

# Technical Expert Panel Summary (Third Convening)

## Development and Maintenance of Post-Acute Care Cross-Setting Standardized Patient Assessment Data

WR-1273-CMS

Prepared for the Centers for Medicare & Medicaid Services  
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CMS Contract No. HHSM-500-2013-13014I

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## Preface

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On behalf of the Centers for Medicare & Medicaid Services (CMS), the RAND Corporation convened a technical expert panel (TEP) on September 17, 2018, in the RAND offices in Arlington, Virginia, to seek input on the development of post-acute care cross-setting standardized patient assessment data with a focus on home health agencies, inpatient rehabilitation facilities, long-term care hospitals, and skilled nursing facilities. This TEP meeting was the third meeting in the series. The first and second TEP meetings were held in April 2016 and January 2017, respectively, and are summarized in previous reports.

This report provides a summary of the TEP proceedings from the September 2018 meeting, detailing key issues of standardized patient assessment data development and the TEP's discussion around those issues.

This work was sponsored by CMS under contract No. HHSM-500-2013-13014I. The research was conducted in RAND Health, a division of the RAND Corporation. A profile of RAND Health, abstracts of its publications, and ordering information can be found at [www.rand.org/health](http://www.rand.org/health).

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## Abbreviations

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ADE	Adverse Drug Event
BIMS	Brief Interview of Mental Status
CAM	Confusion Assessment Method
CMS	Centers for Medicare & Medicaid Services
DRR	Drug Regimen Review
EHR	electronic health record
EMR	electronic medical record
ESR	Environmental Scan Report
HHA	Home Health Agency
HIT	health information technology
IMPACT	Improving Medicare Post-Acute Care Transformation
IRF	Inpatient Rehabilitation Facility
IRF-PAI	Inpatient Rehabilitation Facility-Patient Assessment Instrument
LCDS	Long-Term Care Hospital Continuity Assessment Record and Evaluation Data Set
LOS	length of stay
LTCH	Long-Term Care Hospital
MDS	Minimum Data Set
OASIS	Outcomes and Assessment Information Set
PAC	Post-Acute Care
PHQ	Patient Health Questionnaire
PT	physical therapist
QI	quality improvement
RN	registered nurse
ROC	Resumption of Care
SNF	Skilled Nursing Facility
SOC	Start of Care
TEP	Technical Expert Panel

# Executive Summary

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On behalf of the Centers for Medicare & Medicaid Services (CMS), the RAND Corporation convened a technical expert panel (TEP) on September 17, 2018, in the RAND offices in Arlington, Virginia. The purpose of the meeting was to engage expert stakeholders on substantive issues related to the development and maintenance of cross-setting standardized patient assessment for PAC facilities in support of the IMPACT Act of 2014. The TEP discussed a selection of data elements that were included in RAND's national Beta test of candidate data elements for standardization and gave their opinions on the suitability of the data elements for standardization.

## **Cognitive Function and Mental Status**

On the topic of expression and understanding, the TEP agreed that the three-item set of Expression and Understanding data elements was a better candidate for standardization than the two-item set, based on results from the Beta test and greater specificity offered by the three-item set. The TEP discussed data elements capturing the behavioral signs and symptoms of cognitive impairment and agreed on the importance of the topic, but raised substantive issues related to assessment of these symptoms, such as the difficulty of discharging patients/residents to other PAC providers when a behavior issue has been documented. For the last topic in this category, the TEP was supportive of standardizing the PHQ-2 to 9 data element set as a screener for signs and symptoms of depression.

## **Medication Reconciliation**

The TEP acknowledged the challenge of assessing medication safety and were moderately supportive about the Medication Reconciliation data elements tested in Beta. They were especially supportive of the focus on the six high-risk drug classes and using these data elements to assess whether the indication for a drug is recorded.

## **Medical Conditions: Pain**

The TEP was supportive of the interview-based pain data elements included in the Beta test, especially items that assess how pain interferes with activities.

## **Impairments: Continence**

While the TEP agreed that several of the data elements that assess bladder and bowel continence could be relevant to care planning and to calibrating resource intensity, their discussions did not focus on a particular sub-set of items that they would support over others, and raised questions about the goals and numbers of data elements on this topic.

**Observational Assessments for Patients/Residents Who Are Unable to Communicate:  
Cognition, Mood, and Pain**

The TEP affirmed the importance of assessing patients/residents who are not able to complete interview-based data elements, but highlighted the need for assessor training.

# 1. Introduction and Overview

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## Introduction

The RAND Corporation, on behalf of the Centers for Medicare & Medicaid Services (CMS), convened a technical expert panel (TEP) on September 17, 2018, in Arlington, Virginia, to seek input on the development of post-acute care (PAC) standardized patient assessment data with a focus on Home Health Agencies (HHAs), Inpatient Rehabilitation Facilities (IRFs), Long-Term Care Hospitals (LTCHs), and Skilled Nursing Facilities (SNFs). The September 2018 meeting was the third TEP meeting; the first and second meetings were held in April 2016 and January 2017, respectively, and are summarized in previous reports.

This report provides a summary of the TEP proceedings from the September 2018 meeting, detailing key issues of standardized patient assessment data element development and the TEP's discussion around those issues. In this chapter, we provide background information on the project and outline the organization of this report.

## Background

The Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 requires CMS to develop, implement, and maintain standardized patient assessment data elements for PAC settings to facilitate care coordination, interoperability, and improve Medicare beneficiary outcomes.<sup>1</sup> The types of PAC providers covered by the IMPACT Act of 2014 include HHAs, IRFs, LTCHs, and SNFs.

Each PAC setting currently has its own assessment instrument. Existing instruments are the Outcome and Assessment Information Set (OASIS) for HHAs; IRF–Patient Assessment Instrument (IRF-PAI) for IRFs; LTCH Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) for LTCHs; and Minimum Data Set (MDS) for SNFs. While each assessment instrument measures similar concepts, the data elements used in these assessments are, with few exceptions, limited in terms of standardization or interoperability. This lack of uniformity means that data collected by means of the assessment instruments cannot be directly compared or exchanged electronically across PAC settings.

CMS has contracted with the RAND Corporation to develop standardized patient assessment data elements for PAC settings that meet the requirements of the IMPACT Act of 2014. The Act specifies that standardized items be developed within five clinical categories:

1. functional status, such as mobility and self-care
2. cognitive function and mental status

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<sup>1</sup> Improving Medicare Post-Acute Care Transformation Act of 2014, H.R. 4994, House of Representatives (2014).

