AN OUTCOME ASSESSMENT OF HOME HEALTH CARE SERVICES AT A LARGE HEALTH MAINTENANCE ORGANIZATION

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As managed care matures throughout the country, health maintenance organizations (HMOs) are being subject to increasing regulation and oversight. The Health Care Financing Administration (HCFA) oversees much of this activity, and is currently pursuing a vigorous campaign addressing patient outcomes. In January 1995, a large Florida HMO (FHM0) was directed to enhance its quality program, and "stress health outcomes to the extent consistent with the state of the art." The general concern was whether adequate levels of non-physician ambulatory care were being provided to FHMO members. The purpose of this management project was to develop a planwide, home health care assessment program, and pilot the program for the first quarter of 1996. Policies and procedures were developed in concert with regional disease categories, from which congestive heart failure (CHF), fractured hip and diabetes were selected. Patient records for the pilot study were identified by matching discharges to home health care with diagnosis codes for the targeted diseases. A data collection tool for conducting record reviews was developed and automated. Sixty-five total records were reviewed: CHF = 24, fractured hip = 20, diabetes = 21. Four home care quality indexes were constructed to measure outcomes and a threshold of 0.90 was selected to trigger further review. The continuity and Utilization Indexes resulted in unremarkable findings. The CHF Effectiveness Index fell below the threshold at 0.88. The omnibus Adequacy Index resulted in the following values: CHF, 0.83; fractured hip, 0.90; diabetes, 0.81. Coupling all three disease categories, the generic home care Adequacy Index was 0.85. Improvement activity from the results of the pilot study is being guided by an adaptation of Sherwartz's "Plan, Do, Check, Act" cycle. HCFA approved the outcome assessment program study design, and in June 1996, restored full compliance to FHMO's total quality program.
U.S. ARMY-BAYLOR UNIVERSITY

GRADUATE PROGRAM IN HEALTH CARE ADMINISTRATION

GRADUATE MANAGEMENT PROJECT

AN OUTCOME ASSESSMENT

OF HOME HEALTH CARE SERVICES

AT A LARGE HEALTH MAINTENANCE ORGANIZATION

IN FULFILLMENT

OF REQUIREMENTS FOR

THE ADMINISTRATIVE RESIDENCY

BY

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Underneath all the complexity and fragmentation of today's health care system lies a patient, whose total experience and ultimate outcome is the only reason we do what we do. This paper is dedicated to those health care professionals, both clinical and administrative, genuinely working toward the study and improvement of patient outcomes.

All health care professionals at the Florida Health Maintenance Organization (FHMO) sponsoring this residency are truly dedicated to providing quality care. A heartfelt appreciation goes out to the other seven members of the dedicated team who successfully implemented the many quality programs to which the following study was a part: Jimmy Ayala, Paula Babadi, Shari Bacarri, Sandy Benigni, Alice Ludwig, Billy Jones and Kathleen Patneau. A special thanks is directed to those individuals whose specific contributions were invaluable: Mr. Jim Pummer in the South Florida office for facilitating development; Mr. Bruce Stark for the technical programming expertise; the health care data management department for "trying every possible sort", and especially Mrs. Sandy Benigni for her clinical guidance, corporate knowledge, and for carrying the torch into the future. CDR Robert Quinones deserves a heartfelt thanks for his flexible manner, and genuine interest in life-long learning.

My greatest gratitude is reserved for my wife, Lisa. This project represents the culmination of a two-year journey through a demanding graduate program. Without your support, encouragement and love, I would not be who I am today.
ABSTRACT

As managed care matures throughout the country, health maintenance organizations (HMOs) are being subject to increasing regulation and oversight. The Health Care Financing Administration (HCFA) oversees much of this activity, and is a currently pursuing a vigorous campaign addressing patient outcomes. In January 1995, a large Florida HMO (FHMO) was directed to enhance its quality program, and "stress health outcomes to the extent consistent with the state of the art." The general concern was whether adequate levels of non-physician ambulatory care were being provided to FHMO members. The purpose of this management project was to develop a planwide, home health care assessment program, and pilot the program for the first quarter of 1996. Policies and procedures were developed in concert with regional administrators. FHMO's 1995 Population Assessment identified high volume and high cost disease categories, from which congestive heart failure (CHF), fractured hip and diabetes were selected. Patient records for the pilot study were identified by matching discharges to home health care with diagnosis codes for the targeted diseases. A data collection tool for conducting record reviews was developed and automated. Sixty-five total records were reviewed: CHF - 24, fractured hip - 20, diabetes - 21. Four home care quality indexes were constructed to measure outcomes and a threshold of 0.90 was selected to trigger further review. The Continuity and Utilization Indexes resulted in unremarkable findings. The CHF Effectiveness Index fell below the threshold at 0.88. The omnibus Adequacy Index resulted in the following values: CHF, 0.83; fractured hip, 0.90; diabetes, 0.81. Coupling all three disease categories, the generic home care Adequacy Index was 0.85. Improvement activity from the results of the pilot study is being guided by an adaptation of Sherward's "Plan, Do, Check, Act" cycle. HCFA approved the outcome assessment program study design, and in June 1996, restored full compliance to FHMO's total quality program.
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1. FHMO Quality Improvement Model
INTRODUCTION

The following study is a development effort toward the outcome assessment of home health care services delivered to enrolled members of a large Florida health maintenance organization (FHMO). It is intended this program will satisfy and exceed regulatory requirements established for Medicare-risk HMOs, and create an opportunity to evaluate the outcome of patient care; use of continuous quality improvement (CQI) principles which may yield better care in a more resourceful manner.

Conditions Which Prompted the Study

The Health Care Financing Administration (HCFA) notified the South Florida (SF) regional unit of FHMO in January of 1995, outlining certain areas not in compliance with the Code of Federal Regulations. Site visits to many South Florida HMOs have taken place, and some were found to lack certain elements of their utilization and quality programs. Further, the General Accounting Office (GAO) has placed HCFA under close scrutiny as to the enforcement efforts toward Medicare-risk contractors as the number of beneficiaries joining prepaid Medicare-managed care increases (U.S. General Accounting Office, 1995). HCFA's letter directed FHMO to develop and implement a Corrective Action Plan (CAP) addressing thirteen topic areas. Many
required programs were in place or required refinement. Thus, continued correspondence through the summer of 1995 identified the development work necessary to meet the CAP. In all, twenty-two projects were undertaken to satisfy the thirteen topic areas.

This study addresses regulation 42 CFR 417.106(a)1, requiring an HMO's ongoing Quality Assurance (QA) program "stress health outcomes to the extent consistent with the state of the art" (Code of Federal Regulations, 1991). Specifically, the finding requires FHMO to identify procedures for providing an adequate review of health outcomes for outpatient/ambulatory care. Many current quality processes at FHMO were reported and approved. Nevertheless, HCFA strongly required that outcomes be addressed for the entire "range of care" provided: specifically, how would FHMO review non-physician ambulatory care. Since the SF regional unit had recently formed a Home Care Provider Quality Subcommittee, it was felt the effort to address non-physician outpatient or ambulatory care could be addressed in this forum. Additionally, unlike the other four regional units in the FHMO, SF regional unit capitated a third party administrator (TPA) for coordination of home health services to include the delegation of quality studies.

Unquestionably, National Committee for Quality Assurance (NCQA) reaccreditation requirements will follow industry trends stressing outcomes; FHMO may wish to expand the Medicare-risk program to other regions. Consequently, although HCFA's findings were directed at the SF regional unit,
corporate officers at FHMO identified the business need to develop a planwide approach to this topic area within the CAP. Based on resource dedication and budget considerations at the regional level, it was decided to focus on the outpatient/ambulatory provider segment currently receiving attention: home health care. After reviewing outcomes of home health care, FHMO may elect to review other non-physician provider segments. This project in the CAP was approved by HCFA reviewers in a July 1995 letter.

**Statement of Management Issue**

As generated through the findings of the HCFA review, the management problem to be studied concerns whether adequate levels of non-physician outpatient/ambulatory care are being provided to enrolled members of FHMO. Specifically, this issue requires emphasis on the review of the outcome dimension of quality for the care delivered.

**Literature Review**

**The Quality Movement**

Dynamic changes in the health care industry have generated the rise of the health care quality movement. Concerns about the growth of health care costs and increasing utilization also placed quality at the forefront of the battle to improve service and control spending growth. Malen (1993) reported that national survey of hospital quality improvement activities showed that more than two-thirds of the hospitals have undertaken a CQI /Total Quality Management
(TQM) effort to improve quality of care.

HCFA has emerged in recent years as a leader in health care quality, the largest purchaser, a quality innovator, and a quality-change agent (Friedman 1995). Physicians will be interested in HCFA's new focus on quality assurance (QA). Vladeck (1994) explains that the development and implementation of a patient-centered, outcome-oriented process for QA is their primary goal. Gagel (1995) describes HCFA's new Health Care Quality Improvement Program (HCQIP) as an evolving strategy that spans HCFA's operations, changes in HCFA's survey and certification activities, and reorienting the agency's peer review organization (PRO) program.

Quality cannot be measured if it cannot be defined, and has clearly been difficult for experts to define. GAO (1995) reports that "quality includes measuring attributes related to appropriateness - providers giving the right care at the right time; accessibility - patients being able to obtain care when needed; and acceptability - patients being satisfied with the care." A study conducted by the Institute of Medicine (IOM) found more than 100 definitions of (or parameters to consider in defining) quality of care (Lohr 1990). Health services researchers are growing a consensus around the IOM's quality definition:

Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

Friedman (1995) notes that this definition has appeal because it is broad enough to encompass both traditional and new quality-measurement domains, but terms
like outcome, indicators, and measures have numerous meanings in the literature.

Donabedian (1980) developed the framework traditionally relied upon for measuring the quality of health care: structure, process, and outcome. Structure refers to the characteristics of the resources in the health care delivery system, such as attributes of professionals and of facilities. Process surrounds what is done to and for the patient, and can include practice guidelines and the ways patients seek and obtain care. Outcomes are the results of care activity (by physicians or other providers).

Managed care settings have provided the backdrop for process and outcome quality measurement work. While Donabedian's model is useful, considerable crossover exists between the definition of quality and its measurement within and among the three components (Freidman 1995). One example of distinguishing between process and outcome measures pointed out by Shaughnessy and colleagues (1995) is that dissatisfaction with care may prohibit patients from obtaining it - which is a process measure. On the contrary, it could be considered an outcome measure: Is a patient's pregnancy status a process or outcome measure with respect to invitro fertilization situations?

Clearly, these authors are suggesting that process and outcome measures each have strengths and weaknesses that arise depending on their ultimate use as tools for management and research. Shaughnessy and colleagues go further to suggest that blends of outcome, process, and structural measures can contribute to the quality goal as in the case of certain quality program certifications.
Home Health Care and Outcomes

Home health care is defined in the Standard Industrial Classification Manual published by the Office of Management and Budget (1987) as "those establishments primarily engaged in providing skilled nursing or medical care in the home, under the supervision of a physician." Historically, these services have been provided by family members or friends in the home. Now that fewer homes have someone to care for the elderly and the sick, the home health industry has taken over. Home health services may be as fundamental as help with activities of daily living (ADL), which are physical tasks related to personal care: dressing, bathing, getting out of bed, and feeding oneself. Home health can be as complicated as specialized care for AIDS or cancer chemotherapy. Home health care personnel work days, evening or weekends; time with the patient can range from one hour a week to around the clock (Freeman 1995).

Shifting the site of selected health care interventions to the home boasts many advantages: the total cost of care is reduced; the risk of nosocomial infections is reduced; and non-acute patients prefer the comforts of home to hospitalization (Carver 1995). According to Freeman (1995), home health care has been the fastest growing segment of health care services, and the second fastest growing U.S. industry (as of October 1994) for three reasons: expansion of Medicare benefits; lower costs compared with hospital care; and advances in technology. Physician involvement has also contributed to this growth, and as their interest accelerates, a push for more innovation and technology will result.
Consequently, both undergraduate and graduate medical education programs are developing home care curricula, "and academic medicine is beginning to develop a research agenda, particularly in the area of clinical outcome measurements" (Freeman 1995).

