

**Outcome and Assessment
Information Set**

OASIS-C

***Process-Based Quality
Improvement (PBQI)
Manual***

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Process-Based Quality Improvement Manual

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CHAPTER 1 – OVERVIEW

A. Introduction

The Process-Based Quality Improvement Manual is the fourth in a series produced by the Centers for Medicare & Medicaid Services (CMS) to assist home health agencies in the collection and use of OASIS data for quality/performance improvement. The other three manuals include:

- The Outcome and Assessment Information Set (OASIS-C) Guidance Manual, intended to introduce agencies to OASIS and the collection of uniform health status data on patients receiving home health care;
- The Outcome-Based Quality Improvement (OBQI) Manual which focuses on the OBQI Outcome Report; and
- The Outcome-Based Quality Monitoring (OBQM) Manual which focuses on quality monitoring using Agency Patient-Related Characteristics (case mix) and Potentially Avoidable Event (adverse event outcome) Reports.

This manual describes the Process Quality Measure Report in detail and discusses its use for quality monitoring purposes. The Process Quality Measure Report provides home health agencies with opportunities to use process measures for process-based quality improvement (PBQI) purposes following a three-step process:

- Evaluating or investigating the use of specific best care processes (such as conducting falls risk assessments or providing drug education) by reviewing the care provided to determine any needed changes in care delivery;
- Systematically documenting recommendations for change in a written plan; and
- Thorough implementation and continual monitoring of the plan in order to effectively change care delivery.

Once quality monitoring and performance improvement are successfully implemented in an agency and become "steady-state" activities, they emerge as powerful agency tools to continuously improve care for the benefit of patients. We strongly encourage all agencies to take advantage of the information presented in the reports to provide direction for their continuous quality monitoring and improvement activities.

The Process-Based Quality Improvement Manual is organized in the following manner. Chapter 1 provides background information on the development of process quality measures for home care. Chapter 2 provides information on how the process quality measures are reported, and a sample report (with instructions on interpreting the report). Chapter 3 provides step-by-step recommendations on how agencies can investigate findings and systematically address identified problems with use of the specified best care practices. Readers should carefully review this section and follow the procedures described to receive the maximum benefit from

their own reports. Appendix A provides a discussion of the role of the reports in the agency's overall quality program and the use of the reports in addressing the Medicare program Conditions of Participation (COP) for home health agencies requirements. Appendix B provides a Section 508 compliant version of a hypothetical Process Quality Measure Report.

B. Background

For over a decade, the Centers for Medicare & Medicaid Services (CMS) has required Medicare-certified home health agencies (HHAs) to collect and transmit Outcome and Assessment Information Set (OASIS) data for all adult (18 and older) home health patients receiving skilled services, whose care is reimbursed by Medicare and Medicaid, with the exception of patients receiving pre- or postnatal services only. Since the beginning of national OASIS data collection in 1999, the data have been used for multiple purposes. In addition to payment algorithms, OASIS data are used to calculate several types of reports including a) Risk Adjusted Outcome Reports; b) Potentially Avoidable Event (adverse event outcome) Reports; c) Agency Patient-Related Characteristics (case mix) Reports; and d) Patient Tally Reports. CMS has provided these reports to HHAs to help guide quality/performance improvement efforts.

Conceptually, quality of health care can be measured in several areas: structure, processes, outcomes, and consumer satisfaction. Structural characteristics include the physical structure of care settings as well as administrative and other processes and operations that support and direct care delivery. Care processes include assessment, care planning and coordination, decisions on specific types of therapy, and competence in direct interventions. Outcomes are the changes in health care status that can be attributed to antecedent health care. Consumer satisfaction is measured by acceptability of care to the patient. Structural characteristics of health care providers increase the probability of providing specified kinds of care, which in turn improves the probability of obtaining positive changes in the health and well-being of individuals and populations.¹ For the past 10 years, home health quality measurement and reporting based on OASIS data has focused exclusively on outcomes.

From the first publication of OASIS, CMS anticipated that the data set would evolve in response to scientific advances, population trends, payment changes, and other industry and system needs. Over the years CMS sponsored several technical expert panels (TEPs) to review feedback from industry providers and associations and provide recommendations to guide OASIS evolution. These TEPs suggested both changes to OASIS data items and development of additional quality measures. In addition, other groups, including the Medicare Payment Advisory Committee (MedPAC) and the National Quality Forum (NQF), urged CMS to expand the quality domains to include measures of care processes and patient satisfaction. This feedback was in line with the Institute of Medicine's (IOM) aims for improving the U.S. health care system, which is the provision of care that is safe, timely, effective, efficient, equitable, and patient-centered.²

CMS responded to these recommendations by funding a large-scale revision of OASIS to include both refinements to existing data items (and corresponding measures) and the development and testing of data items for the measurement of home health processes of care. The project team responsible for the OASIS revisions incorporated recommendations from the TEPs, including a TEP that had identified specific domains of process quality measurement

¹ Donabedian, A. (2005). Evaluating the quality of medical care. *The Milbank Quarterly*, 83(4), 691-729.

² Institute of Medicine (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. National Academy Press: Washington, DC.

relevant to Medicare home health patients. A draft version of the new OASIS-C was developed and tested for inter-rater reliability and burden estimates in 11 HHAs in three states: Ohio, Massachusetts, and Colorado. The instrument was extensively revised based on both quantitative findings and provider feedback, then posted by the Office of Management and Budget (OMB) for public comment. During that time, a set of 55 new or refined outcome and process measures that could be calculated from OASIS-C items was submitted to the NQF for potential endorsement. OASIS-C items were further revised based on public comments to the OMB notice and feedback obtained during the NQF endorsement process.

Collection of OASIS-C data for all Medicare and Medicaid HHA patients age 18 and older (with the exception of patients receiving services for perinatal conditions) began in January 2010. OASIS-C includes data items supporting measurement of rates for use of specific evidence-based care processes. From a national policy perspective, CMS anticipates that these process measures will promote the use of best care practices across the home health industry. In addition, several of the process items were constructed to align with similar items used for other data collection initiatives crossing care settings (i.e., NQF Pressure Ulcer framework; the CARE instrument) to set the stage for a national patient-centered approach to measuring clinical care and outcomes, which eventually will subsume traditional setting-specific approaches to quality measurement.

C. What are Process Quality Measures?

Process quality measures evaluate the rate of home health agency use of specific evidence-based processes of care. The process items are a logical follow-on to the Quality Improvement Organizations (QIOs) 8th Scope of Work on Best Practices ([MedQIC - HHQI Campaign](#)). The OASIS-C process measures focus on high-risk, high-volume, problem-prone areas for home health care. These include measures pertaining to all or most home care patients, such as timeliness of home care admission, immunizations, and use of risk assessment tools for falls, pain, depression, and pressure ulcer development. As well, there are measures for specific diagnoses (heart failure, diabetes, pressure ulcers) and measures of care planning and clinical interventions delivered for patients experiencing certain symptoms (pain, depression).

The NQF has endorsed thirteen process measures for public reporting. Forty-seven process measures will be included on reports made available to agencies for use in quality/performance improvement systems along with other already-available OASIS quality reports. The thirteen measures that received NQF endorsement also will be reported on the Home Health Compare website. A complete list of process quality measures can be found in Table 1.1, along with identification of those that will be publicly-reported.

As noted in the table, some measures will be calculated and reported separately for short-term episodes, defined as home health episodes in which the quality episodes (SOC/ROC to TRF/DC) are 60 days or less (i.e., do not include a Follow-up or Recertification assessment), and long-term episodes in which the quality episodes exceed 60 days (i.e., do include a Follow-up or Recertification assessment). This calculation will be made for measures that identify whether a process was implemented “since the prior OASIS assessment” based on data collected at transfer/discharge. For these measures, only the short-term episodes will be reported on the Home Health Compare website. The Process Quality Measure Reports that CMS will provide to agencies for these measures include separate break-outs for short-term episodes and long-term episodes, as well as a combined “all episodes” measure. Additional detail on the calculation of process measures is provided in Chapter 2 of this manual.

Table 1.1: Process Quality Measures Used for Public Reports.

| Domain | Measure | OBQI | HH Compare |
|---------------------------------|--|------|----------------|
| Timely Care | Timely Initiation of Care | X | X |
| Care Coordination | Physician Notification Guidelines Established | X | |
| Assessment | Depression Assessment Conducted | X | X |
| | Multifactor Fall Risk Assessment Conducted for Patients 65 and Over | X | X |
| | Pain Assessment Conducted | X | X |
| | Pressure Ulcer Risk Assessment Conducted | X | X |
| Care Planning | Depression Interventions in Plan of Care | X | |
| | Diabetic Foot Care and Patient Education in Plan of Care | X | |
| | Falls Prevention Steps in Plan of Care | X | |
| | Pain Interventions in Plan of Care | X | |
| | Pressure Ulcer Prevention in Plan of Care | X | X |
| | Pressure Ulcer Treatment Based on Principles of Moist Wound Healing in Plan of Care | X | |
| Care Plan Implementation | Depression Interventions Implemented During Short Term Episodes of Care | X | |
| | Depression Interventions Implemented During Long Term Episodes of Care | X | |
| | Depression Interventions Implemented During All Episodes of Care | X | |
| | Diabetic Foot Care and Patient/Caregiver Education Implemented During Short Term Episodes of Care | X | X ¹ |
| | Diabetic Foot Care and Patient/Caregiver Education Implemented During Long Term Episodes of Care | X | |
| | Diabetic Foot Care and Patient/Caregiver Education Implemented During All Episodes of Care | X | |
| | Heart Failure Symptoms Addressed During Short Term Episodes of Care | X | X ¹ |
| | Heart Failure Symptoms Addressed During Long Term Episodes of Care | X | |
| | Heart Failure Symptoms Addressed During All Episodes of Care | X | |
| | Pain Interventions Implemented During Short Term Episodes of Care | X | X ¹ |
| | Pain Interventions Implemented During Long Term Episodes of Care | X | |
| | Pain Interventions Implemented During All Episodes of Care | X | |
| | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Short Term Episodes of Care | X | |
| | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Long Term Episodes of Care | X | |
| | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During All Episodes of Care | X | |
| Education | Drug Education on High Risk Medications Provided to Patient/Caregiver at Start of Episode | X | |
| | Drug Education on All Medications Provided to Patient/Caregiver During Short Term Episodes of Care | X | X ¹ |
| | Drug Education on All Medications Provided to Patient/Caregiver During Long Term Episodes of Care | X | |
| | Drug Education on All Medications Provided to Patient/Caregiver During All Episodes of Care | X | |

Table 1.1: Process Quality Measures Used for Public Reports. (cont'd)

| Domain | Measure | OBQI | HH Compare |
|---|--|------|----------------|
| Prevention | Falls Prevention Steps Implemented for Short Term Episodes of Care | X | |
| | Falls Prevention Steps Implemented for Long Term Episodes of Care | X | |
| | Falls Prevention Steps Implemented for All Episodes of Care | X | |
| | Influenza Immunization Received for Current Flu Season | X | X |
| | Influenza Immunization offered and Refused for Current Flu Season | X | |
| | Influenza Immunization Contraindicated | X | |
| | Pneumococcal Polysaccharide Vaccine Ever Received | X | X |
| | Pneumococcal Polysaccharide Vaccine Offered and Refused | X | |
| | Pneumococcal Polysaccharide Vaccine Contraindicated | X | |
| | Potential Medication Issues Identified and Timely Physician Contact at Start of Episode | X | |
| | Potential Medication Issues Identified and Timely Physician Contact During Short Term Episodes of Care | X | |
| | Potential Medication Issues Identified and Timely Physician Contact During Long Term Episodes of Care | X | |
| | Potential Medication Issues Identified and Timely Physician Contact During All Episodes of Care | X | |
| | Pressure Ulcer Prevention Implemented During Short Term Episodes of Care | X | X ¹ |
| | Pressure Ulcer Prevention Implemented During Long Term Episodes of Care | X | |
| Pressure Ulcer Prevention Implemented During All Episodes of Care | X | | |

¹NQF endorsed measure for short-term episodes of care only. HHA reports will include long-term episodes separately.

D. Why Measure Care Processes?

The primary reasons for measuring care processes are:

- To evaluate elements of care under an HHA's control,
- To promote the use of specific evidence-based care practices,
- To evaluate the impact of use of best care practices on patient outcomes,
- For use in agency-level performance improvement activities,
- For use in public reporting to assist consumers in across-agency comparisons,
- For potential use in future quality-based purchasing systems, and
- To promote improvements in patient care across settings.

While many have noted that outcomes of care are impacted by a variety of factors such as home environment, patient/caregiver adherence to clinical advice, physician practice patterns, etc., the process measures represent care that is, in most cases, directly within an agency's control. Feedback obtained during field-testing of OASIS-C was very positive in this regard. Many agencies were already using several of the best care practices specified within the OASIS-C items, and one clinician noted, "Finally we are getting credit for the things we do."

