Section J, Attachment J-10, Appendix A: Details on Measures
(Revised 2/18/2008)

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Section 1: Details on Evaluation Measures, incl. Proportion of Transitions Table

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1. **Measures – I-1,2,3,4,6**

For measures I-1, I-2, I-3, I-4, and I-6 (and O-3 and O-6, which are listed separately below), the QIO will report the relevant rate for each provider that the Theme QIO listed in the area, along with a justification for their estimate. The Theme QIO will enter these six rates, by provider, monthly throughout the project. The rate for each measure for each provider will be multiplied by the proportion of transitions represented by that provider in the Table of Proportions of Transitions (in #9 below) to yield the proportion of transitions involved in that measure. The Proportion of Transitions measure will be calculated annually. For each measure, those rates by provider will be summed to yield the proportion of transitions affected by the local project. An example of this calculation for I-1 and I-6 are given in the example presented in #9 below.

One patient transition may have been affected by more than one intervention; thus, the reporting of rates for each provider by the QIO will have to take account of the overlap and avoid double-counting transitions. The process for doing this will be included in the justification for the estimate of the provider table supplied monthly by the QIO. The explanation will be reviewed by the Support QIO.

An "intervention" reported here consists of an aim, a working group guiding the intervention, an intervention strategy, and a measurement strategy. An "intervention" in this meaning does not include activities limited to planning. Complex interventions and monitors may be reported as one coherent project or as split in meaningful ways, as preferred by the QIO and approved by the GTL; that choice will not affect the key monitors of progress as given below.

The Specific Measures:

I-1 Description: Percentage of patient care transitions (FFS Medicare) in the specified geographic area that are attributable to providers who agree to participate.
The rate at which providers are coming to meetings, agreeing in writing (including by Email), or otherwise participating in decision-making or intervention implementation. This is meant to be as inclusive as possible, and the rate may fall as well as rising from month to month (e.g., when a provider institution decides to withdraw from the project or new management stops participating). In general, the presence of a representative of a provider "at the table" will indicate 100% participation for the transitions represented by that provider. However, non-institutional providers will have to have their rate of participation estimated, and institutional providers might have different branches or other reasons why a particular representative reflects only part of their population.

I-2 Description: Percentage of patient care transitions (FFS Medicare) in the specified geographic area that are the potential subject of an implemented intervention that addresses hospital/community system wide processes. (Task 2.2.a).

I-3 Description: Percentage of patient care transitions (FFS Medicare) in the specified geographic area that are the potential subject of an implemented intervention that addresses AMI, CHF, or pneumonia. (Task 2.2.b)

I-4: Description: Percentage of patient care transitions (FFS Medicare) in the specified geographic area that are the potential subject of an implemented intervention that addresses specific reasons for readmission (Task 2.2.c)

I-6. Description: Percentage of patient care transitions (FFS Medicare) in the specified geographic area to which implemented and measured (as in I-5) interventions apply.

(O-3 and O-6 also use the Proportion of Transitions Table, but they are listed separately below.)

2. **Measure – I- 5**

Description: Percentage of implemented interventions in the specific geographic area that are measured. Calculated by dividing the sum of the interventions implemented for which measures are being collected, by the total number of interventions tallied. This ratio should always be as close to 1 as possible, since interventions without measurement are unlikely to provide insight.

3. **Measures O-1a and O-1b**

Description: Percentage of patients 65 years old and older who rate hospital performance as meeting HCAHPS performance standard for communication about medicines (O-1a) or discharge information (O-1b)

For O-1a, Communication about medicines

16. Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?

Never 1
Sometimes 2
Usually 3
Always 4

17. Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?

1 Never
Sometimes 2
Usually 3
Always 4

For O-1b, Discharge information

19. During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?

Yes1
No2

20. During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?

Yes1
No2

Method:

1. Existing data collection has each hospital completing 300 surveys per year, collecting the surveys quarterly.
2. After each quarter, construct rolling annual sets of H-CAHPS reports on the four data elements for all targeted hospitals in each project site (from the list submitted by the QIO) and for comparison sites.
3. Combine all targeted hospitals and split out the respondents age 65 or older.
4. Using the same approach as the two nationally reported measures (see explanatory section immediately following this list); calculate the two measures from the survey questions 16 and 17 (for communication about medicines) and 19 and 20 (for discharge information).
5. Report rolling measures from the preceding year, quarterly, for each target community and each comparison community (as well as the publicly reported national and state reports on all hospitals' data, annually).

How will composites be computed? How will missing data be handled? (Explanation and example from HCAHPS specifications)

There are seven domain-level composites included in the HCAHPS measure: communication with doctors, communication with nurses, responsiveness of hospital staff, pain control, communication about medicines, cleanliness and quiet of the hospital environment, and discharge information. The basic approach to the production of composite scores is described below.

Communication with doctors

This composite is produced by combining responses to three questions that ask:

- "During this hospital stay, how often did doctors listen carefully to you?"
- "During this hospital stay, how often did doctors explain things in a way you could understand?"

- “During this hospital stay, how often did doctors treat you with courtesy and respect?”

Respondents could answer “never,” “sometimes,” “usually,” or “always” to each. The basic steps in calculating a hospital’s composite score follow:

Step 1 – Calculate the proportion of cases in each response category for each question

P11 = Proportion of respondents who said “never” to the first question

P12 = Proportion of respondents who said “sometimes” to the first question

P13 = Proportion of respondents who said “usually” to the first question

P14 = Proportion of respondents who said “always” to the first question

Follow the same steps for calculating the proportion of cases in a response category to obtain proportions for the second question:

P21 = Proportion of respondents who said “never” to the second question

P22 = Proportion of respondents who said “sometimes” to the second question

P23 = Proportion of respondents who said “usually” to the second question

P24 = Proportion of respondents who said “always” to the second question

Follow the same steps for calculating the proportion of cases in a response category to obtain proportions for the third question:

P31 = Proportion of respondents who said “never” to the third question

P32 = Proportion of respondents who said “sometimes” to the third question

P33 = Proportion of respondents who said “usually” to the third question

P34 = Proportion of respondents who said “always” to the third question

Step 2 – Combine responses from the three questions to form the composite

Calculate the average proportion responding to each category across the three questions in the composite

PC1 = Composite proportion who said “never” = (P11+P21+P31) / 3

PC2 = Composite proportion who said “sometimes” = (P12+P22+P32) / 3

PC3 = Composite proportion who said “usually” = (P13+P23+P33) / 3

PC4 = Composite proportion who said “always” = (P14+P24+P34) / 3

A hospital’s score on the “doctor communication” composite is the proportion of cases in each response category.

If data are missing for any of the questions included in the composite, the respondent would not be included in the calculation of the proportion of respondents answering each of the response categories for that question.

HCAHPS public reporting will use the combination of “never” and “sometimes” as the main publicly reported rate, and the Care Transitions Theme will follow that precedent. So the “Communication about Medications” will be (P11+P21+P31 +P12+P22+P32) / 6 and the “Discharge information” will be (proportion with “No” on Question 19 + proportion with “No” on Question 20)/2)

4. Measure —O-2

Description: Percentage of patients discharged from an “acute care” hospital to a community setting and readmitted within 30 days who are seen by a physician between discharge and readmission.

Numerator: Medicare FFS beneficiaries discharged alive from “acute care” hospital who are readmitted within 30 days and for whom a physician (including nurse practitioner or physician assistant) claim was submitted for services in the time between discharge and readmission.

Denominator: Medicare FFS beneficiaries discharged alive from acute care hospital who are readmitted within 30 days.

Data Sources:

1. Medicare claims for the specified geographic areas for codes listed below.

List of E&M codes
New patient, office – 99201- 99205
Established patient, office – 99211- 99215
Consultations, office or outpatient – 99241 – 99245
Nursing facility, new or established – 99304 – 99310, 99315-99316, 99318
Domiciliary and assisted living – new – 99324 – 99328
Domiciliary and assisted living – established – 99334- 99337 and 99339-40
Home care – new – 99341- 99345
Home care – established – 99347 – 99350

Exclusions:

1. Claim for dates of service for institutional post acute care in the time between discharge and readmission.
2. Claim for hospice or home care in the time between discharge and readmission.

5. Measure -- O-3

The QIOs will report narrative and time series reports, using the SQUIRE guidelines for reporting (see Appendix E) and will estimate the rate of implementation of improvements, by provider, using the method described for the Interim Reports, #2 above.
Description: Percentage of patient care transitions (FFS Medicare), in the specified geographic area, for which implemented and measured interventions show improvement.

Method: In addition to the narrative and time-series reports, the QIO will report the proportion of transitions affected by interventions that showed improvement in quality, by provider. This report follows the method of the interim measures, using the Table of Proportions of Transitions, including being summed to an overall rate at which improvements affect transitions in the community. This rate will be reported quarterly.

6. Measure -- O-4

Description: Percentage of patients from the specified geographic area re-hospitalized within 30 days of discharge from an acute care hospital.

"Acute care" hospitals will not include critical access hospitals for the purposes of this measure.

Data source:

- Claims for beneficiaries hospitalized in the target area for each project (and for the comparison sites) (defined by ZIP codes),
- 1 quarter + 1 month of claims; 2 quarters + 1 month of claims

Frequency of calculation: Quarterly for test of trend, Semi-annually for evaluation measure.

Denominator: Each QIO will specify a population by ZIP Code of residence in the enrollment file (see specifications and exclusions below). The only exclusions from among beneficiaries in traditional Medicare at the time of hospitalization are for enrollees discharged dead, or discharged to another acute care hospital (and admitted to that other hospital on the same day).

Numerator: From those in the denominator, the number of Medicare beneficiaries who were readmitted at least once within 30 days of discharge from their initial hospital stay within the target period.

7. **Measure -- O- 6**

Description: Percentage of patient transitions within the specified geographic area for which a CARE instrument was used.

Data Sources:
1. CARE instrument data from OIS.
2. Proportions of transitions table.

Method: The Theme QIO will report the proportion of transitions for which at least the upstream provider used the CARE instrument, so that it was available to the downstream provider. The rate follows the method of the interim measures, using the Table of Proportions of Transitions, including being summed to an overall rate at which CARE was employed in transitions in the community. This rate will be reported quarterly.

8. **Measures – O-5a, b, and c.**

Using the methods established for the national reporting, except the readmission rates will be calculated quarterly without adjustment for purposes of tracking change, and annually for purposes of public reporting. The evaluation measure will be the annual, risk-adjusted rate, but the quarterly (unadjusted) rates will be used for monitoring and the Support QIO will assess them with tests of trend.