Although we are aware of the strong preference patients have for home health care over most alternatives, we know little about its effectiveness. Shaughnessy and colleagues (1994) describe how home care is unique in ways that make it complex to "attribute" outcomes to care provided. Patient adherence to treatment regimen is critical, yet difficult to monitor. Attributes of the home environment (stairways, availability of transportation, language barriers, presence of an able caregiver) are often essential in learning improvement or maintenance of function. These authors feel strongly that, when examining the effectiveness of care, outcomes should be considered as more than one small piece of the entire setting; "they should occupy center stage because [outcomes] are the fundamental reason we provide health care."

Several recent developments further show the growing interest in home health outcomes. Outcome scales have been developed for the Home Care Association of Washington including general symptom distress, functional status, caregiver strain, discharge status, taking medications as prescribed, patient satisfaction, knowledge of major health problems, and physiologic indicators (Shaughnessy et al. 1994). In a study to measure unmet needs to assess the quality of home health care, De Veer and De Bakker (1994) concluded that needs
could be divided into six categories: ADL needs; IADL needs; psychosocial needs; special arrangements such as technical equipment requirements and other material assistance (transportation); a need for information (education); and a need for nursing services.

Vladeck (1994) reported spending on the home health benefit grew from $2.1 billion in 1988 to $10.5 billion in 1993; projections are for home health spending to reach over $23 billion by the end of the decade. Responding to this escalation, HCFA launched the Medicare Home Health Initiative. The goals are simple: make the benefit easier to understand and ensure efficient provision of responsive, high-quality home health care. Gagel (1995) characterizes how HCFA is creating its "strategy for improvement" replacing the structure and process requirements in the Medicare survey and certification with outcome measures. They have revised the conditions of participation for hospitals, home health agencies, and end stage renal disease facilities, placing emphasis on the provider's responsibility to monitor outcomes. HCFA surveyors are being retrained across the country on how to focus on care outcomes. HCFA will be limiting requirements to those that tie to outcomes in three ways: directly (measure the outcome), through critical processes (measure a process known to produce an outcome); and through physical or organizational structures strongly believed to support outcomes where difficult to measure.
Outcome-based Quality Assessment

_Discussing_ outcome assessment or measurement is harder than defining it. Wetzler (1994) defines outcome measurement: the science of systematically measuring and analyzing treatment outcomes, then using those findings to change the way health care is provided. Shaughnessy and colleagues (1994) define quality assessment as the process of assessing and evaluating the quality of care independently of whether the ultimate result of the assessment is to _change_ the quality of care. The authors recommend both formal and informal approaches to assessment via data collection, both of which involve record review. In the present study, the goal is to ensure assessment is objective, as proposed by Shaughnessy, yet purposeful in identifying areas for system improvement.

Kramer and colleagues (1990) recommended outcome and process measures be used for home health-quality assessment because of the heterogeneity of the home health population. Outcomes are influenced by all aspects of the home health patient's environment, not just the services provided by the home health agency (HHA). Attributes of health on which an HHA can impact vary depending on the reason the patient is receiving home health care. For example, home care may significantly improve functional deficits for patients with recent stroke or hip fracture, but may not have an impact on function among patients with congestive heart failure (CHF) or diabetes. Home health care targets improving patient knowledge, compliance, and ability to take medications.
for the latter two diseases hopefully avoiding adverse physiologic events (Kramer et al. 1990).

Consequently, these authors have collaborated in proposing that outcome measurement use "focused measures" as opposed to "global measures."

Shaughnessy and colleagues (1994) define these as follows:

**Focused quality measure:** a focused measure pertains to a specific patient group (type) or stratum (e.g. patients with diabetes mellitus, patients with peripheral vascular disease, or terminally ill patients).

**Global quality measures:** a global quality measure pertains to all patients. Hospitalization, properly quantified, is a global quality measure for all home health patients under the care of a given [HHA].

Focused measures theoretically have an advantage in being disease-specific. Validity of the results is increased and more generalizable to a population without having to risk-adjust more global data.

**Practice Guidelines: Developing an Outcome Assessment Tool**

Sullivan (1995) portrays a critical pathway (practice guideline) as an algorithm that defines or describes a "best practice." Gartner and Twardon (1995) have defined "care guidelines" as tools that facilitate the achievement of outcomes while containing costs. Most pathways today focus on the hospital environment, but clearly many algorithms include steps that are moving into the home.

Important to the equation is that the pathway itself is not the bottom line; the outcomes that providers achieve working their patients through their pathway are the keys (Sullivan 1995).
Practice guidelines are developed from chart review consultations with experts in the field, and from literature reviews. They focus on the optimal recovery of the patient (or all patients having reached a similar level of care). Pathways often document a reason for admission or alternative to admission; this aids in the decision of whether a patient is kept in an acute-care setting or transferred to a subacute facility or home care (Riley 1994). Many research and government organizations have begun publishing practice guidelines.

Although experiences of HHAs and current literature provide some insight, few care pathways for home health care can be found (Gartner and Twardon 1995). JCAHO was working on guidelines for home care as part of its Agenda for Change (Hartman et al. 1995), but this effort has been discontinued due to the difficulty gaining agreement among physicians (Popovitch 1995). The most significant work in progress assessing the outcomes of home health care is taking place at the University of Colorado Research Center.

Under contract with HCFA, this organization, led by Peter Shaughnessy, has published a test version of their home care assessment program: the Outcome ASessment Information Set (OASIS). OASIS data items were developed for measuring patient outcomes in home health care. OASIS-B will be a refined version of the tool available in early 1996, and will be used in a National Demonstration of Outcome-Based Quality Improvement sponsored by HCFA and the HCQIP. The purpose of this demonstration is to gain experience with the data set before the HCFA mandate to use it (Shaughnessy, Crisler, and Schlenker
1995). A draft copy of the OASIS is provided in Appendix A.

Outcome oriented studies through the eyes of the managed care organization (MCO) can be highly resource intensive. Unquestionably, the advantage MCOs have in the health care industry is access to large amounts of data. Massive claims databases provide many types of administrative data elements enveloping large member populations. Unfortunately, as we transition to outcome oriented assessments as described earlier, these administrative databases are incomplete in providing the level of report card (clinical information) required to identify the outcome of a medical intervention. A report by the GAO (1994) validates this fact, and notes HCFA is aware of the shortcomings claims systems possess. The report goes further in stressing that data found in medical records are rich in clinical information - even if expensive to retrieve.

The West Virginia Medical Institute has estimated the approximate cost to find and retrieve information from records is $16.¹ Nevertheless, without the investment in the outcome and clinical profiling systems being designed today, many MCOs must rely on either self-reported survey instruments for functional patient-outcomes (e.g., SF-36), or continue to use chart review processes. Preferably, the resources dedicated to this intensive type of data collection can be organizationally shifted so that they replace the outdated uses of chart review.

¹The Institute is under contract with the VA to conduct medical record reviews. This estimate includes retrieval of the record, personal computer set-up and breakdown time, abstracting the information and administrative time.
Purpose Of The Study

Two supporting objectives of this study are evident: (1) it should meet HCFA's requirement of federally qualified HMOs to address quality with a patient-outcomes focus (Kongstvedt 1995), so that delivery system improvements can be made where possible; and (2) it should provide information on the effectiveness of a home care intervention in improving patient care (carefully balancing value added to resources expended). Specifically, the purpose of this qualitative project is to develop a planwide home health care outcome assessment program (with associated procedures) and pilot the program in the South Florida region for the first quarter of 1996.

METHODS AND PROCEDURES

The framework used to design this study is similar to that reported by Gartner and Twardon (1995) conducted by a task force of administrators and clinical specialists at a Pennsylvania HHA. A retrospective record review was conducted and this task force identified pathways for diagnoses with high volume, populations requiring a high volume of service, patients needing a complex technologic support, high-risk populations, and populations with special needs. CHF is an example of one of the high volume diagnosis chosen by the task force, and is associated with a great risk for hospital readmission.
The present study was designed collaboratively with participation from each of the regional managers who would be responsible for execution of the program. Based on the research, agreement was gained on the periodicity for data collection and specific diseases to study. As proposed by Riley (1994), many organizations decide which diagnoses are to be studied by those that are common to that "organization." Toward this end, the 1995 Population Demographic and Health Characteristic Assessment produced by FHMO was used to validate the selected diagnoses.

The approach in the present study is to conduct disease-specific outcome assessments on three of the top ranking diagnoses that would be appropriate for both over and under 65 populations. Excluding ill-defined conditions, injuries/poisonings and neoplasms, circulatory system disorders, and musculoskeletal disorders resulted in the highest outpatient admissions/1000 for the Medicare-risk population during 1995 (Quality Care Management Department 1995). Thus, CHF and hip fractures are proposed for the over 65 population; diabetes was selected to study for the under 65 population. Interestingly, data from the TPA in the SF regional unit also confirms this selection. Research by Cole (1995) supports the three diagnoses selected as the trend in Medicare HHA reported conditions. A record review will be done on a representative sample of home health charts to determine if adequate home care was provided as measured by global outcome indicators.
Records to be reviewed were identified by a report produced by the data management department. Previous hospitalization within the last 12 months was used as a sentinel event, and discharges to home health care was the primary sort for the report. Querying the discharge field of the claims database for the target diagnoses was matched with approved authorizations to identify patient records for the study. Table 1 is a summary list of the International Classification of Diseases (ICD)-9-CM codes used in targeting the records; detailed descriptions for these codes are provided in Appendix (B).

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>Diagnosis Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive Heart Failure</td>
<td>428, 428.1, 428.9</td>
</tr>
<tr>
<td>Fractured Hip</td>
<td>820: entire series to the 5th digit 821: entire series to the 5th digit</td>
</tr>
<tr>
<td>Uncontrolled Diabetes</td>
<td>250.1, 250.2, 250.3, 250.4, 250.5, 250.6, 250.7, 250.8, 250.9 (with or without the 5th digit)</td>
</tr>
</tbody>
</table>

*Source: HCIA ICD-9-CM Manual, Volume 1*

The initial output yielded a population of 58 records. The reviewing agency, a home health care third-party administrator under contract with FHMO, added and/or deleted from this list based on the actual home care treatment being delivered, regardless of the expected diagnosis listed on the claims database report output. The latter step eliminated coding discrepancies. The final number of records in the population was n = 65 (CHF - 24; Fractured Hip - 21; Diabetes - 20). Due to the low number of records identified, 100 percent of these were
reviewed as the "representative sample." Standard patient privacy procedures were followed with the output report.

**Data Collection Tool**

As evidenced by the literature review, interventions are often guided by critical pathways, and outcomes measure the effectiveness of interventions. Given that outcome results are also used to update and improve guidelines (Gore 1995), it follows that practice guidelines serve as a good source for developing a data collection tool. Guidelines differ from one disease to another, so should the outcome measures. Coupled with references from Drash (1995), Griffith (1994), Konstam and colleagues (1994), and Russell and colleagues (1991), a working group comprised of the author, a registered nurse administrator, and a regional medical director constructed the disease-specific data collection tool to be used in this study. Although the OASIS is designed for HHA use (and thus highly detailed), it was nevertheless useful in identifying major topic areas of the information to be extracted from the patient records.

A personal computer (PC) based database was developed for ease of recording data and data manipulation. The manual data collection tool used prior to program development is shown in Appendix C. A sample disk of the program - written from the requirements set forth in the manual data collection tool - is attached to this paper (see attachment sleeve), and Appendix D provides sample outputs from the program. Again, patient privacy is protected in the PC-based
program by assigning unique control numbers. All data extracted for analysis reference only these control numbers.

**Analysis of the Data**

Evaluation and analysis of the Home Health Care provider segment involve determining the adequacy of this form of ambulatory care. For the purposes of this quality management effort, adequacy is defined as the *effectiveness* of the intervention. In the home health care setting this means one must work toward answering the question, "Did the intervention prevent hospitalization or an emergency room visit?" One must also understand the reason behind any hospitalization or trip to the emergency room.

