Abt

Abt Associates Inc.

MEGA QI PILOT PROJECT

USER'S MANUAL

MegaQI Pilot Project User's Manual

List of Contents

The following is a list of the contents of this User's Manual:

Chapter 1
Introduction and Overview of the MegaQIs

This "MegaQI" User's Guide contains information on how each quality indicator is defined and the criteria for Minimum Data Set (MDS) record selection. A brief introduction to the quality indicators calculated for the CMS-QIO Pilot Project follows.

Ten quality indicators were selected from a longer list of quality indicators recommended for use by CMS. These indicators target both the chronic and post-acute care populations served by nursing facilities.

- By "chronic" care, we are referring to those types of patients who enter a nursing facility typically because they are no longer able to care for themselves at home. These patients (or residents) tend to remain in the nursing facility anywhere from several months to several years. For purposes of calculating the megaQIs, we calculate a chronic QI on any residents with a full or quarterly MDS in the target quarter (in this case, Quarter 3 of 2001).
- By "post-acute" care, we are referring to those types of patients who are admitted to a facility and stay less than 30 days or so. These admissions typically follow an acute care hospitalization and involve high-intensity rehabilitation or clinically complex care. For purposes of calculating the megaQIs, we calculate a PAC QI on any patients with a 14-day PPS MDS in the last six months.

There are seven "chronic" care quality indicators to be used in the pilot project. These include:
Late-loss ADL worsening;
Infections prevalence;
Weight loss prevalence;
Inadequate pain management;
Stage 1-4 pressure ulcer prevalence;
Restraint use prevalence; and
Prevalence of antipsychotic use in the absence of psychotic and related conditions.

There are three "post-acute" care quality indicators to be used in the pilot project. These include:
Failure to improve/manage delirium symptoms;
Inadequate pain management; and
Improvement in walking.

The operational definitions for each quality indicator are provided in the "Chronic Care (CC) QI Definitions"(Chapter 2) and "Post Acute Care (PAC) QI Definitions" (Chapter 3) sections of this User's Guide. In those sections, numerators, denominators, exclusion criteria and facility admission profiles are described. In general, we think about the numerator as the count of patients with the condition of interest, and the denominator as the count of patients in the facility or as a group of patients in the facility considered to be "at risk" of the condition of interest.

This User's Guide also contains the criteria that were used to select MDS records to calculate the chronic and post-acute care QIs (Chapter 4).

The excel spreadsheets you receive will contain numerators, denominators and adjusted QI scores for every facility in your state for which we had MDS data in Quarter 3 (period ending September 30), 2001. An "adjusted" QI score may be thought of as an estimate of the percentage of a facility's residents that would trigger the QI if the facility had residents with average risk.

Chapter 2
Chronic Care (CC) QI Definitions

This chapter contains a matrix giving the definitions for the Chronic Care QIs used in the megaQI Pilot Project. For each QI, the matrix gives the information necessary to calculate the QI, the Facility Admission Profile (FAP) for the QI, and any covariates used for the QI.

For each QI, the first column of the matrix provides the following information:
- **QI domain.** The QI domain is in the shaded column heading.
- **QI description.** The first entry in the column is a brief description of the QI.
- **QI short label.** The short label for the QI is the first entry in parentheses.
- **QI source.** The source for the QI is the second entry in parentheses. The different sources for the QIs are CHSRA (Center for Health Systems Research and Analysis of the University of Wisconsin-Madison), LTCQ (Long Term Care Quality System), and megaQI (CMS's megaQI Project).

The second column gives the information for calculating the QI:
- **Numerator.** The numerator entry gives the logic used to determine whether a resident triggers the QI (if the resident is included in the numerator for the QI rate in the facility).
- **Denominator.** The denominator entry defines whether a resident has the necessary records available to be a candidate for the QI (inclusion of the resident in the denominator for the QI rate for the facility). For the first QI, a resident must have a valid target and a valid prior assessment to be a candidate for the QI.
- **Exclusions.** The exclusions entry provides clinical conditions and missing data conditions that preclude a resident from consideration for the QI. An excluded resident is excluded from both the numerator and denominator for the QI rate for the facility.

- **Technical comments.** Entries here provide additional technical details pertaining to the QI numerator, denominator, and exclusions. Example of the type of information provided include specific details for calculating scale scores, definition of missing data values for an MDS item, and selection of the value for an MDS item that may come from different assessments for a resident.

The third column gives the information for calculating The Facility Admission Profile (FAP) score for a resident and for calculating covariate scores for a resident when covariates are used for a QI:

- **Facility admission profile.** The facility admission profile entry gives the logic for calculating the FAP score for a resident and the logic for when a resident should be excluded from the FAP. Note that the FAP for some QIs is a prevalence rate for the facility and the calculation logic for a resident involves numerator and denominator conditions. For other QIs, the FAP is a mean scale score and in these cases the FAP calculation logic involves calculation of the scale score.
- **Covariates.** The covariates entry defines the calculation logic for covariates. Covariates are always prevalence indicators with a value of 1 if the condition is present and a value of 0 if the condition is not present.
- **Technical Comments.** Entries here provide additional technical details pertaining to the FAP and covariates. Example of the type of information provided include specific details for calculating scale scores, definition of missing data values for an MDS item, and selection of the value for an MDS item that may come from different assessments for a resident.