3. special services, treatments, and interventions (e.g., need for ventilator, dialysis, chemotherapy, and total parenteral nutrition)
4. medical conditions and comorbidities (e.g., diabetes, heart failure, and pressure ulcers)
5. impairments (e.g., incontinence and impaired ability to hear, see, or swallow).

Within these categories, RAND has conducted information gathering activities to choose data elements to be tested that meet the requirements of the IMPACT Act and that might support clinical decision making, care coordination, cost reduction, and improved patient/resident and family experiences. Activities in the first phase of the project (October 2015 to September 2016) included systematic literature review; development of conceptual frameworks; consultation with subject matter expert advisors, focus groups, and the first convening of the TEP; and a sub-regulatory public comment period. Those activities are summarized in the first Environmental Scan Report (ESR 1), which was submitted to CMS in April 2017. A second Environmental Scan Report (ESR 2), which was submitted to CMS in September 2018, summarizes project activities conducted during the second year of the project, including the Alpha 1 feasibility test (August to October 2016), the Fiscal Year 2018 and Calendar Year 2018 proposed rule activities, a second convening of the TEP (January 2017), a second sub-regulatory public comment period, and the Alpha 2 feasibility test (April to July 2017). A nationwide Beta test concluded in August 2018; reports on the results of that test will be available in 2019. Links to reports for project activities that have been posted publicly are listed below:

- Technical Expert Panel Summary/Expert Input Report: Development and Maintenance of Post-Acute Care Cross-Setting Standardized Patient Assessment Data. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/RAND-IMPACT-TEP-Report-Final-20160819.pdf>
- Public Comment Summary Report. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Development-and-Maintenance-of-Post-Acute-Care-Cross-Setting-Standardized-Assessment-Data-RAND-IMPACT-Public-Comment-Summary.pdf>
- Development and Maintenance of Standardized Cross Setting Patient Assessment Data for Post-Acute Care: Summary Report of Findings from Alpha 1 Pilot Testing. [https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Standardized-Patient-Assessment-Data-Element-Alpha-1-Report\\_March-2017.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Standardized-Patient-Assessment-Data-Element-Alpha-1-Report_March-2017.pdf)
- Technical Expert Panel Summary/Expert Input Report (Second Convening): Development and Maintenance of Post-Acute Care Cross-Setting Standardized Patient Assessment Data. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Standardized-Patient-Assessment-Data-Element-TEP2-Report.pdf>
- Public Comment Summary Report 2. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Public->

[Comment-Summary-Report\\_Standardized-Patient-Assessment-Data-Element-Work\\_PC2\\_Jan-2018.pdf](#)

- Development and Maintenance of Standardized Cross Setting Patient Assessment Data for Post-Acute Care: Summary Report of Findings from Alpha 2 Pilot Testing. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Alpha-2-SPADE-Pilot-Summary-Document.pdf>

The objective of the September 2018 TEP meeting was to review preliminary results of national Beta testing for selected candidate standardized patient assessment data elements, and to obtain feedback from the TEP on those data elements. The data elements discussed were in the following areas of focus:

- Cognitive Function and Mental Status
- Medication Reconciliation
- Medical Conditions: Pain
- Impairments: Continence
- Observational Assessments for Patients/Residents Who Are Unable to Communicate

## Organization of This Report

Chapter 2 of this report describes the process of nominating and selecting the TEP members for the 2016, 2017, and 2018 TEP meetings, and it provides details about the structure and content of the September 2018 meeting. Chapter 3 summarizes a discussion by the TEP members of assessing patients/residents at admission and discharge. Chapters 4 through 10 summarize the feedback obtained from TEP members during discussions of the standardized data elements and from participant ratings. Chapters 4 through 10 address the follow data elements: Expression and Understanding, Behavioral Signs and Symptoms, and Mood (Cognitive Function and Mental Status); Medication Reconciliation; Pain (Medical Condition); Continence (Impairment); and Observational Assessments for Cognition, Mood, and Pain. Each section offers the background and rationale for the importance of assessing the topic in PAC settings and reports on the TEP's discussion. Chapter Eleven summarizes our findings and conclusions. Data elements included in the national Beta test that were discussed by the TEP are included as appendices.

## 2. Technical Expert Panel Process

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Members of the TEP were selected prior to the first TEP meeting convened in 2016. Thirteen of the fifteen TEP members who attended the third TEP meeting on September 17, 2018, were part of the originally selected TEP. This section describes the process of nominating and selecting TEP members and provides more detail specific to the 2018 meeting.

### TEP Member Nomination

To support RAND's stakeholder involvement work for this project, a call soliciting technical experts was posted on the CMS Measure Management Public Comment web page on February 8, 2016. The objective was to find individuals who would be able to add input on the development and testing of standardized patient assessment data elements for use in PAC. The TEP solicitation included a call for participants with a diverse range of perspectives and areas of expertise within the four PAC settings as outlined in the IMPACT Act of 2014: HHAs, IRFs, LTCHs, and SNFs.

Individuals who were nominated or self-nominated were instructed to complete a nomination form, which asked for the individual's current title/professional role; credentials; organizational affiliation and/or employer; role (recent PAC patient/resident, family member of PAC patient/resident, advocate, other consumer, provider or staff, administrator, regulator, purchaser, researcher, and/or organizational employee); and the PAC settings in which they had experience (HHA, IRF, LTCH, or SNF). Additionally, they were asked to include a short biographical statement and, for applicants other than consumers and family caregivers, a curriculum vitae.

The nomination period closed on February 19, 2016. RAND received 117 nominations. Nominees came from 94 different organizations across 34 states, and they represented a variety of disciplines, experience, and reported expertise across the spectrum of PAC.

