

Appendix 6

HRCA Letter to CMS (January 25, 2004) and HRCA PAC-QM Specifications



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January 25, 2005

Yael Harris, Ph.D.
Centers for Medicare and Medicaid Services
Mailstop S3-02-01
7500 Security Blvd
Baltimore, MD 21244
VIA FEDEX

Dear Dr. Harris:

I hope you are doing well. At the request of John Morris, I am sending you a report of some post-acute care quality indicators we have developed at the HRCA. We have previously sent these to you via email.

John and I developed these quality indicators by first identifying relevant outcome areas that would be useful for consumers and purchasers of post-acute care. For example, we included mobility and range-of-motion outcome areas. We then operationalized these quality indicators (QIs) using repository MDS data matching the facilities that participated in the Mega-QI validation study, and replicated the validation method employed in that study: we correlated the new PAC QIs with validation elements created in the field study and evaluation.

You will notice that many of the new PAC QIs achieved an acceptable level of validity. This is somewhat surprising, as you might recall, the design and data collection of the Mega-QI study was directed towards obtaining data to validate a sub-set of the QIs, not the post-hoc QIs we have proposed here. This means that where we do not find validity evidence for the proposed PAC QIs in the Mega-QI field data already collected, we might

have found validity evidence if we had specifically designed data collection efforts for the new QIs. We interpret the results very favorably.

If I can answer any questions about these QIs, or otherwise be of assistance, please do not hesitate to contact me.

Sincerely,

Richard N. Jones, Sc.D.

Enclosures

Title: Improvement in ADL Functioning

Handle: ADL04

Population: PAC

Description: Proportion of residents with improving level of ADL functioning

Numerator: Residents with ADL-Long Form (Morris et al, 1999) that is lower at 14-day assessment than at 5-day assessment ($ADLL[t2] < ADLL[t1]$).¹

Denominator: All residents not excluded.

Exclusions: (1) Residents with non-valid ADLL data at 5-day and 14-day assessment, (2) residents with ADLL at 5-day assessment equal to 0 ($ADLL[t1]=0$)

Covariates:[†] Cognitive Performance Scale

Distribution: Mean (SD) = 0.49 (0.20) [Min, Max] = [0.00, 0.89]

Validity Level: II - Mid

¹ Notation: [t1] refers to 5-day assessment for PAC residents, [t2] refers to 14-day assessment for PAC residents.

Title: Mid-Loss ADL Improvement or Remain Independent

Handle: ADL05

Population: PAC

Description: Proportion of residents who improve status on mid-loss ADL functioning (transfer, locomotion) or remain completely independent in mid-loss ADLs.

Numerator: Two criteria satisfy the numerator: (1) residents that have a mid-loss ADL (MLADL; defined below) scale change score ($MLADL[t2] - MLADL[t1]$) that is negative (implying less burden of impairment at 14-day follow-up relative to 5-day assessment) OR (2) have a MLADL score of 0 at 5-day AND at 14-day assessment.

Mid-Loss ADL scale (MLADL) is defined as the sum of G1b(A), G1e(A) and G1d(A), after first recoding 8's to 4's. Higher values imply lower levels of self-performance.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid MLADL at 5 and 14 day follow-up.

Covariates:[†] Cognitive Performance Scale; RUG Late Loss ADL Scale

Distribution: Mean (SD) = 0.36 (0.16) [Min, Max] = [0.05, 0.81]

Validity Level: III - Not Validated

Title: Early-Loss ADL Improvement or Remain Independent

Handle: ADL06

Population: PAC

Description: Proportion of residents who improve status on early-loss ADL functioning (dressing, and personal hygiene) or remain completely independent in early-loss ADLs.

Numerator: Two criteria satisfy the numerator: (1) residents that have a early-loss ADL (ELADL; defined below) scale change score ($ELADL[t2] - ELADL[t1]$) that is negative (implying less burden of impairment at 14-day follow-up relative to 5-day assessment) OR (2) have a EL-ADL score of 0 at 5-day AND at 14-day assessment.