Chapter 2: Chronic Care (CC) QI Definitions

Pilot Chronic Care QI Definitions Revised 02/13/2002 v3		
Indicator **PHYSICAL FUNCTIONING**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
Late-Loss ADL worsening (ADL01, CHSRA)	**Numerator:** Residents with worsening (increasing item score) in Late-Loss ADL self-performance at target relative to prior assessment. Residents meet the definition of Late-Loss ADL worsening when at least two of the following are true: 1. G1a(A)[t]-G1a(A)[t-1] > 0, or 2. G1b(A)[t]-G1b(A)[t-1] > 0, or 3. G1h(A)[t]-G1h(A)[t-1] > 0, or 4. G1i(A)[t]-G1i(A)[t-1] > 0, OR at least one of the following is true: 1. G1a(A)[t]-G1a(A)[t-1] > 1, or 2. G1b(A)[t]-G1b(A)[t-1] > 1, or 3. G1h(A)[t]-G1h(A)[t-1] > 1, or 4. G1i(A)[t]-G1i(A)[t-1] > 1. Note: Late-Loss ADL items values of 8 are recoded to 4 for evaluation of change. **Denominator:** All residents with a valid target and a valid prior assessment. **Exclusions:** Residents meeting any of the following conditions: 1. None of the four Late-Loss ADLs (G1a(A), G1b(A), G1h(A), and G1i(A)) can show decline because all four each have a value of 4 (total dependence) or a value 8 (activity did not occur) on the prior assessment. 2. The QI did not trigger (resident not included in the numerator) AND there is missing data on any one of the four Late-Loss ADLs (G1a(A), G1b(A), G1h(A), or G1i(A)) on the target assessment [t] or prior assessment [t-1]. 3. The resident is comatose (B1 = 1) or comatose status is unknown (B1 = missing) on the target assessment. 4. The resident has end-stage disease (J5c = checked) or status is unknown (J5c = missing) on the target assessment. 5. The resident is receiving hospice care (P1ao = checked) or hospice status is unknown (P1ao = missing) on the target assessment or the most recent full assessment.	**Facility admission profile (FAP_ADL01):** mean ADL Long Form (ADLLF) scale score among facility admissions (AA8a = 01) over previous 12 months. Definition of ADLLF is given in Technical Comment #1 below. Exclusions: Admission assessments (AA8a = 01) with a missing value for the ADLLF.

	Technical Comments:
	1. Exclusion condition 2: Missing values for G1aA, G1bA, G1hA and G1iA are any values other than 0, 1, 2, 3, 4, and 8.
	2. Exclusion conditions 3 through 5. Missing values for B1, J5c, and P1ao are any values other than 0 and 1.
	3. Exclusion condition 5: Use of target assessment versus most recent full assessment.
	        3.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the P1ao value from the target
		Technical Comments:
		1. <u>ADL Long Form (ADLLF) Scale Definition</u> (range 0 through 28):
		        1.1. Defined as sum of G1a(A), G1b(A), G1e(A), G1g(A), G1h(A), G1i(A), G1j(A), after converting 8's (activity did not occur) to 4's (total dependence).
		        1.2. ADLLF value is missing if G1a(A), G1b(A), G1e(A), G1g(A), G1h(A), G1i(A), or G1j(A) is missing. Missing values on these items are any values other than 0, 1, 2,

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Indicator **PHYSICAL FUNCTIONING**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
	assessment will be used for the exclusion test. 3.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the P1ao value on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value from the target assessment will be used for the exclusion test. P1ao will be present (active) on the quarterly assessment in some states. 3.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the P1ao value on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used for the exclusion test. 4. The QI score will be set to missing if the case is excluded.	3, 4, and 8. 2. Admission assessments with missing values on ADLLF are excluded from FAP_ADL01. Missing values on ADLLF are any values other than 0 through 28. 3. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_ADL01. The predicted score will be set to missing if the QI score is missing.

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Indicator CLINICAL COMPLEXITY	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Infections prevalence
 	
(INF0X, MEGAQI)
	Numerator: Residents with any of the following infections or health conditions noted on the target or most recent full assessment:
	1. Pneumonia (I2e=checked) on the target assessment or most recent full assessment,
	2. Respiratory infection (I2f=checked) on the target assessment or most recent full assessment,
	3. Septicemia (I2g=checked) on the target assessment or most recent full assessment,
	4. Urinary tract infection (I2j=checked) on the target assessment only,
	5. Viral hepatitis (I2k=checked) on the target assessment or most recent full assessment,
	6. Wound infection (I2l=checked) on the target assessment or most recent full assessment,
	7. Fever (J1h=checked) on the target assessment or most recent full assessment,
	8. Recurrent lung aspiration (J1k=checked) on the target assessment or most recent full assessment.
	
	Denominator: All residents with a valid target assessment.
	
	Exclusions: Residents satisfying any of the following conditions:
	1. The target assessment is an admission (AA8a = 01) assessment.
	2. The QI did not trigger (resident is not included in the QI numerator) AND any of the infections or health conditions (I2e, I2f, I2g, I2j, I2k, I2l, J1h, and J1k) is missing on the target assessment or most recent full assessment.
		Facility admission profile FAP_INF0X: Proportion of residents with any one of a set of selected infections and health conditions (I2e, I2f, I2g, I2j, I2k, I2l, J1h, and J1k) checked among facility admissions (AA8a = 01) over previous 12 months.
		      Numerator: Admission assessments (AA8a = 01) with I2e, I2f, I2g, I2j, I2k, I2l, J1h, or J1k checked (value 1).
		      Denominator: All admission assessments (AA8a = 01).
		      Exclusions: Admission assessments (AA8a = 01) that do not satisfy the numerator conditions AND that have missing data on any item I2e, I2f, I2g, I2j, I2k, I2l, J1h, and J1k.

	Technical Comments:
	1. Numerator inclusion: Use of target assessment versus most recent full assessment for items I2e, I2f, I2g, I2k, I2l, J1h, and J1k.
	      1.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the I2e, I2f, I2g, I2k, I2l, J1h, and J1k values from the target assessment will be used.
	      1.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for one of these items (I2e, I2f, I2g, I2k, I2l, J1h, or J1k) on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value for that item from the target assessment will be used. I2e, I2f, I2g, I2k, I2l, J1h, and J1k will be present (active) on the quarterly assessment in some states.
	      1.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for one of these items (I2e, I2f, I2g, I2k, I2l, J1h, and J1k) on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value for that item from the most recent full
		Technical Comments:
		1. Admission assessments that do not satisfy the numerator conditions and that have a missing value on I2e, I2f, I2g, I2j, I2k, I2l, J1h, OR J1k are excluded from FAP_INF0X. Missing values on I2e, I2f, I2g, I2j, I2k, I2l, J1h, and J1k are any values other than 0 and 1.
		2. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_IF0X. The predicted score will be set to missing if the QI score is missing.

[t] indicates target assessment, [t-1] prior assessment, and [t-2] assessment preceding the prior assessment (prior-1 assessment)

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Indicator **CLINICAL COMPLEXITY**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
	assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used. 2. Exclusion Condition 2. Missing values for I2e, I2f, I2g, I2j, I2k, I2l, J1h, and J1k are any values other than 0 and 1. 3. The QI score will be set to missing if the case is excluded.	