Data from the record reviews was collected via the data collection tool program. Database files (*.dbf extension) created by the program were imported into a spreadsheet for manipulation. Each index below represents a criterion measuring global aspects of quality. For each targeted disease, the following indexes were computed:

**Continuity Index** = \[
\frac{\text{# of charts with "adequate responses" to question #1}}{\text{Total # of charts reviewed for this disease}}
\]

**Effectiveness Index** = \[
\frac{\text{# of charts with "adequate responses" to questions 2,3,4,5}}{\text{Total # of charts reviewed for this disease}}
\]

**Utilization Index** = \[
\frac{\text{# of charts with "adequate responses" to question #6}}{\text{Total # of charts reviewed for this disease}}
\]

---

2 Adequate responses are defined in the table provided as Appendix E.

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Additionally, the analysis requires computing an **adequacy** index for each disease, which represents a general indicator of the percent of records with all **adequate responses**. This adequacy index is a representation of the level of outpatient or ambulatory care, in this **provider segment**, provided to enrolled members.

\[
\text{Adequacy Index} = \frac{\# \text{ of charts with "all adequate" responses}}{\text{Total \# of charts reviewed}}
\]

Each index will be trended over time to identify problem areas. An arbitrary threshold of 90 percent (0.90) was selected by FHMO as a trigger requiring further investigation for those quality indexes falling below this value. After time, upper and lower control limits/thresholds may be established from the actual data, and can be developed as a comparable norm.

Finally, a "Medical Director’s Report" is an output of this analysis, which will flag those patient charts/records with one (1) or more "inadequate response(s)" from the entire data set. The output of the report can be sorted by member name/PCP name, etc., and provide the regional medical director or network management staff with a working document containing information with which to follow up and take *improvement* action on (see discussion section).

Those records with one, two or three inadequate responses are forwarded to case management for trending or follow-up action. Records with four or more inadequate outcome responses are referred to the medical director for immediate action.
From an ethically professional point-of-view, when conducting outcomes research, it is important to recognize the link to traditional effectiveness research (Dial 1994). For management purposes, most outcomes research is done in the real world of medical practice. When effectiveness research is not based on the randomized controlled clinical trial, it is susceptible to a major form of bias: confounding (by indication) the inability to separate out the reason the physician may be using one form of treatment over another.

The implementation plan for this program began January 1996 following approval by the Medical Quality Steering Committee. One change to the original plan made by the committee was to design the data collection tool removing the disease specific questions. Resource constraints across all regions in performing the data collection and analysis was cited as the reason for this change. Generic questions across the three targeted diseases could also allow for combining the records from each disease into a generic "home health care" provider segment, thus increasing the number of records used in the pilot for drawing conclusions. Other than removing the disease-specific questions, this pilot project followed the timeline and procedures described in Appendix F.
RESULTS

Detailed results of the record reviews performed on the three targeted diagnoses are provided in Appendices G - I. The congestive heart failure (CHF) sample consist of 24 records, and results indicate that 20 of the 24 records reflect all adequate outcome responses. Record number CHF/M00003 indicates the patient was not seen within 24 hours after discharge. Records CHF/M00006, CHF/M00011, and CHF/M00023 each revealed that there were hospital admissions related to the therapy during home care, and that goals of the home care were not met. No record in the sample showed more than two inadequate responses.

The fractured hip (FH) sample contained 20 records, with 18 of the 20 reporting all adequate outcome responses. Patient FH/M00013 was not seen within 24 hours of discharge, and patient FH/M00024 did not meet the goals of the home care.

The diabetes (DB) sample consisted of 21 patient records, and results show that 17 of the 21 records reviewed reflect adequate outcome responses. Record numbers DB/M00011 and DB/M00017 indicate that goals of the home care were not met. Record DB/M00012 reveals that the frequency of visits by the HHA were not in compliance with the physician's orders. Lastly, patient DB/M00014
was not seen within 24 hours.

Although not designated as an *inadequate outcome* when evaluating the home health care provider (which is a purpose of this study), it is worth noting that results indicated that on four occasions patients in the sample were admitted to a hospital or emergency room for conditions not related to therapy (6 percent of the sample). Also, during two courses of treatment (one for CHF, one for DB) goals of the home care were not met due to patient non-compliance.

Results indicate communication with the referring physician appears to be effective. No records reflected non-progressing patients where the physician was not properly notified. Notably, 14 percent of the patients (9 out of 65) were not progressing as planned, but physicians were notified in a timely manner on each occasion.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Continuity</th>
<th>Effectiveness</th>
<th>Utilization</th>
<th>Adequacy Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF</td>
<td>.96</td>
<td>.88</td>
<td>1.0</td>
<td>.83</td>
</tr>
<tr>
<td>Fractured Hip</td>
<td>.95</td>
<td>1.0</td>
<td>1.0</td>
<td>.90</td>
</tr>
<tr>
<td>Diabetes</td>
<td>.95</td>
<td>1.0</td>
<td>.95</td>
<td>.81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>.95</strong></td>
<td><strong>.95</strong></td>
<td><strong>.98</strong></td>
<td><strong>.85</strong></td>
</tr>
</tbody>
</table>

*Source: Computed from data collection tool output*

Evidence of a current medication list, to include amount, frequency and route of administration was found appropriate in all patient records.

The four indexes for this study were computed for each disease category and the results are listed in Table 2.
DISCUSSION

All analysis activity is guided by FHMO's Standard Operating Procedure

# 6.1A: Quality Improvement Evaluation, Action, and Follow Up. This document summarizes the company's philosophy of TQM by providing a framework for identifying improvement opportunities and generating solutions. This quality improvement model follows the Shewhart Plan-Do-Check-Act (PDCA) cycle (Deming 1986). Figure 1 is an adaptation of the Shewart PDCA cycle developed by FHMO to guide quality and care management activity.

Within the context of the present study, the focus was on outcomes of home care. Adequacy of the home care delivered deals with the effectiveness of
the intervention: Did the home health care prevent hospitalization or an emergency room visit? Were the goals of the home care achieved, or the clinical protocols in line with accepted practice guidelines? More important, perhaps, are the listed reasons behind the responses to the effectiveness questions. Identifying the "root cause" of variations from accepted norms - such as with the failure of home health care - will appropriately direct the improvement. Ultimately, by addressing true root cause variation, one can significantly reduce the chance of repeating a variation from accepted norms.

**Pilot Study Findings**

Ten generic indicators (data collection tool questions) were used to measure outcomes of each home care episode. Each contributed solely or collectively to the quality indexes chosen for this study. Each indicator question is described below.

**Question #1: Was the patient seen within 24 hours of discharge or service request?** This indicator documents continuity of care, and is the sole indicator for the Continuity Index. As health care moves away from long inpatient stays, the value and role of home and self care expands. Practice guidelines dictate that making an effective transition from hospital to home requires that patients discharged to home care be seen within 24 hours. The pilot study sample resulted in a Continuity Index of **0.95** (Table 2) indicating that less than 5 percent were not followed at home in a timely manner.
Questions #2-5: Were there any hospital admissions (and why), or were there any ER visits (and why) during home care? These questions directly relate to the effectiveness of the home care. Thus, these indicators were used to compute the Effectiveness Index, and Table 2 reveals an overall home care effectiveness of 0.95, with CHF exhibiting the highest admission rate: 0.88.

Given that 13 percent of the patients in this disease category returned to the hospital (none of these were ER visits), and this indicator falls below the 0.90 threshold, further review is necessary.

Following the model in Figure 1, this finding should move FHMO from the evaluation phase into the problem solving or decision making phase. Having identified CHF as a disease category possessing an opportunity to improve the home care outcome, the next step is to work with the home care provider and review these specific records. Working toward a solution means answering questions as to the root causes of the variation: Why did the patient have to return to the hospital? Was the admission avoidable? What could have been done differently and by whom to avoid the admission?

Once an improvement plan is selected, implementation begins the "DO" phase of the quality improvement model, and the cycle continues.

Question #6: Was the frequency of visits in compliance with the physician's orders? Utilization is the topic covered by this indicator, and this question solely contributes to the Utilization Index quality measure. Today's environment of multiple payment arrangements, including fee-for-service, global
fees, and capitation, requires that health plans monitor utilization in light of the compensation arrangements of its providers. Incentives under capitation are for providers to underutilize or "skimp" on visits. Health plans must monitor outcomes for underutilization as this payment mechanism flourishes. The TPA in this study is capitated, coordinating HHAs for the care required. No evidence from this indicator suggests that underutilization is a problem. Only one record out of the entire sample (diabetes category) showed the frequency of visits was not in compliance with physician orders - a disease combined Utilization Index of 0.98. Potential overutilization of home care will be addressed in the next section.

Question # 7, 8, 9, and 10: each relates to the quality of the outcome experienced by the patient. Matched with the first six questions, these four indicators contribute primarily to the overall Adequacy Index. Taken independently, each indicator reveals important information about the outcome of the care delivered. Question # 7 refers to the appropriate documentation of medications and their use; stated previously, adequate outcome responses were recorded for all records. Further, question # 10 addresses appropriate feedback and communication with the referring physician, and the sample studied showed adequate outcome responses in all cases.

Questions 8 and 9 deal with the goals of the home care episode. Although patients may share the same disease or diagnosis code, each home health patient has unique characteristics about his/her condition requiring an individual
treatment plan. Emphasized earlier in the literature review, outcomes are influenced by all aspects of the home health patient's environment, not just the services provided by the home health agency. For example, home care may significantly improve functional deficits for patients with recent stroke or hip fracture, but may not have an impact on function among patients with CHF or diabetes (Kramer et al. 1990). Consequently, the indicators that address goals are important to individual patient outcomes.

The findings of the pilot study show that 8 out of 65 patients (12 percent) did not meet the goals of the home care. Two of the 8 were "adequate responses" in that they did not require action be directed to the HHA because the reason was patient non-compliance. Nevertheless, an opportunity exists to review the patient education aspect of the home care. Such a review is in the best interest of the patient, and avoids future complications.

Of the remaining six records where goals were not met, each indicated the same reason: goals were not achievable. Referring back to the Quality Improvement Model in Figure 1, step five directs activity to next investigate root causes. It may be the case that FHMO can facilitate discussion among discharging providers and the HHA providers on the importance of establishing realistic goals for home care. Collaboration of this type is simple and effective. More importantly, achieving realistic goals is a vital step in the patient's personal sense of progress. Perception by the patient that the planned "outcome" was reached is one of the most efficacious outcome measures of quality.
Summarizing the pilot study findings requires a revisit of the quality indexes. Specifically, the Adequacy Index combines each of the indicators in a broad measure of outcomes for the sample. Based on the findings, CHF and diabetes both fall below the threshold of 0.90. The combined Adequacy Index representing all three disease categories, is also a value below the threshold: 0.85. For FHMO program reporting purposes, 55 records in the pilot study require no action, 10 records are flagged for Trend and Report, and no records required immediate action by the medical director.

Alternate Discussion Issues

Although these three diseases represent a major percent of the home health workload for FHMO (Quality Care Management Department 1995), one should be cautious in generalizing that home care is a provider segment requiring tremendous improvement. On the contrary, implementing minor improvements as discussed above may significantly influence results.

Another issue confounds the data: sample size. Conducting the pilot study revealed an opportunity to improve a process outside the topic of quality (home health care outcomes). The original population to be studied was derived by selecting three top diagnoses for review. Then, the health care data management department provided a list of all those FHMO members hospitalized within 12 months and discharged to a HHA (discharge status code "06"). A report was generated from the claims database sorting by specific diagnosis codes (see Table 1). After comparing data with the home health TPA, it became obvious that the
FHMO claims database was not capturing all the home health visits actually taking place.

Through investigation, it appears a number of factors influenced FHMOs inability to produce an accurate list of members discharged to home care. The most significant factor was that authorization screen procedures among the five regional units of FHMO are not completely consistent. Specifically, the "discharge status" field is being coded with conflicting entries, and Table 3 displays the 17 possible entries.

