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Summary of Feedback from the Technical Expert Panel on the Development of Cross-Setting Functional Status Quality Measures

Report

Prepared for

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SUMMARY OF FEEDBACK FROM THE TECHNICAL EXPERT PANEL ON THE DEVELOPMENT OF CROSS-SETTING FUNCTIONAL STATUS QUALITY MEASURES

RTI International

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BACKGROUND

The Centers for Medicare & Medicaid Services contracted with RTI International to develop functional status quality measures for inpatient rehabilitation facilities (IRFs), long-term care hospitals (LTCHs), and skilled nursing facilities (SNFs). As part of the quality measure development work, RTI convened a technical expert panel (TEP) in September 2013.

The purpose of the TEP meeting was to gain input on the development of functional status quality measures using functional status items included on the Continuity Assessment Record and Evaluation (CARE) Item Set. The TEP consisted of rehabilitation clinicians, researchers, and administrators with expertise in functional assessment, quality improvement, and quality measure development across IRF, SNF, and LTCH settings. TEP members provided input to guide the development of the quality measures, including feedback on the individual CARE functional status items, the target population inclusion and exclusion criteria, and patient demographic and clinical factors that could affect function outcomes (risk adjustors).

This report summarizes the feedback and recommendations provided by the TEP regarding the proposed functional status measures.

Quality Measures

Four functional status outcome measures were discussed for the IRF setting:

1. IRF Functional Outcome Measure: Change in Self-care Score for Medical Rehabilitation Patients

2. IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

3. IRF Functional Outcome Measure: Discharge Self-care Score for Medical Rehabilitation Patients

4. IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients

Four functional status outcome measures were discussed for the SNF settings:

1. SNF Functional Outcome Measure: Change in Self-care Score for Medical Rehabilitation Patients

2. SNF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

3. SNF Functional Outcome Measure: Discharge Self-care Score for Medical Rehabilitation Patients

4. SNF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients

One process measure and one outcome measure were discussed for the LTCH setting:

1. Percent of Long-Term Care Hospital Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function

2. LTCH Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

MEASURE DEVELOPMENT TEAM

The RTI function measure development team is multidisciplinary and includes individuals with knowledge and experience in the areas of quality measure development, rehabilitation nursing, physical therapy, epidemiology, statistics, public health, and health care policy. The function measure development team at RTI is led by Anne Deutsch, PhD, RN, CRRN.

TECHNICAL EXPERT PANEL (TEP)

The TEP, which was convened after an open call for nominations, comprised rehabilitation clinicians, researchers, and administrators with experience in IRF, LTCH, and SNF settings, as well as a person who experienced a stroke and provided input from a patient perspective. A list of all TEP members is provided in Table 1.

Table 1
Members of the Technical Expert Panel on the Development of Cross-Setting Functional Status Quality Measures

Name	Professional Role	Location
Lawrence Miller, MD	Clinical Professor of Medicine at the University of California Los Angeles	Los Angeles, CA
Richard Black, PT	Corporate Rehabilitation Consultant at HCR Manor Care	Toledo, OH
Mary Van de Kamp, MS, CCC-SLP	Senior Vice President of Quality and Care Management at Kindred Healthcare	Louisville, KY
Timothy Reistetter, PhD, OTR	Associate Professor at University of Texas Medical Branch	Galveston, TX
Ellen Strunk, PT, MS, GCS	Consultant at Rehab Resources & Consulting, Inc.	Birmingham, AL

(continued)

Table 1 (continued)
Members of the Technical Expert Panel on the Development of Cross-Setting Functional Status Quality Measures