Items refer to MDS 2.0.
[t] indicates target assessment, [t-1] prior assessment, and [t-2] assessment preceding the prior assessment (prior-1 assessment)

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Indicator CLINICAL COMPLEXITY	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Weight loss prevalence
 	
(WGT01, LTCQ)
	Numerator: Residents with weight loss (K3a=1) on target assessment.
	
	Denominator: All residents with a valid target assessment.
	
	 Exclusions: Residents satisfying the following condition:
	1. The target assessment is an admission (AA8a = 01) assessment.
	2. The value of K3a is missing on the target assessment.
	3. The resident has end-stage disease (J5c = checked) or status is unknown (J5c = missing) on the target assessment.
	4. The resident is receiving hospice care (P1ao = checked) or hospice status is unknown (P1ao = missing) on the target assessment or the most recent full assessment.
	5. Advanced directives are present for feeding restrictions (A10f = checked) or feeding restriction status is unknown (A10f = missing) on the target assessment or the most recent full assessment.
		Facility admission profile FAP_WGT01: prevalence of recent weight loss (K3a=1) among admissions (AA8a = 01) over previous 12 months.
		    Numerator: Admission assessments (AA8a = 01) with K3a = 1.
		    Denominator: All admission assessments (AA8a = 01).
		    Exclusions: Admission assessments (AA8a = 01) with missing data on K3a.
		
		Covariates:
		1. Indicator of long term memory problem on the target assessment:
		    Covariate = 1 if B2b = 1.
		    Covariate = 0 if B2b = 0.
		2. Indicator of leaves 25% of food uneaten on the target assessment or most recent full assessment:
		    Covariate = 1 if K4c checked (value 1).
		    Covariate = 0 if K4c not checked (value 0).
		3. Indicator of bed mobility problem on the target assessment:
		    Covariate = 1 if G1a(A) = 3, 4, or 8.
		    Covariate = 0 if G1a(A) = 0, 1, or 2.
		4. Indicator of physically abusive behavior on the target assessment:
		    Covariate = 1 if E4c(A) = 2 or 3.
		    Covariate = 0 if E4c(A) = 0 or 1.

	Technical Comments:
	1. Exclusion conditions 2 through 5. Missing values for K3a, J5c, P1ao, and A10f are any values other than 0 and 1.
	2. Exclusion condition 4: Use of target assessment versus most recent full assessment for P1ao.
	   2.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the P1ao value from the target assessment will be used for the exclusion test.
	   2.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the P1ao value on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value from the target assessment will be used for the exclusion test. P1ao will be present (active) on the quarterly assessment in some states.
	   2.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the P1ao value on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used for the exclusion test.
	3. Exclusion condition 4: Use of target assessment versus most
		Technical Comments:
		1. Admission assessments that have a missing value on K3a are excluded from FAP_WGT01. Missing values on K3a any values other than 0 and 1.
		2. Covariate 2: Use of prior assessment versus most recent full assessment for item K4c.
		   2.1. If the prior assessment is a full assessment (AA8a = 01,02,03, or 04), then the K4c value from the prior assessment will be used.
		   2.2. If the prior assessment is a quarterly assessment (AA8a = 05 or 10) and the value for K4c on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value for that item from the prior assessment will be used. K4c will be present (active) on the quarterly assessment in some states.
		   2.3. If the prior assessment is a quarterly assessment (AA8a = 05 or 10) and the value for K4c on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value for that item from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target

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Indicator **CLINICAL COMPLEXITY**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
	recent full assessment for A10f. 3.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the A10f value from the target assessment will be used for the exclusion test. 3.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the A10f value on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value from the target assessment will be used for the exclusion test. A10f will be present (active) on the quarterly assessment in some states. 3.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the A10f value on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used for the exclusion test. 4. The QI score will be set to missing if the case is excluded. 5. The QI score will be set to missing if any of the 4 covariates have a missing value.	assessment reference date (A3a), will be used. 3. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_WGT01 and the 4 covariates. The predicted score will be set to missing if the QI score is missing OR any covariate has a missing value. 3.1. A covariate will have a missing value if the covariate is NOT = 1 or 0 according to the conditions above. 3.1.1. When Covariate 1, 3 or 4 has a missing value, then the relevant value selected from the target assessment (B2b for Covariate 1, G1a(A) for Covariate 3, and E4c(A) for Covariate 4) is missing. Missing values on B2b are any values other than 0 and 1; missing values on G1a(A) are any values other than 0, 1, 2, 3, 4, and 8; missing values on E4c(A) are any values other than 0 through 3. 3.1.2. When Covariate 2 has a missing value, then the K4c value selected (see Technical Comment 2 above) from the target assessment or most recent full assessment is missing. Missing values on K4c are any values other than 0 and 1.

Items refer to MDS 2.0.
[t] indicates target assessment, [t-1] prior assessment, and [t-2] assessment preceding the prior assessment (prior-1 assessment)