<table>
<thead>
<tr>
<th>Code</th>
<th>Discharge Status Description</th>
<th>Code</th>
<th>Discharge Status Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Discharge to Home or Self</td>
<td>20</td>
<td>Expired (Christian Science patient)</td>
</tr>
<tr>
<td>02</td>
<td>Discharged/transferred to another Hospital</td>
<td>21</td>
<td>Expired To Be Defined at State</td>
</tr>
<tr>
<td>03</td>
<td>Discharged/transferred to SNF</td>
<td>30</td>
<td>Still Patient</td>
</tr>
<tr>
<td>04</td>
<td>Discharged/transferred to ICF</td>
<td>31</td>
<td>Still Patient To Be Defined</td>
</tr>
<tr>
<td>05</td>
<td>Discharged/transferred to Other Insurance</td>
<td>40</td>
<td>Expired at Home</td>
</tr>
<tr>
<td>06</td>
<td>Discharged/transferred to Home Care</td>
<td>41</td>
<td>Expired in Hospital, SNF or ICF</td>
</tr>
<tr>
<td>07</td>
<td>Left Against Medical Advice</td>
<td>42</td>
<td>Expired Place Unknown</td>
</tr>
<tr>
<td>08</td>
<td>Reserved for National Assignment</td>
<td>43</td>
<td>Reserved For National Assignment</td>
</tr>
<tr>
<td>10</td>
<td>Discharged to be defined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: FHMO Quick Reference Guide

After interviewing various claims examiners, it appears that instead of using discharge status code "06" for patients discharged to home health care, code "01" is sometimes used because the description reads "discharge to home or self."

Also, "01" is the most common code used when entering data, thus habitual
tendencies prevail. Following the quality improvement model, FHMO has begun work to standardize this data entry process.

Diagnosis code issue aside, the sample size issue bodes of great importance. Until confidence increases in the internal authorizations report for generating records for the population, FHMO should consider working closely with the capitated TPA and HHAs to establish a working population from which to draw a representative sample. The methodology adopted for determining the correct sample size is provided in Appendix J.

Although indirectly related to the outcomes measured by this study, one observation may require examination by FHMO. During review of the study results, the capitated home health TPA noted that 25 percent of all referrals to home health are "re-offenders." A typical scenario occurs after a patient - having been discharged from home care - contacts the primary care manager (PCM) with some complaint that inevitably began when the home visits ceased. The PCM readmits to home care (authorizes more visits). Whether due to the short time interval from the last home visit, or the fact that the readmit is for the same illness/episode, the capitated TPA/HHA must continue with more visits, yet no additional capitation payments to the TPA/HHA ensue.

Revisiting the incentives of capitation, it behooves the PCM to deliver preventive care, in order to avoid future illness visits or hospitalizations. Interestingly, as managed care penetration matures in markets like South Florida, a counter-incentive may be developing. PCMs are increasing the number of lives
they cover - across multiple health plans - to increase their capitated base.

Eventually, as office scheduling reaches saturation, administrative barriers may tend to counter the incentive to deliver the preventive-type visits. Applying this dynamic to the scenario described above, the PCM readmits the complaining patient to home care, avoiding in-office visits. With these crossed-incentives, one could now characterize the HHA as a practice extender! Underutilization in mature markets again becomes focal point for health plans.

A Final Note on the "PDCA" Cycle

Grounded by the boundaries of the present study, the PDCA cycle was narrowly defined by the specific steps outlined in Figure 1. Execution of the pilot study to date has been within the "Plan" phase of the cycle. Based on HCFA expectations, an outcome assessment process was designed and piloted; analysis of the measurements have generated many opportunities to improve as discussed throughout the last chapter. The present outcome study finds itself at step five.

In a wider view of the quality improvement model, FHMO can view this study as a small piece of the larger management issue addressing non-physician ambulatory care. Then, the question becomes, did an outcome review of home health care effectively evaluate the adequacy of non-physician ambulatory care? Did the process used to measure outcomes of home care generate meaningful results? Can FHMO make relevant management decisions from these results?

Viewing the PDCA cycle in this broad sense moves one farther through the model to the re-evaluation or "Check" phase. Appendix K illustrates a
broader version of the same model adapted by FHMO. The *information inputs* to be evaluated in this version are the various programs and processes within the Quality Care Management Department. Clearly, one can demonstrated that the usefulness of the PDCA model can apply to specific studies, or extend in a larger sense to program management.

**RECOMMENDATIONS AND CONCLUSIONS**

Findings of the pilot study suggest that the design of this outcome assessment program be modified such that:

* the data collection period extend to every six months vice quarterly
* the study population be identified through a collaboration with the capitated TPA/HHA
* the statistical sampling methodology outlined in Appendix J be employed

Recalling the quality indexes in Table 2, FHMO may choose **not** to continue the study of fracture hips, and concentrate on CHF and diabetes. One refinement would be to modify the diagnosis codes used to identify records in these disease categories. An example may include narrowing the scope of CHF by eliminating those discharged to home care post Coronary Artery Bypass Graft (CABG). Further, the diabetes codes may not have been **specific** enough.

As a follow-up item, a procedure should be developed to standardize the codes used in the discharge status field of the authorization screen. Finally, to deal with the counter-incentive issue between PCMs and the TPA/HHA, it is recommended that FHMO consider requesting a weekly summary from the
TPA/HHA with information such as number of visits by discipline, home care admission date, home care discharge date and diagnosis, and evaluated outcome. All parties in the process could benefit from this elevated level of communication and patient management.

Obviously, specific issues surfaced above in "Pilot Study Findings" require follow-up action (i.e. goals were not achievable). Improvement activity may include discussing quality improvement issues with the capitated home health care agency, and collaborately selecting opportunities to improve services. Other recommended actions may include member/physician education, additional focused reviews, or referral to the regional Quality Management Committee.

Concluding, the original statement of management issue involved the need to study whether adequate levels of non-physician ambulatory care were being provided to FHMO enrollees. With no previous formal outcome assessment program at FHMO, the product of this project begins to pave the way for future outcome studies that will benefit various groups. Enrolled members benefit from the improved care received as a result of outcome assessment. Employer accounts benefit from outcome data that they need to manage the health care benefit provided to employees. Regulators and accrediting organizations are expecting this type of assessment now and in the future as management of our complex health care system intensifies.
After a revisit to the South Florida region during March 1996, HCFA notified FHMO in June that the Corrective Action Plan was lifted, and full compliance was restored to the quality program. Having significantly exceeded requirements of the corrective action plan, FHMO can continue its expansion of the Medicare-risk product confident it is providing the quality of care demanded of today's competitive environment.
APPENDIX A
HCFA DRAFT*HCFA DRAFT*HCFA DRAFT

Medicare Home Health Quality Assurance Demonstration
Outcomes and Assessment Information Set

I. DATA ITEMS COLLECTED AT ADMISSION ONLY

Medicare Number: Enter the patient's Medicare number.

____-____-____(____)

☐ NA - No Medicare

A. Demographics and Financial

1. Birth Year: What is the patient's year of birth?

____

2. Gender: What is the patient's gender?

☐ 1 - Male
☐ 2 - Female

3. Race/Ethnicity: What is the patient's racial/ethnic background?

☐ 1 - White
☐ 2 - Black, African-American
☐ 3 - Hispanic
☐ 4 - Asian, Pacific Islander
☐ 5 - American Indian, Eskimo, Aleut
☐ 6 - Other
☐ UK - Unknown

4. Financial Factors: Are there financial factors which can or do limit the ability of the patient/family to meet basic health needs? (Mark all that apply.)

☐ 0 - None
☐ 1 - Unable to afford medicine or medical supplies
☐ 2 - Unable to afford medical expenses that are not covered by insurance/Medicare (e.g., co-pays)
☐ 3 - Unable to afford rent/utility bills
☐ 4 - Unable to afford food
☐ 5 - Other (specify) ____________________________
B. Diagnosis, Inpatient Care, and Prognosis

5. Primary Diagnosis: Indicate the primary diagnosis and three-digit ICD code category for this episode of home care:

<table>
<thead>
<tr>
<th>Primary Home Care Diagnosis</th>
<th>ICD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(____)</td>
</tr>
</tbody>
</table>

6. Severity Index: List each medical diagnosis or problem for which the patient is receiving home care and rate them using the following severity index. (Choose one value that represents the most severe rating appropriate for each diagnosis.)

- 0 - Asymptomatic, no treatment needed at this time
- 1 - Symptoms well controlled with current therapy
- 2 - Symptoms controlled with difficulty, needs ongoing monitoring and affects daily functioning
- 3 - Symptoms poorly controlled, needs frequent adjustment in treatment and dose monitoring
- 4 - Symptoms poorly controlled, history of rehospitalizations

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>ICD</th>
<th>Severity Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
<tr>
<td>b.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
<tr>
<td>c.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
<tr>
<td>d.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
<tr>
<td>e.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
<tr>
<td>f.</td>
<td>(____)</td>
<td>0  1  2  3  4</td>
</tr>
</tbody>
</table>

7. Inpatient Discharge: From which of the following inpatient facilities was the patient discharged during the past 14 days? (Mark all that apply.)

- 1 - Hospital
- 2 - Freestanding rehabilitation facility
- 3 - Nursing home
- 4 - Other (specify) ____________________________
- NA - Patient was not discharged from an inpatient facility [If NA, go to Question 10]
- UK - Unknown

8. Recent Inpatient Discharge: Indicate the date of most recent discharge from an inpatient facility.

   ___ / ___ / ___
   month day year

- UK - Unknown

9. In the spaces provided below, list the patient's medical diagnoses and three-digit ICD code categories for only those conditions requiring inpatient facility stay within the last 14 days:

<table>
<thead>
<tr>
<th>Inpatient Facility Diagnosis</th>
<th>ICD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>(____)</td>
</tr>
<tr>
<td>b.</td>
<td>(____)</td>
</tr>
</tbody>
</table>
10. Prognosis: Which of the following BEST describes the patient’s overall prognosis with regard to recovery from this episode of illness?

- 0 - Poor: little or no recovery is expected and/or further decline is imminent
- 1 - Good/Fair: partial to full recovery is expected
- UK - Unknown

11. Rehabilitative Prognosis: Which of the following BEST describes the patient’s prognosis with regard to functional status?

- 0 - Guarded: minimal improvement in functional status is expected, decline is possible
- 1 - Good: marked improvement in functional status is expected
- UK - Unknown

C. Sensory Ability

12. Vision: Which best describes the patient’s vision? (Vision refers to the patient’s ability to see 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 find way around without feeling or using a cane; cannot locate objects without hearing or touching them; vision completely lost/patient essentially blind.
- UK - Unknown

13. Hearing and Auditory Comprehension of Language: Which best describes the patient’s hearing and ability to understand spoken language? (Hearing refers to the ability to hear 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/assistance.
- 3 - Has severe difficulty hearing and understanding simple greetings and short comments. Requires multiple repetitions, restatements, demonstrations, additional time.
- 4 - Unable to hear and understand familiar words/common expressions consistently.
- UK - Unknown
D. Home Environment

*14. Structural Barriers: Are there structural barriers in the patient's environment which can or do limit 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

*15. Safety Hazards: Which safety hazards are 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)

*16. Sanitation Hazards: Which sanitation hazards are 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 pickup
☐ 11 - Cluttered/soiled living area
☐ 12 - Other (specify)
II. DATA ITEMS COLLECTED AT ALL TIME POINTS, INCLUDING ADMISSION AND DISCHARGE

E. Reimbursement, Recent Changes, Life Expectancy, and Risk

17. Payment Sources: What are the payment sources for home care at this time? (Mark all that apply.)

☐ 0 - None; no charge for current services
☐ 1 - Medicare (traditional fee-for-service)
☐ 2 - Medicare (HMO/Managed Care)
☐ 3 - Medicaid (traditional fee-for-service)
☐ 4 - Medicaid (HMO/Managed Care)
☐ 5 - Worker’s Compensation
☐ 6 - Title programs (e.g., Title III, V, or XC)
☐ 7 - Other government (e.g., Champus, VA, etc.)
☐ 8 - Private third party (e.g., private insurance, etc.)
☐ 9 - Private third party (HMO/Managed Care)
☐ 10 - Self-pay
☐ 11 - Other (specify) ________________________________
☐ UK - Unknown

18. Medical Regimen Change: Has this patient experienced a change in medical regimen (e.g., new/additional diagnosis, medication/treatment change) within the last 14 days?