9. **The Proportion of Transitions Table (basis of Measures I-1, 2, 3, 4, 6, O-3, and O-6) (with example)**

Data:
From Medicare claims:

- Beneficiary Zip code of residence at the time of hospital discharge
- Admission and Discharge dates for “acute care” (IPPS) hospitalizations in 2007 (initially, then repeated annually) with follow-up through January 2008 (initially, then repeated annually).
- Calculated by August 2008 (and annually in 2009, 2010)
- Admission and discharge dates for all SNF, IRF, LTAC, psychiatric hospitals, and critical access hospitals for the same time periods.

Procedure:

1. For the ZIP codes specified by each QIO, pull all hospitalizations in 2007.
2. Exclude discharges dead.
3. Test for whether there is a new hospitalization on the same day as the initial hospital discharge. If so, discard the initial hospitalization and count only the ensuing hospitalization
4. For each beneficiary discharged alive in 2007, pull all other institutional use (admission and discharge date) for each beneficiary.
5. Assign 2 variables for each of the 30 days after the initial discharge: the day after discharge and the Medicare provider number where the beneficiary resides on that day. If the beneficiary is not residing in any of the target settings, then assign a neutral provider number (I will use “9” in the example below). This will yield a table with days 0 through 30 and provider numbers for each. Day 0 will have the provider number of the index hospital doing the discharge. If the patient is in two facilities on the same day (by having a discharge date and an admission date that match, then assign the patient to the admission setting for that day. This yields tables like the following:

Example #1 - For a patient who only has a hospital discharge from hospital #1

Bene ID # xxx-xx-xxxxx																															
Day after discharge	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Provider number	#1	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

Example #2 - For a patient who only has a readmission to hospital #2, on the 10th day

Bene ID # xxx-xx-xxxxx											
Day after discharge	0	1	2	3	4	5	6	7	8	9	10
Provider number	#1	9	9	9	9	9	9	9	9	9	#2

Example #3 - For that patient, who is discharged from hospital #2 a few days later, resetting the clock. This time, the person uses an SNF, #3, from day 5 through day 12 but is not readmitted to a hospital

Bene ID # xxx-xx-xxxxx																															
Day after discharge	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Provider number	#2	9	9	9	9	#3	#3	#3	#3	#3	#3	#3	#3	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

Example #4 - For a patient who goes direct from hospital #1 to an IRF (#4) for four more days, then to SNF (#5) for all of the rest of the month

Bene ID # xxx-xx-xxxxx																															
Day after discharge	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Provider number	#1	#4	#4	#4	#4	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5

6. If the patient is readmitted to an “acute care” hospital within 30 days, truncate the table on the day of readmission, and count the new discharge as a new start date for the 30 day follow-up.
7. Test for whether each beneficiary’s table has changes in provider number and create a list in which the provider number on the day before a change is listed as “sender” and the provider number on the day after a change is listed as “receiver.”

For the examples above –

Example #1 yields one transition in which #1 is a sender and “9” is a receiver

Example #2 yields two transitions, one in which #1 is a sender and “9” is a receiver, and one in which “9” is a sender and #2 is a receiver

Example #3 yields three transitions, one in which #2 is a sender and “9” is a receiver, one in which “9” is a sender and #3 is a receiver, and one in which #3 is a sender and “9” is a receiver

Example #4 yields two transitions, one in which #1 is a sender and #4 is a receiver, one in which #4 is a sender and #5 is a receiver.

Thus, if these were all hospitalizations, the tally would be

Provider number	Transitions as sender	Transitions as receiver	Sum of parties to transitions
#1	3	0	3
#2	1	1	2
#3	1	1	2
#4	1	1	2
#5	0	1	1
“9” (non-institutional providers)	2	4	6
Sum	8 transitions	8 transitions	16 parties to transitions

8. The sum of transitions on the list is the number of transitions.
9. The number of parties to transitions is double the number of transitions.
10. Tally the number of times each provider number is a sender or a receiver.
11. (Report the entire table to the QIO).
12. Match the provider number with the list that the QIO provided in order to create the institutional list in the Table: Proportions of Transitions Attributable to Each Institutional Provider. So, in this example, if provider #4 and # 5 are not in the QIO list, then the table above becomes

Provider number	Transitions as sender	Transitions as receiver	Sum of parties to transitions
#1	3	0	3
#2	1	1	2
#3	1	1	2
Institutional providers not in target group	1	2	3

“9” (non-institutional providers)	2	4	6
Sum	8 transitions	8 transitions	16 parties to transitions

The following steps are needed in order to estimate the proportion of non-institutional providers that are not in the target area.

13. The proportion of institutional providers that are “out of area” = 1 – [N of times that a targeted institution is party to transitions/ total N of times that an institution is party to transitions]
14. The proportion of non-institutional providers presumed to be “out of area” is assumed to be the same as the proportion of institutional providers that are “out of area,” as in #13.
15. Multiply the number of times that the “9” (or other neutral provider code) is party to transitions by the proportion of non-institutional providers that are “out of area” (#14) to get the number of transitions attributable to non-institutional providers “out of area.”
16. Subtract the product in #15 from the number of times that the “9” is party to transitions in order to obtain the non-institutional providers that are “in area.”
17. Fill in the last two lines of the Table with the numbers obtained in #15 and #16.

An empty final table and the further calculation of the simple example above follow:

Provider	Proportion
Hospital 1	xx.x%
Hospital 2	xx.x%
(Other area hospitals)…	
Out of Area hospitals	xx.x%
SNF 1	xx.x%
SNF 2	xx.x%
(Other “post acute care” institutions)	
Non-institutional providers in area	xx.x%
Non-institutional providers out of area	xx.x%
SUM	100%

And for the example above, the table would be the first and last columns in this table

Provider number	Number of times that this provider is party to transitions	Proportion
#1	3	3/16 =

		18.75%
#2	2	1/16 = 12.5%
#3	2	2/16 = 12.5%
Institutional providers not in target group	3	3/16 = 18.75%
“9” (non-institutional providers) in area	6 x [7/10] = ~4	4/16 = 25%
“9” non-institutional providers not in area	6 x [3/10] = ~ 2	2/16 = 12.5%
Sum	16 parties to transitions	100%

Section 2: Example of a Power Calculation to Determine Population Size:

To determine the minimum sample size needed at an 80% likelihood of detecting a difference:

--the "unit of analysis" is a discharge
--the measure is the percent of discharges resulting in re-hospitalization within 30 days (a discharge gets a code of 1 if there is a re-hospitalization within 30 days and a code of 0 if there is not)

--there are two samples (baseline and for the 28 month evaluation)
--PROVIDED THAT the baseline rehospitalization rate is 20% (approximately the national average)
--AND PROVIDED THAT THE PROPOSAL AIMS TO DETECT a drop in rehospitalization rate of 2 percentage points or more (from 20% to 18% or lower)
--the alpha level (Probability of incorrectly rejecting the null hypothesis that there is no difference in the percentage values) is .05.

Using the "two samples test" version for percentages of the statistical power calculator found at: http://www.dssresearch.com/toolkit/spcalc/power_p2.asp

The minimum sample sizes needed would be:

4800 discharges (at baseline and at 28 months) (live, fee-for-service, Medicare beneficiaries)

For a semi-annual rate of 4800 discharges, at the national rate of about 350 discharges per 1000 Medicare beneficiaries per year (from Dartmouth Atlas, 2003 data, www.dartmouthatlas.org), the population would have to have about
4800 discharges x (1000 Medicare beneficiaries/175 discharges) = 27,400 Medicare beneficiaries.

If about 15 % of the populations are Medicare beneficiaries, then the total population is
27,400 Medicare beneficiaries x (100 total population/15 Medicare beneficiaries) = 183,000 total population

Each partner community and comparison community will have to have their actual rates applied for this calculation.

Section 3: Databases from claims and their uses. (Provisional – subject to change during development)

Content	Initial time period	Repeat	Delivery Date	Use
Live discharges in target ZIP codes for each proposed project and comparison community, selected by ZIP code only, with one month follow-up, Part A inpatient facility	Calendar Year 2007	Annually	August 2008 and annually thereafter	Proportion of Transitions Table, calculated by ISG/IFMC;
Live discharges selected by being in the potential ZIP code list or being served by a target hospital, for each proposed community and comparison community, Part A inpatient hospital discharges only	Calendar Year 2007	Not repeated	April 2008 for partner communities, October 2008 for comparison communities	Checking and finalizing the ZIP code lists and target provider lists. Analyses by Support QIO.
Live discharges in a quarter, Part A and Part B claims for a year earlier and 6 months after, selected by being in the ZIP code list or being served by a target hospital	7/1/07 through 9/30/07 with 1 year look-back and 6 month follow-up	Annually	9/08 and annually thereafter	To Theme QIO (if desired) and Support QIO, for Guiding intervention (descriptive analyses) and monitoring adverse effect (180 – day re-hospitalization)
Live discharges in a quarter, Part A claims for 1	1/1/08 – 3/31/08 discharges	Quarterly	9/08 and quarterly thereafter	To Theme QIO (if desired) and Support QIO, for

month after discharge, selected by being in the ZIP code list or being served by a target hospital	with 1 year look-back and 1 month follow-up			monitoring core measure – 30-day rehospitalization
Live discharges in a quarter, selected by being in the ZIP code list or being served by a target hospital, Part A and Part B claims for a year earlier and 1 month after	1/1/08 – 3/31/08 discharges with 1 year look-back and 1 month follow-up	Every other quarter	9/08 and semi-annually thereafter	To Theme QIO (if desired) and Support QIO, for guiding intervention (descriptive analyses)

Initial List of Variables (for each claim) in the Part A and Part B databases supplied will be settled by the Support QIO, building from the experience in VALUE and from consultation with the Theme QIOs