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Pilot Chronic Care QI Definitions **Revised 02/13/2002 v3**		
Indicator **CLINICAL COMPLEXITY**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
Pain, inadequate management (PAI0X, MEGAQI)	**Numerator:** Residents with moderate pain at least daily (J2a=2 AND J2b=2) OR horrible/excruciating pain at any frequency (J2b=3) on the target assessment. **Denominator:** All residents with a valid target assessment. **Exclusions:** Residents satisfying any of the following conditions: 1. The target assessment is an admission (AA8a = 01) assessment. 2. Either J2a or J2b is missing on the target assessment. 3. The values of J2a and J2b are inconsistent on the target assessment.	**Facility admission profile FAP_PAI0X:** mean Pain Scale score among admissions (AA8a = 01) over previous 12 months. The Pain Scale is defined in the technical comments below. Exclusions: Admission assessments (AA8a = 01) with a missing value on the Pain Scale. **Covariates:** 1. Indicator of independence or modified independence in daily decision making on the target assessment: Covariate = 1 if B4 = 0 or 1. Covariate = 0 if B4 = 2 or 3. 2. Indicator of resident establishing own goals on the target assessment or most recent full assessment: Covariate = 1 if F1d checked (value 1). Covariate = 0 if F1d not checked (value 0).
	Technical Comments: 1. Exclusion Condition 2. Missing values for J2a are any values other than 0 through 2; missing values for J2b are any values other than 1, 2, 3, and blank. 2. Exclusion Condition 3: The values of J2a and J2b are inconsistent in the following 2 cases: 2.1. J2a is 0 and J2b is a value of 1 through 3. 2.2. J2a > 0 and J2b is a value other than 1 through 3. 3. The QI score will be set to missing if the case is excluded. 4. The QI score will be set to missing if any of the 2 covariates have a missing value.	**Technical Comments:** 1. **Pain Scale (PS) Definition** (range 0 through 3): 1.1. PS = 0 if J2a = 0. 1.2. PS = 1 if J2a = 1. 1.3. PS = 2 if J2a = 2 AND J2b = 1 or 2. 1.4. PS = 3 if J2a = 2 AND J2b = 3. 1.5. PS value is missing if J2a or J2b is missing. 1.5.1. Missing values for J2a are any values other than 0 through 2; missing values for J2b are any values other than 1, 2, 3, and blank. 1.6. PS value is missing if the J2a and J2b values are inconsistent. 1.6.1. The values of J2a and J2b are inconsistent in the following 2 cases: 1.6.1.1. J2a is 0 and J2b is a value of 1 through 3. 1.6.1.2. J2a > 0 and J2b is a value other than 1 through 3. 2. Admission assessments that have a missing value on the Pain Scale are excluded from FAP_PAI0X. Missing values on the Pain Scale are any values other than 0 through 3 3. Covariate 2: Use of target assessment versus most recent full assessment for item F1d. 3.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the F1d value from the target assessment will be used. 3.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for F1d on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value for that item from the target assessment will be used. F1d will be

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Indicator	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
CLINICAL COMPLEXITY		
		present (active) on the quarterly assessment in some states. 3.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for F1d on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value for that item from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used. 4. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_PAI0X and the 2 covariates. The predicted score will be set to missing if the QI score is missing OR any covariate has a missing value. 4.1. A covariate will have a missing value if the covariate is NOT = 1 or 0 according to the conditions above. 4.1.1. When Covariate 1 has a missing value, then B4 is missing on the target assessment. Missing values on B4 are any values other than 0 through 3. 4.1.2. When Covariate 2 has a missing value, then the F1d value selected (see Technical Comment 3 above) from the target assessment or most recent full assessment is missing. Missing values on F1d are any values other than 0 and 1.

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Indicator **CLINICAL COMPLEXITY**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Pressure ulcer (stage 1-4) prevalence
 	
(PRU01, CHSRA)
	Numerator: Residents with pressure ulcers (Stage 1-4) on target assessment (M2a >0 OR I3a-e = 707.0)
	
	Denominator: All residents with a valid target assessment.
	
	Exclusions:
	1. The target assessment is an admission (AA8a = 01) assessment.
	2. The QI did not trigger (resident is not included in the QI numerator) AND the value of M2a is missing on the target assessment.
		Facility admission profile FAP_PRU01: prevalence of stage1-4 pressure ulcers (M2a >0 OR I3a-e = 707.0) among admissions (AA8a = 01) occurring over previous 12 months.
		     Numerator: Admission assessments (AA8a = 01) with M2a > 0 OR I3a-e = 707.0.
		     Denominator: All admission assessments (AA8a = 01).
		     Exclusions: Admission assessments (AA8a = 01) that do not satisfy the numerator condition AND that have missing data on M2a.

	Technical Comments: 1. Exclusion condition 2: Missing values on M2a are any values other than 0 through 4. 2. The QI score will be set to missing if the case is excluded.	**Technical Comments:** 1. Admission assessments that do not meet the numerator qualification and have a missing value on M2a are excluded from FAP_PRU01. Missing values on M2a are any values other than 0 through 4. 2. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_PRU01. The predicted score will be set to missing if the QI score is missing.

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<table>
<tr><td colspan="3">Pilot Chronic Care QI Definitions
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<tr><td>Indicator

CLINICAL COMPLEXITY</td><td>Numerator & Denominator Definition(s), Exclusions and Technical Comments</td><td>Covariate(s)</td></tr>
<tr>
<td>Restraints (physical) used daily, prevalence

(RES01, CHSRA)</td>
<td>Numerator: Residents who were physically restrained daily (P4c or P4d or P4e = 2) on target assessment.

Denominator: All residents with a valid target assessment.

Exclusions: Residents satisfying the following condition:
1.   The QI is not triggered (numerator condition not satisfied) AND P4c, P4d, or P4e has a missing value.</td>
<td>Facility admission profile FAP_RES_01: prevalence of daily physical restraint use daily (P4c or P4d or P4e = 2) among admissions (AA8a = 01) over previous 12 months.
   Numerator: Admission assessments (AA8a = 01) with P4c = 2 OR P4d = 2 OR P4e = 2.
   Denominator: All admission assessments (AA8a = 01).
   Exclusions: Admission assessments (AA8a = 01) that do not satisfy the numerator condition AND that have missing data on P4c, P4d, or P4e.</td>
</tr>
<tr>
<td></td>
<td>Technical Comments:
1.   Exclusion Condition 1. Missing values for P4c, P4d, and P4e are any values other than 0 through 2.
2.   The QI score will be set to missing if the case is excluded.</td>
<td>Technical Comments:
1.   Admission assessments that do not meet the numerator qualification and have a missing value on P4c, P4d, or P4e are excluded from FAP_RES01. Missing values on P4c, P4d, and P4e are any values other than 0 through 2.
2.   A predicted QI score is calculated for the resident based on a logistic regression model using FAP_RES01. The predicted score will be set to missing if the QI score is missing.</td>
</tr>
</table>

Items refer to MDS 2.0.
[t] indicates target assessment, [t-1] prior assessment, and [t-2] assessment preceding the prior assessment (prior-1 assessment)

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Chapter 2: Chronic Care (CC) QI Definitions

<table>
<tr><td colspan="3">Pilot Chronic Care QI Definitions
Revised 02/13/2002 v3</td></tr>
<tr><td>Indicator

DRUGS</td><td>Numerator & Denominator Definition(s), Exclusions and Technical Comments</td><td>Covariate(s)</td></tr>
<tr>
<td>Prevalence of antipsychotic use in the absence of psychotic and related conditions

(DRG01, CHSRA)</td>
<td>Numerator: Residents receiving antipsychotics (O4a>0) on target assessment.

