal Care / Homemaker services / Meals)
☐ Transportation ☐ Other (including referral to MSW or PC)

Medicare covered services:

EXPLAIN / EDUCATE (Patient and /or Caregiver - re patient's needs only) :

☐ Disease / Self-care ☐ Labs / Tests / Procedures / Therapies (including review of results)

☐ Medications (including how to take, importance, side effects)

☐ MONITORING (Patient and / or caregiver – re patient's needs only) :

☐ Routine or periodic ☐ Service use (were services deliverer as scheduled)

☐ Abnormal results (of test / procedure / patient self-monitoring)

☐ EMOTIONAL SUPPORT (To patient only)

SERVICES PROVIDED BY MEDICARING PROJECT DIRECTLY (note number of services since last care coordinator contact) :

☐ Assistive Devices (non-durable) ☐ Durable Medical Equipment (walkers, w/c, etc.)

☐ Medication Reminder Device ☐ Medication set-up / review

☐ Mental health / Spiritual / Emotional Counseling sessions

Nutritional Counseling sessions ☐ Personal Care / Homemaker visits

☐ Respite care days ☐ Transportation (one-way trip)

..rERVENTIONS:

COMMENTS/CHANGES:

ASSESSMENT:

PLAN:

Care Coordinator: Date of Contact:

Time In: Time Out:

Patient Name: **ID NUMBER**

Case Coordinator Orientation

Name:_____ **Preceptor:**_____

Task	*Date*	*Preceptor*	*Date Completed*
Orientation Overview/List	8/19/02	Beth Hale	
Competency Inventory	8/19/02	Beth Hale	
Background of MCCD Project: Summary Sheet/Site Protocols	8/19/02	Beth Hale	
Research Design Elements	8/19/02	Beth Hale	
Other MCCD Designs	8/19/02	Beth Hale	
Care Coordination Training Manual	8/19/02-8/23/02	Beth Hale	
Form Samples	8/19/02	Beth Hale	
Protocol Examples	8/19/02	Beth Hale	
Educational Resources	8/19/02-8/23/02	Beth Hale	
Operational Processes: Paperflow, TA/Team Communication, Afterhours communication, Other Departs.	8/19/02-8/23/02	Beth Hale	
Joint Visits/Patient Contact	8/19/02-8/23/02	Beth Hale	

HOSPICE of the VALLEY

COMPETENCY INVENTORY FOR THE MEDICARING REGISTERED AND LICENSED PRACTICAL NURSE

MUST BE COMPLETED PRIOR TO INDEPENDENT PRACTICE

Employee Name	
Date of Hire	
Position	
Preceptor Signature	**Date**
Preceptor Comments	
Routing:	
Employee Signature / at time of review	**Date**
Recorded in Education Office	**Date**
Filed in Human Resources	

#	SKILL/EXPERIENCE	SELF EVALUATION	EVALUATION METHOD	DATE OBSERVED & INITIAL OF EVALUATOR	COMMENTS
KEY: SELF-EVALUATION	**1 – VERY EXPERIENCED**	**2 – SOMEWHAT EXPERIENCED**	**3 – NOT EXPERIENCED**		
EVALUATION METHOD	**A – 1:1 INSTRUCTION**	**B – 1:1 DEMO**	**C – TEST RESULTS**		
1.	Hospice mission, values, objectives	1 2 3	A B C		
2.	Hospice concept and philosophy of care	1 2 3	A B C		
3.	Background of MCCD Project	1 2 3	A B C		
3.	Knowledge of Medicare hospice benefit, Medicare and other	1 2 3	A B C		
4.	Communication Skills: telephone and home visits	1 2 3	A B C		
5.	Excellent customer service provision	1 2 3	A B C		
6.	Documentation	1 2 3	A B C		
7.	Care Coordination Protocols	1 2 3	A B C		
8.	Use of team and community resources	1 2 3	A B C		
9.	Care Planning Process	1 2 3	A B C		
10.	Educational Resources	1 2 3	A B C		
11.	Operational Processes	1 2 3	A B C		
12.	Interdepartmental Processes	1 2 3	A B C		