Section 4: Timeframe for 28-Month Evaluation of Measures

Measure Number	Brief Measure Name	Baseline		28 Month Evaluation	
		Data Collection	Reported	Data Collection	Reported
O-1a	Percentage of patients over 65 years who rate hospital performance as “never” or “sometimes” meeting standards for information about medicines. (also will calculate test of trend)	7/1/07 – 6/30/08	12/08	7/1/09 – 6/30/10	11/10
O-1b	Percentage of patients over 65 years who rate hospital performance as “no” for discharge information. (also will calculate test of trend)	7/1/07 – 6/30/08	12/08	7/1/09 – 6/30/10	11/10
O-2	Percentage of patients discharged to community and readmitted within 30 days who are seen by a physician between discharge and readmission. (also will calculate test of trend on quarterly rates)	1/1/08 – 4/30/08 (for hospital discharges 1/1/08 – 3/31/08)	9/08	1/1/10 – 4/30/10 (for hospital discharges 1/1/10 – 3/31/10)	9/10
O-3	Percentage of patient care transitions (FFS Medicare), in the specified geographic area, for which implemented and measured interventions show improvement.	None	N/A	7/1/10 – 9/30/10	11/10
O-4	Percentage of patients from the specific geographic area re-hospitalized within 30 days of discharge from an acute care hospital. (also will calculate test of trend)	10/1/07 – 4/30/08 (for hospital discharges 10/1/07 – 3/31/08)	9/08	10/1/09 – 4/30/10 (for hospital discharges 10/1/09 – 3/31/10)	9/10
O-5	Percent of patients from the specific geographic area re-hospitalized within 30 days of discharge from an acute care hospital for any of the				

Measure Number	Brief Measure Name	Baseline		28 Month Evaluation	
	following admission diagnoses (any one of the 3 risk-adjusted measures – also will calculate the test of trend from quarterly measures)				
O-5a	AMI Discharge and All-Cause Readmission Rates – quarterly measures, test of trend throughout	1/1/08 – 4/30/08 (for hospital discharges 1/1/08 – 3/31/08)	9/08	1/1/10 – 4/30/10 (for hospital discharges 1/1/10 – 3/31/10)	9/10
	Risk Adjusted AMI Discharge and All-Cause Readmit	7/1/07-6/30/08 (for hospital discharges 7/1/07 – 6/1/08)	3/09	3/1/09 – 2/28/10 (for hospital discharges 3/1/09 – 2/1/10)	11/10
O-5b	CHF Discharge and All-Cause Readmission Rates	1/1/08 – 4/30/08 (for hospital discharges 1/1/08 – 3/31/08)	9/08	1/1/10 – 4/30/10 (for hospital discharges 1/1/10 – 3/31/10)	9/10
	Risk Adjusted CHF Discharge and All-Cause Readmit	7/1/07-6/30/08 (for hospital discharges 7/1/07 – 6/1/08)	3/09	3/1/09 – 2/28/10 (for hospital discharges 3/1/09 – 2/1/10)	11/10
O-5c	Pneumonia Discharge and All-Cause Readmission Rates	1/1/08 – 4/30/08 (for hospital	9/08	1/1/10 – 4/30/10 (for	9/10

Measure Number	Brief Measure Name	Baseline		28 Month Evaluation	
		discharges 1/1/08 – 3/31/08)		hospital discharges 1/1/10 – 3/31/10)	
	Risk Adjusted Pneumonia Discharge and All-Cause Readmit	7/1/07-6/30/08 (for hospital discharges 7/1/07 – 6/1/08)	3/09	3/1/09 – 2/28/10 (for hospital discharges 3/1/09 – 2/1/10)	11/10
O-6	Percentage of patient transitions within the specified geographic area for which a CARE instrument was used.	None	N/A	7/1/10 – 9/30/10	11/10

Section 5: Measures to Monitor Adverse Effects

180-day Rehospitalization

Description: Percentage of patients from the specified geographic area re-hospitalized within 180 days of discharge from an acute care hospital.

1. **Numerator**: Number of hospital live discharges of patients from the specified geographic area that were re-admitted within 180 days.
2. **Denominator**: Number of hospital live discharges of patients from the specified geographic area.
3. **Data Source**:

   Medicare Part A claims

4. **Exclusions**:

   Transfers to another acute care hospital

Specific Diagnosis Discharge, Mortality within 30 days.

Description: Specific Diagnosis Discharge/All-Condition 30 – day Readmission Rates (3 measures)

1. **Measure**: 30-day all-cause risk standardized mortality rates following HF, AMI and Pneumonia hospitalizations

2. **Population/Index Hospitalizations**: Discharges for Medicare fee-for-service beneficiaries age 65 or over admitted to the hospital with a principal ICD-9-CM discharge diagnosis of HF, AMI or Pneumonia and discharged alive.

iii. **Risk Standardized Mortality Rates:**

$$= \frac{P\ (\text{predicted})}{E\ (\text{expected})} * \text{National Rate}$$

Numerator: The number of deaths predicted by the hierarchical model among a hospital's patients, given the patients' risk factors and the hospital-specific effect

Denominator: The expected mortality among that hospital's patients given the patients' risk factors and the average of all hospital-specific effects in the nation

National Rate:

$$\frac{\text{Number of 30-day mortalities in the nation}}{\text{Number of discharges in the nation}}$$

iv. **Data Source**: Medicare administrative data including hospital inpatient and outpatient claims, physician practice claims and Medicare Enrollment Data Base file.

Section 6: Analytic Tools from the VALUE project

Section 6.a. Medical Record from Claims– Samples of claims sequence for individual patients (note: fictitious patients)

Case 1

VALUE Project Claims-based Electronic Medical Record Recorded Claims July 1, 2005 through December 31, 2006

CASE ID: Jane Doe AGE: 87 SEX: Male RACE: XX DEATH DT: XX STATE: XX

INDEX EVENT DATE: XXXXXXXXXXX INDEX EVENT: Earliest 2005q3 Inp AMI, HF, or PN as Prin Discharge Dx CARE COST: $211,785

Service Type	Place	MD Spec.	Days Fr Start	Event End	Payment Amount	Diagnoses	HCPCS/CPT4 Procedures	ICD9 Procedures
HSP	Hospce		118	128	$1,541	ALZHEIMER*S DISEASE		
HSP	Hospce		88	117	$4,203	ALZHEIMER*S DISEASE		
HSP	Hospce		57	87	$4,343	ALZHEIMER*S DISEASE		
HSP	Hospce		27	56	$4,049	ALZHEIMER*S DISEASE		
HSP	Hospce		0	26	$3,644	ALZHEIMER*S DISEASE		
INP	Inp		-7	0	$47,931	PNEUMONIA, ORGANISM NOS		ENTRAL INFUS NUTRIT SUB
						RETENTION URINE NOS		VENOUS CATH NEC
						CONVULSIONS NEC		
						DVRTCLO COLON W/O HMRHG		
						PERIPH VASCULAR DIS NOS		
						HYPERTENSION NOS		
						DMII WO CMP NT ST UNCNTR		
						THRUSH		
						INT INF CLSTRDIUM DFCILE		
medical Off		Neurol	-17	-17	$66	ALZHEIMER*S DISEASE	Office/outpatient visit, est	
OTP	Otp		-25	-16	$385	CONVULSIONS NEC	Wheelchair mngement training	
						72887	Therapeutic activities	
							Therapeutic exercises	
							Pt evaluation	
medical Off		Podiat	-31	-31	$31	FX MEDIAL MALLEOLUS-CLOS	Office/outpatient visit, est	
						EDEMA		
						70714		
medical Off		Podiat	-64	-64	$42	FX MEDIAL MALLEOLUS-CLOS	Office/outpatient visit, est	
						EDEMA		
SNF	SNF		-65	-49	$5,505	CONVULSIONS NEC	CB103	
						PERIPH VASCULAR DIS NOS		
						HYPERTENSION NOS		

						ALZHEIMER*S DISEASE		
						DMII WO CMP NT ST UNCNTR		
OTP	Otp		-94	-94	$5,151	FX MEDIAL MALLEOLUS-CLOS	Emergency dept visit	
						HX-VEN THROMBOSIS/EMBOLS	Extremity study	
						BONE & CARTILAGE DIS NOS	Injection (IV)	
						URIN TRACT INFECTION NOS	Antibiotic sensitivity, MIC	
						HYPERTENSION NOS	Urine culture, colony count	
						ALZHEIMER*S DISEASE	87077	
						29410	Automated hemogram	
						HYPOSMOLALITY	Urinalysis nonauto w/o scope	
						DMII WO CMP NT ST UNCNTR	Urinalysis, auto, w/scope	
							See data set for more detail	
SNF	SNF		-96	-66	$13,771	CONVULSIONS NEC	RMB02	
						PERIPH VASCULAR DIS NOS	CB103	
						HYPERTENSION NOS		
						ALZHEIMER*S DISEASE		
						DMII WO CMP NT ST UNCNTR		
medical	Off	Neurol	-107	-107	$42	EPIL PAR CONT W INTR EPI	Office/outpatient visit, est	
SNF	SNF		-126	-97	$14,604	CONVULSIONS NEC	RVB11	
						PERIPH VASCULAR DIS NOS	RVB07	
						HYPERTENSION NOS	RMB02	
						ALZHEIMER*S DISEASE		
						DMII WO CMP NT ST UNCNTR		
SNF	SNF		-135	-127	$4,908	CONVULSIONS NEC	RVB11	
						PERIPH VASCULAR DIS NOS		
						HYPERTENSION NOS		
						ALZHEIMER*S DISEASE		
						DMII WO CMP NT ST UNCNTR		
INP	Inp		-138	-135	$11,552	PART EPIL W/O INTR EPIL		
						HX-CIRCULATORY DIS NEC		
						CONGESTIVE HEART FAILURE		
						HYPERTENSION NOS		
						ALZHEIMER*S DISEASE		
						HYPOPOTASSEMIA		
						HYPOSMOLALITY		
						DIS MAGNESIUM METABOLISM		
						DMII WO CMP NT ST UNCNTR		
HHA	Home		-176	-141	$5,440	PHYSICAL THERAPY NEC	HCGM1	
						ENCNTR OCCUPATNAL THRPY	G0155	
						CONVULSIONS NEC	G0154	
						72887	G0152	
						LATE EFFECT CV DIS NOS	G0151	
						DMII WO CMP NT ST UNCNTR		
OTP	Otp		-185	-179	$432	ABNORMALITY OF GAIT	Therapeutic activities	
						MALAISE AND FATIGUE NEC	Gait training therapy	
							Therapeutic exercises	
							Pt evaluation	
SNF	SNF		-199	-186	$17,999	REHABILITATION PROC NEC	RHC01	
						HX-CIRCULATORY DIS NEC		
						CONVULSIONS NEC		
						70703		
						URIN TRACT INFECTION NOS		
						PNEUMONIA, ORGANISM NOS		
						ALZHEIMER*S DISEASE		
						29410		
						DMII WO CMP NT ST UNCNTR		
INP	Inp		-207	-199	$33,465	7837		COLONOSCOPY
						ACCIDENT IN PLACE NOS		SM BOWEL ENDOSCOPY NEC
						CONVULSIONS NEC		
						URIN TRACT INFECTION NOS		
						BLOOD IN STOOL		
						AGRANULOCYTOSIS		
						HYPOVOLEMIA		