Denominator: All residents with a valid target assessment.

Exclusions:
1. The target assessment is an admission (AA8a = 01) assessment.
2. A psychiatric disorder is indicated by ICD9 diagnosis code on the target assessment or most recent full assessment: I3a through I3e = 295.00-295.95 or 297.00-298.9.
3. Schizophrenia is indicated on the target assessment or most recent full assessment by I1gg = checked (value 1) or the value of I1gg is missing,
4. Tourette syndrome is indicated by ICD9 diagnosis code on the target assessment or most recent full assessment: I3a through I3e=307.23.
5. Huntington's syndrome is indicated by ICD9 diagnosis code on the target assessment or most recent full assessment: I3a through I3e=333.4.
6. Hallucinations are present on the target assessment only: J1i = checked (value 1) or the value of J1i is missing.
7. The value of O4a is missing on the target assessment.</td>
<td>Facility admission profile FAP_DRG01: prevalence of antipsychotic use (O4a>0) among admissions (AA8a = 01) over previous 12 months.
    Numerator: Admission assessments (AA8a = 01) with O4a > 0.
    Denominator: All admission assessments (AA8a = 01).
    Exclusions: Admission assessments (AA8a = 01 that have missing data on O4a.</td>
</tr>
<tr>
<td></td>
<td>Technical Comments:
1. Exclusion Criteria 2, 4, and 5: Use of target assessment versus most recent full assessment for ICD9 diagnosis items I3a through I3e.
  1.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the item values from the target assessment will be used for high risk determination.
  1.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) the items values from that target assessment AND from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used for high risk determination. A qualifying ICD9 code from either the target assessment or the most recent full assessment will satisfy the exclusion criteria.
2. Exclusion Criterion 3: Use of target assessment versus most recent full assessment for item I1gg.
  2.1. If the target assessment is a full assessment (AA8a = 01,02,03, or 04), then the I1gg value from the target assessment will be used.
  2.2. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for I1gg on that assessment is not out-of-range (* or null), then it is assumed that the item is active on that quarterly and the value for that item from the</td>
<td>Technical Comments:
1. Admission assessments that do not meet the numerator qualification and have a missing value on O4a are excluded from FAP_DRG01. Missing values on O4a are any values other than 0 through 7.
2. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_DRG01. The predicted score will be set to missing if the QI score is missing.</td>
</tr>
</table>

Chapter 2: Chronic Care (CC) QI Definitions

Pilot Chronic Care QI Definitions Revised 02/13/2002 v3		
Indicator **DRUGS**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**
	target assessment will be used. I1gg will be present (active) on the quarterly assessment in some states. 2.3. If the target assessment is a quarterly assessment (AA8a = 05 or 10) and the value for I1gg on that assessment is out-of-range (* or null), then it is assumed that the item is not active on that quarterly and the value for that item from the most recent full assessment, in the 395 day period (approximately 13 months) preceding the target assessment reference date (A3a), will be used. 3. Exclusion Criteria 3 missing data. Missing values on the I1gg item chosen from the target assessment or the most recent full assessment are any values other than 0 and 1. 4. Exclusion conditions 6 and 7 missing data. Missing values on J1i are any values other than 0 and 1; missing values on O4a are any values other than 0 through 7. 5. The QI score will be set to missing if the case is excluded.	

Items refer to MDS 2.0.
[t] indicates target assessment, [t-1] prior assessment, and [t-2] assessment preceding the prior assessment (prior-1 assessment)

Chapter 3
Post Acute Care (PAC) QI Definitions

This chapter contains a matrix giving the definitions for the Post Acute Care QIs used in the megaQI Pilot Project. For each QI, the matrix gives the information necessary to calculate the QI, the Facility Admission Profile (FAP) for the QI, and any covariates used for the QI.

For each QI, the first column of the matrix provides the following information:
- **QI domain.** The QI domain is in the shaded column heading.
- **QI description.** The first entry in the column is a brief description of the QI.
- **QI short label.** The short label for the QI is the first entry in parentheses.
- **QI source.** The source for the QI is the second entry in parentheses. The different sources for the QIs are CHSRA (Center for Health Systems Research and Analysis of the University of Wisconsin-Madison), LTCQ (Long Term Care Quality System), and megaQI (CMS's megaQI Project).

The second column gives the information for calculating the QI:
- **Numerator.** The numerator entry gives the logic used to determine whether a resident triggers the QI (if the resident is included in the numerator for the QI rate in the facility).
- **Denominator.** The denominator entry defines whether a resident has the necessary records available to be a candidate for the QI (inclusion of the resident in the denominator for the QI rate for the facility). For the first QI, a resident must have a valid 14-day PPS assessment to be a candidate for the QI.
- **Exclusions.** The exclusions entry provides clinical conditions and missing data conditions that preclude a resident from consideration for the QI. An excluded resident is excluded from both the numerator and denominator for the QI rate for the facility.

- **Technical comments.** Entries here provide additional technical details pertaining to the QI numerator, denominator, and exclusions. Example of the type of information provided include specific details for calculating scale scores, definition of missing data values for an MDS item, and selection of the value for an MDS item that may come from different assessments for a resident.

The third column gives the information for calculating The Facility Admission Profile (FAP) score for a resident and for calculating covariate scores for a resident when covariates are used for a QI:

- **Facility admission profile.** The facility admission profile entry gives the logic for calculating the FAP score for a resident and the logic for when a resident should be excluded from the FAP. Note that the FAP for some QIs is a prevalence rate for the facility and the calculation logic for a resident involves numerator and denominator conditions. For other QIs, the FAP is a mean scale score and in these cases the FAP calculation logic involves calculation of the scale score.
- **Covariates.** The covariates entry defines the calculation logic for covariates. Covariates are always prevalence indicators with a value of 1 if the condition is present and a value of 0 if the condition is not present.
- **Technical Comments.** Entries here provide additional technical details pertaining to the FAP and covariates. Example of the type of information provided include specific details for calculating scale scores, definition of missing data values for an MDS item, and selection of the value for an MDS item that may come from different assessments for a resident.