### TEP Member Selection

After the close of the nomination period, RAND finalized the TEP composition by selecting 17 nominees who offered a diverse range of clinical, research, consumer, and administrative expertise in the subject areas to be discussed at the TEP (cognitive status, medication reconciliation, care preferences, pain, hearing and vision, and continence), including expertise in one or more PAC settings. Nominees were invited to participate in the TEP based on their content expertise, experience in PAC, and disciplinary perspective. The TEP was constructed purposefully to balance representation of individual disciplines, experience, and PAC settings. The membership also reflected geographic and organizational diversity, and the variety of organization types that may have an interest in the topic. In addition to the 17 selected nominees,

a consumer representative, who is an advocate for people with disabilities, was invited to participate in the TEP. Two of the selected nominees were not available to attend the first TEP meeting in April 2016. As a result, a 16-member panel convened in April 2016.<sup>2</sup>

When the TEP was reconvened for a second meeting in January 2017, five of the original members were not able to attend, three due to prior commitments and two due to last-minute conflicts. To ensure adequate representation of all PAC settings and disciplinary perspectives, we recruited three new panelists. We invited two whose skills and experience were similar to the TEP members not able to attend the January 2017 TEP meeting. These two had been nominated in the original call for participants. The third worked at the same professional organization and had similar qualifications and PAC experience as one of the TEP members who was unable to attend; this panelist recommended the new panelist. This process led to a 14-member panel that convened in January 2017.<sup>3</sup>

Two of the TEP members who participated in the January 2017 TEP meeting were not able to attend the third TEP meeting in September 2018. To maintain the balance of PAC setting and disciplinary perspectives, we invited three more panelists (noted in Table 2.1 with an asterisk) who had participated in the first TEP meeting, but not in the second meeting. Fifteen panelists attended the September 2018 TEP convening. Table 2.1 provides the roster of TEP members present at that meeting; brief biographies of each member are available in Appendix A.

**Table 2.1. TEP Roster for September 2018 Meeting**

	<b>Name, Credentials, Professional Role</b>	<b>Organizational Affiliation, City, State</b>	<b>PAC setting(s)</b>	<b>Role/Area of Expertise</b>
1	Susan Battaglia, RN-BC, RAC-CT Director of Case Mix Management	Tara Cares; NGNA; AANAC Orchard Park, NY	SNF	Patient assessment, workforce, quality improvement (QI)
2	Daniel Butts, MOT, OTR/L, MBA* Senior Director Rehabilitation Operations	UPMC Rehabilitation Network Pittsburgh, PA	IRF, LTCH, SNF	Administrator: workforce
3	Judy Elmore, BS Vice President, Ancillary Operations	Covenant Healthcare Aliso Viejo, CA	HHA, SNF	Administrator: workforce, QI, health information technology (HIT)
4	Janet Herbold, PT, MPH, CHC Senior Administrator and Corporate Compliance Officer	Burke Rehabilitation Hospital White Plains, NY	IRF	Provider/Administrator patient assessment, care transitions
5	Kathleen Lawrence, MSN, RN, CWOCN Wound Ostomy Continence Program Manager	Rutland Area Visiting Nurse and Hospice Rutland, VT	HHA, IRF, LTCH, SNF	Provider: care preferences, pain, workforce
6	Natalie Leland, PhD, OTR/L, BCG, FAOTA, FGSA Associate Professor, Department of Occupational Therapy	University of Pittsburgh Pittsburgh, PA	IRF, SNF	Care preferences, QI, HIT
7	Cheryl Phillips, MD, AGSF	Special Needs Plan	SNF, IRF,	Administrator: QI,

<sup>2</sup> For information on the April 2016 TEP meeting, including a roster of attendees, see RAND Corporation, 2016.

<sup>3</sup> For information on the January 2017 TEP meeting, including a roster of attendees, see RAND Corporation, 2017.

	<b>Name, Credentials, Professional Role</b>	<b>Organizational Affiliation, City, State</b>	<b>PAC setting(s)</b>	<b>Role/Area of Expertise</b>
	President and Chief Executive Officer	Alliance Washington, D.C.	HHA	performance measurement, patient assessment process
8	Marc Rothman, MD Senior Vice President and Chief Medical Officer	Kindred Healthcare Louisville, KY	HHA, IRF, LTCH, SNF	Provider: QI, workforce, care transitions
9	Monica Sampson, PhD, CCC-SLP* Associate Director, Health Care Services in Speech Language Pathology	American Speech-Language-Hearing Association (ASHA) Rockville, MD	SNF	Provider: hearing and vision assessment, assessment of cognitive function
10	Peter W. Thomas, JD Principal	Powers Pyles Sutter and Verville PC Washington, D.C.	HHA, IRF, LTCH, SNF	Consumer
11	Barbara Thomsen, CDM, CFPP, RAC-CT MDS/Case Mix Audit Specialist and Quality Assurance	Hawkeye Care Centers, Norwalk, IA	HHA, IRF, LTCH, SNF	Provider: patient assessment, performance measurement
12	John Votto, DO, FCCP President and Chief Executive Officer	Hospital for Special Care, Inc. New Britain, CT	LTCH	Administrator: patient assessment, performance measurement
13	Michael Wasserman, MD, CMP Chief Executive Officer	Rockport Healthcare Services Los Angeles, CA	HHA, LTCH, SNF	Provider: QI, care transitions
14	Kathleen Witcoskie, RN Vice President	Visiting Nurse Associations of America Health System Shamokin, PA	HHA, LTCH, SNF	Research/academic: QI, health care disparities
15	Kimber Walters Zappia, BSW, MBA* Executive Director, Transitions	Atrium Health Charlotte, NC	HHA, IRF, LTCH, SNF	Administrator/provider: workforce, care transitions

NOTE: Asterisks denote members who were not present at the January 2017 convening.

## TEP Meeting

Two weeks in advance of the 2018 in-person meeting, TEP members were asked to review a draft report providing background on the national Beta test, “Development and Maintenance of Post-Acute Care Cross-Setting Standardized Patient Assessment Data: National Beta Test, Background, and Methods.” The draft report presents information on the candidate items included in the national Beta Test; the design and sampling plan; information on training, recruitment, and retention of assessors and PAC facilities/agencies in the study; details of the data collection process; and an overview of the plan for analyzing the data.

The in-person meeting took place at the RAND offices in Arlington, Virginia, on September 17, 2018 (see Appendix B for the meeting agenda). Representatives from CMS opened the meeting by orienting the TEP to the goals of standardization and situating the work of standardized patient assessment data within CMS’ broader goals of quality improvement and patient-centeredness. Next, RAND shared preliminary results of the national Beta testing for selected candidate standardized patient assessment data elements. Following the presentation of the Beta testing results for each of the candidate data elements, the TEP discussed the usefulness of the data elements and sub-items in their current form and a consideration of whether

assessment should take place at both admission and discharge time points. Several RAND staff took notes during the discussion for the purpose of summarizing TEP proceedings in this report.

### 3. Assessment at Admission and Discharge

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In seeking standardization of patient assessment data, the IMPACT Act of 2014 states, “The Secretary shall require such data be submitted with respect to admission and discharge of an individual (and may be submitted more frequently as the Secretary deems appropriate)” (“Improving Medicare Post-Acute Care Transformation Act of 2014,” 2014). Administering patient assessments at both admission and discharge could support discharge planning, transfer of up-to-date information to the next site of care, and change in patient/resident status within and across PAC episodes. However, input on the appropriate timing of data collection for candidate standardized data elements was provided during item development activities. Issues to be considered in deciding which standardized patient assessment data elements include burden for patients/residents, burden for PAC providers and assessors, likelihood that the information will change between the time of the admission and discharge assessments, and clinical usefulness of the information (e.g., to inform care transitions).