#	SKILL/EXPERIENCE	SELF EVALUATION	EVALUATION METHOD	DATE OBSERVED & INITIAL OF EVALUATOR	COMMENTS
KEY: SELF-EVALUATION	1 – VERY EXPERIENCED	2 – SOMEWHAT EXPERIENCED	3 – NOT EXPERIENCED		
EVALUATION METHOD	A – 1:1 INSTRUCTION	B – 1:1 DEMO	C – TEST RESULTS		

HOSPICE of the VALLEY

ADDENDUM FOR FIELD ASSIGNMENT
TO
COMPETENCY INVENTORY FOR THE MEDICARING REGISTERED AND LICENSED PRACTICAL NURSE

PRINT EMPLOYEE NAME: _____ LOCATION: _____

Physical Setting				
		Nurse	Preceptor	Date
	Fax and copy area			
	Interdisciplinary Care Conference area			
	Location of supplies			
	Nurse desk and phone area			
	Phone system: answering, transferring, long distance codes			
	Restrooms			
	Other team members location			
Manuals				
		Nurse	Preceptor	Date
	Location of HOV Policies and Procedures manual			
	Tracking manual:			
	Infection/exposure control			
	Incident Reports (patient, family, staff)			
	Medication errors			
	Location of MCCD Project Protocols/Educational Material			
Equipment / Supplies				
		Nurse	Preceptor	Date
	Resource list for vendors			
	Procedure for obtaining outside services			
General Information				
	Calling medical director / physician on-call	Nurse	Preceptor	Date
	Using triage system			
	Preparation for Interdisciplinary Care Conference			
	Team meetings			
	Continuing education requirements /inservices			
	Time off / PTO			
	Interoffice mail			
	Teambuilding: conflicts and resolutions			
	Confidentiality issues			
	Employee Assistance Program (EAP)			
	Backup on-call schedule			
	Pagers			
Documentation				
	Documentation Paperwork	Nurse	Preceptor	Date
	Care Plan			
	Care Coordination Contact Note			
	Mileage reimbursement			
	Cell phone reimbursement			
	Daily schedule plan / focus / acuity level	Nurse	Preceptor	Date
	Admission process			
Death and Discharge				
	Patient death:	Nurse	Preceptor	Date
	Patient discharge process:			
Resources for Help				
	Continuing education / inservices	Nurse	Preceptor	Date
	Medical Director			
	Project Director			
	Team Assistant			
	Team members: Medical Social Worker, Pastoral Counselor, Bereavement Counselor, Certified Nurses Aide, Volunteer			
	Others: Dietary, Physical, Occupational, Speech, Integrative therapists			

Triage			
Resource phone list			
Physician phone list			
Physician special request list			
Safety/Safety Representative			
MSDS	Nurse	Preceptor	Date
Disaster planning			
Personal protective equipment			
Biohazard container			
Fire extinguisher			
Emergency exits and all-clear buddy system			
Safety Procedures Manual			
Patient and Caregiver Teaching			
Miscellaneous			
Dress code review	Nurse	Preceptor	Date

Orientee Signature _____ Date _____

Preceptor 1 Signature _____ Date _____

Team Leader Signature _____ Date _____

RETURN COMPLETED FORM TO: _____ EDUCATION & RESEARCH

MCCD - Patients With More Than 2 Hospitalizations

HOSPICE of the VALLEY

Print Date: 12/09/2004

Patient	Hospitalizations	Last Admit Date
	4	11/28/2004
	4	04/23/2004
	8	10/12/2004
	5	10/08/2004
	3	08/13/2004
	5	03/22/2004
	3	11/17/2004
	3	01/19/2004
	4	07/10/2004
	3	12/21/2003
	3	08/02/2004
	5	10/18/2004
	3	10/25/2004
	3	07/24/2004
	4	08/11/2004
	4	06/15/2004
	3	03/26/2004
	3	10/25/2004
	4	11/16/2004
	3	10/31/2004
	4	09/28/2004
	4	09/08/2004
	3	10/02/2003
	3	09/02/2003
	15	09/08/2004
	4	06/04/2004
	5	11/10/2004
	4	01/15/2004
	8	11/15/2004
	5	07/27/2004
	4	10/20/2004