Name	Professional Role	Location
Saad Naaman, MD, MS	Assistant Professor at Wayne University School of Medicine & Beaumont Oakland University Medical School	Warren, MI
Paulette Niewczyk, PhD, MPH	Director of Research at Uniform Data System for Medical Rehabilitation	Amherst, NY
Camille Haycock, MS, RN	Vice President Care Continuum at Catholic Health Initiatives	Englewood, CO
Elizabeth Newman, OTD, OT/L	Director of Occupational Therapy, Rehabilitation Engineering and Clinical Informatics at MedstarNational Rehabilitation Hospital (NRH)	Olney, MD
Karon Cook, PhD	Research Associate Professor at Northwestern University	Chicago, IL
Richard Riggs, MD	Chairman and Medical Director at Cedars-Sinai Medical Center	Los Angeles, CA
Michelle Camicia, MSN, RN	Director of operations at Kaiser Foundation Rehabilitation Center	Novato, CA
Jill Bolte Taylor, PhD	Author: My Stroke of Insight, Inc.	Bloomington, IN
Andrea Hicklin, MSPT	Director of Rehabilitation at Barlow Respiratory Hospital	Los Angeles, CA
Douglas Katz, MD	Director of Medical Education at Braintree Rehabilitation Hospital	Braintree, MA

ABOUT THE TECHNICAL EXPERT PANEL MEETINGS

The first TEP meeting was an in-person meeting held on September 9, 2013. This meeting focused on a review of the CARE functional status items, a discussion of the inclusion and exclusion criteria, and an explanation of the risk adjustment variables. After the in-person meeting, RTI held three follow-up webinars, each focusing on a specific setting: the SNF webinar was held on October 21, the IRF webinar on October 28, and the LTCH webinar on November 6. The purpose of the follow-up webinars was to obtain further setting-specific feedback on the proposed functional status quality measures.

RECOMMENDATIONS ON THE FUNCTIONAL STATUS QUALITY MEASURES

This section presents a summary of TEP feedback regarding the functional status quality measure specifications. A detailed description of all TEP feedback for the individual functional status items, inclusion and exclusion criteria, and risk adjustment factors can be found in Appendix A.

CARE Functional Status Items

- In general, TEP members indicated that most of the CARE self-care and mobility items are typically assessed in IRFs and SNFs. Some of the more challenging mobility activities, such as car transfers, are not assessed in all IRFs and SNFs, but they are important to assess for patients returning to home or a community-based setting.

- In LTCHs, patient assessment is typically limited to self-care and less challenging mobility items, such as bed mobility. The more challenging mobility items may be assessed at discharge for patients returning home or to the community.

Population Inclusion and Exclusion Criteria

- Patients with incomplete stays should be excluded from the quality measure calculation. This criterion includes patients who died during the stay and patients who were unexpectedly discharged to acute care.

- Patients who receive the maximum scores on all function items at the time of admission should be excluded from the quality measure calculation because no improvement in function can be measured with the existing items.

  – Patients with maximum scores on the CARE self-care items on admission should be excluded from the self-care functional status quality measures because no improvement in self-care skills can be measured with the existing items. The patient may not have self-care functional limitations and may not be receiving rehabilitation care focused on self-care activities.

  – Patients with maximum scores on the CARE mobility items on admission should be excluded from the self-care functional status quality measures because no improvement in mobility skills can be measured with the existing items. The

patient may not have mobility functional limitations and may not be receiving rehabilitation care focused on mobility activities.

- Patients with Parkinson's disease, multiple sclerosis (MS), amyotrophic lateral sclerosis, or coma on admission should be excluded from the functional status measures for the LTCH setting, given their unpredictable functional prognosis. TEP members recommended that patients with these diagnoses be included in the IRF quality measure, as IRF patients are typically expected to make functional gains.

Risk Adjustment Variables

TEP members were asked to provide input on what factors affect patients' functional outcomes. TEP members were instructed to make suggestions based on their clinical experience as well any findings from research they had conducted or reviewed.

Patient Demographic Characteristics and Functional Status Before the Current Illness/Injury

- TEP members agreed that age is an important determinant of functional outcomes, and age categories (≤64, 65–74, 75–84, ≥85 years) should be used for risk adjustment of the functional outcomes quality measures.

- TEP members indicated that sex and Medicaid status would not affect functional outcomes and did not need to be included in the risk adjustment models for the functional outcomes quality measures.

- The TEP recommended that prior functional status and history of falls be tested in the risk adjustment models, as these variables have the potential to affect functional outcomes.

Diagnosis

- The TEP members were unanimous that the post-acute care diagnosis, not the prior acute diagnosis, be used for risk adjustment of the functional outcome quality measures, because the post-acute care diagnosis reflects the reason the patient was admitted to the post-acute care setting.