Early-Loss ADL scale (ELADL) is defined as the sum of G1g(A) and G1j(A), after first recoding 8's to 4's. Higher values imply lower levels of self-performance.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid ELADL at 5 and 14 day follow-up.

Covariates:[†] Cognitive Performance Scale; RUG Late Loss ADL scale

Distribution: Mean (SD) = 0.35 (0.18) [Min, Max] = [0.00, 0.79]

Validity Level: II - Mid

Title: Locomotion Maintenance or Improvement

Handle: WAL02

Population: PAC

Description: Proportion of residents with improving level of locomotion functioning or who remained completely independent in locomotion functioning.

Numerator: Two criteria satisfy numerator: (1) residents for whom the sum of locomotion items [G1e(A) "locomotion on unit self performance", G1f(B) "locomotion off unit"] is lower at 14-day assessment than at 5-day assessment (after recoding 8's to 4's) $\{(G1eA[t2]+G1fA[t2]) < (G1eA[t1]+G1fA[t1])\}$, OR (2) residents for whom $G1eA=0$ and $G1fA=0$ at 5 day assessment AND at 14-day assessment.

Denominator: All residents not excluded.

Exclusions: (1) Residents with non-valid G1eA and G1fA items at 5-day and 14-day assessment, (2) with valid G1eA and G1fA at 5-day and 14-day assessment

Covariates:[†] Cognitive Performance Scale; RUG Late Loss ADL scale

Distribution: Mean (SD) = 0.30 (0.14) [Min, Max] = [0.00, 0.74]

Validity Level: III - Not Validated

Title: Communication Improvement or Maintenance

Handle: COM02

Population: PAC

Description: Proportion of residents who do not decline in level of communicative functioning (i.e., improve or no change).

Numerator: Residents that have a change score of a communication scale (see COM01; $C4+C6$) between 5 and 14 day assessment that is 0 or ($COMSCORE=C4+C6$; $COMSCORE[t2]-COMSCORE[t1] \leq 0$)

Denominator: All residents not excluded.

Exclusions: Residents with non-valid C4 and C6 at 5 and 14 day assessment.

Covariates:[†] none

Distribution: Mean (SD) = 0.97 (0.04) [Min, Max] = [0.75, 1.00]

Validity Level: II - Mid

Title: Depressed Mood Improvement or Remain Symptom Free

Handle: MOD04

Population: PAC

Description: Proportion of residents who improve their mood or remain free from symptoms of depression (captured with the MDS Depression Rating Scale, Burrows 2000; see MOD03).

Numerator: Two criteria satisfy the numerator: (1) residents that have a DRS scale change score ($DRS[t2] - DRS[t1]$) that is negative (implying less burden of depressive symptoms at 14-day follow-up relative to 5-day assessment) OR (2) have a DRS score of 0 at 5-day AND at 14-day assessment.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid DRS at 5 and 14 day follow-up.

Covariates:[†] Personal Severity Index Subset 1- Diagnoses

Distribution: Mean (SD) = 0.66 (0.22) [Min, Max] = [0.11, 1.00]

Validity Level: II - Mid

Title: Absence of Catheter at 14-day Assessment

Handle: CAT03

Population: PAC

Description: Proportion of residents who do not have a catheter at 14-day assessment.

Numerator: Residents that do not have catheter at 14-day follow-up (H3d is not checked).

Denominator: All residents not excluded.

Exclusions: Residents with non-valid H3d at 5 and 14 day follow-up.

Covariates:[†] Personal Severity Index Subset 2 - Non Diagnoses; RUG Late Loss ADL scale; RUG Clinical Complex

Distribution: Mean (SD) = 0.74 (0.12) [Min, Max] = [0.40, 1.00]

Validity Level: I - Top

Title: Pain Improvement or Remain Pain Free

Handle: PAI02

Population: PAC

Description: Proportion of residents who improve their pain status or remain free from pain (captured with the MDS Pain Scale, Fries et al. 2001; see MOD03).