MCCD - Hospitalization by Diagnosis

HOSPICE of the VALLEY

Print Date: 12/09/2004

Diagnosis	Hospitalizations	Avg Length of Stay
Diseases Of The Circulatory System	63	6.28
Diseases Of The Digestive System	10	3.10
Diseases Of the Genitourinary System	11	7.41
Diseases Of The Nervous System And Sense Organs	12	9.36
Diseases Of The Respiratory System	36	5.73
Endocrine, Nutritional And Metobolic Diseases, And Immunity	5	2.60
Infectious And Parasitic Diseases	10	3.33
Injury And Poisoning	4	45.25
Mental Disorders	31	3.46
Neoplasms	195	4.03
Symptoms, Signs, And Ill-Defined Conditions	11	3.70
Total:	**388**	**5.20**

*Medi*Caring™ Satisfaction Survey Items

How helpful has the nurse been in assisting you to take care of yourself?
_ Extremely helpful _ Very helpful _ Helpful _ Somewhat helpful _ Not helpful at all

How helpful has the nurse been in assisting you to know when to contact your doctor?
_ Extremely helpful _ Very helpful _ Helpful _ Somewhat helpful _ Not helpful at all

Did you have advanced directive information prior to enrolling in the *Medi*Caring™ Program?
_ Yes _ No

If you answered 'No", how helpful has the nurse been in assisting you in forming advance directive decisions?
_ Extremely helpful _ Very helpful _ Helpful _ Somewhat helpful _ Not helpful at all

How much has the nurse helped you understand the following?

Disease Process (such as CHF, COPD, Diabetes)
_ A great deal _ A good deal _ A little bit
_ Not at all _ Not applicable

Medication Use (such as heart pills, breathing medication)
_ A great deal _ A good deal _ A little bit
_ Not at all _ Not applicable

Symptom Management (such as when to take your water pill or heart pill)
_ A great deal _ A good deal _ A little bit
_ Not at all _ Not applicable

Has the nurse informed you about community resources that may help you?
_ Yes _ No

If so, have you contacted them? _ Yes _ No

How helpful was the resource(s) to you?
_ Extremely helpful _ Very helpful _ Helpful _ Somewhat helpful
_ Not helpful at all

How would you rate your health status before you started working with the nurse?
_ Excellent _ Very good _ Good _ Fair _ Poor

How would you rate your health status at this time?
_ Excellent _Very good _ Good _ Fair _ Poor

How would you rate your ability to take care of yourself before you started working with the nurse?
_ Excellent _Very good _ Good _ Fair _ Poor

How would you rate your ability to take care of yourself at this time?
_ Excellent _Very good _ Good _ Fair _ Poor

What things about your health keep you from living how you want?

How has the MediCaring ™ program helped you?

Please rate your overall satisfaction with *Medi*Caring™ Program?
_ Very satisfied _ Satisfied _ Neutral _ Dissatisfied _ Very dissatisfied

Comments:

Patient:_____ Date:_____

Patient Name _____ ID _____

Re-Hospitalization Analysis

Admit date: _____ Facility: _____

☐ ER only ☐ ER and Hospital ☐ Direct admit to hospital

Length of stay: _____ Level of care: _____

Precipitating events / history: _____

_____

_____

_____

_____

Course of Treatment: _____

_____

_____

_____

_____

Disposition: _____

_____

_____

_____

Was event avoidable? ☐ Avoidable ☐ Unavoidable

Team plan: _____

_____

_____

_____

_____

PATIENT SUMMARY

Admit date to MCCD : _____

Number of ER events since admission: _____
(including above event)

Number of Hospital events since admission: _____
(including above event)