Another reason to measure care processes is that by incorporating these data items into OASIS-C, clinicians are reminded and encouraged to use specific evidence-based care practices. In addition, process measures can be helpful in assisting HHAs to assess the degree to which clinicians are implementing specific evidence-based practices that can affect clinical outcomes. HHAs may elect to use the data in performance improvement systems to increase the use of such evidence-based practices used in daily care delivery, with the ultimate goal of improving patient outcomes.

While the care processes documented in the OASIS-C **are not mandated** under the current Conditions of Participation (with the exception of timeliness of care) and HHAs may elect not to incorporate the care processes used for OASIS-C process measures, some of the OASIS-C process items will support publicly-reported measures as discussed previously. Agencies choosing not to adopt those processes of care will see their decision reflected in Home Health Compare reports (see Table 1.1). It is possible that the process measures ultimately **may** be incorporated in a future quality-based purchasing (pay for performance) system for home health care.

As discussed in the Introduction of this chapter, several of the process items were constructed to align with similar items used for other data collection initiatives crossing care settings (i.e., NQF Pressure Ulcer framework, the CARE instrument). Measures based on data items that align with those used across other provider settings will promote systematic use of evidence-based practices with the aim of improving population health. For example, data on influenza and pneumococcal vaccinations ultimately will be required for all care settings. These data items will promote a cross-setting focus on patient immunizations, hopefully resulting in improved national immunization rates and enhanced communication across providers to minimize duplicative immunizations. Likewise, alignment with principles of the NQF pressure ulcer framework will promote increased consistency in assessment and pressure ulcer care across provider settings.

Important Process Measure Considerations

There are several important points to keep in mind regarding the OASIS-C derived process measures.

- 1) Process measures, as with OASIS outcome measures, are intended to be discipline-neutral. That is, the processes of care are not specific to a single discipline (e.g., nursing), but are centered on best care practices for patient care regardless of whether the care providers are nurses, physical or occupational therapists, or other disciplines.
- 2) Clinicians may find that these processes of care specified within OASIS-C items have no application for a particular patient, and therefore no related assessment or intervention is needed. As always, clinicians may document in the clinical record any appropriate supporting documentation for their clinical decisions and actions. CMS understands that

the evidence-based practices being measured do not pertain to every patient, and a rate of 100% is not expected for any agency or any measure.

- 3) Process measures included in the Process Quality Measure Report do not represent a complete set of all evidenced-based practices that can or should be used in home health care delivery. Agencies are encouraged to implement additional evidence-based care practices for patient care that they determine to be appropriate.
- 4) As noted previously, agencies are encouraged to use evidence-based care practices, but the care processes documented in the OASIS-C **are not mandated** under the current Conditions of Participation (except for timeliness of care). With the exception of the OASIS-C items, CMS does not prescribe the content of agency clinical assessment forms nor mandate specific processes of care. HHAs may elect not to incorporate the care processes used for OASIS-C process measures.
- 5) Agencies electing to use the evidence-based care practices specified in OASIS-C data items should review their policies and procedures guiding care delivery to ensure that they are congruent with the patient care practices being implemented. For example, if a pain assessment is being conducted for all patients, a review should be conducted to determine if the assessment being used by clinicians meets the criteria for standardized and validated as described in the OASIS-C Guidance Manual.

E. How Should HHAs Use the Process Quality Measure Reports?

The Process Quality Measure Report can be a valuable tool for HHAs to use for performance/quality improvement efforts (a sample report is shown in Chapter 2). The reports call attention to the rate of adherence to the evidence-based practices measured and provide national comparisons. After the first reporting period, a comparison of the adherence rate to the previous reporting period also will be reported. Agencies may consider each measure individually (e.g., a potential problem with clinicians not following agency policy) or consider the measure as it potentially affects specific related outcomes (e.g., the process quality measure may shed light on related outcome results).

Consider the example of a low rate of adherence for the process measure “Multifactor Fall Risk Assessment Conducted for Patients 65 and Over” for an HHA with a policy that states a multifactor fall risk assessment be performed at admission for all patients 65 and older. The HHA should investigate reasons for the low adherence rate as a stand-alone concern. In addition, if the HHA also had a high rate of emergency care due to falls, the relationship between these two measures should be evaluated as part of an outcome-based quality improvement (OBQI) initiative. In this example, a potential reason for the high rate of emergency care use (outcome) is the low percentage of patients receiving a falls risk assessment (process). Detailed step-by-step information on investigating process measures is provided in Chapter 3.

F. Summary

Process quality measures expand the domains of quality measurement available in home health care. The measures assess elements of care that are directly under HHA control in most cases. Process measures can be used to promote the use of specified best care practices and for HHA performance/quality improvement programs, both as assessment of clinician adherence to

evidence-based practices and in relation to care outcomes. Several process measures will be publicly available on the Home Health Compare website. Measures based on data items that align with those used across other provider settings will promote systematic use of evidence-based practices with the aim of improving population health.

CHAPTER 2 – USING PROCESS QUALITY MEASURE REPORTS

A. Accessing Process Quality Measure Reports

Home health agencies (HHAs) will be able to access Process Quality Measure Reports using the CMS CASPER reporting system, which is the system currently used to obtain outcome reports for Outcome-Based Quality Improvement (OBQI) and Outcome-Based Quality Monitoring (OBQM). Detailed instructions for use of this system are available in the document [Accessing OBQI & OBQM Reports](#) posted on the CMS Web site. The reporting system enables the HHA to request one or more reports spanning a user-specified time interval. Process Quality Measure Reports will be first available in the Fall of 2010, based on episodes of care completed during the first six months of the year. Initially, reports will compare the HHA's performance on process measures with national averages. Later, agencies also will be able to request reports comparing the HHA's performance during different time intervals. Branch-specific reports also will be made available for those HHAs that have multiple branches.

B. Public Reporting of Process Quality Measures on Home Health Compare

The posting of process quality measures on Home Health Compare is currently scheduled for the end of 2010, using data for episodes of care completed during the first six months of 2010. Therefore, the reports that home health agencies access in the Fall of 2010 will show the same information that will be posted at the end of the year. However, Home Health Compare will display only a subset of the process measures reported to agencies, as described in Chapter 1.

C. Description of Measures Appearing on Process Quality Measure Reports

Table 2.1 provides a narrative description of each of the measures that will appear in the Process Quality Measure Reports available to home health agencies in late 2010. Each measure is calculated as a simple percentage of all episodes of care for which the particular process applies. Assessment measures generally apply to all home health patients, with the exception of fall risk, which is calculated only for elderly patients. One exception is that measures for depression interventions in the plan of care and depression interventions implemented are calculated excluding nonresponsive patients. Care planning, implementation, education, and prevention measures are calculated for the subset of home health patients for which each measure is indicated. For example, pressure ulcer prevention applies to patients assessed to be at elevated risk of developing a pressure ulcer. Unlike the OASIS-based outcome measures, risk adjustment does not apply to process measures. Risk adjustment is not deemed to be necessary for process quality measures because the expectation is that the process should be followed for every patient for whom it applies. Detailed technical specifications for each measure will be published and posted at a future date.