Chapter 3: Post Acute Care (PAC) QI Definitions

PAC QI Definitions Revised 02/13/2002 v2		
Indicator **POST ACUTE CARE**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Failure to improve and manage delirium symptoms / Post-Acute Care
 	
(PAC_DEL0X, MEGAQI)
	Numerator: Patients at SNF PPS 14-day assessment with at least one symptom of delirium that represents a departure from usual functioning (at least one B5a through B5f = 2).
	
	Denominator: All patients with a valid SNF PPS 14-day assessment (AA8b = 7).
	
	Exclusions: Patients satisfying any of the following conditions:
	1. Comatose (B1=1) or comatose status unknown (B1 = missing) on the SNF PPS 14-day assessment.
	2. Patients with end-stage disease (J5c=checked (value 1)) or end-stage disease status unknown (J5c = missing) on the SNF PPS 14-day assessment.
	3. The resident is receiving hospice care (P1ao = checked (value 1)) or hospice status is unknown (P1ao = missing) on the SNF PPS 14-day assessment.
	4. The QI did not trigger (patient not included in the numerator) and there is a missing value on any of the items B5a through B5f on the SNF PPS 14-day assessment.
		Facility admission (5-day) profile FAP_PAC_DEL0X: Proportion of residents with a least one symptom of delirium that represents a departure from normal functioning (any item B5a through B5f = 2) demonstrated on SNF PPS 5-day assessments (AA8b = 1) over previous 12 months.
		        Numerator: SNF PPS 5-day assessments (AA8b = 1) with at least one B5a through B5f = 2.
		        Denominator: All SNF PPS 5-day assessments (AA8b = 1).
		        Exclusion: SNF PPS 5-day assessments (AA8b = 1) that do not satisfy the numerator condition AND that have missing data on any item B5a through B5f.
		
		Covariates:
		1. Indicator of NO prior residential history preceding the current SNF stay for the patient:
		        Covariate = 1 if there is NO prior residential history indicated by the following condition being satisfied:
		            1) There is a recent admission assessment (AA8a = 01) available for the patient AND AB5a through AB5e are not checked (value 0) AND AB5f is checked (value 1) on that assessment.
		        Covariate = 0 if there is prior residential history indicated by either of the following conditions being satisfied:
		            1) There is a recent admission assessment (AA8a = 01) AND any of the items AB5a through AB5e are checked (value 1) OR AB5f is not checked (value 0) on that assessment.
		            2) There is no recent admission assessment (AA8a = 01).

	Technical Comments:
	1. Exclusion conditions 1, 2 and 3 missing values: Missing values on B1, J5c, and P1ao are any values other than 0 and 1.
	2. Exclusion condition 4 missing values: Missing values on B5a through B5f are any values other than 0 through 2.
	3. The QI score will be set to missing if the case is excluded.
	4. The QI score will be set to missing if the covariate has a missing value.
		Technical Comments:
		1. SNF PPS 5-day assessments with no delirium item B2a through B2f = 2 and with a missing value on any item B5a through B5f are excluded from FAP_PAC_DEL0X. Missing values on B5a through B5f are any values other than 0 through 2.
		2. Covariate 1 selection of a recent admission assessment: To qualify as a recent admission assessment (AA8a = 01), the admission assessment reference date (A3a) must be in the 50-day period ending with the 14-day assessment reference date (A3a).
		    2.1. If there is more than one admission assessment in the 50-day period, then the most recent one is selected.
		    2.2. The selected recent admission assessment can be the same as the 14-day assessment.
		3. Covariate 1 value when no recent admission assessment found: If there is no recent admission assessment within the 50 day period ending with the 14-day assessment, then it is assumed

PAC QI Definitions Revised 02/13/2002 v2		
Indicator **POST ACUTE CARE**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

		that the patient was a resident in the facility prior to the SNF stay and this indicates prior residential history. In this case the covariate is set to 0.
		4. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_PAC_DEL0X and the covariate. The predicted score will be set to missing if the QI score is missing OR the covariate has missing values.
		    4.1. The covariate will have a missing value if the covariate is NOT = 1 or 0 according to the conditions above.
		        4.1.1. When the covariate has a missing value, then one or more of the AB5a through AB5f items from the recent admission assessment is missing. Missing values on AB5a through AB5f are any values other than 0 and 1.

Chapter 3: Post Acute Care (PAC) QI Definitions

PAC QI Definitions Revised 02/13/2002 v2		
Indicator **POST ACUTE CARE**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Inadequate Pain Management / Post-Acute Care
 	
(PAC_PAI0X, MEGAQI)
	Numerator: Patients at SNF PPS 14-day assessment with moderate pain at least daily (J2a=2 and J2b=2) OR horrible/excruciating pain at any frequency (J2b=3).
	
	Denominator: All patients with a valid SNF PPS 14-day assessment (AA8b = 7).
	
	Exclusions: Patients satisfying any of the following conditions:
	1. Either J2a or J2b is missing on the 14-day assessment.
	2. The values of J2a and J2b are inconsistent on the 14-day assessment.
		Facility admission profile FAP_PAC_PAI0X: mean Pain Scale score among SNF PPS 5-day assessments (AA8b = 1) over previous 12 months.
		    The Pain Scale is defined in the technical comments below.
		
		    Exclusions: SNF PPS 5-day assessments (AA8b = 1) with a missing value on the Pain Scale.

	Technical Comments:
	1. Exclusion Condition 1. Missing values for J2a are any values other than 0 through 2; missing values for J2b are any values other than 1, 2, 3, and blank.
	2. Exclusion Condition 2: The values of J2a and J2b are inconsistent in the following 2 cases:
	    2.1. J2a is 0 and J2b is a value of 1 through 3.
	    2.2. J2a > 0 and J2b is a value other than 1 through 3.
	3. The QI score will be set to missing if the case is excluded.
		Technical Comments:
		1. **Pain Scale (PS) Definition** (range 0 through 3):
		    1.1. PS = 0 if J2a = 0.
		    1.2. PS = 1 if J2a = 1.
		    1.3. PS = 2 if J2a = 2 AND J2b = 1 or 2.
		    1.4. PS = 3 if J2a =2 AND J2b = 3.
		    1.5. PS value is missing if J2a or J2b is missing.
		        1.5.1. Missing values for J2a are any values other than 0 through 2; missing values for J2b are any values other than 1, 2, 3, and blank.
		    1.6. PS value is missing if the J2a and J2b values are inconsistent.
		        1.6.1. The values of J2a and J2b are inconsistent in the following 2 cases:
		            1.6.1.1. J2a is 0 and J2b is a value of 1 through 3.
		            1.6.1.2. J2a > 0 and J2b is a value other than 1 through 3.
		2. SNF PPS 5-day assessments that have a missing value on the Pain Scale are excluded from FAP_PAC_PAI0X. Missing values on the Pain Scale are any values other than 0 through 3.
		3. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_PAC_PAI0X. The predicted score will be set to missing if the QI score is missing.