CHF SOC contact

Care elements	Interventions
Medical Management	-Explain purpose of program. -Obtain pt history. -Obtain list of medications. -Perform physical assessment. -Assess home safety and appropriate use of DME. -Identify immediate symptom management needs.
Emergency Response Plan	-Review past management of emergencies. -Instruct on management of angina/signals for action. -Initiate discussion of symptom recognition r/t exacerbation of CHF: -weight gain, increased edema, abdominal bloating, increased dyspnea, increased fatigue, cough. -Instruct on basic symptom management-contact physician or CM if these symptoms are present.
Advance Care Planning	-Review Advance Directives previously completed by pt. -Provide educational materials on Advance Care Planning and initiate discussion of preferences.
Disease/Health Promotion and Education	
-disease process	-Assess patient's knowledge of disease process and provide necessary education.
-medications	-Provide written medication schedule to be left in home with names, dosages, times, and purpose of medications.
-diet/nutrition	-Assess pt's understanding of Lo Na diet and willingness to make necessary changes.
-activity	-Assess pt's level of activity and any symptoms r/t activity. -Initiate discussion of benefits of regular exercise program.
-safety	-Instruct on safety factors that need immediate attention.
-high risk behaviors	-Assess presence of high-risk behaviors-smoking, ETOH consumption. -Initiate conversation on benefits of changing these behaviors, if appropriate.
Self-monitoring programs	-Instruct on concept of self-management to improve health. -Instruct on daily weights and recording. -Instruct on use of CHF symptom log.
Psychological/Spiritual Emotional support and counseling	-Assess psychological/spiritual/emotional health per initial assessment. -Identify immediate priority issues for referral.
Community resource referrals	-Assess family/social support systems. -Assess patient's need for community resources-transportation, home-delivered meals, house cleaning/repair. -Identify financial needs/concerns r/t patient's disease. -Identify custodial care needs. -MSW referral, if appropriate.

CHF Contact 2

Care Elements	Interventions
Medical Management	-Any ER or hospitalizations since last contact? -Any change in physician? -Any change in medications? -Any new or changed symptoms to report? -Perform physical assessment, if applicable. -Assess effectiveness of medication delivery system. -Review medical condition, treatment history, and pharmacology with ICC team.
Emergency Response Plan	-CM to notify physician of pt's enrollment in MediCaring project. -Obtain prn medication orders for symptom management, if appropriate. -Assess pt's ability to manage angina, use of NTG as appropriate. -Instruct pt to notify physician for any symptoms of worsening CHF.
Advance Care Planning	-Continue discussion with pt and family r/t instituting Advance Care Plan. -Encourage pt to discuss Advance Care Planning with physician. -Provide web site-www.hcdecisions.org for information on advance care planning.
Disease/Health Promotion and Education	
-disease process	-Explain CHF, causes, symptoms of exacerbation: increased weight, fluid retention, edema, abdominal bloating, increased dyspnea, increased fatigue, cough, angina.
-medications	-Instruct on effects/SEs of vasodilator, diuretic(s), and K+ supplements. -Provide written information on medications. -Instruct on potential hypotension and symptoms r/t vasodilator use, and to contact physician if symptoms are present. -Instruct on how to minimize GU symptoms r/t diuretic use.
-diet/nutrition	-Instruct purpose of low Na diet. -Instruct on usual Na restriction of 3000 mg/day. -Instruct on avoiding or limiting common foods high in Na-salt, processed foods such as canned vegetables, soups, frozen dinners and snacks. -If pt is on K+ supplement or ACEi, instruct on avoiding salt substitutes with KCl. -Provide written information on low Na diet. -Instruct on adequate hydration.
-activity	-Instruct on benefits of aerobic exercise program to improve stamina, flexibility. -For NYHA I-III-Instruct on basic activity program-encourage aerobic exercise as tolerated, especially walking, biking, or swimming. -Instruct on starting slow-5-10 min for first 1-2 weeks. -Instruct to slow or stop activity if symptoms such as dyspnea or angina occur.
-safety	-Address safety issues-remove scatter rugs, adequately lit areas, safe negotiation of narrow hallways, use of assistive devices as indicated, avoid using furniture for support, slow position changes if vertigo is present.
-high-risk behaviors	-Assess pt's willingness to change high-risk behaviors. -Instruct on pharmacological aides available for smoking cessation.