- For the IRF and SNF settings, the TEP agreed with the use of major diagnosis groups, such as Neurological, Orthopedic, Cardiorespiratory/Debility, and Other. For the LTCH setting, the TEP stated that distinguishing between acute and chronic cardiorespiratory diagnoses would be important, given the different recovery patterns and prognoses of patients with acute and chronic cardiorespiratory conditions.

Admission Self-Care and Mobility Function Scores

- TEP members agreed that admission self-care and mobility function scores were important factors that influence functional outcomes and should be included in the risk adjustment models.

Comorbidities, Impairments, and Major Treatments

- Most TEP members agreed that risk adjustment for certain comorbidities that can affect functional outcomes, such as chronic renal disease, was important.

- TEP members agreed that risk adjustment for the presence of the following impairments on admission should be tested: severe pressure ulcer, cognitive impairments, delirium, impaired verbal expression and comprehension, bladder incontinence, swallowing difficulties, and respiratory impairments.

- TEP members indicated that some of the major treatments listed on the CARE Item Set may not be common in IRFs and SNFs, and they suggested that selected major treatments be tested in the risk adjustment models.

TEP members were asked to describe other areas of function that are assessed in their facilities. Specific areas of discussion included sitting balance, bladder continence, communication, and cognitive function. Several TEP members emphasized the importance of assessment of cognitive function in all settings.

During the LTCH follow-up webinar, RTI indicated that cognitive items were being considered for inclusion in the LTCH process measure. TEP members described cognition assessment instruments and items that are used in their facilities to assess cognition.

TEP Feedback

Appendix A gives further detail describing specific TEP feedback on different topics addressed by RTI during the TEP meetings.

APPENDIX A:
SUMMARY OF FEEDBACK FROM THE TECHNICAL EXPERT PANEL

Individual CARE Item Inclusion or Exclusion for the Functional Status Quality Measures

Self-care Items

A1. Eating: The ability to use suitable utensils to bring food to the mouth and swallow food once the meal is presented on a table or tray. Includes modified food consistency.

One panel member noted that eating is expected to improve from admission to discharge and this activity should be included in all settings; no other panel members disagreed. In the long-term care hospital (LTCH) setting, eating cannot always be assessed for patients because of the high level of acuity, including swallowing problems. Data from the Post-Acute Care Payment Reform Demonstration (PAC-PRD) were reviewed, and it was noted that many LTCH patients were coded "Activity Did Not Occur." RTI International indicated that clinicians reported that an "Activity did not occur" when the activity itself did not occur, meaning the patient did not do the activity, not that the clinician did not observe the activity.

A3. Oral hygiene: The ability to use suitable items to clean teeth. Dentures: The ability to remove and replace dentures from and to mouth, and manage equipment for soaking and rinsing.

RTI noted that oral hygiene is an important self-care activity related to overall health and that in cases in which eating is not assessed (i.e., "activity did not occur"), the oral hygiene item can provide targeted data for low-functioning patients. RTI staff also noted that the PAC-PRD data analysis showed improvement in oral hygiene scores from admission to discharge for patients in all settings. Oral hygiene was referenced as an activity in which LTCH patients show the most improvement compared with other items. Another panel member stated that LTCH patients show the most improvement in the areas of oral hygiene, toilet hygiene, bed mobility, and transfers compared with other items.

A4. Toileting hygiene: The ability to maintain perineal hygiene, adjust clothes before and after using a toilet, commode, bedpan, or urinal.

Members of the technical expert panel (TEP) agreed that managing clothes and perineal hygiene are important tasks that occur with bladder and bowel management and that toileting hygiene should be included in a function quality measure in all settings. The TEP indicated that toileting hygiene is assessed in all types of post-acute care settings.

A5. Upper body dressing: The ability to put on and remove shirt or pajama top. Includes buttoning, if applicable.

The TEP discussion about the upper body dressing item mostly centered on the definition and parameters of upper body dressing and the possible overlap with the wash upper body item. In addition, panel members noted that the clothing that a patient wears would affect scores. RTI staff noted that assessment of the dressing items would be based on the clothing that the patient

chooses to wear, so it is a patient-centered approach. A hospital gown would be scored as "Activity did not occur" because tying the gown is not equivalent to donning or doffing a t-shirt or sweatshirt.