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|-------------------|---|--|---|
| Timely Care | Timely Initiation of Care | Percentage of home health episodes of care in which the start or resumption of care date was either on the physician-specified date or within 2 days of the referral date or inpatient discharge date whichever is later. | (M0102) Date of Physician-ordered Start of Care (M0104) Date of Referral (M0030) Start of Care Date (M0032) Resumption of Care Date (M0100) Reason for Assessment (M1000) Inpatient Facility Discharge (M1005) Inpatient Discharge Date |
| Care Coordination | Physician Notification Guidelines Established | Percentage of home health episodes of care in which the physician-ordered plan of care, at start/resumption of care, establishes parameters (limits) for notifying the physician of changes in patient status. | (M2250) a. Patient-specific parameters for notifying physician plan of care |
| Assessment | Depression Assessment Conducted ¹ | Percentage of home health episodes of care in which patients were screened for depression (using a standardized depression screening tool) at start/resumption of care. | (M1730) Depression Screening (M1710) When Confused (M1720) When Anxious |
| Assessment | Multifactor Fall Risk Assessment Conducted for Patients 65 and Over | Percentage of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care. | (M1910) Multi-factor Fall Risk Assessment (M0066) Birth Date (M0030) Start of Care Date (M0032) Resumption of Care Date |
| Assessment | Pain Assessment Conducted | Percentage of home health episodes of care in which the patient was assessed for pain, using a standardized pain assessment tool, at start/resumption of care. | (M1240) Pain Assessment using a standardized pain assessment tool |
| Assessment | Pressure Ulcer Risk Assessment Conducted | Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care. | (M1300) Pressure Ulcer Risk Assessment |
| Care Planning | Depression Interventions in Plan of Care ¹ | Percentage of home health episodes of care in which patients with depression symptoms/diagnosis had a physician-ordered plan of care that includes interventions such as medication, referral for other treatment, or a monitoring plan for current treatment. | (M2250) d. Depression intervention(s) plan of care (M1710) When Confused (M1720) When Anxious |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|--------------------------|--|--|---|
| Care Planning | Diabetic Foot Care and Patient Education in Plan of Care | Percentage of home health episodes of care in which the patient is diabetic and the physician-ordered plan of care includes regular monitoring for the presence of skin lesions on the lower extremities and patient education on proper foot care. | (M2250) b. Diabetic foot care in plan of care |
| Care Planning | Falls Prevention Steps in Plan of Care | Percentage of home health episodes of care in which interventions to mitigate the risk of falls were included in the physician-ordered plan of care for patients assessed to be at risk for falls. | (M2250) c. Falls prevention plan of care |
| Care Planning | Pain Interventions in Plan of Care | Percentage of home health episodes of care in which intervention(s) to monitor and mitigate pain were included in the physician-ordered plan of care for patients who were identified as having pain. | (M2250) e. Intervention(s) to monitor and mitigate pain plan of care |
| Care Planning | Pressure Ulcer Prevention in Plan of Care | Percentage of home health episodes of care in which interventions to prevent pressure ulcers were included in the physician-ordered plan of care for patients assessed to be at risk for pressure ulcers. | (M2250) f. Intervention(s) to prevent pressure ulcers plan of care |
| Care Planning | Pressure Ulcer Treatment Based on Principles of Moist Wound Healing in Plan of Care | Percentage of home health episodes of care in which pressure ulcer treatment based on principles of moist wound healing was specified in the physician-ordered plan of care (or an order was requested) for patients who have pressure ulcers with need for moist wound healing. | (M2250) g. Pressure ulcer treatment plan of care |
| Care Plan Implementation | Depression Interventions Implemented During Short Term Episodes of Care ¹ | Percentage of short term home health episodes of care during which the patient has symptoms or diagnosis of depression and depression interventions were included in the physician-ordered plan of care and implemented. | (M0100) Reason for Assessment (M2400) c. Depression intervention(s) (M1710) When Confused (M1720) When Anxious |
| Care Plan Implementation | Depression Interventions Implemented During Long Term Episodes of Care ¹ | Percentage of long term home health episodes of care during which the patient has symptoms or diagnosis of depression and depression interventions were included in the physician-ordered plan of care and implemented (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) c. Depression intervention(s) (M1710) When Confused (M1720) When Anxious |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|--------------------------|---|---|---|
| Care Plan Implementation | Depression Interventions Implemented During All Episodes of Care ¹ | Percentage of home health episodes of care during which the patient has symptoms or diagnosis of depression and depression interventions were included in the physician-ordered plan of care and implemented (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) c. Depression intervention(s) (M1710) When Confused (M1720) When Anxious |
| Care Plan Implementation | Diabetic Foot Care and Patient/Caregiver Education Implemented During Short Term Episodes of Care | Percentage of short term home health episodes of care during which diabetic foot care and education were included in the physician-ordered plan of care and implemented for patients with diabetes. | (M0100) Reason for Assessment (M2400) a. Diabetic foot care intervention(s) |
| Care Plan Implementation | Diabetic Foot Care and Patient/Caregiver Education Implemented During Long Term Episodes of Care | Percentage of long term home health episodes of care during which diabetic foot care and education were included in the physician-ordered plan of care and implemented for patients with diabetes (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) a. Diabetic foot care intervention(s) |
| Care Plan Implementation | Diabetic Foot Care and Patient/Caregiver Education Implemented During All Episodes of Care | Percentage of home health episodes of care in which diabetic foot care and education were included in the physician-ordered plan of care and implemented for patients with diabetes (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) a. Diabetic foot care intervention(s) |
| Care Plan Implementation | Heart Failure Symptoms Addressed During Short Term Episodes of Care | Percentage of short term home health episodes of care during which patients exhibited symptoms of heart failure and appropriate actions were taken. | (M0100) Reason for Assessment (M1500) Symptoms in Heart Failure Patients (M1510) Heart Failure Follow-up |
| Care Plan Implementation | Heart Failure Symptoms Addressed During Long Term Episodes of Care | Percentage of long term home health episodes of care during which patients exhibited symptoms of heart failure and appropriate actions were taken (since the previous OASIS assessment). | (M0100) Reason for Assessment (M1500) Symptoms in Heart Failure Patients (M1510) Heart Failure Follow-up |
| Care Plan Implementation | Heart Failure Symptoms Addressed During All Episodes of Care | Percentage of home health episodes of care during which patients exhibited symptoms of heart failure and appropriate actions were taken (since the previous OASIS assessment). | (M1500) Symptoms in Heart Failure Patients (M1510) Heart Failure Follow-up |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|--------------------------|--|---|--|
| Care Plan Implementation | Pain Interventions Implemented During Short Term Episodes of Care | Percentage of short term home health episodes of care during which the patient had pain and pain interventions were included in the physician-ordered plan of care and implemented. | (M0100) Reason for Assessment (M2400) d. Intervention(s) to monitor and mitigate pain: |
| Care Plan Implementation | Pain Interventions Implemented During Long Term Episodes of Care | Percentage of long term home health episodes of care during which the patient had pain and pain interventions were included in the physician-ordered plan of care and implemented (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) d. Intervention(s) to monitor and mitigate pain |
| Care Plan Implementation | Pain Interventions Implemented During All Episodes of Care | Percentage of all home health episodes of care during which the patient had pain and pain interventions were included in the physician-ordered plan of care and implemented (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) d. Intervention(s) to monitor and mitigate pain |
| Care Plan Implementation | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Short Term Episodes of Care | Percentage of short term home health episodes of care during which pressure ulcer treatment based on principles of moist wound healing was included in the physician-ordered plan of care and implemented for patients with pressure ulcers needing moist healing. | (M0100) Reason for Assessment (M2400) f. Pressure ulcer treatment based on principles of moist wound healing |
| Care Plan Implementation | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Long Term Episodes of Care | Percentage of long term home health episodes of care during which pressure ulcer treatment based on principles of moist wound healing was included in the physician-ordered plan of care and implemented for patients with pressure ulcers needing moist healing (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) f. Pressure ulcer treatment based on principles of moist wound healing |
| Care Plan Implementation | Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During All Episodes of Care | Percentage of home health episodes of care during which pressure ulcer treatment based on principles of moist wound healing was included in the physician-ordered plan of care and implemented for patients with pressure ulcers needing moist healing (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) f. Pressure ulcer treatment based on principles of moist wound healing |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|----------------|--|--|--|
| Education | Drug Education on High Risk Medications Provided to Patient/Caregiver at Start of Episode | Percentage of home health episodes of care in which patients/caregivers were educated about high-risk medications at start/resumption of care including instructions on how to monitor the effectiveness of drug therapy, how to recognize potential adverse effects, and how and when to report problems. | (M2010) Patient/Caregiver High Risk Drug Education |
| Education | Drug Education on All Medications Provided to Patient/Caregiver During Short Term Episodes of Care | Percentage of short term home health episodes of care during which patient/caregiver was instructed on how to monitor the effectiveness of drug therapy, how to recognize potential adverse effects, and how and when to report problems. | (M0100) Reason for Assessment (M2015) Patient/Caregiver Drug Education Intervention |
| Education | Drug Education on All Medications Provided to Patient/Caregiver During Long Term Episodes of Care | Percentage of long term home health episodes of care during which patient/caregiver was instructed on how to monitor the effectiveness of drug therapy, how to recognize potential adverse effects, and how and when to report problems (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2015) Patient/Caregiver Drug Education Intervention |
| Education | Drug Education on All Medications Provided to Patient/Caregiver During All Episodes of Care | Percentage of home health episodes of care during which patient/caregiver was instructed on how to monitor the effectiveness of drug therapy, how to recognize potential adverse effects, and how and when to report problems (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2015) Patient/Caregiver Drug Education Intervention |
| Prevention | Falls Prevention Steps Implemented for Short Term Episodes of Care | Percentage of short term home health episodes of care during which interventions to mitigate the risk of falls were included in the physician-ordered plan of care and implemented, for patients at risk of falls. | (M0100) Reason for Assessment (M2400) b. Falls prevention interventions |
| Prevention | Falls Prevention Steps Implemented for Long Term Episodes of Care | Percentage of long term home health episodes of care during which interventions to mitigate the risk of falls were included in the physician-ordered plan of care and implemented, for patients at risk of falls (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) b. Falls prevention interventions |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|------------|---|---|--|
| Prevention | Falls Prevention Steps Implemented for All Episodes of Care | Percentage of home health episodes of care during which interventions to mitigate the risk of falls were included in the physician-ordered plan of care and implemented, for patients at risk of falls (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) b. Falls prevention interventions |
| Prevention | Influenza Immunization Received for Current Flu Season | Percentage of home health episodes of care during which patients received influenza immunization for the current flu season. | (M0030) Start of Care Date (M0032) Resumption of Care Date (M0906) Discharge/Transfer/Death Date (M1040) Influenza Vaccine (M1045) Reason Influenza Vaccine not received |
| Prevention | Influenza Immunization Offered and Refused for Current Flu Season | Percentage of home health episodes of care during which patients were offered and refused influenza immunization for the current flu season. | (M0030) Start of Care Date (M0032) Resumption of Care Date (M0906) Discharge/Transfer/Death Date (M1040) Influenza Vaccine (M1045) Reason Influenza Vaccine not received |
| Prevention | Influenza Immunization Contraindicated | Percentage of home health episodes of care during which patients were determined to have medical contraindication(s) to receiving influenza immunization. | (M0030) Start of Care Date (M0032) Resumption of Care Date (M0906) Discharge/Transfer/Death Date (M1040) Influenza Vaccine (M1045) Reason Influenza Vaccine not received |
| Prevention | Pneumococcal Polysaccharide Vaccine Ever Received | Percentage of home health episodes of care during which patients were determined to have ever received Pneumococcal Polysaccharide Vaccine (PPV). | (M1050) Pneumococcal Vaccine (M1055) Reason PPV not received |
| Prevention | Pneumococcal Polysaccharide Vaccine Offered and Refused | Percentage of home health episodes of care during which patients were offered and refused Pneumococcal Polysaccharide Vaccine (PPV). | (M1050) Pneumococcal Vaccine (M1055) Reason PPV not received |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|----------------|--|--|--|
| Prevention | Pneumococcal Polysaccharide Vaccine Contraindicated | Percentage of home health episodes of care during which patients were determined to have medical contraindication(s) to receiving Pneumococcal Polysaccharide Vaccine (PPV), | (M1050) Pneumococcal Vaccine (M1055) Reason PPV not received |
| Prevention | Potential Medication Issues Identified and Timely Physician Contact at Start of Episode | Percentage of home health episodes of care in which the patient's drug regimen at start/ resumption of home health care was assessed to pose a risk of clinically significant adverse effects or drug reactions and whose physician was contacted within one calendar day. | (M2002) Medication Follow-up |
| Prevention | Potential Medication Issues Identified and Timely Physician Contact During Short Term Episodes of Care | Percentage of short term home health episodes of care during which the patient's drug regimen was assessed to pose a risk of significant adverse effects or drug reactions and whose physician was contacted within one calendar day. | (M0100) Reason for Assessment (M2004) Medication Intervention |
| Prevention | Potential Medication Issues Identified and Timely Physician Contact During Long Term Episodes of Care | Percentage of long term home health episodes of care during which the patient's drug regimen was assessed to pose a risk of significant adverse effects or drug reactions and whose physician was contacted within one calendar day (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2004) Medication Intervention |
| Prevention | Potential Medication Issues Identified and Timely Physician Contact During All Episodes of Care | Percentage of home health episodes of care during which the patient's drug regimen was assessed to pose a risk of significant adverse effects or drug reactions and whose physician was contacted within one calendar day (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2004) Medication Intervention |
| Prevention | Pressure Ulcer Prevention Implemented During Short Term Episodes of Care | Percentage of short term home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented for patients assessed to be at risk for pressure ulcers. | (M0100) Reason for Assessment (M2400) e. Intervention(s) to prevent pressure ulcers |

Table 2.1: Calculation of Process Quality Measures.

| Process | Measure Title | Measure Description | OASIS C Item(s) Used |
|------------|---|---|---|
| Prevention | Pressure Ulcer Prevention Implemented During Long Term Episodes of Care | Percentage of long term home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented for patients assessed to be at risk for pressure ulcers (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) e. Intervention(s) to prevent pressure ulcers |
| Prevention | Pressure Ulcer Prevention Implemented During All Episodes of Care | Percentage of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented for patients assessed to be at risk for pressure ulcers (since the previous OASIS assessment). | (M0100) Reason for Assessment (M2400) e. Intervention(s) to prevent pressure ulcers |

¹ Measure is not computed if patient is nonresponsive.

D. Reading the Process Quality Measure Report

Figure 2.1 displays a sample Process Quality Measure Report based on hypothetical data. The essential elements of the report are the same as the OASIS-based outcome reports. For each measure the following information is shown on the reports. A Section 508 compliant version of the Process Quality Measure Report can be found in Appendix B.

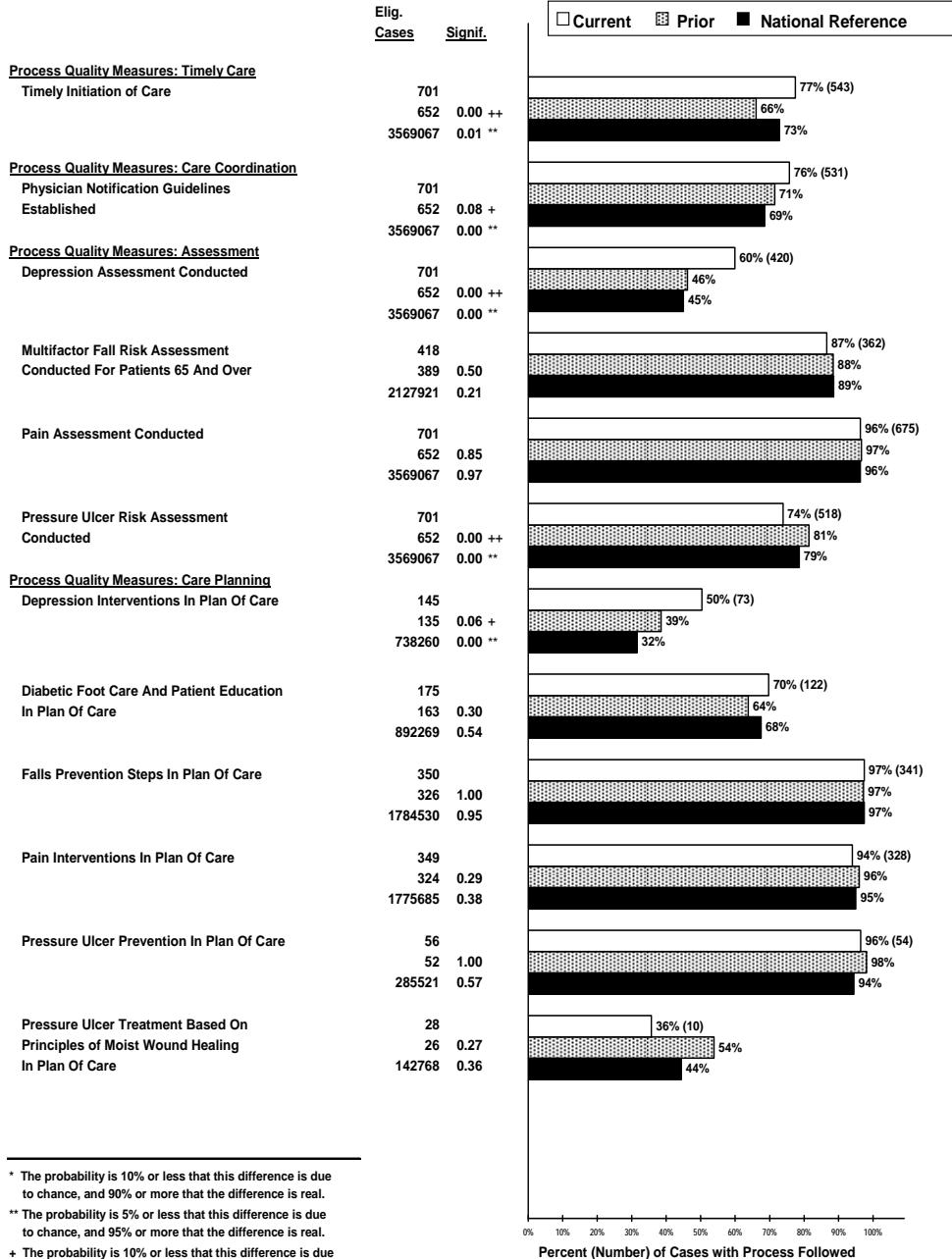
| | |
|--|---|
| Requested Current Period: | The 12-month time interval selected by the user for inclusion of current episodes of care. |
| Requested Prior Period: | The previous time interval requested by the user. |
| Actual Current Period: | The time interval represented by current episodes actually included in the report. This will be the same as the requested current period except when there are no episodes of care at the beginning or end of the requested period. |
| Actual Prior Period: | The time interval immediately preceding the current period for which episodes of care contribute to this report. The prior period will be twelve months unless there are no episodes of care at the beginning of the time interval requested. |
| Number of Cases in Current Period: | The total number of episodes of care from the home health agency contributing to the report for the specified time interval. |
| Number of Cases in Prior Period: | The total number of episodes of care from the home health agency contributing to the report for the actual prior period. |
| Number of Cases in Reference Sample: | The total number of episodes of care nationally contributing to the report for the specified time interval. |
| Elig. Cases: | The total number of episodes of care contributing to the specific process measure listed, after measure-specific exclusions (see Table 2.1). For each measure, the number of eligible cases is shown for the home health agency and for the national reference sample. |
| Signif.: | The probability that the observed difference between the home health agency's current value on the process measure and the national reference value could be due to chance. Significance values below 10% are indicated with a single asterisk (*), while values less than 5% are indicated with a double asterisk (**). For the current value and the prior value comparison, plus signs are used to indicate significance values. Significance values below 10% are indicated with a single plus sign (+), while values less than 5% are indicated with a double plus sign (++) |
| Percent (Number) of Cases where Process Followed: | Agency and national percentages are represented graphically by the "Current," "Prior," and "National Reference" bars. The percentage is shown next to the bar for each measure and for the current agency value, the actual number of patients for whom the measure was achieved is displayed in parentheses. |