CHF Contact 2

Self-monitoring programs	-Instruct on daily weights and record in CHF symptom log. -Instruct pt to notify physician or CM with weight gain of 3# in 1 day or 5# in 1 wk. -If pt has B/P equipment, instruct on recording results. -Obtain B/P parameters from physician. Instruct pt to notify if B/P consistently out of parameters.
Psychological Spiritual Emotional support and counseling	-Initiate referral for spiritual counselor referral if appropriate.
Community Resource Referrals	-Provide pt with information as needed for specific pt needs-transportation, medication costs, ALTCS referral, Senior Services, adult day care, hired caregivers, housekeepers. -Consult with MSW as appropriate.

CHF Contact 3

Care Elements	Interventions
Medical Management	-Any ER or hospitalizations since last contact? -Any change in physician? -Any change in medications? -Any new or changed symptoms to report? -Perform physical assessment in applicable. -Assess daily weights, symptom log, and any symptoms to report to physician. -Assess pt's ability to recognize worsening symptoms and report to physician.
Emergency Response Plan	-Implement written Emergency Response Plan.
Advance Care Planning	-Assist pt and family with writing Advance Care Plan, as indicated.
Disease/Health Promotion and Education	
-disease process	-Assess pt's understanding of CHF and instruct as indicated. -Instruct on O2 use with any activities know to cause dyspnea, such as eating, walking ADL's, or ambulation. -Instruct on breathing techniques-purse lip and abdominal. -Instruct pt on importance of pneumonia vaccine and annual flu shot and encourage pt to receive shots.
-medications	-Instruct effects and SEs of beta-blocker and digoxin. -Teach pulse taking. -Instruct on use of prn medications for symptom management.
-diet/nutrition	-Review pt's dietary intake for past 24-48 hrs to determine Na intake. -Instruct pt on label reading and provide printed materials. -Instruct fluid intake/restrictions. -Instruct on measures to prevent/relieve constipation.
-activity	-For NYHA I-III, instruct on exercise program as appropriate. -Obtain physician's order for activity program prn. -Instruct pt to monitor for symptoms during activity and to adjust activity as needed. -For NYHA IV, instruct on pacing activities with rest.
-safety	-Instruct on correct use of DME. -Assess for safe O2 use: do not place concentrator in closet or against wall, avoid any open flames or lit cigarettes when O2 is in use, store portables tanks safely. -Teach slow position changes to avoid postural hypotension r/t beta-blocker. -Resolve any other safety concerns.
-high-risk behaviors	-Provide written materials r/t smoking cessation if applicable. -Encourage pt to set a stop date for smoking cessation. -Discuss measures to handle urges, stressors, and triggers. -Provide pt with number for Commit to Quit program.

CHF Contact 3

Self-monitoring programs	-Assess pt's desire and compliance with maintaining daily wts and CHF symptom log. -Instruct pt to notify physician if pulse < 50 r/t dig and/or beta blocker use.
Psychological Spiritual Emotional support and counseling	-Identify any remaining pt/family needs. -Discuss needs with ICC Team. -Initiate any necessary referral.
Community Resource Referrals	-Assess pt's ability to complete application process for needed community resources and assist as indicated.