☐ 0 - No [If NO, go to Question 20]
☐ 1 - Yes

19. In the spaces provided below, list the patient’s medical diagnoses and three-digit ICD-9 code categories for those conditions requiring changed medical regimen:

<table>
<thead>
<tr>
<th>Changed Medical Regimen Diagnosis</th>
<th>ICD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>(_ _ _)</td>
</tr>
<tr>
<td>b.</td>
<td>(_ _ _)</td>
</tr>
<tr>
<td>c.</td>
<td>(_ _ _)</td>
</tr>
<tr>
<td>d.</td>
<td>(_ _ _)</td>
</tr>
</tbody>
</table>
20. Conditions Prior to Medical Regimen Change/Inpatient Stay: If this patient experienced an inpatient facility discharge/change in medical regimen within the past 14 days, indicate any conditions which existed prior to the inpatient stay/change in medical regimen. (Mark all that apply.)

- 1 - Urinary incontinence
- 2 - Indwelling/suprapubic catheter
- 3 - Intractable pain
- 4 - Impaired decision-making
- 5 - Disruptive or socially inappropriate behavior
- 6 - Memory loss to the extent that supervision required
- 7 - None of the above
- NA - No Inpatient facility discharge/change in medical regimen in past 14 days
- UK - Unknown

21. Life Expectancy: Does this patient have a life expectancy of 6 months or less? (Physician documentation is not required.)

- 0 - No
- 1 - Yes

22. High Risk Factors: Which of the following risk factors characterize this patient? (Mark all that apply.)

- 1 - Heavy smoking
- 2 - Obesity
- 3 - Alcoholism
- 4 - Drug dependency
- 5 - None of the above
- UK - Unknown

F. Residence and Home Support

23. Current Residence: Where does the patient currently reside?

- 1 - Patient's owned/rented residence (house, apartment, or trailer owned/rented by patient/couple/significant other)
- 2 - Family member's residence
- 3 - Boarding home/rented room
- 4 - Domiciliary care/board and care/assisted living
- 5 - Specialized housing for the elderly (congregate housing)
- 6 - Other (specify) _______

24. Patient Lives With: With whom is the patient currently living? (Mark all that apply.)

- 1 - Lives alone
- 2 - With spouse/significant other
- 3 - With other family member
- 4 - With a friend
- 5 - With paid help (e.g., housekeeper)
- 6 - With other than above
25. Assisting Person(s): From whom does the patient receive assistance? (Mark all that apply.)
   □ 1 - Relatives, friends, or neighbors living outside the home
   □ 2 - Person residing in the home (EXCLUDES paid help)
   □ 3 - Paid help
   □ 4 - None of the above [If None of the above, go to Question 26]
   □ UK - Unknown

26. Primary Caregiver: Who, if anyone, emerges as the patient's primary caregiver (i.e., the person taking lead responsibility for providing or managing the patient's care, providing the most frequent assistance, etc.)?
   □ 0 - No one person [If No one person, go to Question 26]
   □ 1 - Spouse/significant other
   □ 2 - Daughter/son
   □ 3 - Other family member
   □ 4 - Friend
   □ 5 - Neighbor/community/church member
   □ 6 - Paid help (other than home health agency care provider)
   □ UK - Unknown

27. Frequency of Primary Caregiver Assistance: How often does the patient receive assistance from the primary caregiver?
   □ 1 - Several times during day and night
   □ 2 - Several times during day
   □ 3 - Once daily
   □ 4 - Three or more times per week
   □ 5 - One-two times per week
   □ 6 - Less often than weekly
   □ UK - Unknown

28. Type of Caregiver Assistance: What kind of assistance does the primary caregiver provide for the patient? (Mark all that apply.)
   □ 1 - ADL Assistance (bathing, dressing, toileting, bowel/bladder, eating/feeding)
   □ 2 - IADL Assistance (meds, meals, housekeeping, laundry, telephone, shopping, finances)
   □ 3 - Environmental support (housing, home maintenance)
   □ 4 - Psychosocial support (socialization, companionship, recreation)
   □ 5 - Advocates or facilitates patient's participation in appropriate medical care
   □ 6 - Financial agent, power of attorney, or conservator of finance
   □ 7 - Health care agent, conservator of person, or medical power of attorney
   □ UK - Unknown
G. Functional Health Status

At Start of Care only, if the patient had an inpatient facility discharge (Question 7) or a change in medical regimen (Question 18) within the last 14 days, also indicate the patient's functional level prior to the facility discharge/change in medical regimen. Otherwise, skip the Prior column.

29. Bathing: Refers to the patient's ability to wash his/her entire body. Excludes grooming (washing face and hands only).

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□ 0</td>
</tr>
<tr>
<td>□</td>
<td>□ 1</td>
</tr>
<tr>
<td>□</td>
<td>□ 2</td>
</tr>
<tr>
<td>□</td>
<td>□ 3</td>
</tr>
<tr>
<td>□</td>
<td>□ 4</td>
</tr>
<tr>
<td>□</td>
<td>□ 5</td>
</tr>
<tr>
<td>□</td>
<td>□ UK</td>
</tr>
</tbody>
</table>

30. Grooming: Refers to the patient's ability to tend to personal hygiene needs (i.e., washing face and hands, hair care, shaving/make up, teeth/denture care, fingernail care).

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□ 0</td>
</tr>
<tr>
<td>□</td>
<td>□ 1</td>
</tr>
<tr>
<td>□</td>
<td>□ 2</td>
</tr>
<tr>
<td>□</td>
<td>□ 3</td>
</tr>
<tr>
<td>□</td>
<td>□ UK</td>
</tr>
</tbody>
</table>

31. Dress Upper Body (including undergarments, pullovers, front-opening shirts and blouses, managing zippers, buttons, and snaps):

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□ 0</td>
</tr>
<tr>
<td>□</td>
<td>□ 1</td>
</tr>
<tr>
<td>□</td>
<td>□ 2</td>
</tr>
<tr>
<td>□</td>
<td>□ UK</td>
</tr>
</tbody>
</table>

32. Dress Lower Body (including undergarments, slacks, socks ornylons, shoes):

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□ 0</td>
</tr>
<tr>
<td>□</td>
<td>□ 1</td>
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<tr>
<td>□</td>
<td>□ 2</td>
</tr>
<tr>
<td>□</td>
<td>□ 3</td>
</tr>
<tr>
<td>□</td>
<td>□ UK</td>
</tr>
</tbody>
</table>
33. Toileting: Refers to the patient's ability to get to and from the toilet or bedside commode.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ 0</td>
<td>-</td>
</tr>
<tr>
<td>✔ 1</td>
<td>When reminded, assisted, or supervised by another person, able to get to and from the toilet.</td>
</tr>
<tr>
<td>✔ 2</td>
<td>Unable to get to and from the toilet but is able to use a bedside commode with or without assistance.</td>
</tr>
<tr>
<td>✔ 3</td>
<td>Unable to get to and from the toilet or bedside commode but is able to use a bedpan/urinal independently.</td>
</tr>
<tr>
<td>✔ 4</td>
<td>Is totally dependent in toileting.</td>
</tr>
<tr>
<td>✔ UK</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

34. Transferring: Refers to the patient's ability to move from bed to chair, on and off toilet or commode, into and out of tub/shower, and ability to turn and position self in bed if patient is bedfast.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ 0</td>
<td>-</td>
</tr>
<tr>
<td>✔ 1</td>
<td>Transfers with minimal human assistance or with use of an assistive device.</td>
</tr>
<tr>
<td>✔ 2</td>
<td>Unable to transfer self but is able to bear weight and pivot during the transfer process.</td>
</tr>
<tr>
<td>✔ 3</td>
<td>Unable to transfer self and is unable to bear weight or pivot when transferred by another person.</td>
</tr>
<tr>
<td>✔ 4</td>
<td>Bedfast, unable to transfer but is able to turn and position self in bed.</td>
</tr>
<tr>
<td>✔ 5</td>
<td>Bedfast, unable to transfer and is unable to turn and position self.</td>
</tr>
<tr>
<td>✔ UK</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

35. Ambulation/Locomotion: Refers to the patient's ability to SAFELY walk, once in a standing position, or use a wheelchair, once in a seated position, on a variety of surfaces.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ 0</td>
<td>-</td>
</tr>
<tr>
<td>✔ 1</td>
<td>Requires use of a device (e.g., cane, walker) to walk alone or requires human supervision or assistance to negotiate stairs/steps or uneven surfaces.</td>
</tr>
<tr>
<td>✔ 2</td>
<td>Able to walk only with the supervision/assistance of another person at all times.</td>
</tr>
<tr>
<td>✔ 3</td>
<td>Chairfast, unable to ambulate but is able to wheel self independently.</td>
</tr>
<tr>
<td>✔ 4</td>
<td>Chairfast, unable to ambulate and is unable to wheel self.</td>
</tr>
<tr>
<td>✔ 5</td>
<td>Bedfast, unable to ambulate or be up in a chair.</td>
</tr>
<tr>
<td>✔ UK</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
36. Feeding/Eating: Refers to the patient's 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.

Current Prior
☐ 0 - Able to independently feed self.
☐ 1 - Able to feed self independently but requires:
  (a) meal set-up; OR
  (b) intermittent assistance/supervision from another person; OR
  (c) a liquid, pureed or ground meat diet.
☐ 2 - Unable to feed self and must be assisted/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.
☐ UK - Unknown

37. Management of Oral Medications: Refers to the 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.)

Current Prior
☐ 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 dosages 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.
☐ NA - No oral medications prescribed
☐ UK - Unknown

38. Management of Inhaled/Mist Medications: Refers to the patient's ability to prepare and take all prescribed inhaled/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).

Current Prior
☐ 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 dosages are prepared in advance by another person; OR
  (b) given daily reminders.
☐ 2 - Unable to take medication unless administered by someone else.
☐ NA - No Inhaled/mist medications prescribed.
☐ UK - Unknown
**39. Management of Injectable Medications:** Refers to the patient's ability to prepare and take all prescribed injectable medications reliably and safely, including administration of correct dosage at the appropriate times/interval. Excludes IV medications.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 0</td>
<td>☐ 1</td>
</tr>
<tr>
<td>☑</td>
<td>☑</td>
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</tbody>
</table>

- Able to independently take the correct medication and proper dosage at the correct times.
- Able to take injectable medication at correct times if:
  - (a) individual syringes are prepared in advance by another person, OR
  - (b) given daily reminders.
- ☐ 2 - **Unable** to take injectable medications unless administered by someone else.
- ☐ 3 - No Injectable medications prescribed.
- ☐ UK - Unknown

**40. Patient Management of Equipment (Includes ONLY oxygen, IV/Infusion therapy, enteral/parenteral nutrition equipment/supplies):** Refers to the patient's ability to set up, monitor and change equipment reliably and safely, add appropriate fluids/medication, clean/store/dispose of equipment/supplies using proper technique.

<table>
<thead>
<tr>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 0</td>
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<tr>
<td>☑ 1</td>
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<tr>
<td>☐ 2</td>
</tr>
<tr>
<td>☑ 3</td>
</tr>
<tr>
<td>☐ 4</td>
</tr>
</tbody>
</table>

- Patient manages all tasks related to equipment completely independently.
- 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.
- Patient requires considerable assistance from another person to manage equipment, but independently completes portions of the task.
- Patient is only able to monitor equipment (e.g., flow, fluid in bag) and must call someone else to manage the equipment.
- Patient is completely dependent on someone else to manage all equipment.
- ☐ NA - No equipment of this type used in care [If NA, go to Question 42]
- ☐ UK - Unknown

**41. Caregiver Management of Equipment (Includes ONLY oxygen, IV/Infusion equipment, enteral/parenteral nutrition, ventilator therapy equipment/supplies):** Refers to the caregiver's ability to set up, monitor, and change equipment reliably and safely, add appropriate fluids/medication, clean/store/dispose of equipment/supplies using proper technique.