A6. Lower body dressing: The ability to dress and undress below the waist, including fasteners. Does not include footwear.

Several panel members noted that the dressing lower body item included some of the same tasks as the toileting hygiene item. RTI staff indicated that lower body clothing management is included in the toileting hygiene item, but the circumstances can be different when the patient needs to undress quickly to use the toilet compared to when the patient gets dressed for the day and has more time to complete the activity.

C1. Wash upper body: The ability to wash, rinse, and dry the face, hands, chest, and arms while sitting in a chair or bed.

C2. Shower/bathe self: The ability to bathe self in shower or tub, including washing, rinsing, and drying, self. Does not include transferring in/out of tub/shower.

The TEP members' discussion about the wash upper body item focused primarily on overlap with the upper body dressing and shower/bathe self items. RTI noted that the wash upper body item was included in the CARE item set primarily for acute-care settings, including LTCHs, where patients typically do not get into a tub or shower to bathe. During the setting-specific follow-up webinars, TEP members discussed dropping the wash upper body item from the inpatient rehabilitation facility (IRF) and skilled nursing facility (SNF) settings because patients typically use a tub or shower to wash their entire bodies. For the LTCH setting, the wash upper body item was thought to be more appropriate, because patients in the LTCH setting are unlikely to use a tub or shower given their medical acuity. Washing upper body information was considered feasible to collect in LTCHs.

C6. Putting on/taking off footwear: The ability to put on and take off socks and shoes or other footwear that are appropriate for safe mobility.

One TEP member suggested dropping the footwear item on the basis of concern about the overall assessment burden. This TEP member thought that the assessment should focus on other key functional items rather than the self-care items, like the footwear item, and that measuring mobility and cognitive functioning was more important than measuring improvement on the footwear activity. RTI noted that many occupational therapists who collected CARE data during the PAC PRD liked the inclusion of putting on and taking off footwear as a separate activity. The activity of putting on and taking off footwear is currently routinely assessed in IRFs and SNFs; it is included within the two PAC setting assessment instruments (the dressing item on the Minimum Data Set [MDS] and the lower body dressing item on the IRF-Patient Assessment Instrument [PAI]).

Mobility Items

Bed Mobility

B1. Lying to sitting on side of bed: The ability to safely move from lying on the back to sitting on the side of the bed with feet flat on the floor, no back support.

C3. Roll left and right: The ability to roll from lying on back to left and right side, and roll back to back.

C4. Sit to lying: The ability to move from sitting on side of bed to lying flat on the bed.

TEP members stated that bed mobility items are commonly assessed in all three settings and should be included in the functional status quality measures for IRFs, LTCHs, and SNFs.

Sit to Stand, Chair/Bed to Chair Transfer, and Toilet Transfer:

B2. Sit to stand: The ability to safely come to a standing position from sitting in a chair or on the side of the bed.

B3. Chair/bed to chair transfer: The ability to safely transfer to and from a chair (or wheelchair). The chairs are placed at right angles to each other.

B4. Toilet transfer: The ability to safely get on and off a toilet or commode.

TEP members stated that the chair/bed to chair transfer item is commonly assessed in all three settings and should be included in the functional status quality measures for all settings. TEP members also indicated that the toilet transfer item is important to assess and include in the functional status quality measures for all three settings. While showing the distribution of admission and discharge scores for this item, RTI noted that the toilet transfer item is challenging for LTCH patients but that the PAC-PRD showed that some LTCH patients do complete this activity at discharge.

C5. Picking up object: The ability to bend/stoop from a standing position to pick up small object such as a spoon from the floor.

TEP members discussed the importance of this item related to risk of falls and understanding functional activity levels for patients before they are discharged home. One panel member observed that, in his hospital, bending over to pick up objects is a common cause for falls among younger patients. The TEP also stated that when patients go home they often don't realize they are not as healthy as they were before, and they may attempt activities, such as bending over to pick up an object, that they cannot safely do independently. Therefore, understanding the patient's functional status in relation to picking up objects before discharge would help to determine whether he or she could perform the activity safely at home. RTI noted that the pick up object item is not included in any of the current assessment instruments. Analyses from the PAC PRD data showed it was a very challenging activity for patients.