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                                                DMII WO CMP NT ST UNCNTR
                                                E. COLI INFECT NOS
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medical Off    GP/IM   -211   -211         $0 CHEST PAIN NOS           Office/outpatient visit, est
                                                78321
                                                MALAISE AND FATIGUE NEC
                                                HYPERTENSION NOS
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HHA     Home           -245   -232     $1,400 PHYSICAL THERAPY NEC     HCGJ1
                                                ABNORMALITY OF GAIT      G0151
                                                MALAISE AND FATIGUE NEC
                                                CONVULSIONS NEC
                                                PAIN IN THORACIC SPINE
SNF     SNF            -253   -246     $8,923 REHABILITATION PROC NEC  RHA01
                                                HX-CIRCULATORY DIS NEC
                                                DEBILITY NOS
                                                CONVULSIONS NEC
                                                FOOD/VOMIT PNEUMONITIS
                                                HYPERTENSION NOS
                                                ALZHEIMER*S DISEASE
                                                29410
                                                DMII WO CMP NT ST UNCNTR
INP     Inp            -255   -253    $17,586 CONVULSIONS NEC
                                                HX-CIRCULATORY DIS NEC
                                                URINARY INCONTINENCE NOS
                                                FOOD/VOMIT PNEUMONITIS
                                                HYPERTENSION NOS
                                                ALZHEIMER*S DISEASE
                                                29410
                                                DMII WO CMP NT ST UNCNTR
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medical Off    GP/IM   -273   -273        $65 DMII UNSPF UNCNTRLD      Office/outpatient visit, est
                                                V0481
                                                CONVULSIONS NEC
                                                HYPERTENSION NOS
medical Off    Neurol  -284   -284        $65 ALZHEIMER*S DISEASE      Office/outpatient visit, est
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medical Off    GP/IM   -304   -304        $65 EDEMA                    Office/outpatient visit, est
                                                CONVULSIONS NEC
                                                STOMACH FUNCTION DIS NEC
                                                HYPERTENSION NOS
OTP     Otp            -309   -309     $3,591 MALAISE AND FATIGUE NEC  Emergency dept visit
                                                STATUS AMPUT FOOT        Electrocardiogram, tracing
                                                HX-CIRCULATORY DIS NEC   Urine culture, colony count
                                                CONVULSIONS NEC          Automated hemogram
                                                HYPERTENSION NOS         Glucose blood test
                                                ALZHEIMER*S DISEASE      Urinalysis nonauto w/o scope
                                                DMII WO CMP NT ST UNCNTR Urinalysis, auto, w/scope
                                                                         80053
                                                                         Chest x-ray
                                                                         See data set for more detail
medical Off    GP/IM   -325   -325        $65 DMII UNSPF UNCNTRLD      Office/outpatient visit, est
                                                EDEMA
                                                CONVULSIONS NEC
.......................................................................................................................
medical Off    GP/IM   -339   -339        $65 DMII UNSPF UNCNTRLD      Office/outpatient visit, est
                                                EDEMA
                                                CONVULSIONS NEC
                                                HYPERTENSION NOS
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OTP     Otp            -379   -379       $772 CONVULSIONS NEC          Electroencephalogram (EEG)
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medical Off    GP/IM   -393   -393        $65 DMII UNSPF UNCNTRLD      Office/outpatient visit, est
                                                MALAISE AND FATIGUE NEC
                                                RHINITIS DUE TO POLLEN
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Case 2

VALUE Project Claims-based Electronic Medical Record Recorded Claims July 1, 2005 through December 31, 2006

CASE ID: John Doe STATE: XX AGE: 68 SEX: Male RACE: XX DEATH DT: XX

INDEX EVENT DATE: XXXXXXX

INDEX EVENT: Earliest 2005q3 Inp AMI, HF, or PN as Prin D/C Dx CARE COST: $1,259,813

Service Type	Place	MD Spec.	Days Fr Event Start	End	Payment Amount	Diagnoses	HCPCS/CPT4 Procedures	ICD9 Procedures
SNF	SNF		344	345	$1,012	FX NECK OF FEMUR NOS-OPN	RML05	
						EDEMA		
						78099		
						GASTROINTEST HEMORR NOS		
						ACUTE PANCREATITIS		
						STOMACH FUNCTION DIS NOS		
						CHR AIRWAY OBSTRUCT NEC		
						ANXIETY STATE NOS		
						ANEMIA NOS		
INP	Inp		337	344	$26,533	28529		PACKED CELL TRANSFUSION
						INF MCRG RSTN PNCLLINS		SM BOWEL ENDOSCOPY NEC
						OTHER POSTOP INFECTION		VENOUS CATH NEC
						CHRONIC PANCREATITIS		
						DIAPHRAGMATIC HERNIA		
						CHR AIRWAY OBSTRUCT NEC		
						CONGESTIVE HEART FAILURE		
						ORGANIC BRAIN SYND NOS		
						STAPHYLOCOCCUS AUREUS		
SNF	SNF		325	337	$8,800	FX NECK OF FEMUR NOS-OPN	RML35	
						POSTTRAUM WND INFEC NEC		
						78099		
						GASTROINTEST HEMORR NOS		
						STOMACH FUNCTION DIS NOS		
						HYPERTENSION NOS		
						ANXIETY STATE NOS		
						ANEMIA NOS		
INP	Inp		322	325	$29,007	INTERTROCHANTERIC FX-CL		PACKED CELL TRANSFUSION
						FX BASE FEMORAL NCK-CLOS		CLOSED RED-INT FIX FEMUR
						SKIN DISORDERS NEC		
						PULMONARY COLLAPSE		
						CHR AIRWAY OBSTRUCT NEC		
						HYPOTENSION NOS		
						VENOUS THROMBOSIS NEC		
						HEART DISEASE NOS		
						ANEMIA NOS		
OTP	Otp		278	282	$17,299	52100	Leukocyte poor blood, unit	
						ESOPHAGEAL REFLUX	G0378	
						CHRONIC PERIODONTITIS	Non-covered item or service	
						CHR AIRWAY OBSTRUCT NEC	Pulmonary service/procedure	
						42830	Measure blood oxygen level	
						CONGESTIVE HEART FAILURE	Aerosol or vapor inhalations	
						HYPERTENSION NOS	Airway inhalation treatment	
						TOBACCO USE DISORDER	Electrocardiogram, tracing	
						ANEMIA NOS	Compatibility test	
							See data set for more detail	
OTP	Otp		229	254	$1,293	CHR AIRWAY OBSTRUCT NEC	Self care mngment training	

					78099	Therapeutic activities	
					STOMACH FUNCTION DIS NOS	Gait training therapy	
					PNEUMONIA, ORGANISM NOS	Therapeutic exercises	
					ACUTE PHARYNGITIS	Therapeutic exercises	
					HYPOTENSION NOS	Ot evaluation	
					CHR PULMON HEART DIS NEC	Pt evaluation	
INP	Inp	211	226	$135,425	SEPTICEMIA NOS		CONT MECH VENT < 96 HRS
					ACUTE RESPIRATRY FAILURE		ENTRAL INFUS NUTRIT SUB
					PULMONARY COLLAPSE		INSERT ENDOTRACHEAL TUBE
					FOOD/VOMIT PNEUMONITIS		CONT POS AIRWAY PRESSURE
					OBS CHR BRNC W ACT EXA		CONTR PULMON ARTERIOGRAM
					42830		VENOUS CATH NEC
					27651		
					MIXED ACID-BASE BAL DIS		
					PROTEIN-CAL MALNUTR NOS		
OTP	Otp	177	177	$1,607	ABDMNAL PAIN EPIGASTRIC	Fentanyl citrate injeciton	
					INTESTINAL BYPASS STATUS	Upper gi endoscopy,diagnosis	
					HEARING LOSS NOS		
					BLINDNESS, ONE EYE		
OTP	Otp	113	113	$383	HEADACHE	Emergency dept visit	
					ABDMNAL PAIN UNSPCF SITE		
OTP	Otp	90	90	$55	BRAIN INJURY NEC	Office/outpatient visit, est	
SNF	SNF	43	54	$4,604	PEPTIC ULCER NOS	RVA11	
					BRAIN INJURY NEC	RMA07	
					78099		
					72887		
					CHR AIRWAY OBSTRUCT NEC		
					PNEUMONIA, ORGANISM NOS		
SNF	SNF	35	42	$4,611	PEPTIC ULCER NOS	RVA11	
					BRAIN INJURY NEC		
					78099		
					CHR AIRWAY OBSTRUCT NEC		
					PNEUMONIA, ORGANISM NOS		
INP	Inp	16	35	$191,473	CHR DUODEN ULCER W HEM		CONT MECH VENT 96+ HRS
					SURG COMP-DIGESTV SYSTEM		INSERT ENDOTRACHEAL TUBE
					PANCREAT CYST/PSEUDOCYST		CHOLECYSTECTOMY
					CHRONIC PANCREATITIS		ENTEROSTOMY NEC
					PARALYTIC ILEUS		GASTROENTEROSTOMY NEC
					POST TRAUM PULM INSUFFIC		TRUNCAL VAGOTOMY
					CHR AIRWAY OBSTRUCT NEC		
					PNEUMONIA, ORGANISM NOS		
					PROTEIN-CAL MALNUTR NOS		
INP	Inp	0	16	$40,591	CHR DUODEN ULC NOS-OBSTR		
					CONVULSIONS NEC		
					ACQ PYLORIC STENOSIS		
					CHR AIRWAY OBSTRUCT NEC		
					ANEMIA NOS		
					PROTEIN-CAL MALNUTR NOS		
INP	Inp	-18	0	$165,201	PNEUMONIA, ORGANISM NOS		CONT MECH VENT 96+ HRS
					99591		ENTRAL INFUS NUTRIT SUB
					SPLEEN HEMATOMA-CLOSED		INSERT ENDOTRACHEAL TUBE
					FX MULT RIBS NOS-CLOSED		OTHER LOCAL DESTRUC SKIN
					78552		NONEXCIS DEBRIDEMENT WND
					CHR DUODEN ULC NOS-OBSTR		VENOUS CATH NEC
					ACUTE RESPIRATRY FAILURE		
					PROTEIN-CAL MALNUTR NOS		
					SEPTICEMIA NOS		
OTP	Otp	-24	-23	$499	HEADACHE	Emergency dept visit	
					ABDMNAL PAIN EPIGASTRIC	Automated hemogram	
HHA	Home	-28	-27	$125	LUMBAGO	HCHJ1	
					CHR AIRWAY OBSTRUCT NEC	G0154	
OTP	Otp	-29	-29	$4,159	MYALGIA AND MYOSITIS NOS	Emergency dept visit	