#### TEP Discussion about Assessment at Admission and Discharge

During the September 2018 meeting, the rationale for collecting patient/resident assessment data at both admission and discharge and considerations for collecting data at discharge were presented to the TEP. The TEP members were then asked to comment on: what guiding principles should be used to decide the time points at which a data element should be required (i.e., admission, discharge); what implications are there for clinical usefulness and work flow; whether the feasibility of collecting data at two points in time varies by setting; and whether the timing of assessment affects the utility of the standardized data for other purposes.

The TEP members engaged in a discussion about assessment of data elements at admission and discharge. One TEP member kicked off the exchange by stating that the LTCH typically receives extremely long discharge reports, requiring hours to review, and that the reports do not provide concise information about a patient that would be important for the LTCH staff to know at the time of admission. The TEP member commented that a short summary of the type of information not available from the patient (e.g., mental status quality, incontinence, medication list) is needed. Others agreed and added that electronic medical records (EMRs) have added to the *volume* of information that is sent from one setting to the next, but lack the capacity to extract or highlight what is important (“have everything, send you everything”). TEP members strongly agreed that a standard and concise transfer document was needed to facilitate care transitions between and among acute and PAC providers.

Another TEP member added that, for home health patients, knowing the patient’s status at the time of discharge from a prior setting is essential for evaluating if and how the patient has

changed from the time of discharge to the time the patient is seen by home health providers—which can be several days or, in some cases, even weeks later. She went on to discuss how being able to “connect the dots” between points of care – to track patient/resident status across settings of care—would be important if the data elements are incorporated into payment policy. Several other TEP members discussed the need for admission and discharge assessments for items likely to change—or possibly all items—so outcomes or changes in patient/resident status during the stay could be measured. The TEP contrasted assessment of medications, which should be monitored frequently, with things like cognitive status that may be more stable over short periods of time. No consensus emerged, however, and many exceptions were offered around a rule of thumb for when data should be collected at both admission and discharge.

Some TEP members commented that discharge may be a difficult time to assess the patient/resident, and that there may not be enough time for an assessment to be conducted because some discharges happen suddenly. Another TEP member recounted that, in the SNF setting, a baseline care plan is required within 48 hours, so the discharge assessment from the previous setting and the admission assessment from the SNF are both important to forming that plan. One person suggested that, if a patient/resident was transferred to another setting, their assessment at discharge could serve as the admission assessment for the other setting, or at least provide a starting place for the next provider’s assessment of the patient/resident. However, several TEP members vigorously disagreed with this idea, noting the importance of conducting the patient/resident assessment “yourself” to confirm the accuracy of the information. A TEP member emphasized the importance of having the admission assessment conducted by the receiving provider, saying that the previously collected information may not apply. One person suggested that many staff have a “cut and paste” mentality and rely on auto-populate features of EHRs, which can proliferate errors.

At the conclusion of the discussion, a TEP member offered an alternative perspective on the utility of discharge assessment. This person noted that the discharge assessment is usually thought of as a way to provide information for the providers in the next setting. However, it may be a way to identify risk or likelihood of success in transfer to the next setting of care and may contribute to the decision of whether or not the patient/resident is ready for discharge.

The TEP universally agreed on value of conducting assessment at both time points and the potential for discharge assessment information from one setting to inform evaluation and care planning at the next setting of care. There was also broad agreement about challenges to requiring assessment at discharge. There were few comments on which data elements should or should not be collected at both time points, and no guiding principles were identified regarding when to collect data at discharge as well as admission.

## 4. Cognitive Function and Mental Status: Expression and Understanding

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### Background and Rationale

Impairments related to the ability to express oneself and understand others increase in frequency and complexity with age. These impairments can occur in older adults because of age-related changes, such as hearing loss; age-related chronic conditions; or chronic conditions diagnosed earlier in life, such as cerebral palsy and multiple sclerosis.<sup>4</sup> They may also arise from neurologic conditions more common in later life, such as Parkinson's disease, stroke, and dementia.<sup>5</sup> Identification and accommodation of such impairments in PAC settings are important for patients/residents to regain their ability to communicate, or to improve their communication skills as much as possible.

In this section of the report, we summarize the feedback received from the TEP on two versions of item sets related to Expression and Understanding that were included in the Beta testing: a three-item set used in the MDS (Appendix C: A3 Speech Clarity, A4 Makes Self Understood, and A5 Ability to Understand Others), and a two-item set used in the LCDS and IRF-PAI (Appendix C: A6 Expression of Ideas and Wants, and A7 Understanding Verbal Content). These both assess the patient/resident's ability to express him/herself and understand others. However, a key distinction is that the two-item version includes clear speech as a component of expression, but the three-item version separates speech clarity from expression. Therefore, the goal was to evaluate and compare data collected on similar items from each version, as well as to assess the added utility of the speech clarity item. Beta test sites in Market Group A used the three-item set, while test sites in Market Group B used the two-item set (Expression of Ideas and Wants, and Understanding Verbal Content). (For more information on the Beta test design, see the September 27, 2017 Special Open Door Forum presentation, available at: [https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917\\_v2.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917_v2.pdf).)

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<sup>4</sup> Yorkston, K. M., Bourgeois, M. S., & Baylor, C. R. (2010). Communication and aging. *Phys Med Rehabil Clin N Am*, 21(2), 309-319. doi:10.1016/j.pmr.2009.12.011

<sup>5</sup> Yorkston, K. M., Bourgeois, M. S., & Baylor, C. R. (2010). Communication and aging. *Phys Med Rehabil Clin N Am*, 21(2), 309-319. doi:10.1016/j.pmr.2009.12.011

## TEP Discussion of Expression and Understanding

At the September 2018 meeting, preliminary Beta test results for the Expression and Understanding data elements were presented to the TEP. The RAND presenter highlighted the slightly better reliability and the greater specificity (e.g., separating out speech clarity) of the three-item set over the two-item set, and suggested that the three-item set of Expression and Understanding data elements would be the better candidate for standardization. The TEP members were then asked to discuss the data elements in both forms and address whether there were drawbacks to standardizing one of the versions. The TEP was also asked to consider whether Expression and Understanding should be assessed at discharge as well as admission.