C7f. Car transfer: The ability to transfer in and out of a car or van on the passenger side. Does not include the ability to open/close door or fasten seat belt.

One panel member expressed concern regarding the time and equipment needed to assess this item. Another panel member disagreed and argued that measuring function related to car transfers is important, because when patients are discharged to go home, they often depend on family and friends to pick them up in a car and there may be situations in which the family member is not able to assist them in or out of the car.

Steps and Walking on Uneven Surfaces

- **C7a. 1 step (curb):** The ability to step over a curb or up and down one step.
- **C7c. 12 steps:** The ability to go up and down 12 steps with or without a rail.
- **C7d. 4 steps:** The ability to go up and down 4 steps with or without a rail.
- **C7e. Walking 10 feet on uneven surfaces:** The ability to walk 10 feet on uneven or sloping surfaces, such as grass or gravel.

Stair equipment was noted as a potential barrier for assessing the 12 steps item. TEP feedback was favorable about the 1 step (curb) item, and members agreed that assessing patients on one step or a curb would be easy to do and not require additional equipment. RTI staff noted that the need to step up and down 12 stairs after discharge varies by geographic location. RTI stated that there could be some way for facilities to note that managing a flight of stairs is not a goal for patient's discharge home, given their home environment and prior stair climbing ability.

One TEP member questioned the applicability of assessing any of the steps items on admission, especially considering the large proportion of "activity did not occur" data that can be expected on admission because of safety and medical concerns. RTI staff stated that the discharge assessment is key for measuring outcomes, and it is important to have challenging activities at discharge to avoid "ceiling" effects and to be able to demonstrate improvement that has occurred.

Walking Items

- **B5a.1 Walk 150 ft (45 m):** Once standing, can walk at least 150 feet (45 meters) in corridor or similar space.
- **B5a.2 Walk 100 ft (30 m):** Once standing, can walk at least 100 feet (30 meters) in corridor or similar space.
- **B5a.3 Walk 50 ft (15 m):** Once standing, can walk at least 50 feet (15 meters) in corridor or similar space.
- **B5a.4 Walk in room once standing:** Once standing, can walk at least 10 feet (3 meters) in room, corridor or similar space.

- **C7b. Walk 50 feet with two turns:** The ability to walk 50 feet and make two turns.

During the IRF webinar, one TEP member found the multiple walking items to be excessive. When asked to identify key walking distance, this member suggested inclusion of only two items: walking 50 feet and 150 feet.

During the discussion about the walking items, the TEP members were asked to comment on the wheelchair items included in the CARE item set. TEP members recommended carefully reviewing item wording to help identify whether a person needs to use a wheelchair for safety reasons because of impaired walking ability or is using a wheelchair because of facility policy but is otherwise ambulatory.

TEP Feedback on Population Inclusion and Exclusion Criteria for the Functional Status Quality Measures

Population Inclusion and Exclusion:

RTI suggested three general exclusion criteria: (1) patients with incomplete stays, which occurs when a patient is unexpectedly discharged to an acute care setting because of a medical emergency, is transferred to the same level of care, dies, or leaves against medical advice; and patients with a length of stay of 3 days of fewer; (2) patients who are independent on all self-care or mobility activities on admission and thus cannot demonstrate expected improvement on the items; and (3) patients with progressive neurological diseases (amyotrophic lateral sclerosis [ALS], multiple sclerosis [MS], or Parkinson's disease) or comatose on admission.

- Panel members agreed that patients with incomplete stays and patients who are independent with all activities (self-care or mobility) should be excluded from the functional outcome quality measures.

- During the IRF webinar, a TEP member mentioned that it would be good to have an opt-out option to account for those patients who are not expected to make any improvements and do not have restorative or rehabilitative goals.

- Panel members agreed with the exclusion of patients with ALS, but they did not want to exclude patients with MS, Parkinson's disease, or coma for all settings, because those patients could have some improvement. The severity of the coma was stated as an important factor for functional improvement.