Chapter 3: Post Acute Care (PAC) QI Definitions

PAC QI Definitions **Revised 02/13/2002 v2**		
Indicator **POST ACUTE CARE**	**Numerator & Denominator Definition(s), Exclusions and Technical Comments**	**Covariate(s)**

Improvement in Walking / Post-Acute Care
 	
(PAC_WAL0X, MEGAQI)
 	
Note: This is a 'good' QI. Higher values on this QI imply good quality of care relative to ADL improvement. This is different from most other QIs, where a high value implies the possibility of poorer care in that specific area.
	Numerator: SNF PPS patients who satisfy either of the following conditions:
	1. Independence in walking is maintained from the SNF PPS 5-day assessment to the SNF PPS 14-day assessment:
	    (G1c(A)[t-1]=0 AND G1d(A)[t-1]=0)
	           AND
	    (G1c(A)[t]=0 AND G1d(A)[t]=0).
	2. Improvement in walking ability is evidenced from the SNF PPS 5-day assessment to the SNF PPS 14-day assessment:
	    (G1c(A)[t-1] + G1d(A)[t-1]) >
	    (G1c(A)[t] + G1d(A)[t]).
	      Note: Convert 8's (activity did not occur) to 4's (total dependence) on G1d(A) and G1c(A) for this comparison.
	
	Denominator: All patients with a valid SNF PPS 14-day assessment (AA8b = 7) and a valid preceding SNF PPS 5-day assessment (AA8b = 1).
	
	Exclusions: Patients satisfying any of the following conditions:
	1. End-stage disease (J5c=checked (value 1)) or end-stage disease status unknown (J5c = missing) on the SNF PPS 14-day assessment.
	2. Comatose (B1=1) or comatose status unknown (B1 = missing) on the SNF PPS 14-day assessment.
	3. The resident is receiving hospice care (P1ao = checked (value 1)) or hospice status is unknown (P1ao = missing) on the SNF PPS 14-day assessment.
	4. Ventilator dependent (P1al checked (value 1)) or ventilator status is unknown (P1al = missing) on the SNF PPS 14-day assessment.
	5. Quadriplegic (I1z = checked (value 1)) or quadriplegic status is unknown (I1z = missing) on the SNF PPS 14-day assessment.
	6. Paraplegic (I1x = checked (value 1)) or paraplegic status is unknown (I1x = missing) on the SNF PPS 14-day assessment.
	7. G1c(A) or G1d(A) is missing on either the 5-day or 14-day assessment.
		Facility admission profile FAP_PAC_WAL0X: mean sum of walking in room (G1c(A)) and walking in corridor (G1d(A)) among SNF PPS 5-day assessments (AA8b = 1) over previous 12 months.
		    Note: Convert 8's (activity did not occur) to 4's (total dependence) on G1d(A) and G1c(A) before summing these items.
		
		Exclusions: SNF PPS 5-day assessments (AA8b = 1) with a missing value on G1c(A) or G1d(A).

	Technical Comments: 1. Exclusion Conditions 1 through 6. Missing values on the relevant items (J5c, B1, P1ao, P1al, I1z, and I1x) are any values other than 1 and 0. 2. Exclusion Condition 7: Missing values on G1c(A) and G1d(A) are any values other than 0, 1, 2, 3, 4, and 8. 3. The QI score will be set to missing if the case is excluded.	**Technical Comments:** 1. SNF PPS 5-day assessments that have a missing value on G1c(A) or G1d(A) are excluded from FAP_PAC_WAL0X. Missing values on the G1c(A) and G1d(A) are any values other than 0, 1, 2, 3, 4, and 8. 2. A predicted QI score is calculated for the resident based on a logistic regression model using FAP_PAC_WAL0X. The predicted score will be set to missing if the QI score is missing.

Chapter 4: Pilot Project QI Record Selection Methodology
Version 2: 02/13/2002

Chronic Care QI Calculation Sample

The chronic care QI calculation sample involves selection of residents with a target assessment in the target quarter. For a selected resident, 4 different assessment records are then selected: target assessment, prior assessment, prior minus 1 assessment[1], and most recent full assessment.

Assessment Selected		Selection Specifications
Target Assessment	**Selection period**	Most recent 3 months (target quarter)
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/*, 02/*, 03/*, 04/*, 05/*, 10/* (* indicates any value accepted)
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) within selection period.
	Rationale	▪ Select a normal (OBRA) assessment from the target quarter.
Prior Assessment	**Selection period**	Most recent 4 months preceding target assessment
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/*, 02/*, 03/*, 04/*, 05/*, 10/* (* indicates any value accepted)
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) in the window of 46 days to 165 days preceding the target assessment reference date (A3a).
	Rationale	▪ Select a normal (OBRA) assessment in the 4 month window ending 46 days before the target assessment. This window insures that the gap between the prior and target assessment will not be small (gaps of 45 days or less are excluded). ▪ A 4-month window is employed to allow sufficient time to find an OBRA assessment. OBRA assessments are required every 3 months. A grace month has been added to yield a window of 4 months to account for late assessments. In the last half of 2000, scheduled OBRA assessments were late about 8% of the time. ▪ A relative window based on the assessment reference date (A3a) of the target assessment is used to accommodate cases in which scheduled assessments are performed early or a significant change occurs.

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[1] The prior minus 1 assessment is not required for the set of 7 chronic care QIs selected for the pilot project. This assessment will be required for the full set of QIs.