TEP members reacted to the RAND presenter's interpretation of the testing data and agreed among themselves that the three-item set of Expression and Understanding data elements performed better and would be the better candidate for standardization. The TEP members agreed that the items should be assessed at both admission and discharge. One TEP member recommended two changes to these items. This individual suggested that the language barrier instruction from the two-item set – “excluding language barriers” – be included in instructions for the Makes Self Understood and Ability to Understand Others data elements in the three-item set. The TEP member also recommended that communication devices be included as a third category in the Makes Self Understood and Expression of Ideas and Wants data elements, in addition to verbal and non-verbal expression (i.e., “consider verbal or non-verbal expression or use of communication devices and excluding language barriers”).

## 5. Cognitive Function and Mental Status: Behavioral Signs and Symptoms

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### Background and Rationale

Behavioral disturbances—a patient’s/resident’s disruptive or dangerous physical or verbal behaviors directed either at themselves or caregivers, often signaling distress or unmet or unrecognized needs—strain the time and resources of PAC providers, disrupt care, and result in poorer patient/resident outcomes.<sup>6,7</sup> Patients/residents with these behaviors may require more case management time; may have poorer quality of life and interpersonal relationships; and may be at risk for injury, isolation, and inactivity.<sup>8</sup> Symptoms of these disturbances can also disrupt the institutional<sup>9</sup> or home environment and affect the safety<sup>10,11</sup> and privacy<sup>12</sup> of the patient/resident, other patients/residents, and caregivers. In addition, exposure to aggressive behaviors can have a negative effect on staff job satisfaction.<sup>13</sup> The importance of assessing these signs and symptoms centers on the potential to identify and provide appropriate therapy with the dual objectives of improving the well-being of patients and residents who experience them, and easing the burden these behaviors impose on caregivers and providers.

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<sup>6</sup> Cheng, S. T. (2017). Dementia Caregiver Burden: a Research Update and Critical Analysis. *Curr Psychiatry Rep*, 19(9), 64. doi:10.1007/s11920-017-0818-2

<sup>7</sup> Gaugler, J. E., Duval, S., Anderson, K. A., & Kane, R. L. (2007). Predicting nursing home admission in the U.S: a meta-analysis. *BMC Geriatr*, 7, 13. doi:10.1186/1471-2318-7-13

<sup>8</sup> Robert, P. H., Verhey, F. R., Byrne, E. J., Hurt, C., De Deyn, P. P., Nobili, F., . . . Vellas, B. (2005). Grouping for behavioral and psychological symptoms in dementia: clinical and biological aspects. Consensus paper of the European Alzheimer disease consortium. *Eur Psychiatry*, 20(7), 490-496. doi:10.1016/j.eurpsy.2004.09.031

<sup>9</sup> Menon, A. S., Gruber-Baldini, A. L., Hebel, J. R., Kaup, B., Loreck, D., Itkin Zimmerman, S., . . . Magaziner, J. (2001). Relationship between aggressive behaviors and depression among nursing home residents with dementia. *Int J Geriatr Psychiatry*, 16(2), 139-146.

<sup>10</sup> de Jonghe-Rouleau, A. P., Pot, A. M., & de Jonghe, J. F. (2005). Self-injurious behaviour in nursing home residents with dementia. *Int J Geriatr Psychiatry*, 20(7), 651-657. doi:10.1002/gps.1337

<sup>11</sup> Malone, M. L., Thompson, L., & Goodwin, J. S. (1993). Aggressive behaviors among the institutionalized elderly. *J Am Geriatr Soc*, 41(8), 853-856.

<sup>12</sup> Pillemer, K., Chen, E. K., Van Haitsma, K. S., Teresi, J., Ramirez, M., Silver, S., . . . Lachs, M. S. (2012). Resident-to-resident aggression in nursing homes: results from a qualitative event reconstruction study. *Gerontologist*, 52(1), 24-33. doi:10.1093/geront/gnr107

<sup>13</sup> Dougherty, L. M., Bolger, J. P., Preston, D. G., Jones, S. S., & Payne, H. C. (1992). Effects of exposure to aggressive behavior on job satisfaction of health care staff. *J Appl Gerontol*, 11(2), 160-172. doi:10.1177/073346489201100203

## TEP Discussion of Behavioral Signs and Symptoms

At the September 2018 meeting, preliminary results for the Behavioral Signs and Symptoms data elements (Appendix C: H1-H4) from the national Beta test were presented to the TEP. The TEP members were then asked to discuss the data elements, which assessed signs and symptoms of behavioral disturbances, such as presence and frequency; impact on patient/resident; impact on others; and presence and frequency of rejection of care behavior. The TEP members were asked to consider the usefulness of the sub-items (Impact on Patient/Resident; Impact on Others), including whether a shortened version of these items could be useful to minimize burden of data collection, and whether these items should be required at discharge as well as admission, given the trade-off between usefulness and burden.

The TEP began by discussing these data elements with a focus on patients receiving care from a home health provider. Several members noted separately that the Behavioral Signs and Symptoms module in the Beta test was quite long (i.e., there were many data elements on this topic), making it potentially burdensome; that the Rejection of Care item may have less applicability to some home health patients; and that, when home health agencies are aware of patients' behavioral issues, they can incorporate that information into the place of care and leverage other resources (e.g., therapies, adult protective services) as needed to ensure the patient and caregivers are safe in the home. Other members of the TEP responded to the issues of applicability in the home setting and burden by offering examples of patients receiving home health care while in assisted living facilities (i.e., where refusal of care would be relevant information), noting that the number of items is acceptable in light of the prevalence and impact of behavioral symptoms in the fast-growing population of older adults.

Several TEP members made suggestions for specific information that could be removed from or added to the data elements under consideration. One person felt that, while the items currently ask about frequency of the behaviors based on number of days exhibited, all that needs to be known is whether the behavior is present. Another TEP member asserted that the level of a behavioral symptom should be specified to help determine the amount of support needed. This individual explained that a patient/resident who slaps at a caregiver when he or she receives a bath is different from a patient/resident with a serious physical abuse issue that necessitates a higher level of support. Additionally, several TEP members commented that it would be appropriate and useful to be able to respond to the "impact" items with regard to interventions or strategies put in place to manage behaviors. For example, rather than the binary (yes/no) response options that were tested, they suggested response options that could capture a situation in which behaviors are manageable or have little impact when mitigation strategies are used (e.g., a patient/resident who cooperates with bathing in the evening but not in the morning). One TEP member elaborated on the importance of assessing strategies to manage behavioral symptoms in the context of assessment at admission and discharge. A patient/resident who is assessed as having behavioral symptoms at admission but not exhibiting symptoms at discharge

might represent a case of successful care strategies having been implemented during the stay, potentially important information to be shared with the next setting of care.