					V462	Electrocardiogram, tracing	
					EMPHYSEMA NEC	Injection (IV)	
					MONONEURITIS NOS	IV infusion therapy, 1 hour	
					TOBACCO USE DISORDER	Automated hemogram	
						Assay CK (CPK)	
						Urinalysis, auto, w/scope	
						80053	
						Chest x-ray	
						CAT scan of head or brain	
INP	Inp	-44	-42	$20,408	CHR STOMACH ULC W HEM		PACKED CELL TRANSFUSION
					LT EFF INTRACRANIAL INJ		SM BOWEL ENDOSCOPY NEC
					CONVULSIONS NEC		VENOUS CATH NEC
					EMPHYSEMA NEC		
					HYPOTENSION NEC		
					CONGESTIVE HEART FAILURE		
					HYPERTENSION NOS		
					CHR BLOOD LOSS ANEMIA		
					PROTEIN-CAL MALNUTR NOS		
OTP	Otp	-44	-44	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est	
					LONG-TERM USE MEDS NEC		
OTP	Otp	-48	-48	$1,170	HYPOPOTASSEMIA	Emergency dept visit	
					BONE & CARTILAGE DIS NOS	Thromboplastin time, partial	
					MYALGIA AND MYOSITIS NOS	Prothrombin time	
					CONGESTIVE HEART FAILURE	Automated hemogram	
					ANEMIA NOS	80053	
OTP	Otp	-65	-65	$166	HEADACHE	Emergency dept visit	
					V462		
					CHRONIC PANCREATITIS		
					CHR AIRWAY OBSTRUCT NEC		
					CONGESTIVE HEART FAILURE		
					TOBACCO USE DISORDER		
OTP	Otp	-70	-70	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est	
					LONG-TERM USE MEDS NEC		
OTP	Otp	-86	-86	$6,885	WRIST DROP	Emergency dept visit	
					LONG-TERM USE ANTICOAGUL	Electrocardiogram, tracing	
					V462	Thromboplastin time, partial	
					EMPHYSEMA NEC	Prothrombin time	
					CONGESTIVE HEART FAILURE	Automated hemogram	
					TOBACCO USE DISORDER	80048	
						3d/holograph reconstr add-on	
						Magnetic image, neck spine	
						Chest x-ray	
						See data set for more detail	
OTP	Otp	-91	-91	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est	
medical	Off GP/IM	-97	-97	$89	REHABILITATION PROC NEC	G0181	
					V5423		
					42833		
HHA	Home	-100	-68	$2,624	DEBILITY NOS	HBGL1	
					HEAD INJURY NOS	G0156	
					HEADACHE	G0154	
						G0152	
						G0151	
SNF	SNF	-110	-102	$4,977	PNEUMONIA, ORGANISM NOS	RMB07	
					SHOCK W/O TRAUMA NEC	RHB35	
					MUSCSKEL SYMPT LIMB NEC		
					GASTROINTEST HEMORR NOS		
					CHR AIRWAY OBSTRUCT NEC		
					HEARING LOSS NOS		
SNF	SNF	-117	-111	$6,252	PNEUMONIA, ORGANISM NOS	RHB35	
					SHOCK W/O TRAUMA NEC		
					MUSCSKEL SYMPT LIMB NEC		
					GASTROINTEST HEMORR NOS		
					CHR AIRWAY OBSTRUCT NEC		
					HEARING LOSS NOS		

INP	Inp	-137	-117	$117,510	PNEUMONIA, ORGANISM NOS		CONTR PULMON ARTERIOGRAM
					SHOCK W/O TRAUMA NEC		EGD WITH CLOSED BIOPSY
					CELLULITIS OF LEG		EGD WITH CLOSED BIOPSY
					ACUTE RENAL FAILURE NOS		ENDOSC CONTROL GAST HEM
					CHR DUODEN ULCER W HEM		ENDOSC CONTROL GAST HEM
					PULMONARY COLLAPSE		VENOUS CATH NEC
					OBS CHR BRNC W ACT EXA		
					AC POSTHEMORRHAG ANEMIA		
					HYPOVOLEMIA		
INP	Inp	-147	-143	$15,787	CONGESTIVE HEART FAILURE		
					PRSNL HST PEPTIC ULCR DS		
					LT EFF INTRACRANIAL INJ		
					70710		
					OBS CHR BRNC W ACT EXA		
					CHR PULMON HEART DIS NOS		
					BRAIN CONDITION NOS		
					HYPOPOTASSEMIA		
					PROTEIN-CAL MALNUTR NOS		
OTP	Otp	-156	-156	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est	
					ASPHYXIA		
OTP	Otp	-163	-163	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est	
					LONG-TERM USE MEDS NEC		
					ASPHYXIA		
OTP	Otp	-182	-182	$85	78321	Office/outpatient visit, est	
					LONG-TERM USE MEDS NEC		
					56400		
					CONGESTIVE HEART FAILURE		
SNF	SNF	-200	-189	$7,285	ACUTE PANCREATITIS	RHB07	
					MUSCSKEL SYMPT LIMB NEC		
					GASTROINTEST HEMORR NOS		
					ACUTE RESPIRATRY FAILURE		
					OBS CHR BRNC W ACT EXA		
SNF	SNF	-216	-201	$10,337	ACUTE PANCREATITIS	RHB11	
					INF MCRG RSTN PNCLLINS	RHB07	
					MUSCSKEL SYMPT LIMB NEC		
					GASTROINTEST HEMORR NOS		
					ESOPHAGEAL REFLUX		
					ACUTE RESPIRATRY FAILURE		
					OBS CHR BRNC W ACT EXA		
					AC POSTHEMORRHAG ANEMIA		
INP	Inp	-230	-216	$105,505	CHR DUODEN ULCER W HEM		SERUM TRANSFUSION NEC
					PARALYTIC ILEUS		PACKED CELL TRANSFUSION
					AC VASC INSUFF INTESTINE		CONT MECH VENT < 96 HRS
					ACUTE RESPIRATRY FAILURE		INSERT ENDOTRACHEAL TUBE
					PULMONARY COLLAPSE		SM BOWEL ENDOSCOPY NEC
					PLEURAL EFFUSION NOS		VENOUS CATH NEC
					OBS CHR BRNC W ACT EXA		
					AC POSTHEMORRHAG ANEMIA		
					CANDIDAL ESOPHAGITIS		
OTP	Otp	-230	-230	$565	HEMATEMESIS	A0429	
					DIARRHEA	A0425	
SNF	SNF	-231	-230	$169	ACUTE PANCREATITIS	SE207	
					ANEMIA NOS		
OTP	Otp	-242	-242	$2,439	CHRONIC PANCREATITIS	Fentanyl citrate injeciton	
					V462	Emergency dept visit	
					CHR AIRWAY OBSTRUCT NEC	Injection (IV)	
					HYPOVOLEMIA	Automated hemogram	
						Assay lipase	
						Urinalysis, auto, w/o scope	
						80053	
						Chest x-ray	
						36556	