Figure 2.1: Sample Process Quality Measure Report (Based on Hypothetical Data).

Agency Name: FAIRCARE HOME HEALTH SERVICES
 Agency ID: HHA01
 Location: ANYTOWN, USA
 CCN: 007001 Branch: All
 Medicaid Number: 999888001
 Date Report Printed: 03/21/2012

Requested Current Period: 01/2011 - 12/2011
 Requested Prior Period: 01/2010 - 12/2010
 Actual Current Period: 01/2011 - 12/2011
 Actual Prior Period: 01/2010 - 12/2010
 # Cases: Curr 646 Prior 601
 Number of Cases in Reference Sample: 3569067

All Patients' Process Quality Measure Report



* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
 + The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ++ The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

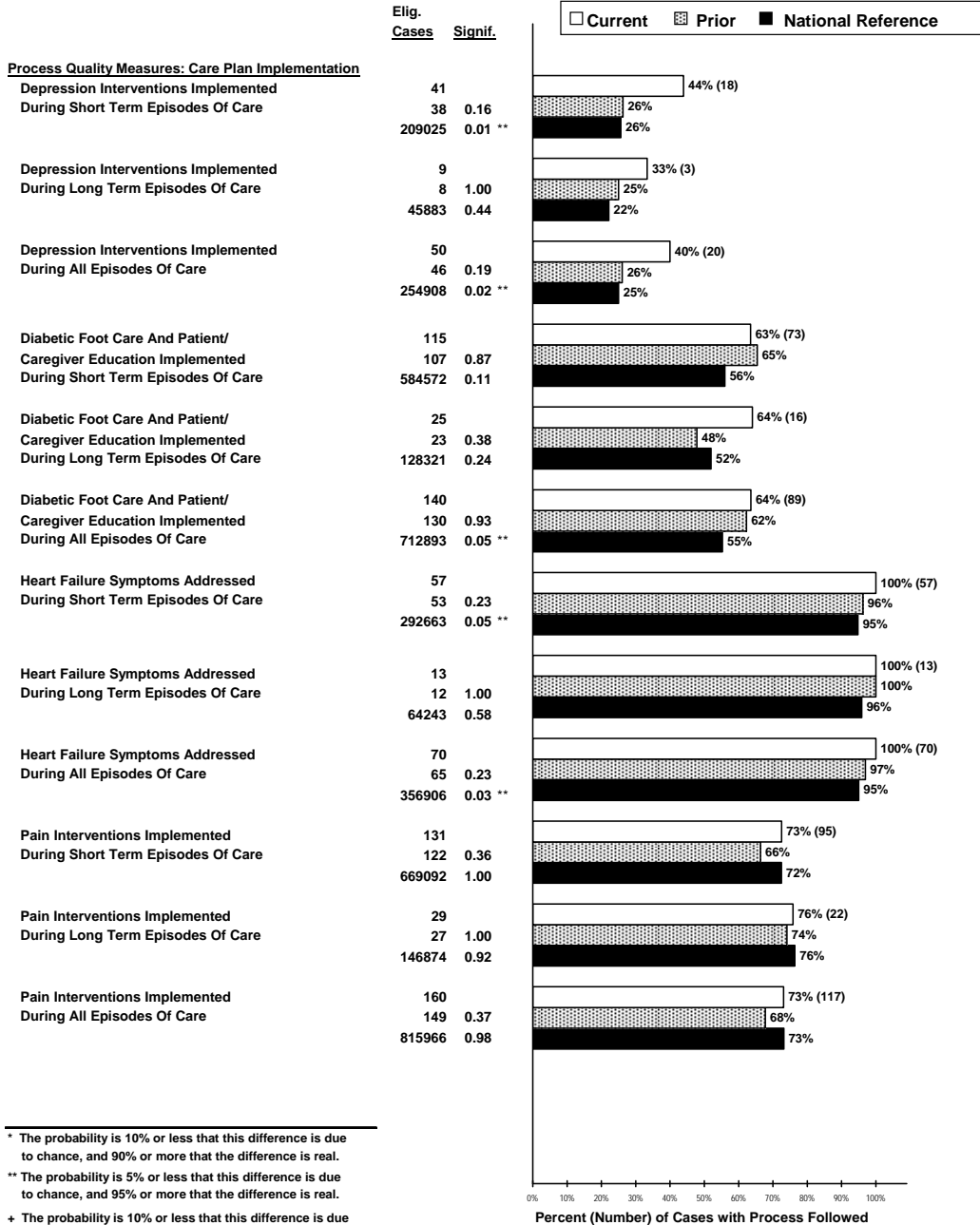
This report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

Figure 2.1: Sample Process Quality Measure Report (Based on Hypothetical Data). (cont'd)

Agency Name: FAIRCARE HOME HEALTH SERVICES
 Agency ID: HHA01
 Location: ANYTOWN, USA
 CCN: 007001 Branch: All
 Medicaid Number: 999888001
 Date Report Printed: 03/21/2012

Requested Current Period: 01/2011 - 12/2011
 Requested Prior Period: 01/2010 - 12/2010
 Actual Current Period: 01/2011 - 12/2011
 Actual Prior Period: 01/2010 - 12/2010
 # Cases: Curr 646 Prior 601
 Number of Cases in Reference Sample: 3569067

All Patients' Process Quality Measure Report



* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
 + The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ++ The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

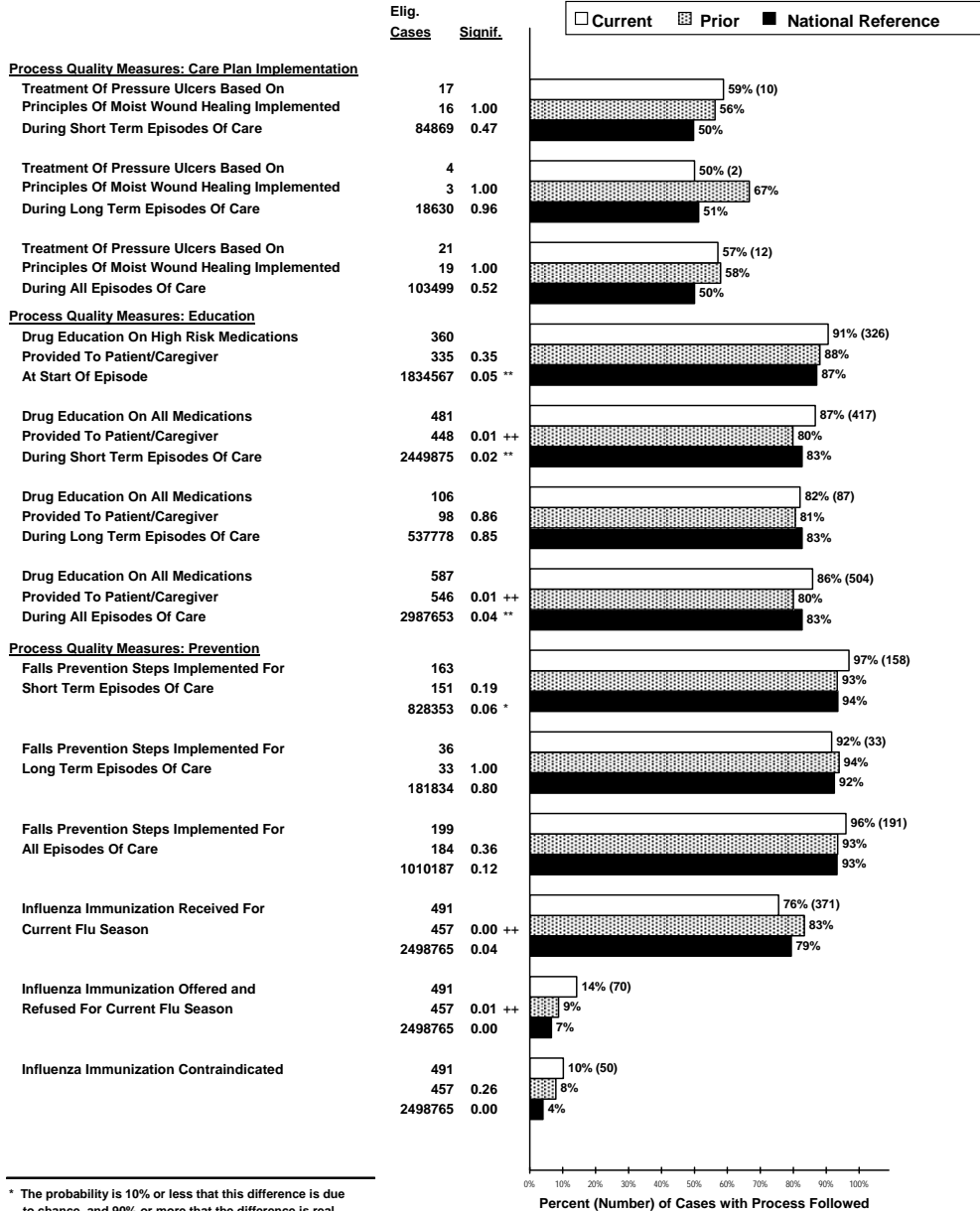
This report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

Figure 2.1: Sample Process Quality Measure Report (Based on Hypothetical Data). (cont'd)

Agency Name: FAIRCARE HOME HEALTH SERVICES
 Agency ID: HHA01
 Location: ANYTOWN, USA
 CCN: 007001 Branch: All
 Medicaid Number: 999888001
 Date Report Printed: 03/21/2012

Requested Current Period: 01/2011 - 12/2011
 Requested Prior Period: 01/2010 - 12/2010
 Actual Current Period: 01/2011 - 12/2011
 Actual Prior Period: 01/2010 - 12/2010
 # Cases: Curr 646 Prior 601
 Number of Cases in Reference Sample: 3569067

All Patients' Process Quality Measure Report



* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
 + The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ++ The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