Part of the discussion also focused on challenges related to facilities accepting patients/residents with signs and symptoms of behavioral disturbances and discharging them to other settings. Two TEP members discussed issues regarding accepting these patients in the home health setting. A few members mentioned that many SNFs and HHAs would be likely to decline patients with documented behavioral symptoms. Another person pondered how accepting patients with symptoms could potentially impact an HHA, implying that staff or the patient may be put at risk if an agency chooses to accept them. Others more generally discussed the challenge of finding a placement upon discharge for patients/residents with these behaviors, once it is indicated that the behaviors are present. A TEP member declared that, even if it does affect placement of these individuals, standardizing assessment and documentation of information on patients' behavioral signs and symptoms is very important to patient/resident care and safety. Another person felt that capturing this information would help document the true extent of the problem, which is now often recognized by clinical staff without being consistently documented in a standard way.

Throughout the discussion, TEP members cited the importance of routinely assessing and documenting patient/resident behavioral symptoms, but highlighted limitations of the Beta data elements to capture key characteristics of behavioral symptoms and attendant management strategies. They discussed the implications of conducting these assessments at admission and discharge, and cited challenges of interpretations when results change between time points, but did not reach consensus on whether or not assessment at both time points would be clinically useful. Although a few TEP members made suggestions for how to reduce the number of data elements in this set, the balance of the discussion focused on ways to expand, extend, or refine the data elements to capture more information about behavioral signs and possible interventions.

## 6. Cognitive Function and Mental Status: PHQ-2 to 9

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### Background and Rationale

Depression is the most common mental health condition in older adults, yet it is under-recognized and thus under-treated. In comparison with younger adults, older adults with depression may exhibit different symptoms, including somatic symptoms (e.g., fatigue), insomnia, irritable mood, confusion, and lack of focus.<sup>14</sup> Some medications and medical conditions, such as heart disease, stroke, or cancer, may also cause depressive symptoms in older adults.<sup>15</sup>

The nine-item PHQ (PHQ-9) assesses each of the criteria for major depressive disorder outlined in the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition.<sup>16</sup> The PHQ-2 assesses the cardinal criteria for depression—depressed mood and anhedonia—using two items from the PHQ-9. The sensitivity of the PHQ-2, though acceptable, is somewhat lower than that of the PHQ-9, but it also poses a lower administrative burden. A hybrid version of the PHQ-9 (PHQ-2 to 9), in which the assessor transitions from the PHQ-2 to the PHQ-9 when a patient/resident screens positive for signs and symptoms of depression on the PHQ-2, was adopted for consideration based on stakeholder feedback and included in the national Beta test.

### TEP Discussion of PHQ-2 to 9

At the September 2018 meeting, results of the national Beta test for the PHQ-2 to 9 hybrid item (Appendix C: E1) were presented to the TEP. The TEP members were then asked to discuss the use of the item, in terms of the trade-off between length of time to administer and sensitivity of the assessment. They were also asked to consider whether the time saved offsets the loss in granularity of symptom detection.

Several TEP members voiced support for the use of the PHQ-2 to 9, commenting that the two items have been demonstrated to be valid screening questions, and that using the two-item version and following up with the remaining seven items as needed is the right balance between reducing burden and fully assessing patients/residents.

Several members of the TEP homed in on the unique contribution of the additional seven items in the PHQ-9 that would follow the two screening questions in the PHQ-2 to 9 data

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<sup>14</sup> Fiske, A., Wetherell, J. L., & Gatz, M. (2009). Depression in older adults. *Annu Rev Clin Psychol*, 5, 363-389. doi:10.1146/annurev.clinpsy.032408.153621

<sup>15</sup> National Institute on Aging (2017). Depression and Older Adults. Retrieved from <https://www.nia.nih.gov/health/depression-and-older-adults>

<sup>16</sup> American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders (4th ed., Text Revision)*. Washington, DC.

element. These items address anxiety, issues with sleep and self-harm, and other possible symptoms of depression. One TEP member commented that the nine-item version may be considered more patient-centered, and a few other members noted the importance for care planning of knowing the supplemental information the nine-item version provides. To address this point, RAND presented an analysis of prior year MDS data that quantified the very small percentage of residents who scored above the threshold for likely depression, who would have been missed by a PHQ-2 to 9 approach. After further discussion, TEP members conceded that few patients/residents would be missed, but asserted that while the PHQ-2 to 9 approach is adequate for identifying likely depression, the additional seven items nevertheless captured information that would be useful to care planning. In continued discussion later in the day, these TEP members voiced support for the PHQ-2 to 9 data element, provided that the topics included in the additional seven items (e.g., sleep, anxiety, appetite) would not be “taken off the table” for further item development work.

Several challenges to administration of the hybrid assessment were noted by the TEP. One person made the point that the nature of the questions is sensitive and therefore requires the interviewer to establish rapport with the patient/resident before they would be willing to answer the questions. Another pointed out a potential challenge with the look-back period of 14 days, particularly for the home health setting. Patients may report symptoms of depression in the past 14 days, referring to when they were in another setting, but then may clarify that they are not depressed now that they are home.

## 7. Medication Reconciliation

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### Background and Rationale

Approximately half of all hospital-related medication errors and 20 percent of adverse drug events (ADEs) occur during transitions within, admission to, transfer to, or discharge from a hospital.<sup>17,18,19</sup> Other studies have shown that 70 percent of patients may have an unintentional medication discrepancy at discharge and over a third of patients may have a medication error at admission.<sup>20,21</sup> At least 25 percent of all medication-related injuries are preventable.<sup>22</sup> Medication reconciliation, the process of obtaining a patient/resident's multiple medication lists and reconciling any discrepancies, is a cost-effective way to promote patient/resident safety by reducing errors and resulting ADEs. As defined by the Joint Commission, the five steps in the medication reconciliation process are to: (1) develop a list of current medications; (2) develop a list of medications to be prescribed; (3) compare medications on the two lists; (4) make clinical decisions based on the comparisons; and (5) communicate the new list to the patient and appropriate caregivers.<sup>23,24</sup> A standardized set of data elements that assess medication reconciliation with clear definitions of each step could better explicate processes for providers aiming to improve care, facilitate audits for assessment and adherence, and support future development of appropriate provider-level quality measures.