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SNF     SNF            -246   -232    $10,836 ACUTE PANCREATITIS       SE311
                                               ANEMIA NOS               SE207
INP     Inp            -267   -246    $51,107 CHRONIC PANCREATITIS
                                               LT EFF INTRACRANIAL INJ
                                               PLEURAL EFFUSION NOS
                                               EMPYEMA W/O FISTULA
                                               CHR AIRWAY OBSTRUCT NEC
                                               ANEMIA NOS
                                               PROTEIN-CAL MALNUTR NOS
                                               DMII WO CMP NT ST UNCNTR
                                               HYPOTHYROIDISM NOS
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INP     Inp            -281   -267   $121,697 CHRONIC PANCREATITIS                                PERCU ABDOMINAL DRAINAGE
                                               PANCREAT CYST/PSEUDOCYST                            VENOUS CATH NEC
                                               PLEURAL EFFUSION NOS                                INSERT INTERCOSTAL CATH
                                               OBS CHR BRNC W ACT EXA
                                               CHR PULMON HEART DIS NOS
                                               PARAPLEGIA NOS
                                               ANEMIA NOS
                                               PROTEIN-CAL MALNUTR NOS
                                               HYPOTHYROIDISM NOS
SNF     SNF            -292   -282     $5,944 CELLULITIS, SITE NEC     RVB01
                                               CHR AIRWAY OBSTRUCT NEC
SNF     SNF            -293   -293       $854 CELLULITIS, SITE NEC     RHB01
                                               CHR AIRWAY OBSTRUCT NEC
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INP     Inp            -310   -293   $100,033 PLEURAL EFFUS NEC NOT TB                            PARENT INFUS NUTRIT SUB
                                               RESPIRATORY ABNORM NEC                              NONEXCIS DEBRIDEMENT WND
                                               CELLULITIS OF LEG                                   VENOUS CATH NEC
                                               PANCREAT CYST/PSEUDOCYST                            THORACENTESIS
                                               CHRONIC PANCREATITIS                                INSERT INTERCOSTAL CATH
                                               PULMONARY COLLAPSE
                                               OBS CHR BRNC W ACT EXA
                                               HYPERTENSION NOS
                                               TOBACCO USE DISORDER
SNF     SNF            -322   -311     $4,405 CELLULITIS NOS           RHC01
                                               REHABILITATION PROC NEC  Therapeutic activities
                                               MALAISE AND FATIGUE NEC  Therapeutic activities
                                               ACUTE PANCREATITIS       Ot evaluation
                                               CHR AIRWAY OBSTRUCT NEC  Ot evaluation
                                               VENOUS INSUFFICIENCY NOS
                                               TOBACCO USE DISORDER
                                               ANEMIA NOS
                                               PROTEIN-CAL MALNUTR NOS
INP     Inp            -326   -322    $26,314 CELLULITIS OF LEG                                   EXC WOUND DEBRIDEMENT
                                               70719                                               VENOUS CATH NEC
                                               ACUTE RENAL FAILURE NOS
                                               CHR AIRWAY OBSTRUCT NEC
                                               CONGESTIVE HEART FAILURE
                                               COAGULAT DEFECT NEC/NOS
                                               HYPOVOLEMIA
                                               HYPOSMOLALITY
                                               PROTEIN-CAL MALNUTR NOS
OTP     Otp            -329   -329        $85 BURN NOS                 Office/outpatient visit, est
                                               CHR AIRWAY OBSTRUCT NEC
                                               CONGESTIVE HEART FAILURE
.......................................................................................................................
OTP     Otp            -336   -336        $85 CONGESTIVE HEART FAILURE Office/outpatient visit, est
                                               TRAUMATIC SUBDURAL HEM
                                               CHR AIRWAY OBSTRUCT NEC
OTP     Otp            -338   -338       $690 ABDMNAL PAIN UNSPCF SITE CAT scan of abdomen
medical Off    Gastr   -342   -342        $42 PANCREAT CYST/PSEUDOCYST Office/outpatient visit, est
OTP     Otp            -359   -359        $85 CONGESTIVE HEART FAILURE Office/outpatient visit, est
                                               LONG-TERM USE MEDS NEC
                                               78099
                                               CHR AIRWAY OBSTRUCT NEC
.......................................................................................................................
```

OTP	Otp	-366	-366	$55	EDEMA	Office/outpatient visit, est
OTP	Otp	-373	-373	$85	CONGESTIVE HEART FAILURE	Office/outpatient visit, est
					TRAUM SUBARACHNOID HEM	
					ASPHYXIA	
					CHR AIRWAY OBSTRUCT NEC	

Case 3

VALUE Project Claims-based Electronic Medical Record Recorded Claims July 1, 2005 through December 31, 2006

CASE ID: James Doe AGE: 72 SEX: Male RACE: XX DEATH DT: n/a STATE: XX

INDEX EVENT DATE: XXX INDEX EVENT: Earliest 2005q3 Inp AMI, HF, or PN as Prin Discharge Dx CARE COST: $116,913

Service Type	Place	MD Spec.	Days Fr Event Start	End	Payment Amount	Diagnoses	HCPCS/CPT4 Procedures	ICD9 Procedures
medical	Off	Other	315	315	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	302	302	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	287	287	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	273	273	$12	ALLERGIC RHINITIS NOS	Office/outpatient visit, est	
						ASTHMA W/O STATUS ASTHM	Immunotherapy, one injection	
medical	Off	GP/IM	258	258	$42	CVA	Office/outpatient visit, est	
medical	Off	Other	253	253	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	245	245	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
OTP	Otp		233	233	$3,300	V7651	Colon ca scrn barium enema	
						INT HEMORRHOID W/O COMPL		
medical	Off	Other	233	233	$182	ALLERGIC RHINITIS NOS	Antigen therapy services	
medical	Off	GP/IM	231	231	$0	ROUTINE MEDICAL EXAM	Preventive visit,new,65 & ove	
medical	Off	Other	231	231	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	217	217	$42	RHINITIS DUE TO POLLEN	Office/outpatient visit, est	
						ASTHMA W/O STATUS ASTHM	Immunotherapy, one injection	
medical	Off	Other	208	208	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	205	205	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	196	196	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	190	190	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	187	187	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	175	175	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	169	169	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	159	159	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	153	153	$1	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	147	147	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	141	141	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	135	135	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	126	126	$12	ALLERGIC RHINITIS NOS	Office/outpatient visit, est	
						ASTHMA W/O STATUS ASTHM	Immunotherapy, one injection	
medical	Off	Other	114	117	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	105	105	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	100	100	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection	
medical	Off	Other	92	92	$12	ALLERGIC RHINITIS NOS	Office/outpatient visit, est	
							Immunotherapy, one injection	

medical	Off	Other	85	85	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	77	77	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	70	70	$12	V0481	Office/outpatient visit, est
							Immunotherapy, one injection
							Immunotherapy, one injection
medical	Off	Other	63	63	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	55	55	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
INP	Inp		50	51	$58,994	CRNRY ATHRSCL NATVE VSSL	CORONAR ARTERIOGR-2 CATH
						STATUS-POST PTCA	LEFT HEART CARDIAC CATH
						ANGINA PECTORIS NEC/NOS	3607
						AMI INFERIOR WALL,SUBSEQ	0066
						HYPERTENSION NOS	0046
						HYPERLIPIDEMIA NEC/NOS	0041
medical	Off	Other	46	46	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	39	39	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	30	30	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Cardio	29	29	$42	CRNRY ATHRSCL NATVE VSSL	Office/outpatient visit, est
						ANGINA PECTORIS NEC/NOS	
						AMI INFERIOR WALL,SUBSEQ	
						PURE HYPERCHOLESTEROLEM	
medical	Off	Other	21	21	$42	ALLERGIC RHINITIS NOS	Office/outpatient visit, est
						ASTHMA W/O STATUS ASTHM	Immunotherapy, one injection
medical	Off	Other	14	14	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	7	7	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	1	1	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
INP	Inp		-2	0	$52,544	AMI INFERIOR WALL, INIT	CORONAR ARTERIOGR-2 CATH
						HX-CIRCULATORY DIS NEC	LEFT HEART CARDIAC CATH
						ASTHMA W/O STATUS ASTHM	3607
						HYPERTENSION NOS	PTCA-1 VES/ATH W/O AGENT
medical	Off	Other	-8	-8	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-9	-9	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-16	-16	$42	ASTHMA W/O STATUS ASTHM	Office/outpatient visit, est
							Immunotherapy, one injection
medical	Off	Other	-23	-23	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-37	-37	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-41	-41	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-47	-47	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-51	-51	$0	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-58	-58	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-30	-30	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-63	-63	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-71	-71	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-76	-76	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-87	-87	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-91	-91	$42	ASTHMA W/O STATUS ASTHM	Office/outpatient visit, est
						RHINITIS DUE TO POLLEN	Immunotherapy, one injection
medical	Off	Other	-94	-94	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-98	-98	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-105	-105	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-113	-113	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-119	-119	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-126	-126	$12	ALLERGIC RHINITIS NOS	Immunotherapy, one injection
medical	Off	Other	-132	-132	$42	ALLERGIC RHINITIS NOS	Office/outpatient visit, est
						49392	Immunotherapy, one injection
medical	Off	Other	-133	-133	$588	ALLERGIC RHINITIS NOS	Antigen therapy services
medical	Off	Other	-153	-153	$187	ASTHMA W/O STATUS ASTHM	Office consultation
						ALLERGIC RHINITIS NOS	Allergy skin tests
medical	Off	Alg/Im	-332	-332	$65	RHINITIS DUE TO POLLEN	Office/outpatient visit, est

					60000 EXT ASTHMA W/O STAT ASTH BENIGN HYPERTENSION	
medical Off	Alg/Im	-352	-352	$65	ACUTE BRONCHITIS	Office/outpatient visit, est
					49302 HYPERTENSION NOS	

Section 6.b. Hospital (or community) Practice Pattern: Sample of analyses by hospital (fictitious hospitals)