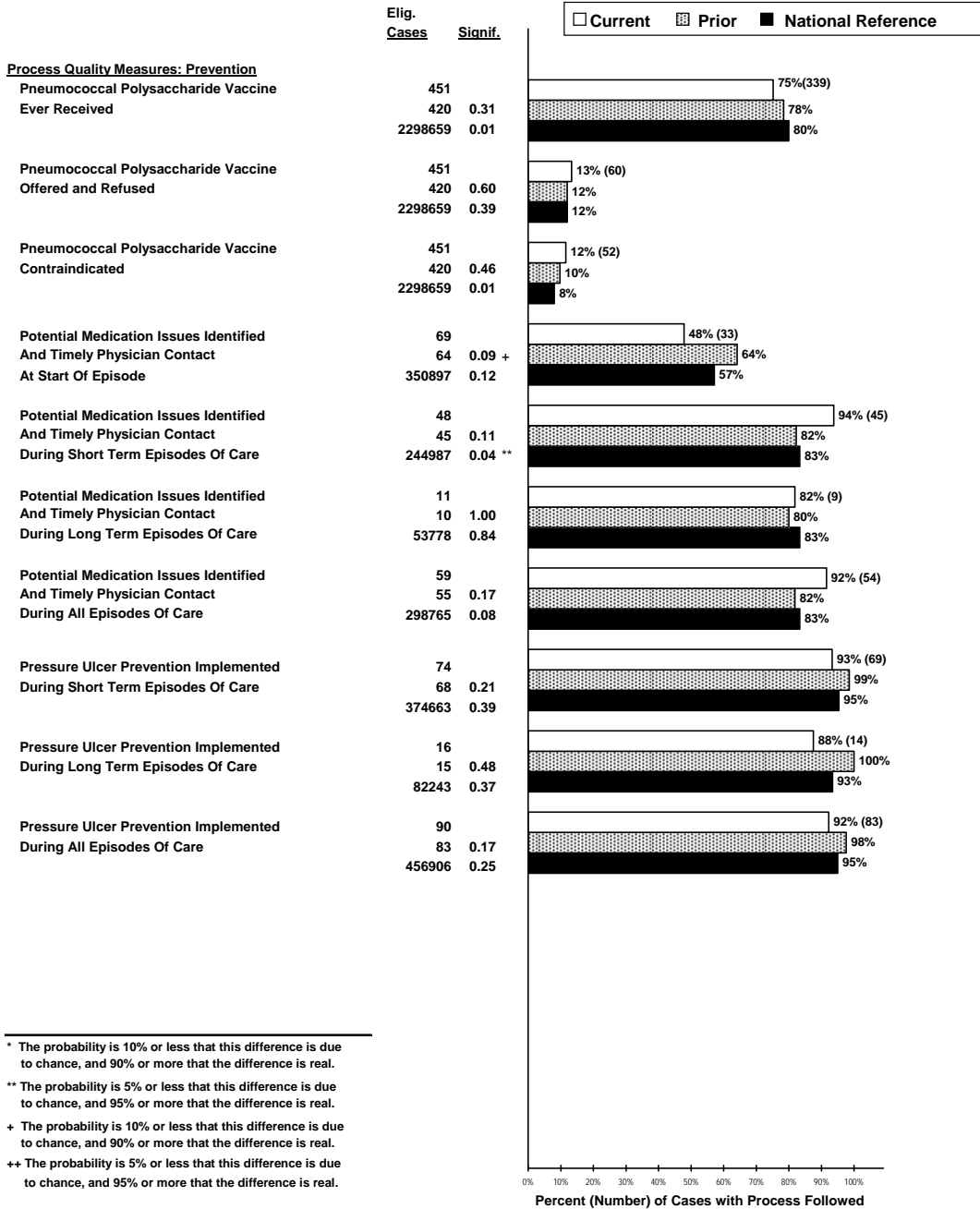
This report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

Figure 2.1: Sample Process Quality Measure Report (Based on Hypothetical Data). (cont'd)

Agency Name: FAIRCARE HOME HEALTH SERVICES
 Agency ID: HHA01
 Location: ANYTOWN, USA
 CCN: 007001 Branch: All
 Medicaid Number: 999888001
 Date Report Printed: 03/21/2012

Requested Current Period: 01/2011 - 12/2011
 Requested Prior Period: 01/2010 - 12/2010
 Actual Current Period: 01/2011 - 12/2011
 Actual Prior Period: 01/2010 - 12/2010
 # Cases: Curr 646 Prior 601
 Number of Cases in Reference Sample: 3569067

All Patients' Process Quality Measure Report



* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
 + The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
 ++ The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

This report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

E. Interpreting the Process Quality Measure Report

The Process Quality Measure Report provides home health agency staff with information on how often the indicated processes of care are utilized in providing care to that agency's patients, with comparisons to all home health patients nationally and (after the first report) to the agency's data from a prior time period. In reviewing your agency's performance on each process measure, it is important to focus not only on the difference between your agency's current value and the national value, but also the statistical significance of the difference. If your agency's value is based on a very small number of cases, your agency's rate could differ from the national rate without being statistically significant. This could be true for measures applying to a subgroup of patients that comprise only a small proportion of your agency's caseload. Conversely, a home health agency that serves a very large number of patients may show a statistically significant difference from national values even when the absolute difference is small.

F. Summary

Process Quality Measure Reports contain rates of compliance with 47 measures of best practices. The measures cover a wide range of best practices for timely care, care coordination, assessment, care planning, care plan implementation, education, and prevention. The measures are calculated by assessing the rates of use of best practices as documented from the OASIS data. The measures are not risk adjusted, as risk adjustment is not relevant when measuring agency processes of care. National reference data will be provided for comparison. After the first report, agency findings from a prior time also will be provided. Reports will be first available in the Fall of 2010, based on episodes of care completed during the first six months of the year.

CHAPTER 3 — INVESTIGATING PROCESS QUALITY MEASURES

A. Process-Based Quality Improvement (PBQI) and OBQI: What is the difference?

The investigation of process quality measures or Process-Based Quality Improvement (PBQI) has many similarities to OBQI. The primary difference lies in the starting point. OBQI begins with the measurement of agency-level clinical outcomes, then proceeds in the following manner:

- 1) Selection of specific outcomes from the Outcome Reports;
- 2) Evaluation of the care that produced these outcomes in your agency;
- 3) Development of a plan of action to improve care (or to reinforce care where outcomes are superior to the reference), focusing on best care practices; and
- 4) Implementation and monitoring of the plan of action.

PBQI **starts** from the measure of agency-level rates of compliance with best practices. The investigation should use similar steps, with the goal of identifying reasons for low rates of compliance with those best care practices that agencies have elected to use (remember that CMS **does not require** that the OASIS best practices be implemented) and implementing actions to improve the rate of compliance. Thus, the steps of Process-Based Quality Improvement (PBQI) are:

- 1) Selection of specific care processes from the Process Quality Measure Report;
- 2) Assessment of reasons for low rates of compliance with the best practice care processes;
- 3) Development of a plan of action to improve rates of compliance with best practice care processes; and
- 4) Implementation of a plan of action and monitoring for improvement in rates of compliance with best practice care processes.

Agencies may take PBQI one step further and investigate process quality measures in conjunction with relevant outcomes. For example, if the agency is investigating a higher-than-desired rate of Acute Care Hospitalization (outcome), as part of the OBQI investigation it may be helpful to identify specific process quality measure findings that may be related to the high acute care hospitalization rate. If the agency has low rates of compliance with the process quality measure for Heart Failure Symptoms Addressed During Short Term Episodes of Care, then during the PBQI/OBQI investigation the agency could determine if patients for whom the best practices were NOT implemented also were those patients who were hospitalized for cardiac-related reasons. In this situation, the Agency Patient-Related Characteristics (case mix) Tally Report can be used to identify the patients who were hospitalized for cardiac-related reasons, then select from that group of patients with a diagnosis of CHF to determine if heart failure symptoms were addressed. If the investigation finds that the low rates of compliance with the process quality measures have affected the target outcome of Acute Care

Hospitalization, the agency can develop and implement a plan of action to improve the use of the best care practices with the specific goal of decreasing the rate of hospitalization. The subsequent Outcome and Process Quality Measure Reports can be used to evaluate the effectiveness of the plan of action. Not every OBQI outcome measure will have specific process quality measures associated with it. However, best practices measured in the Process Quality Measure Reports may impact several of the OBQI outcome measures and Potentially Avoidable Event (adverse event) outcomes. Examples of these are Acute Care Hospitalization (as in the example above); Emergent Care for several reasons including falls, medication side effects, etc.; Improvement in Oral Medication Management; Improvement in Pain Interfering with Activity; and Increase in Number of Unhealed Pressure Ulcers (a potentially avoidable event). Table 3.1 below provides several illustrations of outcome or potentially avoidable event measures that may be associated with specific process measures. The process measures listed for each outcome are not a comprehensive list of all process quality measures that may be associated with the outcome. As more OASIS-C data become available, additional analyses on potential outcome or adverse event measures and associated process quality measures will be conducted.

Table 3.1: Illustrative Outcome / Potentially Avoidable Event and Associated Process Quality Measures.

| <u>Outcome/Potentially Avoidable Event Measure</u> | <u>Associated Process Quality Measure</u> |
|--|---|
| Improvement in Oral Medication Management | <ul style="list-style-type: none"> • Drug Education on All Medications Provided to Patient/Caregiver During All Episodes of Care |
| Improvement in Pain Interfering with Activity | <ul style="list-style-type: none"> • Pain Assessment Conducted • Pain Interventions in Plan of Care • Pain Interventions Implemented During All Episodes of Care |
| Acute Care Hospitalization | <ul style="list-style-type: none"> • Timely Initiation of Care • Potential Medication Issues Identified and Timely Physician Contact During All Episodes of Care • Drug Education on High Risk Medications Provided to Patient/Caregiver at Start of Episode • Physician Notification Guidelines Established • Multifactor Fall Risk Assessment Conducted for Patients 65 and Over • Heart Failure Symptoms Addressed During All Episodes of Care |
| Emergent Care for Hypo/Hyperglycemia | <ul style="list-style-type: none"> • Physician Notification Guidelines Established |
| Increase in Number of Unhealed Pressure Ulcers | <ul style="list-style-type: none"> • Pressure Ulcer Risk Assessment Conducted • Pressure Ulcer Prevention in Plan of Care • Pressure Ulcer Prevention Implemented During All Episodes of Care |

B. Selecting Process Quality Measures for Investigation

As with the OBQI and OBQM reports, Process Quality Measure Reports may contain several results that agency staff strongly desire to investigate further. However, the agency should select only a manageable number (i.e., two or three) of process quality measures to investigate at one time, to avoid becoming overwhelmed or unable to commit the resources necessary to fully investigate the reasons for low rates of compliance with best practices and implementation of actions to improve these rates.

Several criteria should be applied when determining which process quality measures to investigate:

- 1) *Care Practices that the HHA has Determined Should be Used During Care Delivery:* Although the process quality measures were selected to reflect evidence-based practices, most of the care processes specified in the OASIS process items are not required by CMS as part of the Conditions of Participation (one exception is timeliness of care). The HHA must decide whether to require the routine use of the best practices specified within the OASIS process items in care. For example, the HHA may not require the use of a standardized depression screening tool. In that case, the reported rate of compliance for the process quality measure Depression Assessment Conducted would be expected to be very low, and that measure would not be a candidate for a Process-Based Quality Improvement (PBQI).
- 2) *Importance or Relevance to Your Agency's Goals:* Depending on an agency's overall goals or the specific objectives for the QI program, certain process quality measures may assume greater importance than others. For example, suppose a particular agency provides a much higher proportion of pressure ulcer care than most other types of care. For purposes of both patient well-being and marketing, this agency may be seeking to attain excellent outcomes for wound care patients. In this case, the agency QI staff might choose to investigate low rates of compliance with the process quality measure Pressure Ulcer Treatment Based on Principles of Moist Wound Healing in Plan of Care, rather than those measures specific to diabetes or heart failure. Likewise, process quality measures that potentially have effects on OBQI or OBQM outcomes under investigation, such as Acute Care Hospitalization, Emergent Care for Medication Side Effects, etc., may be prioritized over other process quality measures.
- 3) *Statistically Significant Process Quality Measure Differences:* While the most important criteria for selecting process quality measures to investigate are related to clinical relevance, reference comparisons to national rates of compliance with best practices and to the agency's prior rates also will be provided. Thus, agencies may consider whether a statistically significant difference between the agency's performance on a specific process quality measure and that of the reference group (or prior performance) exists. Unless statistical significance can be demonstrated for a difference between the current sample of cases and the comparison sample, any "apparent" difference between the groups being compared may be nonexistent. Therefore, it is best to select only process quality measures with statistically significant differences between groups for the subsequent investigation of care provision. As noted earlier, we recommend a significance level of $p \leq 0.10$ (i.e., statistical significance no higher than the 0.10 level), as indicated by one or

two asterisks (or plus signs) in the “Signif.” Column on the Process Quality Measure Report.

- 4) *Adequate Number of Cases*: An extremely small sample size can result in an artificially large (or small) percentage of patients who achieve (or do not achieve) the process quality measure. For example, in a sample of 10 eligible cases, a change of only one case will cause a 10% change in the observed process quality measure rate. It is important to consider both the rate and the overall number of patients included in the calculation of the measure. Approximately 30 patients may be considered an adequate number of patients, although if the process quality measure has clinical relevance, the actual number of cases may be less important than other considerations.
- 5) *Magnitude of the Difference between Agency Rate and Comparison Rate*: If no statistically significant differences exist, other criteria for selecting process quality measures can be considered, including the magnitude of differences between the agency rate and the comparison rate. For example, a difference of 2 percentage points between groups in terms of rate of Pressure Ulcer Prevention in Plan of Care, although possibly statistically significant if sample sizes are large enough, is not as important as a difference of 10 (or more) percentage points. Similarly, even if both are statistically significant, a measure difference of three percentage points for the measure of Treatment of Pressure Ulcers based on Principles of Moist Wound Healing Implemented During All Episodes of Care may be far less important to investigate than a difference of 15 percentage points for Pressure Ulcer Risk Assessment Conducted.