Medication reconciliation items in the Beta testing used multiple information sources to assess: classes of medications patient/resident is currently taking; whether an indication is noted

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<sup>17</sup> Barnsteiner, J. H. (2005). Medication reconciliation: transfer of medication information across settings-keeping it free from error. *Am J Nurs*, 105(3 Suppl), 31-36; quiz 48-51.

<sup>18</sup> Gleason, K. M., Groszek, J. M., Sullivan, C., Rooney, D., Barnard, C., & Noskin, G. A. (2004). Reconciliation of discrepancies in medication histories and admission orders of newly hospitalized patients. *Am J Health Syst Pharm*, 61(16), 1689-1695.

<sup>19</sup> Rozich, J., & Resar, R. (2001). Medication Safety: One Organization's Approach to the Challenge. *J Clin Outcomes Manage*, 8(10), 27-34.

<sup>20</sup> Wong, Jacqueline D., et al. (2008). Medication reconciliation at hospital discharge: evaluating discrepancies. *Annals of Pharmacotherapy*, 42(10), 1373-1379.

<sup>21</sup> Gleason, Kristine M., et al. (2010). Results of the Medications at Transitions and Clinical Handoffs (MATCH) study: an analysis of medication reconciliation errors and risk factors at hospital admission. *Journal of general internal medicine*, 25(5), 441-447.

<sup>22</sup> Aspden, P., & Institute of Medicine (U.S.). Committee on Identifying and Preventing Medication Errors. (2007). *Preventing medication errors*. Washington, DC: National Academies Press.

<sup>23</sup> The Joint Commission (2015). *Comprehensive Accreditation Manual for Hospitals: The Patient Safety Systems Chapter*.

<sup>24</sup> Bao, Y., Shao, H., Bishop, T. F., Schackman, B. R., & Bruce, M. L. (2012). Inappropriate medication in a national sample of US elderly patients receiving home health care. *J Gen Intern Med*, 27(3), 304-310. doi:10.1007/s11606-011-1905-4

for medications; whether there were discrepancies; whether discrepancies that were addressed involved patient/resident or family/caregiver; whether discrepancies were communicated to physician within 24 hours; whether recommended physician actions regarding discrepancies were carried out within 24 hours; and whether the reconciled medication list was communicated to patient/resident, prescriber, and/or pharmacy.

## TEP Discussion of Medication Reconciliation

At the September 2018 meeting, results of the national Beta test for the medication reconciliation data element (Appendix C: I1) were presented to the TEP. The TEP members were then asked to discuss several aspects of the data elements, including whether all the medication reconciliation items (related to currently taking medication, indication for medication noted, discrepancies involving medications, and discrepancies addressed) are equally useful; the clinical benefit of including high-risk drug classes and indications noted in the chart; and the trade-off between usefulness and burden of these data elements. The discussion was relatively long compared to discussion of other data elements and delved into several technical issues related to instructions and training in the Beta test, assessment staff roles related to patient/resident medications in PAC settings, and differences between PAC settings with regard to how medication lists are maintained, among others. Representatives from CMS also engaged in this discussion to answer questions related to the Drug Regimen Review (DRR) items, in current and proposed use in the assessment item sets.

The discussion opened with a question about whether the assessors were responsible for knowing the drug classifications. A few TEP members voiced concern about implementation in the real world and how well these data elements would work. One member's concerns centered around the ability of the staff filling out the assessment to correctly classify medications. Another TEP member offered an example of how individuals without any pharmaceutical training (e.g., physical therapist [PT]) could complete the questions.

A TEP member inquired about what was found in the records during the Beta test (e.g., note in progress report, a completed form). Similarly, another inquired about what was used to identify medications and medication discrepancies in the Beta test. RAND staff clarified that assessors in the Beta test were instructed to use sources such as medication lists, EHRs, and communication with patient and staff to identify medications. Then, assessors were instructed to look for any record or source information that discrepancies had been identified or resolved. For these data elements, discrepancy was defined as any difference in dosage, frequency, route of administration, or form of the same medication (e.g., extended release vs. not extended release); duplicate therapy; or omissions. This definition of discrepancy included the case in which the reason or purpose for taking a medication is different. A discrepancy could occur even within one information source or within one medication list.

Another person described how communication within the 24-hour timeframe is problematic for the home health setting and may not occur due to the fact that the medication reconciliation would not be received until Monday if admission occurs over the weekend. One person suggested that several of the component questions of items included in the Beta test could be reduced to one question: “Was there a discrepancy for any medication?” similar to the DRR question (M2001) currently in the OASIS instrument. One person felt that the current set of questions might lead to inadequate communication and documentation. She explained how well-meaning but busy staff may attempt to communicate with prescribers to meet the requirements of the data elements, but fail at genuine and useful communication (e.g., “a sticky note [on the chart] is not communication”). Another member felt that these questions may turn out to be another set of “check boxes” – as in, another pro forma paperwork exercise – rather than truly promoting patient safety, and believed it might be better to replace them with questions focused on safety, such as: “Were changes made to medications that had discrepancies?” or “Were any problems fixed?” and “Is the patient safe now?”

In other parts of the discussion, panelists were supportive of the medication reconciliation items but also urged future work or offered suggestions. One TEP member stated that the items are important in the home health setting because they help to educate the patient and caregiver about possible problems with medications. Another TEP member supported asking for an indication for each medication; that member went on to reflect on the extreme challenge of developing items for this topic and said these questions should be implemented even though they are not perfect. One member asserted that the questions would be more useful in the home health setting than in the relatively controlled environments of the IRFs, SNFs, and LTCHs; this panelist believed that the questions are a good start but need a lot more work. Another member stated that the six drugs listed in the medication reconciliation questions are the major ones “we worry about.”

Some panelists recommended adjustments to the data elements. One recommended removing the wording related to “the patient’s/resident’s family” in the fourth sub-item about addressing the discrepancies. A suggestion was made that the indication should be required for each medication (“even Tylenol”) because many are used off-label. A different member recommended removing the exclusion of the low-dose aspirin, as recent findings have identified it as potentially harmful to some patients.

The TEP members expressed interest in how the medication reconciliation questions will overlap and integrate with the DRR, and they asked if these questions will replace the DRR. One person questioned whether the six medications need to be listed separately, since all medications will have to be reconciled.

Another TEP member wondered how the implementation of the DRR in the MDS (scheduled for October 2018) will go, and whether those data elements will be sufficient to document medications. One TEP member suggested that tracking the six high-risk medications listed in the Medication Reconciliation data elements may be more “critical” than tracking all medications.