CHF Contact 4

Care Elements	Interventions
Medical Management	-Any ER or hospitalization since last contact? -Any change in physician? -Any change in medications? -Any new or changed symptoms to report? -Perform physical assessment if appropriate. -Assess daily wts, symptoms logs and any symptoms to report to physician. -Make plans and attend physician visits as indicated. -Assess pt's ability to manage symptoms r/t CHF and any co-morbid diagnoses.
Emergency Response Plan	-"Rehearse" emergency situations and response with pt and patient caregiver.
Advance Care Planning	-Complete Advance Care Planning. -Post documents in home. -Provide a copy of documents to attending physician.
Disease/Health Promotion and Education	
-disease process	-Instruct on measures to deal with anxiety related to dyspnea-quiet, calm environment and relaxation techniques. -Instruct on co-morbid diagnoses as indicated-DM, COPD, HTN, CAD-and symptom management. -Provide written educational materials.
-medications	-Instruct on effects and SEs of antiplatelets/anticoagulants. -Provide written information on medications. -Assess pt's ability to obtain medication refills as needed. -Instruct on planning for adequate medications when traveling.
-diet/nutrition	-Assess pt's understanding of low Na diet, ability to plan meals low in Na. -Assess pt's compliance with diet and willingness to make necessary changes. -Instruct on use of alternative seasonings and herbs for flavoring foods. -Provide written information and recipes as requested. -Instruct on dietary restrictions r/t anticoagulant use. -Encourage pt to avoid ETOH use or limit to 1 alcoholic drink per day.
-activity	-Instruct on gradually increasing exercise program as tolerated. -Discuss sexual activity/limitations as appropriate. -Assess pt's ability to manage symptoms during exercise/activity appropriately, and instruct as needed. -Provide written information on exercise program/
-safety	-Instruct on fire safety in home. -Instruct on safety factors r/t antiplatelet/anticoagulant use.
-high-risk behaviors	-Continue discussing smoking cessation if appropriate.

CHF Contact 4

Self-monitoring programs	-Reinforce continued use of CHF symptom log and daily wts. -Instruct symptoms to report to physician/CM vs. symptoms that require a 911 call.
Psychological Spiritual Emotional support and counseling	-Ongoing assessment of any needs. -Assess progress of referrals made.
Community Resource Referrals	-Ongoing assessment of any needs. -Assess progress of previous referrals.

CHF Contact 5

Care Elements	Interventions
Medical Management	-Any ER or hospitalization since last contact? -Any change in physician? -Any change in medications? -Any new or changed symptoms to report? -Perform physical assessment if appropriate. -Assess daily wts, symptoms logs and any symptoms to report to physician. -Make plans and attend physician visits as indicated. -Assess pt's ability to manage symptoms r/t CHF and any co-morbid diagnoses.
Emergency Response Plan	-Ongoing assessment of pt's/caregiver's ability to management emergencies. -Provide instructions, reinforcement, and support as needed.
Advance Care Planning	-As needed.
Disease/Health Promotion and Education	
-disease process	-Assess understanding of CHF and instruct as needed. -Continue instructions on co-morbid diagnoses. -Provide written materials as indicated. -Encourage pt to follow up with physician on a regular basis, and obtain all recommended recommended exams and labs.
-medications	-Instruct on effects and SEs of remaining medications. -Instruct to avoid use on OTC NSAIDs, unless ordered by a physician. These may decrease the effectiveness of some vasodilators. -Provide written information on medications.
-diet/nutrition	-Assess pt's understanding of low Na diet and instruct as needed. -Instruct on any additional dietary restrictions r/t co-morbid diagnoses. -Instruct on low Na food choices when eating out. -Provide additional sources for low Na recipes-cookbooks, websites.
-activity	-Instruct on safely increasing activity as tolerated. -Assess pt's ability to manage symptoms during exercise/activity and instruct as needed.
-safety	-Ongoing assessment of safety and instruct as needed.
-high-risk behaviors	-Continued discussion/instructions r/t smoking cessation.

CHF Contact 5

Self-monitoring programs	-Reinforce continued use of CHF symptom log and daily wts. -Instruct pt on use of logs r/t co-morbid diagnoses-DM, HTN. -Instruct pt to bring logs to physician appointments. -Assess pt's ability to self-monitor and instruct as needed.
Psychological Spiritual Emotional support and counseling	-Ongoing assessment of needs. -Make referrals as appropriate.
Community Resource Referrals	-Ongoing assessment of needs. -Make referrals as appropriate.