Chronic Care QI Calculation Sample (continued)

Assessment Selected		Selection Specifications
Prior Minus 1 Assessment[1]	**Selection period**	Most recent 4 months preceding prior assessment
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/*, 02/*, 03/*, 04/*, 05/*, 10/* (* indicates any value accepted)
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) in the window of 46 days to 165 days preceding the prior assessment reference date (A3a).
	Rationale	▪ Select a normal (OBRA) assessment in the 4 month window ending 46 days before the prior assessment. This window insures that the gap between the prior-1 and prior assessment will not be small (gaps of 45 days or less are excluded). ▪ A 4-month window is employed to allow sufficient time to find an OBRA assessment. OBRA assessments are required every 3 months. A grace month has been added to yield a window of 4 months to account for late assessments. In the last half of 2000, scheduled OBRA assessments were late about 8% of the time. ▪ A relative window based on the assessment reference date (A3a) of the prior assessment is used to accommodate cases in which scheduled assessments are performed early or a significant change occurs.
Most recent full Assessment	**Selection period**	Most recent 13 months preceding target assessment
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/*, 02/*, 03/*, 04/* (* indicates any value accepted)
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) in the 13-month period preceding the target assessment reference date (A3a).
	Rationale	▪ Select a normal (OBRA) full assessment. ▪ If the target assessment is a quarterly assessment, it will at times be necessary to carry-forward items (not available on the quarterly assessment) from the most recent full assessment. ▪ A 13-month look-back period is employed to allow sufficient time to find an earlier OBRA full assessment. OBRA full assessments are required every 12 months. A grace month has been added to yield a look-back period of 13 months to account for late full assessments.

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[1] The prior minus 1 assessment is not required for the set of 7 chronic care QIs selected for the pilot project. This assessment will be required for the full set of QIs.

Chapter 4: Pilot Project QI Record Selection Methodology

Chronic Care Facility Admission Profile (FAP) Sample

The chronic care FAP sample involves selection of residents with an admission assessment in the year ending with the target quarter. For each selected resident, the latest admission assessment in that year is selected.

Assessment Selected		Selection Specifications
FAP Assessment	**Selection period**	Most recent 12 months
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/blank, 01/6
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) within selection period.
	Rationale	▪ Select a normal (OBRA) admission assessment that is NOT also a PPS assessment. A non-PPS admission assessment will have AA8b values of 6 (other state required assessment) or blank (neither PPS or other state required assessment). If the admission assessment has AA8b = 1,2,3,4,5,7, or 8, then it is also a PPS assessment and will not be selected in the Chronic Care FAP sample. ▪ If a resident has multiple qualifying admission assessments in the year ending with the target quarter, then only the most recent is selected. If multiple admissions were selected for a resident, then this would over represent those residents in the FAP sample and cause bias in that sample.

Post-Acute Care QI Calculation Sample

The post-acute QI calculation sample involves selection of residents with a 14-day SNF PPS assessment in the standard 6-month post-acute care target period. If a resident has more than one 14-day assessment in the 6-month post acute care target period, then the latest 14-day assessment is selected. The appropriate 5-day assessment preceding the 14-day assessment is also selected, if available. One additional record is also selected, that record being the most recent admission assessment on the same date or before the selected 14-day assessment.

Assessment Selected		Selection Specifications
14-day PPS Assessment	**Selection period**	Most recent 6 months (target period)
	Qualifying Reasons for Assessment (AA8a/AA8b)	*/7 (*indicates any value accepted)
	Selection Logic	Select the latest 14-day assessment (*/7) with assessment reference date (A3a) in the selection period
	Rationale	▪ If there are multiple qualifying assessments, the latest assessment is selected.
5-Day PPS Assessment	**Selection period**	The interval from 3 to 18 days before the selected 14-day assessment.
	Qualifying Reasons for Assessment (AA8a/AA8b)	*/1 (* indicates any value accepted)
	Selection Logic	Latest 5-day assessment with assessment reference date (A3a) in the selection period for the same resident and facility.
	Rationale	▪ Select a 5-day assessment (AA8b = 1) in the selection window preceding the selected 14-day assessment. ▪ The selection window (3 to 18 days prior to the 14-day assessment) allows for the 5-day to be completed on day 1 through day 8 of the stay and the 14-day to be completed on day 11 through day 19 of the stay, according to the SNF PPS assessment requirements. These requirements indicate that the gap between the 2 assessments should have a minimum of 3 and a maximum of 18 days. ▪ If there is more than one qualifying 5-day assessment in the selection window, then select the latest one.

Post-Acute Care QI Calculation Sample (continued)

Assessment Selected		Selection Specifications
Recent MDS Admission Assessment	**Selection period**	50-day period ending with the date of the selected 14-day assessment.
	Qualifying Reasons for Assessment (AA8a/AA8b)	01/* (* indicates any value accepted)
	Selection Logic	Select the latest admission assessment with assessment reference date (A3a) in the selection period.
	Rationale	▪ This admission assessment is needed to capture the facesheet item AB5 (prior institutional history). The facesheet must be completed on an admission assessment. ▪ If no facesheet record is found in the selection period, then assume that AB5a = 1, indicating residence in this facility prior to the SNF stay. ▪ The selection period allows sufficient look back to encounter a new resident's admission associated with the SNF covered stay. A SNF covered stay must begin within 30 days of the end of a qualifying hospitalization and the 14-day assessment must be performed by day 19 of the stay. This yields a look back period of 30 days plus 19 days, and this was rounded up 1 day to 50.

Post-Acute Care Facility Admission Profile (FAP) Sample

The post-acute care FAP sample involves selection of residents with a 5-day PPS assessment in the 12-month period ending with the target quarter. For each selected resident, the latest 5-day PPS assessment in that period is selected.

Assessment Selected		Selection Specifications
FAP Assessment	**Selection period**	Most recent 12 months
	Qualifying Reasons for Assessment (AA8a/AA8b)	*/1 (* indicates any value accepted)
	Selection Logic	Latest assessment with qualifying reasons for assessment and assessment reference date (A3a) within the selection period.
	Rationale	▪ Select a 5-day PPS assessment. ▪ If a resident has multiple 5-day PPS assessments in the selection period, then only the most recent is selected. If multiple 5-day PPS assessments were selected for a resident, then this would over represent those residents in the FAP sample and cause bias in that sample.