Calculated Hospital Statistic	*A*	*B*	*C*	*D*
	(N=xx)	*(N=xxx)*	*(N=xxx)*	*(N=xxx)*
Dartmouth Atlas Utilization	**High**	**Low**	**High**	**Low**
Statistics from Index Hospitalization at Participant Hospital				
LENGTH OF STAY (Mean/Median)	5.8/4.0	9.4/6.0	6.9/4.5	4.8/3.0
ICU/CCU STAY DURING INDEX HOSPITALIZATION (%)	61.8%	17.9%	36.8%	--
ICU/CCU LENGTH OF STAY (Mean/Median)	3.9/2.5	0.8/0.0	4.2/3.0	--
RATIO OF #ICU/CCU DAYS TO #HOSPITAL DAYS (%)	3.9:5.8 (67.6%)	4.6/3.0	4.2:6.9 (60.6%)	--
MEAN AGE	74.3	81.7	75.4	78.1
PRIMARY DISCHARGE DIAGNOSIS:				
Acute Myocardial Infarction (AMI) (%)	37.1%	8.7%	30.2%	0.0%
Heart Failure (HF) (%)	27.0%	38.1%	37.7%	37.5%
Pneumonia (PN) (%)	36.0%	11.9%	32.1%	62.5%
ADMISSION TYPE:				
Elective (%)	2.2%	27.4%	20.8%	0.0%
Urgent (%)	25.8%	60.7%	1.9%	100.0%
Emergency (%)	67.4%	15.5%	76.4%	0.0%
Unknown (%)	4.5%	3.6%	0.9%	0.0%
DISCHARGE DISPOSITION:				
Home (%)	36.0%	29.8%	47.2%	93.8%
Skilled Nursing Facility (%)	22.5%	41.7%	20.8%	6.3%
Home Health (%)	18.0%	13.1%	16.0%	0.0%
Expired (%)	11.2%	8.3%	3.8%	0.0%
Other (%)	12.4%	7.1%	12.3%	0.0%
Statistics from Admissions to Target Hospital Post Index Hospitalization				
LENGTH OF STAY (Mean/Median)	4.0/3.0	6.1/5.1	7.7/5.0	4.8/3.0
PROPORTION OF ADMISSIONS WITH ICU/CCU STAY (%)	44.9%	61%	33.3%	--
ICU/CCU LENGTH OF STAY (Mean/Median)	3.4/1.5	2.0/0.0	6.7/3.0	--
RATIO OF #ICU/CCU DAYS TO #HOSPITAL DAYS (%)	3.4:4.0 (83.2%)	4.5/6.0(75.0%)	6.7:7.7 (87.5%)	--
EXPIRED WITHIN 180 DAYS OF INDEX HOSP DISCHARGE (%)	24.7%	26.2%	26.4%	43.8%

READMISSION RATIO = (total #readm in specified days from index dsg date) / (total #pts alive within specified time):				
Readmissions within 14 days of index hosp discharge date	0.09	65.6%	0.07	0.06
Readmissions within 30 days of index hosp discharge date	0.20	6.9/5.0	0.19	0.13
Readmissions within 60 days of index hosp discharge date	0.37	31.0%	0.37	0.36
Readmissions within 90 days of index hosp discharge date	0.45	0.15	0.46	0.58
Readmissions within 180 days of index hosp discharge date	0.70	0.31	0.66	1.00
NUMBER OF READMISSIONS = (total #pts readm specified # of times) / (total #pts alive at 180 days from index dsg):				
No Readmissions to Target Hospital	62.7%	0.70	69.2%	77.8%
One Readmission to Target Hospital	26.9%	1.00	23.1%	11.1%
Two Readmissions to Target Hospital	7.5%	55.2%	5.1%	11.1%
Three Readmissions to Target Hospital	0.0%	25.9%	1.3%	0.0%
More than Three Readmissions to Target Hospital	3.0%	5.2%	1.3%	0.0%
Statistics from Physician Office Visits Post Index Hospitalization				
PHYSICIAN OFFICE VISITS BETWEEN HOSPITALIZATIONS (Mean/Median)	5.8/3.0	5.2%	6.1/4.0	1.0/1.0
PHYSICIANS VISITED BETWEEN HOSPITALIZATIONS (Mean/Median)	2.4/2.0	1.8/2.0	2.8/2.0	1.0/1.0
OUTPATIENT PROCEDURES BETWEEN HOSPITALIZATIONS (Mean/Median)	2.5/2.0	3.1/2.0	3.4/2.0	6.7/5.0
Time to Event Statistics				
NUMBER OF DAYS BETWEEN DISCHARGE DATE OF INDEX HOSPITALIZATION AND…				
...SNF VISIT (Mean/Median)	24.7/0.0	31.7/31.0	24.6/0.0	122.7/97.0
...HOME HEALTH VISIT (Mean/Median)	28.0/6.5	41.8/30.0	46.2/23.0	./.
...HOSPICE VISIT (Mean/Median)	29.7/9.0	35.9/0.0	63.1/33.0	./.
...PHYSICIAN OFFICE VISIT (Mean/Median)	32.6/13.0	65.4/31.5	23.1/8.0	59.0/59.0

Section 7: Timeline of periods of data generation and resulting reports

Section 8: Management of Reports (provisional – subject to development)

Name	Generated by	Format	Stored in Partner	Comments
Site ZIP Code Lists	Theme QIO	List	Yes	Locked down at start of project. Can only be changed with recommendation of Support QIO and permission of GTL
Site Provider Partner Lists	Theme QIO	List with provider numbers	Yes	Locked down at start of project. Can only be changed with recommendation of Support QIO and permission of GTL
Comparison Site ZIP code Lists	Support QIO	List	Yes	Locked down when submitted. Can only be changed with recommendation of Support QIO and permission of GTL
Comparison Site Provider Lists	Support QIO	List with Provider Numbers	Yes	Locked down when submitted. Can only be changed with recommendation of Support QIO and permission of GTL
Initial Table of Proportion of Transitions	ISG	Table for each site	Yes	Calculated annually, on the basis of a calendar year of discharges
Interim measures	Theme QIOs report observed rates, Approved by Support QIO and GTL, calculation of proportions by ISG	Spreadsheet	Yes	Calculated monthly to guide the project, reported quarterly to management
Narrative "Root Cause" reports	Theme QIOs	Narrative with graphics	Yes	Initially, at 18 months, and at 28 months
Outcome measures O-1a and b (HCAHPS)	ISG	Spreadsheet	Yes	Calculated quarterly on the basis of rolling annual data collection. Support QIO also calculates test of trend for each site
Outcome measures O-2 and O-4 (30-d re-hospitalization and Re-hospitalization without physician visit)	ISG	Spreadsheet	Yes	Calculated quarterly. For 28-month evaluation, first two quarters compared with last two quarters. Support QIO also

				calculates test of trend for each site.
Reports of completed interventions (Part of Outcome Measure O-3)	Theme QIOs	Narrative with time series and other graphics	Yes	Reported as completed, filed by Theme QIO and reviewed and approved by Support QIO and GTL.
Outcome measure O-3 – Proportion of Transitions affected by Improvement	Theme QIOs report observed rates, Approved by Support QIO and GTL, calculation of proportions by ISG	Spreadsheet	Yes	Calculated quarterly
Outcome measure O-5 (specific diagnosis 30-d rehospitalization)	CFMC	Spreadsheet	Yes	Calculated quarterly without risk-adjustment. Test of trend calculated by Support QIO. Calculated annually with risk-adjustment. The risk-adjusted measure will be used in the 28 month evaluation.
180-d re-hospitalization	Support QIO	Spreadsheet	Yes	Calculated semi-annually
Specific Diagnoses 30-d mortality	CFMC	Spreadsheet	Yes	Calculated annually, with risk adjustment
Benchmark and trend report	Support QIO	Narrative with graphics	Yes	Quarterly

Section 9: Overview of CARE instrument and plans

The CARE instrument and its internet-based platform are under development with a view toward consolidating the MDS, OASIS, and IRF-PAI and creating a tool that is useful for tying together clinical care across all settings of care, whether the settings themselves have electronic records or not. The instrument is on-line, available in real time to downstream providers. A paper copy of the first demonstration version is appended here. CMS expects that the CARE instrument will be a useful tool to encourage good transitions, and that the development of the CARE instrument will be guided by the experience of the sites in the Care Transitions Theme. The modifications that prove to be important are those likely to be prioritized.

You can see the CARE instrument at
http://www.cms.hhs.gov/PaperworkReductionActof1995/PRALSep2007/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=1&sortOrder=ascending&itemID=CMS1205047&intNumPerPage=10

Download the ZIP file and open CMS 10243. Appendix B MASTER CARE Tool 30 day revisions 103107.doc

Some of the characteristics of the current and expected functionality of the instrument and its platform are as follows:

- The items collected are being represented in LOINC and otherwise enabled for upload and download from electronic record systems.
- At present, only providers associated with institutions can gain access, but a broader group (e.g., physicians) can be authorized.
- At present, very little carry-forward is authorized, but that could be liberalized.
- The instrument may be modified to directly collect information on the completeness and timeliness of transfer of information and other characteristics of good transitions.
- The definition of a complete instrument may be modified to allow targeted completion.
- The instrument may gain functionality to use computer-assisted selection of items to reduce burden.
- The display of older assessments may be graphical or customized to the situation (e.g., different for an ER visit than for a physical therapy episode).

Section 10: CARE: Sample of Screen shots of internet platform as of January 2008.

CMS CARE System

Welcome, AJones

Home | Assessments | Reports | Help | Print | Logout

Home

Today's Date

September 28, 2007

Quick Links

- Training Manuals
- Completion Time Survey
- Feedback

Where Am I?

Marianjoy Rehabilitation Hospital - Wheaton, IL

Medicare ID: 1234567890
NPI: 1234567890

Type: Long-Term Care Hospital (LTCH)

Welcome to CARE

What would you like to do?

- Search Assessments
- Initiate Assessment
- View My Assessments
- View My Provider's Assessments
- Finalize Assessments
- Edit Provider Information
- Edit My Profile
- Switch Provider: Marianjoy Rehabilitation Hospital

PRA Disclosure Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0938-XXXX. The time required to complete this information collection is estimated to average (XX hours) or (XX minutes) per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: CMS, 7500 Security Boulevard, Attn: PRA Reports Clearance Officer, Mail Stop C4-26-05, Baltimore, Maryland 21244-1850.

Centers for Medicare & Medicaid Services, 7500 Security Boulevard Baltimore, MD 21244

CMS CARE System

Welcome, AJones

Home | Assessments | Reports | Help | Print | Logout

My Assessments | Provider Assessments | Search | Initiate

Home > Assessments > Initiate

Today's Date

September 28, 2007

Quick Links

- Training Manuals
- Completion Time Survey
- Feedback

Where Am I?

Marianjoy Rehabilitation Hospital - Wheaton, IL

Medicare ID: 1234567890
NPI: 1234567890

Type: Long-Term Care Hospital (LTCH)

Initiate Assessment

The items on this page are required to initiate an assessment. Once initiated, you will have access to the full form to fill in remaining items.

C. Patient Information

C1.	**Patient's First Name:**	Jonathan
C3.	**Patient's Last Name:**	Doe-Smith
C5.	**Patient's HICN:**	123121234A
C8.	**Date of Birth:**	12 / 31 / 1947
C10.	**Gender:**	1. Male

Save | Cancel | Verify Patient

Centers for Medicare & Medicaid Services, 7500 Security Boulevard Baltimore, MD 21244

CMS CARE System

Welcome,

Assessment Summary | Help | Print Page | Print Assessment | Exit Assessment

Administrative | Admission | Medical | Cognitive | Impairments | Functional | Engagement | Frailty | Discharge | Other

Assessment Summary > Medical > Medications

Today's Date

September 28, 2007

Subsections

- Primary Diagnosis
- Other Diagnoses
- Procedures
- Treatments
- **Medications**
- Allergies
- Skin Integrity
- Physiologic Factors

Quick Links

- Training Manuals
- Completion Time Survey
- Feedback
- Print Blank Form

Where Am I?

Marianjoy Rehabilitation Hospital - Wheaton, IL

Medicare ID: 1234567890
NPI: 1234567890

Type: Long-Term Care Hospital (LTCH)

Type: Long-Term Care Hospital (LTCH)

Name: Jonathan Doe-Smith
Birth Date: 12/31/1947
Type: Admission

Assessment: 0012345
Provider: Marianjoy Rehabilitation Hospital
Admission Date: 09/29/2007

III. Current Medical Items IP

E. Medications

List all current medications for the patient at the 2-day assessment period.

Medication Name	Dose	Route	Frequency	Planned Stop Date (if applicable)
E1a. ery	E1b.	E1c.	E1d.	E1e.
E2.				E2e.
E3.				E3e.
E4.				E4e.
E5.				E5e.

Is

Add Line

erythromycin stearate 250 MG Oral Tablet [MY-E]
Erythromycin 0.02 MG/MG Topical Gel [Dermamycin]
Erythromycin 0.02 MG/MG Topical Gel [Emgel]
Erythromycin 20 MG/ML Topical Solution [T-Stat]
Erythromycin 250 MG Enteric Coated Capsule
Erythromycin 333 MG Enteric Coated Tablet
Erythromycin 40 MG/ML Oral Suspension [E.E.S. Granules]
pentaerythritol 20 MG / Phenobarbital 15 MG Oral Tablet
Erythromycin Ethylsuccinate 200 MG Chewable Tablet [EryPed]
Erythromycin Ethylsuccinate 40 MG/ML / Sulfisoxazole 120 MG/ML Oral Suspension
Erythromycin 0.005 MG/MG Ophthalmic Ointment [Ilotycin]
Erythromycin 400 MG Oral Tablet
Guaifenesin 90 MG / Theophylline 150 MG Oral Capsule [Glyceryl T]
Hydroxyzine 10 MG / pentaerythritol 10 MG Oral Tablet