- For inclusion of patients with coma, one TEP member suggested changing the inclusion criteria for coma patients to "minimally conscious" or "minimally responsive."

Final Recommendation:

- The final recommendation, after all TEP meetings were conducted, was that patients with MS, Parkinson's disease, ALS, or coma on admission should be excluded from the LTCH measures but included in the IRF and SNF measures.

SNF Population Inclusion and Exclusion Criteria

During, the SNF webinar, RTI asked for feedback on using specific items from the MDS 3.0 to identify patients with restorative goals. The first item discussed was G0900, which has two questions. The first question asks a resident to self-report whether he or she is capable of increased independence in at least some activities of daily living (ADLs). The second question asks the direct care staff if they believe the resident is capable of increased independence in at least some ADLs. The response options for both of these subparts are yes, no, and unable to determine. Section O of MDS 3.0 was also discussed briefly.

- Feedback from the TEP members indicated that item G0900 should not be used to identify patients with restorative goals because data collected from this item could be slightly biased: if a patient is receiving rehabilitation therapy, then the MDS coordinator will assume that the patient has the potential to increase his or her independence and will err on the side of always answering G0900 subpart b as "yes." Another comment was that MDS coordinators or others providing the information for this question may not understand the importance behind the question for functional outcomes and that the item may need future changes to redefine who answers this question. TEP members agreed that other items, besides G0900, should be considered for the identification of short-stay rehabilitation residents.

- TEP members identified the challenge in distinguishing between SNF residents in terms of maintenance or restorative goals. The example of a long-stay resident who has had a fall, goes to the emergency room, and comes back to the nursing home was provided by one TEP member.

Risk Adjustment

Demographic Characteristics: Age and Sex

- TEP members agreed with age being used as a risk adjustor.

- RTI staff indicated that sex and Medicaid status were not important factors affecting functional outcomes, and TEP expressed no concerns regarding exclusion of sex and Medicaid as risk adjustors.

Prior Functional Ability and History of Falls

RTI identified several items to discuss related to patients' functional ability before the current illness or injury: self-care, walking, history of falls in the past year, and prior wheelchair use.

In general, TEP members agreed that these are important risk adjustment variables that can influence functional outcomes.

- Self-care and mobility functional ability before current illness, injury, or exacerbation: Panel members discussed the importance of these items for risk

adjustment, but they noted that self-report may not be the most reliable approach. One panel member stated that some literature supports self-reported data.

- History of falls: TEP members agreed that this was important.

- Wheelchair mobility, prior functioning: TEP feedback focused on combining the categories for wheelchair use into a dichotomous variable of dependent or not dependent or yes or no for prior wheelchair use. Additionally, the TEP recommended that distinguishing between wheelchair use in the home and use for longer distances in the community would be important to identify different functional ability levels.

Diagnosis

RTI asked TEP members whether the diagnosis used for risk adjustment should be the acute care diagnosis or post-acute care diagnosis. TEP members were unanimous that the post-acute care diagnosis should be used because the data should reflect the exact reason that the patient was admitted to the post-acute care setting.

Recommendations were also sought regarding primary diagnosis groupings into major categories, such as neurological, orthopedic, cardiorespiratory, debility, and other. TEP reaction to the diagnosis grouping strategy included comments that trauma can be classified as neurologic but also orthopedic, because when someone has traumatic brain injury they may also have fractures; therefore a major multiple trauma group might work well for patients with multiple traumatic conditions. Another TEP member focused on the debility group and the fact that it contains many aspects of debility, which diffuses the group and makes it difficult to characterize in terms of functional outcomes.

One TEP member suggested looking at intensity of services within those diagnosis groupings to determine which diagnoses were similar on the basis of intensity. In addition, the interaction between severity and diagnosis was stated to be important as well, because diagnosis alone has wide variability.

LTCH Webinar:

TEP members focused on the importance of respiratory status and its impact on functional improvement outcomes. Tracheostomy decannulation was also noted to be an important predictor for rehabilitation potential.