<table>
<thead>
<tr>
<th>Current</th>
</tr>
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<tbody>
<tr>
<td>☐ 0</td>
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<tr>
<td>☑ 1</td>
</tr>
<tr>
<td>☐ 2</td>
</tr>
<tr>
<td>☑ 3</td>
</tr>
<tr>
<td>☐ 4</td>
</tr>
</tbody>
</table>

- Caregiver manages all tasks related to equipment completely independently.
- If someone else sets up equipment, caregiver is able to manage all other aspects.
- Caregiver requires considerable assistance from another person to manage equipment, but independently completes significant portions of task.
- Caregiver is only able to complete small portions of task (i.e., administer nebulizer treatment, clean/store/dispose of equipment/supplies).
- Caregiver is completely dependent on someone else to manage all equipment.
- ☐ NA - No caregiver
- ☐ UK - Unknown
42. Planning and Preparing Light Meals: Refers to the patient's ability to plan and prepare light meals (e.g., cereal, sandwich) or reheat delivered meals.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
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</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐ 0</td>
</tr>
</tbody>
</table>
| (a)     | (e) 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 (i.e., prior to this home care admission). |
| ☐       | ☐ 1   |
|         | Unable to prepare light meals on a regular basis due to physical, cognitive, and/or mental limitations. |
| ☐       | ☐ 2   |
|         | Unable to prepare any light meals or reheat any delivered meals. |
| ☐       | ☐ UK |
|         | Unknown |

43. Laundry: Refers to the ability to do own laundry — to carry laundry to and from washing machine, to use washer and dryer, to wash small items by hand.

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐ 0</td>
</tr>
</tbody>
</table>
| (a)     | (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 (i.e., 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, and/or mental limitations, or off-site location of laundry facilities, needs assistance with heavy laundry such as accessing laundry facilities, 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. |
| ☐       | ☐ UK |
|         | Unknown |

44. Transportation: Refers to physical and mental ability to safely use a car, taxi, or public transportation (bus, train, subway).

<table>
<thead>
<tr>
<th>Current</th>
<th>Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐ 0</td>
</tr>
<tr>
<td></td>
<td>Able to independently drive a regular or adapted car; OR uses a regular or handicap-accessible public bus.</td>
</tr>
<tr>
<td>☐</td>
<td>☐ 1</td>
</tr>
<tr>
<td></td>
<td>Able to ride in a car only when driven by another person; OR able to use a bus or handicap van only when assisted/accompanied by another person.</td>
</tr>
<tr>
<td>☐</td>
<td>☐ 2</td>
</tr>
<tr>
<td></td>
<td>Unable to ride in a car, taxi, bus, or van, and requires transportation by ambulance.</td>
</tr>
<tr>
<td>☐</td>
<td>☐ UK</td>
</tr>
<tr>
<td></td>
<td>Unknown</td>
</tr>
</tbody>
</table>
45. Housekeeping: Refers to ability to safely and effectively perform both light housekeeping and heavier cleaning tasks.

- 0  - (a) Able to independently perform all housekeeping tasks OR
- 1  - Able to perform only light housekeeping (e.g., dusting, wiping kitchen counters) tasks independently.
- 2  - Able to perform housekeeping tasks with intermittent assistance/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.
- UK - Unknown

46. Shopping: Refers to ability to plan for, select, and purchase items in a store and to carry them home or be able to have them delivered.

- 0  - (a) Able to plan for shopping needs and independently perform shopping tasks, including carrying packages OR
- 1  - Able to go by self to shop, 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.
- UK - Unknown

47. Ability to Use Telephone: Refers to 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  - Uses 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 use the telephone.
- NA - Patient does not have a telephone.
- UK - Unknown
48. Dyspnea: When is the patient noticeably short of breath?

- 0 - Never, patient is not short of breath
- 1 - When walking more than 20 feet, climbing stairs
- 2 - With moderate exertion (e.g., while dressing, using commode/bedpan, walking distances less than 20 feet)
- 3 - With minimal exertion (e.g., while eating, talking, or performing other ADLs) or with agitation
- 4 - At rest (during day and/or night)
- UK - Unknown

49. Treatments: Which treatments does this patient utilize at home? (Mark all that apply.)

- 1 - Oxygen (intermittent or continuous)
- 2 - Ventilator (continually or at night)
- 3 - Continuous positive airway pressure
- 4 - None of the above

50. Open Wound: Does this patient have an open wound/lesion (e.g., surgical wound, stasis ulcer, pressure ulcer, etc.)? This excludes "OSTOMIES."

- 0 - No [ If No, go to Question 55 ]
- 1 - Yes

51. Pressure Ulcers: Use the table below to indicate the current number of pressure ulcers the patient has at each stage. (Circle one response for each stage.)

<table>
<thead>
<tr>
<th>Ulcer Stages</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Stage 1: Nonblanchable erythema of intact skin; the heralding of skin ulceration. In darker-pigmented skin, warmth, edema, hardness, or discolored skin may be indicators.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b) Stage 2: Partial thickness skin loss involving epidermis and/or dermis. The ulcer is superficial and presents clinically as an abrasion, blister, or shallow crater.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c) Stage 3: Full-thickness skin loss involving damage or necrosis of subcutaneous tissue which may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d) Stage 4: Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (e.g., tendon, joint capsule, etc.)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
52. Most Problematic Ulcer: According to the preceding definitions, what is the stage of the most problematic pressure ulcer?

- 0 - No pressure ulcer
- 1 - Stage 1
- 2 - Stage 2
- 3 - Stage 3
- 4 - Stage 4

53. Wounds Present: Indicate the numbers of each type of wound/lesion currently present on this patient. Note: If a wound (e.g., surgical) is partially closed but has more than one opening, consider each opening as a separate open wound/lesion.

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Wounds/Lesions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>a) Stasis ulcer</td>
<td>0</td>
</tr>
<tr>
<td>b) Surgical wound</td>
<td>0</td>
</tr>
</tbody>
</table>

54. Wound/Lesion Status: Indicate the status of each of the following types of open wounds/lesions. If the patient has more than one of a single type of wound/lesion, indicate the status of the one that is most problematic.

<table>
<thead>
<tr>
<th>Type of Wound</th>
<th>No lesion of this type</th>
<th>Fully granulating</th>
<th>Early/Partial granulation</th>
<th>Not healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pressure ulcer</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Stasis ulcer</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Surgical wound</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

55. Pain: How often does pain interfere with the patient's activity/movement?

- 0 - None of the time (i.e., patient has pain, but it does not interfere with activity/movement)
- 1 - Some of the time (i.e., less than daily)
- 2 - Most of the time (i.e., daily)
- 3 - All of the time
- NA - No pain [* if NA, go to Question 57 ]
- UK - Unknown

56. Intractable Pain: Is the patient experiencing pain that is not easily relieved, occurs on a continual or daily basis, and may affect the patient's sleep, appetite, physical/emotional energy, concentration, personal relationships, emotions, or ability or desire to perform physical activity?

- 0 - No
- 1 - Yes
57. UTI: Has the patient been treated for a urinary tract infection in the past 14 days/since you last completed this questionnaire?

- 0 - No
- 1 - Yes
- NA - Patient on prophylactic treatment
- UK - Unknown

58. Urinary Incontinence or Catheter Presence: Does this patient have urinary incontinence OR a condition requiring the use of a urinary catheter?

- 0 - No [ If No, go to Question 60 ]
- 1 - Yes, patient is continent
- 2 - Yes, patient requires a urinary catheter (i.e., external, indwelling, intermittent, suprapubic)

59. Urinary Incontinence Severity: When does urinary incontinence occur for this patient?

- 0 - Incontinence is controlled with a catheter.
- 1 - Patient is dependent on timed Voiding to defer incontinence
- 2 - During the night only
- 3 - During the day and night
- NA - Ureterostomy/analula

60. Bowel Incontinence: How frequently does this patient have bowel incontinence?

- 0 - Very rarely or never incontinent of bowel
- 1 - Less than once weekly
- 2 - One to three times weekly
- 3 - Four to six times weekly
- 4 - On a daily basis
- 5 - More often than once daily
- NA - Patient has ostomy
- UK - Unknown

61. Ostomy: Does this patient have an ostomy that (within the last 14 days): a) was related to an inpatient facility stay or b) necessitated a change in medical regimen? (EXCLUDE any ostomy whose purpose is facilitating drainage of urine.)

- 0 - No; the patient’s ostomy was not related to an inpatient stay or did not necessitate change in medical regimen.
- 1 - Yes, the ostomy was related to an inpatient stay or necessitated change in medical regimen.
- NA - Patient does not have any ostomy.

62. Therapies: Which of the following therapies does the patient receive at home? (Mark all that apply.)

- 1 - Intravenous or infusion therapy (excludes TPN)
- 2 - Parenteral nutrition (TPN or lipids)
- 3 - Enteral nutrition (nasogastric, gastrostomy, jejunostomy, or any other artificial entry into the alimentary canal)
- 4 - None of the above
1. **Speech, Emotional, Behavioral, and Cognitive Health Status**

63. **Speech and Oral Expression of Language:** Which best describes the patient’s ability to effectively express herself/himself through speech and verbal (oral) expression of 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/assistance).
- **2** - Expresses simple ideas or needs with moderate difficulty (needs prompting/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/guessing by listener. Speech limited to single words or short phrases.
- **4** - Unable to express basic needs even with maximal prompting/assistance but is not comatose/unresponsive (e.g., speech is nonsensical or unintelligible)
- **UK** - Unknown

64. **Depressive Feelings:** Have you observed anything about the patient that leads you to believe the patient is experiencing any of the following feelings? (Mark all that apply.)

- **1** - Helplessness or dependency
- **2** - Sense of failure or self reproach
- **3** - Hopelessness
- **4** - Preoccupation with death
- **5** - Thoughts of suicide
- **6** - None of the above feelings observed

65. **When Confused:** When is the patient reported to be confused?

- **0** - Never
- **1** - In new or complex situations only
- **2** - On awakening or at night only
- **3** - During the day or constantly
- **NA** - Patient nonresponsive

66. **Behaviors Observed:** Have any of the following behaviors been reported to you or observed by you regarding this patient? (Mark all that apply.)

- **1** - Crying spells
- **2** - Withdrawal from social interaction
- **3** - Sleep disturbances (e.g., inability to sleep throughout the night; early morning awakening)
- **4** - Unwillingness to become more independent
- **5** - Agitation
- **6** - A suicide attempt
- **7** - None of the above behaviors observed/reported
67. Behaviors Demonstrated: Indicate which of the following behaviors the patient currently demonstrates at least once a week (from observation or report). (Mark all that apply.)

- 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, irritable, or socially inappropriate behavior (excludes verbal actions)
- 6 - Delusions, hallucinations, or paranoid ideation
- 7 - None of the above behaviors demonstrated

68. Behavior Problem Frequency: How frequently does this patient reportedly demonstrate significant behavioral problems (e.g., verbal disruption, physical aggression, wandering episodes, self abuse, 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

69. Cognitive Functioning: What is the 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 (cuing, repetition, reminders) only under stressful or unfamiliar conditions.
- 2 - Requires assistance and some direction in specific situations (e.g., on all tasks involving shifting of attention), or consistently requires low stimulus environment due to distractibility.
- 3 - Requires considerable assistance. Is alert/oriented, able to shift attention and recall directions less than half the time.
- 4 - Totally dependent due to disturbances such as coma, persistent vegetative state, or delirium.

70. Psychiatric Nursing Services: Is this patient receiving psychiatric nursing services at home provided by a qualified psychiatric nurse?

- 0 - No
- 1 - Yes

71. Anxiety Level: When is the patient reportedly anxious?

- 0 - None of the time
- 1 - Some of the time (i.e., less than daily)
- 2 - Most of the time (i.e., daily)
- 3 - All of the time
- UK - Unknown
1. **Emergent Care**

72. **Emergent Care:** Since you last completed this questionnaire, has the patient utilized any of the following services for emergent care? (Mark all that apply.)