Meprobamate 200 MG / pentaerythritol 10 MG Oral Tablet

Administrative | Admission | Medical | Cognitive | Impairments | Functional | Engagement | Frailty | Discharge | Other

Centers for Medicare & Medicaid Services, 7500 Security Boulevard Baltimore, MD 21244

Patient: Jonathan Doe-Smith, Admission Assessment

My Computer

CMS CARE System

Welcome, AJones

Assessment Summary | Help | Print | Exit Assessment

Administrative | Admission | Medical | Cognitive | Impairments | Functional | Engagement | Frailty | Discharge | Other

Assessment Summary > Medica

Select Date, Pl...

September 2007

Mo	Tu	We	Th	Fr	Sa	Su
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Today's Date

September 28, 2007

Subsections

- Primary Diagnosis
- Other Diagnoses
- Procedures
- Treatments
- **Medications**
- Allergies
- Skin Integrity
- Physiologic Factors

Quick Links

- Training Manuals
- Completion Time Survey
- Feedback

Where Am I?

Marianjoy Rehabilitation Hospital - Wheaton, IL

Medicare ID: 1234567890
NPI: 1234567890

Type: Long-Term Care Hospital (LTCH)

mith *Assessment:* 0012345
Provider: Marianjoy Rehabilitation Hospital
Admission Date: 09/29/2007

rent Medical Items IP

atient at the 2-day assessment period.

ose	Route	Frequency	Planned Stop Date (if applicable)
	E1c.	E1d.	E1e.
E2a. E2b.	E2c.	E2d.	E2e.
E3a. E3b.	E3c.	E3d.	E3e.
E4a. E4b.	E4c.	E4d.	E4e.
E5a. E5b.	E5c.	E5d.	E5e.

Is list complete? 0. No

+ Add Line

< Previous | Save | Cancel | Next >

Administrative | Admission | Medical | Cognitive | Impairments | Functional | Engagement | Frailty | Discharge | Other

Centers for Medicare & Medicaid Services, 7500 Security Boulevard Baltimore, MD 21244

Patient: Jonathan Doe-Smith, Admission Assessment | My Computer

Section 11: Sites proposed for the CARE demonstration

Communities proposed for the Care Transitions Theme may also have some providers involved in the Post-Acute Care Payment Reform Demonstration (PAC-PRD). If a Theme QIO proposes to include any such site, they must not alter the participating provider's use of the CARE instrument or its electronic platform during the demonstration data collection. The first market will begin in March 2008 and run for 9 months. The other sites will all initiate by September 2008 and run for 9 months. If a Theme QIO intends to propose one of these market areas (or an area that might be a suburb or nearly rural area), the Theme QIO should email Judith.Tobin@cms.hhs.gov, who may be able to provide up-to-date information that could shape how to proceed. It is possible that some areas will not be available for this contract due to overlap with the PAC-PRD.

The primary and alternative markets in PAC-PRD are:

Primary Market	Alternative Market, if necessary
Boston, Massachusetts	Philadelphia, Pennsylvania
Chicago, Illinois	None identified
Dallas, Texas	Atlanta, Georgia
Lakeland/Tampa, Florida	Wilmington, North Carolina
Lincoln, Nebraska	Colorado Springs/Pueblo, Colorado
Louisville, Kentucky	Canton/Akron, Ohio
Rapid City, South Dakota	Marquette, Michigan
Rochester, New York	Portland, Maine
San Francisco/Bay Area, California	Salt Lake City, Utah
Seattle/Tacoma, Washington	Portland, Oregon

The markets are centered on cities, but recruited facilities may be located within a two hour radius to include nearby suburban and rural areas.

Section 12: SQUIRE guidelines for reporting intervention trials.

SQUIRE Guidelines
(Standards for Quality Improvement Reporting Excellence)
Version 2.6 – 12/1/07 – used with permission – will amend to match final published version

- These guidelines are intended to provide a framework for writing and publishing reports of studies that formally assess the nature and effectiveness of interventions carried out to improve the quality and safety of care. (Guidelines for informal reports of experiences with QI interventions can be found at: [URL for QSHC/BMJ QI reporting guidelines])

- Although each major section (i.e., Introduction, Methods, Results, and Discussion) of published reports of original studies generally contains at least some information about all the numbered items included in the corresponding guideline section, some information about individual items from one section (for example, the Introduction) is often also needed in other sections (for example, the Discussion).

Text section; Item number and name	***Section or Item description***
Front matter	*What did you do to help with finding, indexing, and scanning your report?*
1. Title	• Indicates the article concerns improvement of quality (broadly defined to include safety, effectiveness, patient-centeredness, timeliness, efficiency (value), and equity), and states the specific aim of the intervention
2. Abstract	• Summarizes the key information from all text sections, using the abstract format requested by the intended publication
Introduction	*Why did you undertake the intervention, and why did you decide to study it?*
3. Background Knowledge	• Provides a brief, balanced summary of current knowledge of care problem being addressed, and characteristics of organizations in which it occurs
4. Local problem	• Describes the nature and severity of the specific local problem or system dysfunction that was addressed • Specifies who (champions, supporters) and what (events, observations) triggered the decision to make changes, and why now (timing) • Indicates the factors contributing to choice of the specific improvement intervention (e.g., analysis of causes of the dysfunction; prior studies of relevant improvement

Text section; Item number and name	***Section or Item description***
	strategies)
5. Intended improvement	• Describes the specific aim (changes/improvements in care processes and patient outcomes) of the proposed intervention
6. Study question	• States the questions that the study of the intervention was designed to answer as related to primary and secondary outcomes
Methods	*What did you do to implement the intervention, and to study its implementation and impact?*
7. Ethical issues	• Describes the ethical aspects of implementing and studying the improvement, particularly those related to its primary purpose, i.e., local improvement (better care), search for generalizable knowledge (research), or both, and how ethical concerns were addressed
8. Setting	• Specifies how elements of the environment considered most likely to influence change/improvement in the involved site or sites were identified and characterized
9. Planning the intervention	• Characterizes in detail how the intervention was initially planned: i.e., what was to be done (initial steps; functions to be accomplished by those steps; how tests of change would be used to modify the intervention), and by whom (intended roles, qualifications, and training of staff)
10. Planning the study	• Outlines plans made for assessing how well the intervention was implemented (dose or intensity of exposure) • Describes the mechanisms (theories) by which intervention components were expected to cause changes, and approaches planned for testing whether those mechanisms were effective • Identifies the experimental or quasi-experimental design chosen for measuring impact of the intervention on primary and secondary outcomes, if applicable • Explains efforts planned for implementing the essential aspects of chosen study design, as described in appropriate study design publication guidelines (see, for example, www.equator-network.org) • Describes specific plans made for maximizing internal and external validity
11. Methods of evaluation	• Describes instruments (qualitative, quantitative, or mixed) used to assess a) effectiveness of implementation, b) contributions of intervention components and context factors to effectiveness of the intervention, and c) primary and

Text section; Item number and name	***Section or Item description***
	secondary outcomes • Reports efforts to validate and test reliability of assessment instruments • Explains methods used to assure data quality (e.g., blinding, repeating measurements and data extraction; training in data collection)
12. Analysis	• Provides details of qualitative and quantitative (statistical) methods used to draw inferences from the data • Aligns unit of analysis with level at which the intervention was applied (if applicable) • Specifies degree of variability expected in implementation, change expected in primary outcome (effect size), and ability of study design (including size) to detect such effects • Describes analytic methods used to demonstrate effects of time as a variable (e.g., statistical process control)
Results	*What did you find?*
13. Outcomes	a) Nature of setting and improvement intervention • Characterizes relevant elements of setting or settings (e.g., geography, physical resources, organizational culture, history of change efforts), and structures and patterns of care (e.g., staffing, leadership) that provided context for the intervention • Explains the actual course of the intervention (e.g., sequence of steps, events or phases; type and number of participants at key points), preferably using a time-line diagram or flow chart • Documents degree of success in implementing intervention components • Describes how and why the initial plan evolved, and the most important lessons learned from that evolution, particularly the effects of internal feedback from tests of change (reflexiveness) b) Changes in processes of care and patient outcomes associated with the intervention • Presents data on changes observed in the care delivery process • Presents data on changes observed in measures of patient outcome (e.g., morbidity, mortality, function, patient/staff satisfaction, service utilization, cost, care disparities) • Presents evidence on strength of the association

Text section; Item number and name	***Section or Item description***
	between observed changes in outcomes and intervention components and context factors • Includes summary of missing data for intervention and outcomes
Discussion	*What does it all mean?*
14. Summary	• Summarizes the most important successes and difficulties in implementing intervention components, and main changes observed in care delivery and clinical outcomes
15. Relation to other evidence	• Compares and contrasts study results with relevant findings of others, drawing on broad and balanced review of the literature; use of a summary table may be helpful in building on existing evidence
16. Limitations	• Considers possible sources of confounding, bias, or imprecision in design, measurement, and analysis that might have affected study accuracy (internal validity) • Explores factors affecting generalizability (external validity), particularly features of local settings and implementation of the intervention • Addresses likelihood that observed gains may weaken over time, and describes plans, if any, for monitoring and maintaining improvement; explicitly states if such planning was not done • Reviews efforts made to minimize and adjust for study limitations • Assesses the effect of study limitations on interpretation and application of results
17. Interpretation	• Explores possible reasons for differences between observed and expected outcomes • Draws inferences consistent with the strength of the data about causal mechanisms and size of observed changes, paying particular attention to components of the intervention and context factors that helped determine the intervention's effectiveness (or lack thereof) • Suggests steps that might be modified to improve future performance • Reviews issues of opportunity cost and actual financial cost of the intervention
18. Conclusions	• Considers overall practical usefulness of the intervention demonstrated locally, and types of settings in which this intervention is most likely to be effective • Suggests implications of this report for further studies

Text section; Item number and name	***Section or Item description***
	of improvement interventions