When selecting process quality measures for quality/performance improvement efforts, all of the criteria above should be considered. If the rate of compliance with a particular best practice is important regardless of reference comparison data, the first two criteria may be the most important criteria to consider. If the comparison is of great importance to the agency, particularly in the evaluation of rates of compliance over time, then the criteria of statistical significance, the magnitude of the difference between the agency rates and comparison rates, and the number of cases used in the calculation can be taken into consideration.

C. Investigating Process Quality Measures / Process-Based Quality Improvement (PBQI)

Once one or more process quality measures have been identified for investigation, the next step is to determine potential causes for the low rates of compliance with the best practices. In some ways, this process mirrors the OBQI investigation, with the exception that the agency does not need to brainstorm “what should be done,” as the process measure itself specifies what should be done. Thus, the team can proceed directly to determining the root causes for the low rates of compliance with the best practice. This question can be raised with clinical staff during Quality/Performance team meetings and staff meetings. Traditional quality improvement tools such as fishbone diagrams or cause/effect diagrams can be useful in guiding the investigation (these are provided in the OBQI Manual). PBQI will center on answering the following questions:

- “What is the reason for the low rate of compliance with the best practice?”
- “What are the barriers to implementation of this best practice?”

It is possible to identify clinical records for review using the patient tally report, similar to the process used to select records for OBQI outcome investigations. A clinical record review may help the team identify particular situations for which implementation of the best practice is especially challenging. For example, if Physician Notification Guidelines Established is the process quality measure under investigation, a clinical record review could potentially be useful in identifying whether the problem with establishment of specific guidelines is isolated to certain types of patients (e.g., diabetic patients) or is widespread across all types of patients. The importance of clinical team input in this evaluation cannot be overestimated. Field staff are in the best position to identify the root causes of the low rate of compliance with the best practices, and may be able to identify issues that are not apparent to office staff. For example, is one reason for low use of a standardized pain assessment tool related to a language barrier with a large population of non-English speaking patients/families? Are clinical staff generally uncomfortable using a depression screening tool? Is the reason that foot care is not regularly addressed on the plan of care because most of the diabetic patients visit a podiatrist on a regular basis (thus the clinical staff do not feel a need to address foot care)? Identification of these barriers will become the basis for a corrective plan of action to improve rates of compliance with the best practices.

D. Developing and Implementing a Plan of Action

Your agency will want to develop a clear plan to improve utilization of the best practices specific to the process quality measure being investigated. This is best done through development of an improvement plan (see the illustrative improvement plan in Figure 3.1) using an interdisciplinary approach. Such a plan should include the following components:

- 1) *Statement of the Problem:* A clear identification of the reason(s) for the low rates of use of best practices for care delivery is necessary. Examples of specific problem statements are a) pressure ulcer risk assessment tools are not included on agency forms; b) staff lacks a clear understanding of specific wound dressings that use principles of moist wound healing; c) foot monitoring plans have not traditionally been included in the physician-ordered plan of care, etc.

- 2) *Clear Specification of Best Practices the HHA Would Like Adopted:* State the care practices expected to occur in the future. Because HHAs are not required by CoPs to adopt the best practices specified for the process quality measures, HHAs should clearly identify those that they expect to be used during care delivery. If the best practices are not applicable for certain patients (e.g., depression screening for severely cognitively impaired patients), then the HHA should provide guidance on how the exceptions should be documented. For example, if the HHA was investigating a low compliance rate with use of a standardized depression screening tool, a statement specifying expectations could be:
“All patients should be screened for depression using the PSQ-2[©]. Any exceptions (e.g., patient is severely cognitively impaired; patient refused to respond to PSQ-2[©] questions) should be clearly documented in the clinical record. Any patient receiving a score of 3 or higher will be referred to MSW for further evaluation for depression.”
The HHA should consider whether these expectations should be incorporated into policies and procedures, clinical pathways, or other tools intended to guide clinical practice.

- 3) *Delineation of Implementation Process:* Implementation allows the plan to move from paper to reality. You can facilitate this process by clearly delineating action strategies,

along with appropriately delegating responsibility/authority. To maximize the possibility of success, action strategies should directly address the barriers to the use of the best practices identified during the investigation. These strategies should serve as facilitators for incorporating best practices into care delivery. For example, if the barrier to using a depression screening tool is related to clinician discomfort with asking the questions, an action strategy may be to have the MSW lead some role-playing exercises during a staff meeting to increase staff comfort with screening for depression. In this example, an action strategy that addresses revisions to clinical record forms would not directly address the identified barrier and would not likely be successful. Additional discussion of implementation approaches most effective in changing clinical care delivery can be found in Supplement A.

- 4) *Mechanism for Monitoring Use of Best Practices:* Identify ways to monitor the staff's use of new (or revised) care practices. Because home health care providers practice autonomously, modifying care practices is sometimes more challenging than in other clinical settings. Agency management staff should not simply assume that suggested care practice modifications will necessarily occur. A monitoring approach might include the use of the chart audit tool to review records of discharged patients at specific intervals. If the monitoring activity involves clinical record review, this often can be incorporated into other chart review activities and completed in a few additional minutes.
- 5) *Implement the Improvement Plan and Evaluate its Effectiveness:* The plan itself includes all the necessary steps to follow, but it must actually be put into place for expected change to occur. This is comparable to making a resolution a reality. Once the plan has been implemented, the effectiveness of the action strategies can be evaluated by examining the next process quality measure report to determine if the rates of best practice use were higher. Keep in mind that not all of the best practices are applicable for all patients, and rates of 100% are not expected. Another way to evaluate the effectiveness of the plan is to assess for differences in outcomes that may be related (e.g., acute care hospitalization, emergent care, potentially avoidable events) on your OBQI and Potentially Avoidable Event (adverse event outcome) Reports. Ideally, increasing the use of best practices should improve patient outcomes.

E. SUMMARY

OASIS-derived Process Quality Measure Reports provide information to HHAs on the use of specific best practices in care delivery. Earlier versions of OASIS allowed the calculation of outcomes, potentially avoidable events (adverse event outcomes), and agency patient-specific characteristics (case mix). With the addition of process items to OASIS-C, CMS can now calculate process quality measures, providing a new domain of measures that can be used for agency quality/performance improvement efforts. This chapter explained a stepwise process for Process-Based Quality Improvement: selecting process quality measures for investigation; conducting the investigation; and developing, implementing, and evaluating a plan of action to improve process quality measures. Agencies are strongly encouraged to take advantage of the information presented in the reports for their ongoing quality programs.

Figure 3.1: Sample Plan of Action for Drug Education on High Risk Medications Provided to Patient/Caregiver at Start of Episode.

FAIRCARE HOME HEALTH AGENCY

Plan of Action for Quality Improvement

QUALITY IMPROVEMENT TEAM MEMBERS (Interdisciplinary)

- | | | |
|---|----------------------------------|--------------------------------|
| 1. <u>Kathy Smith, RN, Clinical Manager</u> | 3. <u>LaShay Brinkman, PT</u> | 5. <u>Genevieve Thomas, RN</u> |
| 2. <u>Gary Wilson, RN, QI Coordinator</u> | 4. <u>Rochelle Boudreau, SLP</u> | 6. _____ |

Plan of Action Date 10/15/10

Type of Quality Improvement Activity (select one):

- Outcome Based Quality Improvement (OBQI/OBQM) Report Date _____ Agency Target _____
- Remediation Reinforcement
- Process Quality Measure Report Date 10/01/10 Agency Target _____

Title of Target Outcome – OBQI/OBQM OR Process Quality Measure(s):
 Drug Education on High Risk Medications Provided to Patient/Caregiver at Start of Episode

Problem/Strength Statement(s):

1. When medication teaching is provided on the initial visit, high risk medications are not prioritized.
2. On therapy-only cases, medication teaching is not consistently provided.

Identified Barriers:

1. Clinicians are unsure of which medications are considered "high risk."
2. PTs and SLPs do not feel proficient in providing medication education.

HHA Expectations for Best Practices:

1. A list of all medications will be identified during the admission or resumption of care visit. High risk medications will be identified using the Institute for Safe Medical Practices criteria.
2. The admitting clinician will provide medication education and educational handouts for these high risk medications during the first visit.
3. RN consultation on medication education available for PTs and SLPs when they are the only discipline involved at the start of the episode.

Action Strategies:

| Action | Time Frame | | Responsible Person(s) | Details and Monitoring Approaches (and Frequency) |
|---|------------|----------|-----------------------|---|
| | Start | Finish | | |
| a. Provide hard copies and an electronic copy of the Institute for Safe Medical Practices list of High-Alert Medications to all clinicians. | 10/02/10 | 10/05/10 | Kathy | Send voicemail to all clinicians telling them that the list has been provided. Request they email Kathy letting her know that they have received the list. Kathy will f/u with any non-responding clinicians. |

| Action Strategies: | | | | |
|--|------------|-------------------------------|-----------------------|---|
| Action | Time Frame | | Responsible Person(s) | Details and Monitoring Approaches (and Frequency) |
| | Start | Finish | | |
| b. Submit a request to the electronic clinical record vendor to have the system flag high risk medications when they are entered. | 10/05/10 | Ongoing follow up with vendor | Kathy | Kathy will check monthly with the electronic clinical record vendor on the status of the request. |
| c. Medication education handouts for all high risk medications will be made available for admitting clinicians. | 10/05/10 | 11/01/10 | Gary | After initially providing five copies of each handout to staff, medical records will ensure that copies are available for staff along with other admission forms (i.e., consents). Staff will be alerted by email to pick up the handouts. |
| d. The clinical manager, quality manager, or other RN will be available to consult with non-RN clinicians who are providing high risk medication education to patients at admission or resumption of care (in cases where no RN is ordered). | 10/02/10 | Ongoing | Kathy | RN consultation will be provided by Kathy, Gary, or another designated RN in the event that neither is available. Kathy will send out emails to all staff to inform them that RN consultation is available for all PT and SLPs providing high risk drug education to patients on admission (in cases where nursing is not ordered). Cell phone numbers for Kathy and Gary will be provided. |

6. Evaluation:

a. Review of Plan:

Date: 1/2011
 Responsible person(s): LaShay, Rochelle, and Genevieve
 Results: _____

b. Next Outcome Report – OBQI/OBQM OR Process Quality Measure Report:

Date: 1/2011
 Results: _____
 Next Step(s): _____

c. Monitoring Activities:

(1) Activity: Quarterly clinical record review to monitor staff documentation of high risk drug education on admission or resumption of care.

Date Completed: _____
 Finding: _____
 Response: _____

(2) Activity: Monthly discussion in staff meeting on identification of high risk drugs, use of educational handouts, and ease/usefulness of accessing RN consultation

Date Completed: _____
 Finding: _____
 Response: _____

(3) Activity: Review Process Quality Measure Report to determine if rate of compliance with the process measure has improved.

Date Completed: _____
 Finding: _____
 Response: _____

(4) Activity:

Date Completed: _____
 Finding: _____
 Response: _____

Supplement A to Chapter 3 — Changing Clinical Practice

Modifying clinicians' care practices to incorporate interventions that are more effective has been studied in many health care settings. The challenges are probably higher in home care than in most other settings, given the autonomous nature of the practice site and considering that clinicians of varying disciplines provide care. Nonetheless, certain key factors have been identified as contributing to success in modifying care delivery.

Does the staff know what the change is? While seemingly obvious as an essential ingredient, this aspect of practice change is sometimes overlooked. This step needs to involve some type of educational component, whether formally or informally presented. Care processes should not be expected to change without the clinicians being informed of why the change is needed, what the new care processes are, and the rationale for the processes being selected for implementation. It is important to acknowledge and plan for periodic repetition of the information.

Does the plan to effect changes address barriers and facilitators for implementing the change? In the case of implementing changes in clinical patterns to incorporate the use of best practices, have the reasons that clinicians have not used the best practices been fully explored? Strategies should be developed to specifically overcome barriers to implementing best practices; otherwise they are not likely to be successful.

Has the necessary knowledge/skill (for the new process) been conveyed? Again, apparently an obvious step, but not always well implemented. This step also involves an educational and practice component. If performance of a procedure is involved, a return demonstration should be required. Make the educational experience brief but to the point (and fun).