- [ ] 0 - No emergent care services [If no emergent care, go to Question 74]
- [ ] 1 - Hospital emergency room (includes 23-hour holding)
- [ ] 2 - Doctor's office emergency visit/house call
- [ ] 3 - Outpatient department/clinic emergency (includes urgent care site)
- [ ] UK - Unknown

73. **Emergent Care Reason:** For what reason(s) did the patient/family seek emergent care? (Mark all that apply.)

- [ ] 1 - Improper medication administration, medication side effects, toxicity, anaphylaxis
- [ ] 2 - Nausea, dehydration, malnutrition, constipation, impaction
- [ ] 3 - Injury caused by fall or accident at home
- [ ] 4 - Respiratory problems (e.g., shortness of breath, respiratory infection, tracheobronchial obstruction)
- [ ] 5 - Wound infection, deteriorating wound status, new lesion/ulcer
- [ ] 6 - Cardiac problems (e.g., fluid overload, exacerbation of CHF, chest pain)
- [ ] 7 - Hypo/Hyperglycemia, diabetes out of control
- [ ] 8 - GI bleeding, obstruction
- [ ] 9 - Other than above reasons
- [ ] UK - Reason unknown

III. **DATA ITEMS COLLECTED AT DISCHARGE ONLY**

74. **Discharge/Transfer/Death Date:** Enter the date of the discharge, transfer, or death of the patient.

- [ ] UK - Unknown

75. **Discharge Disposition:** Where is the patient after discharge from your agency?

- [ ] 1 - Patient remains in the community without formal home health services — i.e., without home health services prescribed by patient's primary care provider [Go to Question 76]
- [ ] 2 - Patient remains in the community with formal home health services — i.e., with home health services prescribed by patient's primary care provider [Go to Question 76]
- [ ] 3 - Patient moved to a geographic location not served by this agency [Finished with questionnaire]
- [ ] 4 - Patient transferred to health care institution for 24 hours or longer [Finished with questionnaire]
- [ ] 5 - Patient transferred to a hospice [Finished with questionnaire]
- [ ] 6 - Patient died [Finished with questionnaire]
- [ ] 7 - Other [Finished with questionnaire]
- [ ] UK - Unknown
76. Ability to Function In the Community: In your opinion, based on the informal home and community support available to the patient, can the patient function in the community without formal home health services (i.e., without home health services prescribed by the patient’s primary care provider)?

☐ 1 - Yes
☐ 2 - No, but had to discharge into community anyway without sending the patient to other formal home health services. Reason:

☐ 3 - No, patient cannot function without formal home health services or cannot function outside a hospital, nursing home, or other institution
☐ UK - Unknown

77. Reason for Hospitalization: If the patient was admitted to an acute care hospital, for what reason was he/she admitted?

☐ 1 - Hospitalization for emergent (unscheduled) care
☐ 2 - Hospitalization for urgent (scheduled within 24 hours of admission) care
☐ 3 - Hospitalization for elective (scheduled more than 24 hours before admission) care
☐ NA - No hospital admission
☐ UK - Unknown

78. Reason for Nursing Home Admission: If the patient was admitted to a nursing home, for what reason(s) was he/she admitted? (Mark all that apply.)

☐ 1 - Therapy services
☐ 2 - Respite care
☐ 3 - Hospice care
☐ 4 - Permanent placement
☐ 5 - Unsafe for care at home
☐ 6 - Other (specify) ________________________
☐ NA - No nursing home admission
☐ UK - Unknown
APPENDIX B
DESCRIPTION OF DIAGNOSIS CODES
FOR TARGETED DISEASES

Congestive Heart Failure

428.0 Congestive Heart Failure
  Congestive heart disease
  Right heart failure (secondary to left heart failure)

428.1 Left heart failure
  Acute edema of lung (with heart disease NOS or heart failure)
  Acute pulmonary edema (with heart disease NOS or heart failure)
  Cardiac asthma
  Left ventricular failure

428.9 Heart failure, unspecified
  Cardiac failure NOS
  Heart failure NOS
  Myocardial failure NOS
  Weak heart

Fracture of the neck of femur (820)

820.0 Transcervical fracture, closed
  820.00 Intracapsular section, unspecified
  820.01 Epiphysis (separation) (upper)
    Transepiphysseal
  820.02 Midcervical section
  820.03 Base of Neck
    Cervicotomy section
  820.09 Other
    Head of femur
    Subcapital

820.1 Transcervical fracture, open
  820.10 Intracapsular section, unspecified
  820.11 Epiphysis (separation) (upper)
  820.12 Midcervical section
  820.13 Base of Neck
  820.19 Other
820.2 Pertrochanteric fracture, closed
820.20 Trochanteric section, unspecified
     Trochanter:
     NOS
     greater
     lesser
820.21 Intertrochanteric section
820.22 Subtrochanteric section

820.3 Pertrochanteric fracture, open
820.30 Trochanteric section, unspecified
820.31 Intertrochanteric section
820.32 Subtrochanteric section

820.8 Unspecified part of neck of femur, closed
     Hip NOS
     Neck of Femur NOS

820.9 Unspecified part of neck of femur, open

Fracture of other and unspecified parts of femur (821)

821.0 Shaft or unspecified part, closed
821.00 Unspecified part of femur
     Thigh
     Upper leg
     Excludes: hip NOS (820.8)
821.01 Shaft

821.1 Shaft or unspecified part, open
821.10 Unspecified part of femur
821.11 Shaft

821.2 Lower end, closed
     Distal end
821.20 Lower end, unspecified part
821.21 Condyle, femoral
821.22 Epiphysis, lower (separation)
821.23 Supracondylar fracture of femur
821.29 Other
     Multiple fractures of lower end

821.3 Lower end, open

821.30 Lower end, unspecified part
821.31 Condyle, femoral
821.32 Epiphysis, lower (separation)
821.33 Supracondylar fracture of femur
821.39 Other

Uncontrolled Diabetes

250.1 Diabetes with ketoacidosis
   Diabetic:
       acidosis (without mention of coma)
       ketosis (without mention of coma)

250.2 Diabetes with hyperosmolarity
   Hyperosmolar (nonketotic) coma

250.3 Diabetes with other coma
   Diabetic coma (with ketoacidosis)
   Diabetic hypoglycemic coma
   Insulin coma NOS
   Excludes: diabetes with hyperosmolar coma (250.2)

250.4 Diabetes with renal manifestations
   Use additional code to identify manifestation, as:
   diabetic:
       nephropathy NOS (583.81)
       nephrosis (581.81)
       intercapillary glomerulosclerosis (581.81)
       Kimmelstiel-Wilson syndrome (581.81)

250.5 Diabetes with ophthalmic manifestations
   Use additional codes to identify manifestation, as:
   diabetic:
       blindness (369.00 - 369.9)
       cataract (366.41)
       glaucoma (365.44)
       retinal edema (362.83)
       retinopathy (362.01 - 362.02)

250.6 Diabetes with neurological manifestations
   Use additional codes to identify manifestation, as:
   diabetic:
       Amyotrophy (358.1)
       mononeuropathy (354.0 - 355.9)
       neurogenic arthropathy (713.5)
       peripheral autonomic neuropathy (337.1)
       polyneuropathy (357.2)

250.7 Diabetes with peripheral circulatory disorders
   Use additional codes to identify manifestation, as:
250.8 Diabetes with other specified manifestations
   Diabetic hypoglycemia
   Hypoglycemic shock

   Use additional codes to identify manifestation, as:
   diabetic bone changes (731.8)

   Use additional E code to identify cause, if drug induced
   Excludes: intercurrent infections in diabetic patients

280.9 Diabetes with unspecified complication
1. Was the patient seen within 24 hours of discharge or service request?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

2. Were there any hospital admissions during the time of home care?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

[If NO, skip to question 4]

3. If yes, was there evidence that the admission was due to one of the following:

<table>
<thead>
<tr>
<th>Related to therapy?</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider was unavailable to provide therapy?</td>
<td>B</td>
</tr>
<tr>
<td>Lack of compliance with therapy?</td>
<td>C</td>
</tr>
<tr>
<td>Not related to therapy?</td>
<td>D</td>
</tr>
</tbody>
</table>

4. Was the patient seen in the E.R. during this period of time?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

[If NO, skip to question 6]

5. If yes, was there evidence that the visit was due to one of the following:

<table>
<thead>
<tr>
<th>Related to therapy?</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider was unavailable to provide therapy?</td>
<td>B</td>
</tr>
<tr>
<td>Lack of compliance with therapy?</td>
<td>C</td>
</tr>
<tr>
<td>Not related to therapy?</td>
<td>D</td>
</tr>
</tbody>
</table>
6. **Was the frequency of visits in compliance with physician's orders?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

7. **Does the chart contain a list of all current medications that were in use, the amount, frequency and route of administration?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

8. **Were treatment goals met?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

[If YES, skip to question 10]

9. **If NO, was there evidence that the unmet goals was due to one of the following reasons?**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home support was not adequate?</td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>Patient not compliant with treatment plan?</td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Treatment goals were not established?</td>
<td><strong>C</strong></td>
</tr>
<tr>
<td>Treatment goals were not achievable?</td>
<td><strong>D</strong></td>
</tr>
<tr>
<td>Unexpected death?</td>
<td><strong>E</strong></td>
</tr>
</tbody>
</table>

10. **If the patient did not progress with treatment, was the physician notified in a timely manner?**

<table>
<thead>
<tr>
<th>Notice</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician notified in a timely manner</td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>Physician not notified in a timely manner</td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Physician not notified</td>
<td><strong>C</strong></td>
</tr>
<tr>
<td>Not applicable, patient made good progress</td>
<td><strong>D</strong></td>
</tr>
</tbody>
</table>
# Congestive Heart Failure/Home Health Data Collection Tool

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Adequate Answer</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patient seen within 24 hours</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>2. Any hospital admissions during home care</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3. Reason for admission</td>
<td>C, D</td>
<td></td>
</tr>
<tr>
<td>4. Evidence of ER visit while receiving home care</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>5. Reason for ER visit</td>
<td>C,D</td>
<td></td>
</tr>
<tr>
<td>6. Frequency of visits in compliance with physician’s orders</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>7. Current medications listed as to frequency, amount, and route of administration</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>8. Evidence that treatment goals were met</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>9. Reason if treatment goals were not met</td>
<td>B,E</td>
<td></td>
</tr>
<tr>
<td>10. Physician notified if patient did not progress</td>
<td>A,D</td>
<td></td>
</tr>
</tbody>
</table>

**Action Needed:**

All adequate responses - Report only  
Less than four “inadequate” responses - Trend and report  
Four or more “inadequate” responses - Refer to M.D. and report

**Action Taken:**

Report Only  
Trend/Report  
Refer to R.M.D.
Fractured Hip
Home Health Care Outcome Assessment
Data Collection Instructions

1. Was the patient seen within 24 hours of discharge or service request?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Y</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

2. Were there any hospital admissions during the time of home care?

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Y</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

[If NO, skip to question 4]

3. If yes, was there evidence that the admission was due to one of the following:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Related to therapy?</td>
<td>A</td>
</tr>
<tr>
<td>Provider was unavailable to provide therapy?</td>
<td>B</td>
</tr>
<tr>
<td>Lack of compliance with therapy?</td>
<td>C</td>
</tr>
<tr>
<td>Lack of social support for ADL?</td>
<td>D</td>
</tr>
<tr>
<td>Not related to therapy?</td>
<td>E</td>
</tr>
</tbody>
</table>

4. Was the patient seen in the E.R. during this period of time?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Y</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

[If NO, skip to question 6]

5. If yes, was there evidence that the visit was due to one of the following:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Not related to therapy?</td>
<td>E</td>
</tr>
</tbody>
</table>
6. Was the frequency of visits in compliance with physician's orders?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

7. Does the chart contain a list of all current medications in use, amount, frequency and route of administration?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

8. Were treatment goals met?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

[If YES, skip to question 10]