With regard to the impact of surgery before the post-acute care on functional outcomes, one TEP member stated that the definitions of procedures and surgeries are so varied that it would be difficult to determine the best use of this item for risk adjustment. For example, a cardiac catheterization may not have a huge impact on functional status, but a heart or lung transplant procedure may be important. This TEP member said each surgery or procedure would have to be examined individually to determine its impact on functional status.

SNF Webinar:

RTI asked TEP members how to identify the primary diagnosis for SNF patients using the MDS 3.0. One panel member mentioned that ICD-9 codes are difficult to use and ICD-10 codes can be even more challenging for identification of primary diagnosis. [1]

Panel members were in agreement that the IRF-PAI classification of primary diagnosis codes is useful and recommended that the SNF program incorporate a similar classification system for the MDS.

Medical Problems and Impairments

RTI stated that the CARE Item Set includes data about medical treatments and impairments that may affect functional outcomes; however, studies examining functional outcomes have not typically included these factors in risk adjustment. RTI asked TEP members to consider their clinical experience to identify medical conditions and impairments that may be important to include in a risk adjustment model for functional outcomes.

During the in-person meeting, TEP members indicated the following impairments as important factors that affected functional outcomes and should be included in risk adjustment models: presence of severe pressure ulcer (one or more Stage 3, Stage 4, or unstageable pressure ulcers); cognitive impairment; communication impairment (both comprehension and expression); bladder incontinence; swallowing impairment; and respiratory impairment, including need for supplemental oxygen need and shortness of breath.

Comorbidities:

RTI staff asked TEP members to identify specific comorbidities that might affect patients' functional outcome and to determine whether risk adjustment should be based on a comorbidity index or specific diagnoses.

- TEP members overall agreed that adjusting for comorbidities is important, but they did not have a preference for the approach (comorbidity index or specific diagnoses). One TEP member cautioned about the use of comorbidities because, in his experience, facilities have used them as a way to get higher payments. For example, a patient could have Parkinson's disease and be on medication for seizures but not have had a seizure in 10 years. However, the facility lists seizure as co-morbidity, thereby increasing payments to the facility.

- During the SNF webinar, RTI asked TEP members about the best source of data to obtain the list of comorbidities for the risk adjustment models. The first option presented was to use the MDS 3.0 data (diagnosis list and ICD codes) and the second option was to use the ICD codes from claims data—either acute care or SNF claims *or* both acute care and SNF claims.

[1] ICD-9 and ICD-10 are the *International Classification of Diseases, Ninth Revision*, and the *International Classification of Diseases, Tenth Revision*, respectively.

- TEP members noted that ICD codes may not be reported on the claims and that the claims may not give a good picture of relevant comorbidities. Another TEP member stated that the MDS 3.0 could possibly be used to determine the comorbidities.

Major Treatments on Admission:

RTI discussed major treatments to risk adjust for during the IRF webinar. The list of 30 major treatments on the admission CARE tool assessment was presented. From this list, TEP members identified treatments that could influence functional outcomes and should be considered for possible inclusion in risk adjustment models:

- Total parenteral nutrition (TPN): TEP members indicated that some facilities take patients on TPN and some do not; overall the consensus was that these patients tend to make slower progress because of underlying malnutrition.

- Central line/peripherally inserted central catheter (PICC) line: TEP members' opinions varied as to whether it affects functional outcomes; perhaps the line itself doesn't result in specific limitations, but the underlying conditions do affect outcomes.

- Blood transfusions: TEP members indicated that this does not occur often in an IRF; a patient who needs a blood transfusion will be transferred to another facility.

- Controlled parenteral analgesia—peripheral or epidural: TEP members indicated that although peripheral nerve blocks occur in IRFs and do not impede rehabilitation process, patient-controlled analgesia (PCA) pain pumps are not expected in IRFs. These patients cannot participate in therapy because their pain is not managed well enough.

- Left ventricular assisted devices (LVADs): TEP members suggested using a term "ventricular assisted devices" to cover a broader range of available devices than LVAD. TEP members recommended including this variable in the risk adjustment models.

- Continuous cardiac monitoring: TEP members indicated that continuous cardiac monitoring was indicative of underlying primary diagnosis or comorbidities, and they did not recommend its inclusion in the risk adjustment models.