Do organizational processes allow the change to occur? An extremely important step that acknowledges the reality that simply "telling" clinicians to change behavior is unlikely to produce the desired result. System modification is necessary for most process change to be fully implemented, and this is true of care delivery as well as other processes. Those responsible for planning and implementing new or modified approaches to care delivery also should be responsible for the review and possible modification of internal agency processes that support care delivery change. For example, this may include making new equipment available or modifying documentation that incorporates reminders of new processes or other similar internal system modifications.

APPENDIX A — ROLE OF PROCESS QUALITY MEASURE REPORTS IN THE AGENCY'S OVERALL QUALITY PROGRAM

The Conditions of Participation for Medicare-certified home health agencies at §484.52 require an overall evaluation of the agency's total program at least annually and clinical record review at least quarterly. Patient care services are identified as one component of the agency's total program that must be included in this evaluation. The use of the Process Quality Measure Reports to review and improve patient care delivery is congruent with these program evaluation components.

While the Conditions of Participation do not require the use of the best practices specified in the OASIS process measure data items and on the reports (with the exception of Timely Initiation of Care), state surveyors are responsible for evaluating adequacy of the care provided to patients. OASIS-identified best practices, along with other care processes, may be considered as the surveyors evaluate whether the patient care provided to any individual patient was appropriate, adequate, and effective.

A. Current Regulatory Requirements

Condition of Participation: Evaluation of the Agency's Program - §484.52

The HHA has written policies requiring an overall evaluation of the agency's total program at least once each year by a group of professional advisory personnel (or a committee of this group), HHA staff, and consumers (or by professional individuals outside the agency working in conjunction with consumers). The evaluation consists of an overall policy and administrative review and a clinical record review. The evaluation assesses the extent to which the agency's program is appropriate, adequate, effective, and efficient. Results of the evaluation are reported to and acted upon by those responsible for the operation of the agency and are maintained separately as administrative records.

1. Standard: Policy and Administrative Review -§484.52(a)

As part of the evaluation process, the policies and administrative practices of the agency are reviewed to determine the extent to which they promote patient care that is appropriate, adequate, effective, and efficient. Mechanisms are established in writing for the collection of pertinent data to assist in evaluation.

2. Standard: Clinical Record Review - §484.52(b)

At least quarterly, appropriate health professionals, representing at least the scope of the program, review a sample of both active and closed clinical records to determine whether established policies are followed in furnishing services directly or under arrangement. There is a continuing review of clinical records for each 60-day period that a patient receives home health services to determine adequacy of the plan of care and appropriateness of continuation of care.

B. Using Process Quality Measure Reports to Address the Regulatory Requirements

In Standard §484.52(a), the agency is expected to have in place policies and administrative practices to promote patient care that is appropriate, adequate, effective, and efficient. Further, it is noted that mechanisms are established in writing for the collection of pertinent data to assist in evaluation. The investigation of process quality measures provides evidence of the agency's review of use of specific evidence-based care practices. If such practices are required by HHA policies, and they are not being used in care delivery, the development and implementation of the improvement plan demonstrates the agency's goal(s) of a) ensuring that staff follow policies and b) promoting the use of best practices in patient care.

In Standard §484.52(b), a quarterly record review is required to determine whether established agency policies are being followed in the provision of care. The Process Quality Measure Report provides a means for agencies to monitor the use of selected best practices, and any subsequent investigations into low compliance rates address this standard. The monitoring of clinician compliance with evidence-based care practices specified in OASIS using clinical record reviews likewise should incorporate relevant agency policies. When the investigation process is conducted in a phased manner, as described in this manual, process quality measures can be investigated and monitored on a quarterly basis. In this way, the associated record review is incorporated into an agency's current quality monitoring requirements.

The investigation of process quality measures thus becomes part of the agency's overall quality monitoring program. The utility of the reports for the agency's overall quality monitoring program is clear. The benefit to patients is evident as agencies focus on continuously improving the quality of care they provide.

C. Using Process Quality Measure Reports in the Survey Process

State survey agencies, as well as HHAs, will have access to the Process Quality Measure Reports. The evidence-based care practices specified within OASIS, along with other care processes, may be considered as the surveyors evaluate whether the patient care provided to any individual patient was appropriate, adequate, and effective. For example, if a home care patient with heart failure needed emergency room treatment, the surveyor may review the comprehensive assessment, plan of care, visit notes, communication notes, and other documents to see if any additional action on the part of the HHA might have prevented the emergency room visit. Was there coordination with the physician regarding specific clinical parameters such as weight gain, vital signs, etc., that would signal the need for follow-up? Was the physician notified promptly of any changes in clinical status that suggested a need to alter the plan of care? This relates to the plan of care requirements at 42 CFR 484.18(b). Surveyors can determine if the HHA complied with the requirements included as part of the comprehensive assessment at 42 CFR 484.55 (c). Did the HHA include a review of all medications the patient was using to identify potential adverse effects and drug reactions, ineffective drug therapy, significant side effects, significant drug interactions, duplicate drug therapy, and noncompliance with drug therapy? Thus, it is possible that best practices identified in OASIS items may contribute to a surveyor's evaluation of whether the care provided was appropriate, adequate, and effective.

APPENDIX B — ALL PATIENTS' PROCESS QUALITY MEASURE REPORT – SECTION 5 0 8 COMPLIANT VERSION

This appendix to the OASIS-C Process-Based Quality Improvement Manual includes a Section 5 0 8 compliant version of the All Patients' Process Quality Measure Report.

Please note, this report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

All Patients' Process Quality Measure Report

Agency Name: FAIRCARE HOME HEALTH SERVICES
 Agency ID: HHA01
 Location: ANYTOWN, USA
 CCN: 0 0 7 0 0 1 Branch: All
 Medicaid Number: 9 9 9 8 8 8 0 0 1
 Date Report Printed: 03/21/2012

Requested Current Period: 01 / 2011 – 12 / 2011
 Requested Prior Period: 01 / 2010 – 12 / 2010
 Actual Current Period: 01 / 2011 – 12 / 2011
 Actual Prior Period: 01 / 2010 – 12 / 2010
 # Cases: Current 646 Prior 601
 Number of Cases in Reference Sample: 3569067

This report has not been approved to meet privacy requirements and can only be used by the home health agency and state agency for defined purposes.

Process Quality Measures: Timely Care

Timely Initiation Of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 701 |
| # Cases with outcome | 543 |
| % Cases with outcome | 77 |
| Eligible Cases Prior | 652 |
| % Cases with outcome | 66 |
| Significance | 0.00 |
| Eligible Cases National Reference | 3569067 |
| % Cases with outcome | 73 |
| Significance | 0.01 |

Process Quality Measures: Care Coordination

Physician Notification Guidelines Established

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 701 |
| # Cases with outcome | 531 |
| % Cases with outcome | 76 |
| Eligible Cases Prior | 652 |
| % Cases with outcome | 71 |
| Significance | 0.08 |
| Eligible Cases National Reference | 3569067 |
| % Cases with outcome | 69 |
| Significance | 0.00 |

Process Quality Measures: Assessment

Depression Assessment Conducted

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 701 |
| # Cases with outcome | 420 |
| % Cases with outcome | 60 |
| Eligible Cases Prior | 652 |
| % Cases with outcome | 48 |
| Significance | 0.00 |
| Eligible Cases National Reference | 3569067 |
| % Cases with outcome | 45 |
| Significance | 0.00 |

Multifactor Fall Risk Assessment Conducted For Patients 65 And Over

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 418 |
| # Cases with outcome | 362 |
| % Cases with outcome | 87 |
| Eligible Cases Prior | 389 |
| % Cases with outcome | 88 |
| Significance | 0.50 |
| Eligible Cases National Reference | 2127921 |
| % Cases with outcome | 89 |
| Significance | 0.21 |

Pain Assessment Conducted

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 701 |
| # Cases with outcome | 675 |
| % Cases with outcome | 96 |
| Eligible Cases Prior | 652 |
| % Cases with outcome | 97 |
| Significance | 0.85 |
| Eligible Cases National Reference | 3569067 |
| % Cases with outcome | 96 |
| Significance | 0.97 |

All Patients' Process Quality Measure Report

Process Quality Measures: Assessment (continued)

Pressure Ulcer Risk Assessment Conducted

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 701 |
| # Cases with outcome | 518 |
| % Cases with outcome | 74 |
| Eligible Cases Prior | 652 |
| % Cases with outcome | 81 |
| Significance | 0.00 |
| Eligible Cases National Reference | 3569067 |
| % Cases with outcome | 79 |
| Significance | 0.00 |

Process Quality Measures: Care Planning

Depression Interventions In Plan Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 145 |
| # Cases with outcome | 73 |
| % Cases with outcome | 50 |
| Eligible Cases Prior | 135 |
| % Cases with outcome | 39 |
| Significance | 0.06 |
| Eligible Cases National Reference | 738260 |
| % Cases with outcome | 32 |
| Significance | 0.00 |

Diabetic Foot Care And Patient Education In Plan Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 175 |
| # Cases with outcome | 122 |
| % Cases with outcome | 70 |
| Eligible Cases Prior | 163 |
| % Cases with outcome | 64 |
| Significance | 0.30 |
| Eligible Cases National Reference | 892269 |
| % Cases with outcome | 68 |
| Significance | 0.54 |

Falls Prevention Steps In Plan Of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 350 |
| # Cases with outcome | 341 |
| % Cases with outcome | 97 |
| Eligible Cases Prior | 326 |
| % Cases with outcome | 97 |
| Significance | 1.00 |
| Eligible Cases National Reference | 1784530 |
| % Cases with outcome | 97 |
| Significance | 0.95 |

Process Quality Measures: Care Planning (continued)

Pain Interventions In Plan Of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 349 |
| # Cases with outcome | 328 |
| % Cases with outcome | 94 |
| Eligible Cases Prior | 324 |
| % Cases with outcome | 96 |
| Significance | 0.29 |
| Eligible Cases National Reference | 1775985 |
| % Cases with outcome | 95 |
| Significance | 0.38 |

Pressure Ulcer Prevention In Plan Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 56 |
| # Cases with outcome | 54 |
| % Cases with outcome | 96 |
| Eligible Cases Prior | 52 |
| % Cases with outcome | 98 |
| Significance | 1.00 |
| Eligible Cases National Reference | 285521 |
| % Cases with outcome | 94 |
| Significance | 0.57 |

Pressure Ulcer Treatment Based On Principles Of Moist Wound Healing In Plan Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 28 |
| # Cases with outcome | 10 |
| % Cases with outcome | 36 |
| Eligible Cases Prior | 26 |
| % Cases with outcome | 54 |
| Significance | 0.27 |
| Eligible Cases National Reference | 142768 |
| % Cases with outcome | 44 |
| Significance | 0.36 |

All Patients' Process Quality Measure Report

Process Quality Measures: Care Plan Implementation

Depression Interventions Implemented During Short Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 41 |
| # Cases with outcome | 18 |
| % Cases with outcome | 44 |
| Eligible Cases Prior | 38 |
| % Cases with outcome | 26 |
| Significance | 0.16 |
| Eligible Cases National Reference | 209025 |
| % Cases with outcome | 26 |
| Significance | 0.01 |

Depression Interventions Implemented During Long Term Episodes Of Care

| | |
|-----------------------------------|-------|
| Eligible Cases Current | 9 |
| # Cases with outcome | 3 |
| % Cases with outcome | 33 |
| Eligible Cases Prior | 8 |
| % Cases with outcome | 25 |
| Significance | 1.00 |
| Eligible Cases National Reference | 45883 |
| % Cases with outcome | 22 |
| Significance | 0.44 |

Depression Interventions Implemented During All Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 50 |
| # Cases with outcome | 21 |
| % Cases with outcome | 40 |
| Eligible Cases Prior | 46 |
| % Cases with outcome | 26 |
| Significance | 0.19 |
| Eligible Cases National Reference | 254908 |
| % Cases with outcome | 25 |
| Significance | 0.02 |

Process Quality Measures: Care Plan Implementation (continued)

Diabetic Foot Care And Patient/Caregiver Education Implemented During Short Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 115 |
| # Cases with outcome | 73 |
| % Cases with outcome | 63 |
| Eligible Cases Prior | 107 |
| % Cases with outcome | 65 |
| Significance | 0.87 |
| Eligible Cases National Reference | 584572 |
| % Cases with outcome | 56 |
| Significance | 0.11 |

Diabetic Foot Care And Patient/Caregiver Education Implemented During Long Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 25 |
| # Cases with outcome | 16 |
| % Cases with outcome | 64 |
| Eligible Cases Prior | 23 |
| % Cases with outcome | 48 |
| Significance | 0.38 |
| Eligible Cases National Reference | 128321 |
| % Cases with outcome | 52 |
| Significance | 0.24 |