Numerator: Two criteria satisfy the numerator: (1) residents that have a PAIN scale change score (PAIN[t2]-PAIN[t1]) that is negative (implying less pain severity//frequency at 14-day follow-up relative to 5-day assessment) OR (2) have a PAIN scale score of 0 at 5-day AND at 14-day assessment.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid PAIN scale score at 5 and 14 day follow-up.

Covariates:[†] Cognitive Performance Scale; Hip Fracture (MDS item j4c from prior quarter).

Distribution: Mean (SD) = 0.47 (0.14) [Min, Max] = [0.11, 0.77]

Validity Level: II - Mid

Title: Absence of Shortness of Breath at 14-day Assessment

Handle: RSP02

Population: PAC

Description: Proportion of residents who do not have shortness of breath at 14-day assessment. Note that this QI can be thought of "full cure of shortness of breath symptoms or remain free from shortness of breath symptoms".

Numerator: Residents that do not have shortness of breath (J11=0 or not checked) AND do not have inability to lie flat due to shortness of breath (J1b=0 or not checked) at 14-day follow-up.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid J11 or J1b at 5 and 14 day follow-up.

Covariates:[†] Emphysema/COPD (MDS item I1ii = not checked in previous quarter)

Distribution: Mean (SD) = 0.79 (0.14) [Min, Max] = [0.29, 1.00]

Validity Level: III - Not Validated

Title: Balance Function Improvement or Remain Unimpaired

Handle: BAL01

Population: PAC

Description: Proportion of residents who improve their balance function or remain free from impairment in balance function between day 5 and day 14 assessment

Numerator: Two criteria satisfy the numerator: (1) residents that have a BALANCE scale (defined below) change score (BALANCE[t2]-BALANCE[t1]) that is negative (implying less burden of balance impairment symptoms at 14-day follow-up relative to 5-day assessment) OR (2) have a BALANCE score of 0 at 5-day AND at 14-day assessment.

The BALANCE scale is defined as the sum of G3a and G3b (Balance while standing, sitting). The range is 0 to 6, where a 0 implies the resident was able to perform the balance test without impairment or assistance, and a 6 implies the patient was not able to attempt without physical help both tests.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid BALANCE at 5 and 14 day follow-up.

Covariates:[†] Cognitive Performance Scale; Personal Severity Index Subset 2 - Non-Diagnoses; RUG Late Loss ADL

Distribution: Mean (SD) = 0.27 (0.16) [Min, Max] = [0.00, 0.68]

Validity Level: III - Not Validated

Title: Range of Motion Improvement or Remain Unimpaired

Handle: ROM01

Population: PAC

Description: Proportion of residents who improve their range of motion (ROM) or remain free from impairment in ROM between day 5 and day 14 assessment

Numerator: Two criteria satisfy the numerator: (1) residents that have a ROM scale (defined below) change score (ROM[t2]-ROM[t1]) that is negative (implying less burden of balance impairment symptoms at 14-day follow-up relative to 5-day assessment) OR (2) have a ROM score of 0 at 5-day AND at 14-day assessment.

The ROM scale is defined as the sum of G4*(A), where * is a-e and corresponds to neck, arm/shoulder/elbow, hand, leg/foot/knee, foot/ankle/toes range of motion. The range is 0 to 10, where a 0 implies the resident is not limited in range of motion in any area, and a 10 implies the range of motion is impaired bilaterally in all locations.

Denominator: All residents not excluded.

Exclusions: Residents with non-valid ROM scale at 5 and 14 day follow-up.

Covariates:[†] Hip Fracture (MDS item j4c from prior quarter), RUG Late Loss ADL.

Distribution: Mean (SD) = 0.49 (0.14) [Min, Max] = [0.11, 0.89]

Validity Level: III - Not Validated