9. If NO, was there evidence that the unmet goal was due to one of the following reasons?

| Home support was not adequate? | A |
| Patient not compliant with treatment plan? | B |
| Treatment goals were not established? | C |
| Treatment goals were not achievable? | D |
| Unexpected death? | E |

10. If the patient did not progress with treatment, was the physician notified in a timely manner?

| Physician notified in a timely manner | A |
| Physician not notified in a timely manner | B |
| Physician not notified | C |
| Not applicable, patient made good progress | D |
Fractured Hip/Home Health
Data Collection Tool

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Adequate Answer Key</th>
<th>Code (actual answer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patient seen within 24 hours</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2. Any hospital admissions during home care</td>
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<td></td>
</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>6. Frequency of visits in compliance with physician's orders</td>
<td>Yes</td>
<td></td>
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<td>7. Current medications listed as to frequency, amount and route of administration</td>
<td>Yes</td>
<td></td>
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<td>8. Evidence that treatment goals were met</td>
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<td></td>
</tr>
<tr>
<td>10. Physician notified if patient did not progress</td>
<td>A,D</td>
<td></td>
</tr>
</tbody>
</table>

Action Needed:

All adequate responses - Report only
Less than four “inadequate” responses - Trend and report
Four or more “inadequate” responses - Refer to M.D. and report

Action Taken:

Report Only □
Trend/Report □
Refer to R.M.D. □
Diabetes
Home Health Care Outcome Assessment
Data Collection Instructions

1. Was the patient seen within 24 hours of discharge or service request?

| Yes | Y |
| --- |   |
| No  | N |

2. Were there any hospital admissions during the time of home care?

| Yes | Y |
| --- |   |
| No  | N |

[If NO, skip to question 4]

3. If yes, was there evidence that the admission was due to one of the following:

<table>
<thead>
<tr>
<th>Related to therapy?</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider was unavailable to provide therapy?</td>
<td>B</td>
</tr>
<tr>
<td>Lack of compliance with therapy?</td>
<td>C</td>
</tr>
<tr>
<td>Not related to therapy?</td>
<td>D</td>
</tr>
</tbody>
</table>

4. Was the patient seen in the E.R. during this period of time?

| Yes | Y |
| --- |   |
| No  | N |

[If NO, skip to question 6]

5. If yes, was there evidence that the visit was due to one of the following:

<table>
<thead>
<tr>
<th>Related to therapy?</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider was unavailable to provide therapy?</td>
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</tr>
<tr>
<td>Lack of compliance with therapy?</td>
<td>C</td>
</tr>
<tr>
<td>Not related to therapy?</td>
<td>D</td>
</tr>
</tbody>
</table>
6. Was the frequency of visits in compliance with physician orders?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Y</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

7. Does the chart contain a list of all current medications in use, amount, frequency and route of administration?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Yes</td>
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</tr>
<tr>
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</table>

8. Were treatment goals met?

<p>| | |</p>
<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Y</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
</tr>
</tbody>
</table>

9. If NO, was there evidence that the unmet goal was due to one of the following reasons?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home support was not adequate?</td>
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<td>D</td>
</tr>
<tr>
<td>Unexpected death?</td>
<td>E</td>
</tr>
</tbody>
</table>

10. If the patient did not progress with treatment, was the physician notified in a timely manner?

<table>
<thead>
<tr>
<th>Notification</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician notified in a timely manner</td>
<td>A</td>
</tr>
<tr>
<td>Physician <strong>not</strong> notified in a timely manner</td>
<td>B</td>
</tr>
<tr>
<td>Physician <strong>not</strong> notified</td>
<td>C</td>
</tr>
<tr>
<td>Not applicable, patient made good progress</td>
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Diabetes/Home Health

Data Collection Tool

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<td>3. Reason for admission</td>
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<td>5. Reason for ER visit</td>
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<td>6. Frequency of visits in compliance with physician's orders</td>
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</tr>
<tr>
<td>7. Current medications listed as to frequency, amount, and route of administration</td>
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<tr>
<td>8. Evidence that treatment goals were met</td>
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<tr>
<td>9. Reason if treatment goals were not met</td>
<td>B,E</td>
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<tr>
<td>10. Physician notified if patient did not progress</td>
<td>A,D</td>
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Action Needed:

All adequate responses - Report only
Less than four "inadequate" responses - Trend and report
Four or more "inadequate" responses - Refer to M.D. and report

Action Taken:

Report Only  □
Trend/Report □
Refer to R.M.D. □
APPENDIX D
CONGESTIVE HEART FAILURE

First    Last
MEMBER ID: 0111222333    MEMBER NAME: JOHN PAUL JONES
PRIMARY CARE PROVIDER ID: 123456    PCP NAME: WELBY, MARCUS
DATE OF LAST HOSPITAL ADMISSION: 04/10/96
REVIEWER: JEF    REVIEW DATE: 05/31/96

1. Patient seen within 24 hours:          Y
2. Any hospital admissions during home care: N
3. Reason for admission:
4. Evidence of ER visit while receiving home care: Y
5. Reason for ER visit: B
6. Frequency of visits in compliance with physicians orders: Y
7. Current medications listed as to frequency,
   amount & route of administration: Y
8. Evidence that treatment goals were met: N
9. Reason if treatment goals were not met: A
10. Physician notified if patient did not progress: A
CONGESTIVE HEART FAILURE

Member ID: 07778888999  Member Name: Doe  John
Primary Care Provider ID: 325382  PCP Name: Koenig
Date of Last Hospital Admission: 04/01/96
Reviewer: Jef  Review Date: 05/31/96

1. Patient seen within 24 hours: Y
2. Any hospital admissions during home care: Y
3. Reason for admission: D
4. Evidence of ER visit while receiving home care: N
5. Reason for ER visit:
6. Frequency of visits in compliance with physicians orders: Y
7. Current medications listed as to frequency, amount & route of administration: Y
8. Evidence that treatment goals were met: Y
9. Reason if treatment goals were not met:
10. Physician notified if patient did not progress: D
CONGESTIVE HEART FAILURE
[Reporting to Corporate Quality Management]

% of Records - All Adequate Responses - Report only: 50.00

% of Records - Trend/and Report: 50.00

% of Records - Refer to Medical Director and Report: 0.00
### Adequate Responses for Data Collection Tool

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<th>Fractured Hip</th>
<th>Diabetes</th>
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<td>4. no; ok if yes w/ #5 = C or E</td>
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<td>8. yes; ok if no w/ #9 B or E</td>
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<tr>
<td>10. A, D</td>
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APPENDIX F
I. INTRODUCTION

This review of non-physician ambulatory care is designed to monitor and assess patient care outcomes in the home care setting using a combination of generic and disease-specific indicators. The overall intent of this review is to assess whether adequate levels of ambulatory care were provided to Health Options, Inc. members. Data will be collected and analyzed on a quarterly basis, with appropriate follow-up and action. This data driven approach allows for 90 days claims run-out. All activity is grounded in the principles of quality improvement, and will be guided by SOP 6.1A: Quality Improvement Evaluation, Action and Follow Up. This may include, but is not limited to, collaborating and communicating with all providers involved with the patient’s care.

II. GENERAL PROCEDURES

Annually:

A. Corporate Health Care Data Management - (by end of August):
   - Using the hospitalization as a sentinel event, generates a disease-specific report to identify “high volume” acute care diagnoses and conditions (top five) that were discharged into the home care setting, arrayed by diagnosis and or/condition and by region.
   - Distributes report to Corporate Quality Care Management.

B. Corporate HealthCare Services (HCS) Quality Care Management (by the end of September):
   - Obtains and analyzes disease-specific report from Corporate Health Care Data Management, selecting at least three areas of focus. (Selection should be based on high volume cases for both under and over 65 population, and supported by the Annual Population Assessment).
   - Reviews information with Corporate/Regional Medical Director to determine the appropriate data collection tool to be utilized. (Where available and appropriate, critical pathways should be considered).
   - Provides recommendation to Medical Quality Steering Committee on outcome review focus areas for the next quality improvement plan year.
   - Following approval from the MQSC, provides each region with the appropriate data collection tool for chart review along with instructions for evaluating and reporting results to Corporate.
C. Medical Quality Steering Committee

- Reviews recommendation from Quality Care Management and approves at least three (3) diagnoses/conditions to focus efforts for the next quality improvement plan year.

Quarterly Monitoring:

D. Corporate Health Care Services - Health Care Data Management - (by 5th day of the first month in each quarter):

- Using the hospitalization as a sentinel event, generates a region-specific report for the annually targeted diseases/conditions, arrayed by diagnosis and/or condition. The report should contain one (1) quarter of data having allowed for claims run-out.
- Distributes report to Corporate Quality Care Management.

E. Corporate Health Care Services (HCS) Quality Care Management (by the 10th day of the first month in each quarter):

- Provides each region a report indicating those cases that were identified for chart review for the next quarter.

F. Regional Quality Management

- Notifies capitated home health provider by letter or telephone requesting access to medical records for completion of data collection. (It is left to each region to determine whether the chart should be copied and sent or faxed to the regional office, or if a nurse will review onsite.)
- Completes chart review and enters data into PC-based system.
- Analyzes results and provides a summary report to Corporate through the Quarterly Quality Improvement Program Process.
- Reviews results with Medical Director.

G. Regional Medical Director

- Reviews results of chart reviews and recommends appropriate action to be taken. Appropriate action may include, but is not necessarily limited to discussing quality improvement issues with the capitated home care agency, and collaboratively selecting opportunities for improvement. Other recommended actions may include:
  - Member and/or physician education.
### H. Regional Quality Management:

- Follows through with recommendation(s) as directed by the Medical Director and or Regional Quality Management Committee.
- Documents follow-up review activities and actions taken, including:
  - Reports to QMC
  - Reports interventions to Corporate Quality Management through the quarterly reporting process
  - Communicates results/findings to the Regional Network Management staff for information.
APPENDIX G
## CHF Data

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### Notes:

- : Denotes "inadequate outcome" for that data element.
- : Denotes patient "non-compliant" for that data element.
# Fractured Hip Data

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: Denotes "inadequate outcome" for that data element.
APPENDIX 1
# Diabetes Data

(N = 21)

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<th>Record Control Number</th>
<th>Last Admission Date</th>
<th>Reviewer</th>
<th>Review Date</th>
<th>Patient seen within 24 Hours?</th>
<th>Hospital Admission Code</th>
<th>Reason Code for Admission</th>
<th>Hospital Admission Care?</th>
<th>ER visit during Home Care?</th>
<th>Reason Code for ER visit</th>
<th>Frequency of visits in compliance with orders?</th>
<th>Current med list is evident?</th>
<th>Were goals of the Home Care met?</th>
<th>Reason code if goals were not met.</th>
<th>MD notified in a timely manner?</th>
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- : Denotes "inadequate outcome" for that data element.
- : Denotes patient "non-compliant" for that data element.
NCQA/HEDIS SAMPLING GUIDELINE FOR RECORD REVIEW SPECIFICATION

\[ n = \frac{C \cdot P \cdot (100 - P)}{X^2} \]

Where:

\( n \) = the number of records to sample (sample size)

\( P \) = is the estimated percent incidence in the population

\( C \) = the standard deviate for a specified confidence interval

(1.95 for a 95% confidence interval)

\( X^2 \) = is the square of the desired margin of error within which the incidence should be estimated at the designated level of confidence

For example,

\[ n = \frac{1.96^2 \cdot 10 \cdot (100 - 10)}{5^2} \]

where 1.96 is the standard deviate for the 95% confidence interval, 10 is the estimated percent incidence in the population, and 5 is the margin of error within which the incidence should be estimated (95% confidence interval, 5% margin of error).

Incidence is computed like below:

<table>
<thead>
<tr>
<th># of cases of CHF:</th>
<th>5000</th>
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<tr>
<td># of members enrolled (poulationn)</td>
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</table>

\[
\frac{5000}{50,000} = .10 \text{ or } 10 \%
\]

Note: A 20% oversampling is recommended for chart reviews. Thus, the number of records actually pulled, \( n' \):

\[ n' = \left( \frac{n}{0.8} \right) \]
REFERENCE LIST