Diabetic Foot Care And Patient/Caregiver Education Implemented During All Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 140 |
| # Cases with outcome | 89 |
| % Cases with outcome | 64 |
| Eligible Cases Prior | 130 |
| % Cases with outcome | 62 |
| Significance | 0.93 |
| Eligible Cases National Reference | 712893 |
| % Cases with outcome | 55 |
| Significance | 0.05 |

All Patients' Process Quality Measure Report

Process Quality Measures: Care Plan Implementation (continued)

Heart Failure Symptoms Addressed During Short Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 57 |
| # Cases with outcome | 57 |
| % Cases with outcome | 100 |
| Eligible Cases Prior | 53 |
| % Cases with outcome | 96 |
| Significance | 0.23 |
| Eligible Cases National Reference | 292663 |
| % Cases with outcome | 95 |
| Significance | 0.05 |

Heart Failure Symptoms Addressed During Long Term Episodes Of Care

| | |
|-----------------------------------|-------|
| Eligible Cases Current | 13 |
| # Cases with outcome | 13 |
| % Cases with outcome | 100 |
| Eligible Cases Prior | 12 |
| % Cases with outcome | 100 |
| Significance | 1.00 |
| Eligible Cases National Reference | 64243 |
| % Cases with outcome | 96 |
| Significance | 0.58 |

Heart Failure Symptoms Addressed During All Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 70 |
| # Cases with outcome | 70 |
| % Cases with outcome | 100 |
| Eligible Cases Prior | 65 |
| % Cases with outcome | 97 |
| Significance | 0.23 |
| Eligible Cases National Reference | 356906 |
| % Cases with outcome | 95 |
| Significance | 0.03 |

Pain Interventions Implemented During Short Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 131 |
| # Cases with outcome | 95 |
| % Cases with outcome | 73 |
| Eligible Cases Prior | 122 |
| % Cases with outcome | 66 |
| Significance | 0.36 |
| Eligible Cases National Reference | 669092 |
| % Cases with outcome | 72 |
| Significance | 1.00 |

Process Quality Measures: Care Plan Implementation (continued)

Pain Interventions Implemented During Long Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 29 |
| # Cases with outcome | 22 |
| % Cases with outcome | 76 |
| Eligible Cases Prior | 27 |
| % Cases with outcome | 74 |
| Significance | 1.00 |
| Eligible Cases National Reference | 146874 |
| % Cases with outcome | 76 |
| Significance | 0.92 |

Pain Interventions Implemented During All Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 160 |
| # Cases with outcome | 117 |
| % Cases with outcome | 73 |
| Eligible Cases Prior | 149 |
| % Cases with outcome | 68 |
| Significance | 0.37 |
| Eligible Cases National Reference | 815966 |
| % Cases with outcome | 73 |
| Significance | 0.98 |

Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Short Term Episodes Of Care

| | |
|-----------------------------------|-------|
| Eligible Cases Current | 17 |
| # Cases with outcome | 10 |
| % Cases with outcome | 59 |
| Eligible Cases Prior | 16 |
| % Cases with outcome | 56 |
| Significance | 1.00 |
| Eligible Cases National Reference | 84869 |
| % Cases with outcome | 51 |
| Significance | 0.54 |

All Patients' Process Quality Measure Report

Process Quality Measures: Care Plan Implementation (continued)

Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During Long Term Episodes Of Care

| | |
|-----------------------------------|-------|
| Eligible Cases Current | 4 |
| # Cases with outcome | 2 |
| % Cases with outcome | 50 |
| Eligible Cases Prior | 3 |
| % Cases with outcome | 67 |
| Significance | 1.00 |
| Eligible Cases National Reference | 18630 |
| % Cases with outcome | 45 |
| Significance | 0.85 |

Treatment of Pressure Ulcers Based on Principles of Moist Wound Healing Implemented During All Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 21 |
| # Cases with outcome | 12 |
| % Cases with outcome | 57 |
| Eligible Cases Prior | 19 |
| % Cases with outcome | 58 |
| Significance | 1.00 |
| Eligible Cases National Reference | 103499 |
| % Cases with outcome | 50 |
| Significance | 0.52 |

Process Quality Measures: Education

Drug Education On High Risk Medications Provided To Patient/Caregiver At Start Of Episode

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 360 |
| # Cases with outcome | 326 |
| % Cases with outcome | 91 |
| Eligible Cases Prior | 335 |
| % Cases with outcome | 88 |
| Significance | 0.35 |
| Eligible Cases National Reference | 1834567 |
| % Cases with outcome | 87 |
| Significance | 0.05 |

Process Quality Measures: Education (continued)

Drug Education On All Medications Provided To Patient/Caregiver During Short Term Episodes of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 481 |
| # Cases with outcome | 417 |
| % Cases with outcome | 87 |
| Eligible Cases Prior | 448 |
| % Cases with outcome | 80 |
| Significance | 0.01 |
| Eligible Cases National Reference | 2449875 |
| % Cases with outcome | 83 |
| Significance | 0.02 |

Drug Education On All Medications Provided To Patient/Caregiver During Long Term Episodes of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 106 |
| # Cases with outcome | 87 |
| % Cases with outcome | 82 |
| Eligible Cases Prior | 98 |
| % Cases with outcome | 81 |
| Significance | 0.86 |
| Eligible Cases National Reference | 537778 |
| % Cases with outcome | 83 |
| Significance | 0.85 |

Drug Education On All Medications Provided To Patient/Caregiver During All Episodes of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 587 |
| # Cases with outcome | 504 |
| % Cases with outcome | 86 |
| Eligible Cases Prior | 546 |
| % Cases with outcome | 80 |
| Significance | 0.01 |
| Eligible Cases National Reference | 2987653 |
| % Cases with outcome | 83 |
| Significance | 0.04 |

All Patients' Process Quality Measure Report

Process Quality Measures: Prevention

Falls Prevention Steps Implemented For Short Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 163 |
| # Cases with outcome | 158 |
| % Cases with outcome | 97 |
| Eligible Cases Prior | 151 |
| % Cases with outcome | 93 |
| Significance | 0.19 |
| Eligible Cases National Reference | 828353 |
| % Cases with outcome | 93 |
| Significance | 0.05 |

Falls Prevention Steps Implemented for Long Term Episodes Of Care

| | |
|-----------------------------------|--------|
| Eligible Cases Current | 36 |
| # Cases with outcome | 33 |
| % Cases with outcome | 92 |
| Eligible Cases Prior | 33 |
| % Cases with outcome | 94 |
| Significance | 1.00 |
| Eligible Cases National Reference | 181834 |
| % Cases with outcome | 93 |
| Significance | 0.69 |

Falls Prevention Steps Implemented For All Episodes Of Care

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 199 |
| # Cases with outcome | 191 |
| % Cases with outcome | 96 |
| Eligible Cases Prior | 184 |
| % Cases with outcome | 93 |
| Significance | 0.36 |
| Eligible Cases National Reference | 1010187 |
| % Cases with outcome | 93 |
| Significance | 0.12 |

Influenza Immunization Received For Current Flu Season

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 491 |
| # Cases with outcome | 371 |
| % Cases with outcome | 76 |
| Eligible Cases Prior | 457 |
| % Cases with outcome | 83 |
| Significance | 0.00 |
| Eligible Cases National Reference | 2498765 |
| % Cases with outcome | 78 |
| Significance | 0.04 |

Process Quality Measures: Prevention (continued)

Influenza Immunization Offered and Refused For Current Flu Season

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 491 |
| # Cases with outcome | 70 |
| % Cases with outcome | 14 |
| Eligible Cases Prior | 457 |
| % Cases with outcome | 9 |
| Significance | 0.01 |
| Eligible Cases National Reference | 2498765 |
| % Cases with outcome | 7 |
| Significance | 0.00 |

Influenza Immunization Contraindicated

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 491 |
| # Cases with outcome | 50 |
| % Cases with outcome | 10 |
| Eligible Cases Prior | 457 |
| % Cases with outcome | 8 |
| Significance | 0.26 |
| Eligible Cases National Reference | 2498765 |
| % Cases with outcome | 4 |
| Significance | 0.00 |

Pneumococcal Polysaccharide Vaccine Ever Received

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 451 |
| # Cases with outcome | 339 |
| % Cases with outcome | 75 |
| Eligible Cases Prior | 420 |
| % Cases with outcome | 78 |
| Significance | 0.31 |
| Eligible Cases National Reference | 2298659 |
| % Cases with outcome | 80 |
| Significance | 0.01 |

Pneumococcal Polysaccharide Vaccine Offered and Refused

| | |
|-----------------------------------|---------|
| Eligible Cases Current | 451 |
| # Cases with outcome | 60 |
| % Cases with outcome | 13 |
| Eligible Cases Prior | 420 |
| % Cases with outcome | 12 |
| Significance | 0.60 |
| Eligible Cases National Reference | 2298659 |
| % Cases with outcome | 12 |
| Significance | 0.39 |

All Patients' Process Quality Measure Report

Process Quality Measures: Prevention (continued)

| Pneumococcal Polysaccharide Vaccine Contraindicated | | |
|--|---------|------|
| Eligible Cases Current | | 451 |
| # Cases with outcome | | 52 |
| % Cases with outcome | | 12 |
| Eligible Cases Prior | | 420 |
| % Cases with outcome | | 10 |
| Significance | | 0.46 |
| Eligible Cases National Reference | 2298659 | |
| % Cases with outcome | | 8 |
| Significance | | 0.01 |

Potential Medication Issues Identified And Timely Physician Contact At Start Of Episode

| | | |
|-----------------------------------|--------|------|
| Eligible Cases Current | | 69 |
| # Cases with outcome | | 33 |
| % Cases with outcome | | 48 |
| Eligible Cases Prior | | 64 |
| % Cases with outcome | | 64 |
| Significance | | 0.09 |
| Eligible Cases National Reference | 350897 | |
| % Cases with outcome | | 57 |
| Significance | | 0.12 |

Potential Medication Issues Identified And Timely Physician Contact During Short Term Episodes Of Care

| | | |
|-----------------------------------|--------|------|
| Eligible Cases Current | | 48 |
| # Cases with outcome | | 45 |
| % Cases with outcome | | 94 |
| Eligible Cases Prior | | 45 |
| % Cases with outcome | | 82 |
| Significance | | 0.11 |
| Eligible Cases National Reference | 244987 | |
| % Cases with outcome | | 83 |
| Significance | | 0.04 |

Potential Medication Issues Identified And Timely Physician Contact During Long Term Episodes Of Care

| | | |
|-----------------------------------|-------|------|
| Eligible Cases Current | | 11 |
| # Cases with outcome | | 9 |
| % Cases with outcome | | 82 |
| Eligible Cases Prior | | 10 |
| % Cases with outcome | | 80 |
| Significance | | 1.00 |
| Eligible Cases National Reference | 53778 | |
| % Cases with outcome | | 83 |
| Significance | | 0.84 |

Process Quality Measures: Prevention (continued)

| Potential Medication Issues Identified And Timely Physician Contact During All Episodes Of Care | | |
|--|--------|------|
| Eligible Cases Current | | 59 |
| # Cases with outcome | | 54 |
| % Cases with outcome | | 92 |
| Eligible Cases Prior | | 55 |
| % Cases with outcome | | 82 |
| Significance | | 0.17 |
| Eligible Cases National Reference | 298765 | |
| % Cases with outcome | | 83 |
| Significance | | 0.08 |

Pressure Ulcer Prevention Implemented During Short Term Episodes Of Care

| | | |
|-----------------------------------|--------|------|
| Eligible Cases Current | | 74 |
| # Cases with outcome | | 69 |
| % Cases with outcome | | 93 |
| Eligible Cases Prior | | 68 |
| % Cases with outcome | | 99 |
| Significance | | 0.21 |
| Eligible Cases National Reference | 374663 | |
| % Cases with outcome | | 95 |
| Significance | | 0.39 |

Pressure Ulcer Prevention Implemented During Long Term Episodes Of Care

| | | |
|-----------------------------------|-------|------|
| Eligible Cases Current | | 16 |
| # Cases with outcome | | 14 |
| % Cases with outcome | | 88 |
| Eligible Cases Prior | | 15 |
| % Cases with outcome | | 100 |
| Significance | | 0.48 |
| Eligible Cases National Reference | 82243 | |
| % Cases with outcome | | 93 |
| Significance | | 0.37 |

Pressure Ulcer Prevention Implemented During All Episodes Of Care

| | | |
|-----------------------------------|--------|------|
| Eligible Cases Current | | 90 |
| # Cases with outcome | | 83 |
| % Cases with outcome | | 92 |
| Eligible Cases Prior | | 83 |
| % Cases with outcome | | 98 |
| Significance | | 0.17 |
| Eligible Cases National Reference | 456906 | |
| % Cases with outcome | | 95 |
| Significance | | 0.25 |