However, another pointed out that, although the six classes represent a large volume, any medication discrepancy or error has the potential to be very harmful to the patient.

Part of the discussion focused on the difference between “discrepancy” and “appropriate prescribing.” A TEP member pointed out that, if a patient is taking three benzodiazepines when admitted to the LTCH, it would not be considered a discrepancy because all three were prescribed. Therefore, the Medication Reconciliation questions would not capture a discrepancy in this case, but it is not appropriate care and it would be likely to affect patient outcomes. The TEP member concluded that questions on medication reconciliation should be included, but was not convinced these are the “best ones.” Later in the discussion, this point was revisited, with other TEP members noting that it was not the role of the assessor to evaluate appropriate prescribing or even to resolve discrepancies, only to identify discrepancies and bring them to the prescriber. Examples were given from the home health setting to support this position. In this way, a few TEP members stated, the focus on discrepancies does support patient safety because discrepancies among documentation prevent the agreed-on care plan from being followed by providers/agency staff.

Further discussion of medication reconciliation in the LTCH setting highlighted differences from other settings. One TEP member described that hospitals have safety built into the system: the pharmacy reviews everything in the LTCH setting, and there is a standard response protocol when a discrepancy is identified (e.g., the pharmacist contacts the physician to verify and/or rectify). In addition, institutions may configure EHRs to have specific rules that must be followed (e.g., all antibiotics must have a stop date). This TEP member cited challenges in transferring medication information out of the acute setting by using an example of how the EPIC discharge summary lists medications. The EHR output is lengthy and confusing, and of virtually no use to patients and their caregivers as they transition to home. The TEP member stated that, in order to be useful, medication lists had to be easy to understand.

For the home health setting, one TEP member described medication reconciliation as a “simple” comparison between two lists because the role of the home health clinician is not to evaluate appropriate prescribing during the home visit. Usually a registered nurse (RN) or a PT will complete the OASIS assessment, including the recently added DRR items. Resolving a discrepancy is beyond the PT’s scope of practice. Ultimately, the discrepancy should be resolved by the prescribing physician, not the RN or PT who is conducting the home visit.

In summary, the TEP’s detailed and wide-ranging discussion about the medication reconciliation data elements from the Beta test spanned feasibility, clinical usefulness, likely effects and outcomes if items were to be adopted, integration with related assessment items, considerations of individual PAC settings, and the overall challenge of assessing safe medication practices. There was little consensus within this discussion, although the balance of TEP members endorsed the data elements on high-risk drug classes and indications.

## 8. Medical Conditions: Pain

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### Background and Rationale

Pain is highly prevalent and undertreated in older adults.<sup>25</sup> Vulnerable populations such as those with cognitive impairment, surgical patients, cancer patients, and people at the end of life experience pain frequently and often do not receive adequate treatment.<sup>26</sup> Pain in older adults occurs in conjunction with many acute and chronic conditions, such as osteoarthritis, leg pain during the night, cancer and cancer treatment, neuralgia from diabetes mellitus, infections such as herpes zoster/shingles, and peripheral vascular disease.<sup>27</sup> Conditions causing pain in older adults may be associated with depression,<sup>28</sup> sleep disturbance,<sup>29,30</sup> and lower participation in rehabilitation activities.<sup>31,32,33,34</sup> Assessing pain in patients and residents can lead to appropriate treatment and improved quality of life.

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<sup>25</sup> The Joint Commission (2015). *Comprehensive Accreditation Manual for Hospitals: The Patient Safety Systems Chapter*.

<sup>26</sup> Institute of Medicine Committee on Advancing Pain Research, Care, & Education. (2011). *The National Academies Collection: Reports funded by National Institutes of Health Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington (DC): National Academies Press (US).

<sup>27</sup> American Geriatrics Society Panel on Pharmacological Management of Persistent Pain in Older Persons. (2009). Pharmacological management of persistent pain in older persons. *J Am Geriatr Soc*, 57(8), 1331-1346. doi:10.1111/j.1532-5415.2009.02376.x

<sup>28</sup> Sullivan-Singh, S. J., Sawyer, K., Ehde, D. M., Bell, K. R., Temkin, N., Dikmen, S., . . . Hoffman, J. M. (2014). Comorbidity of pain and depression among persons with traumatic brain injury. *Arch Phys Med Rehabil*, 95(6), 1100-1105. doi:10.1016/j.apmr.2014.02.001

<sup>29</sup> Blytt, K. M., Bjorvatn, B., Husebo, B., & Flo, E. (2018). Effects of pain treatment on sleep in nursing home patients with dementia and depression: A multicenter placebo-controlled randomized clinical trial. *Int J Geriatr Psychiatry*, 33(4), 663-670. doi:10.1002/gps.4839

<sup>30</sup> Eslami, V., Zimmerman, M. E., Grewal, T., Katz, M., & Lipton, R. B. (2016). Pain grade and sleep disturbance in older adults: evaluation the role of pain, and stress for depressed and non-depressed individuals. *Int J Geriatr Psychiatry*, 31(5), 450-457. doi:10.1002/gps.4349

<sup>31</sup> American Geriatrics Society Panel on Pharmacological Management of Persistent Pain in Older Persons. (2009). Pharmacological management of persistent pain in older persons. *J Am Geriatr Soc*, 57(8), 1331-1346. doi:10.1111/j.1532-5415.2009.02376.x

<sup>32</sup> Chin, R. P., Ho, C. H., & Cheung, L. P. (2013). Scheduled analgesic regimen improves rehabilitation after hip fracture surgery. *Clin Orthop Relat Res*, 471(7), 2349-2360. doi:10.1007/s11999-013-2927-5

<sup>33</sup> Ingrid, B., & Marsella, A. (2008). Factors influencing exercise participation by clients in long-term care. *Perspectives*, 32(4), 5-11.

<sup>34</sup> Zanca, J. M., Dijkers, M. P., Hammond, F. M., & Horn, S. D. (2013). Pain and its impact on inpatient rehabilitation for acute traumatic spinal cord injury: analysis of observational data collected in the SCIR rehab study. *Arch Phys Med Rehabil*, 94(4 Suppl), S137-144. doi:10.1016/j.apmr.2012.10.035

## TEP Discussion of Pain

At the September 2018 meeting, results of the national Beta test for selected pain data elements (Appendix C: D1-D6) were presented to the TEP. The TEP members were then asked to discuss the data elements, which included several topics related to pain, including presence, frequency, effect on sleep, interference with therapy and non-therapy related activities, severity, and relief. In addition, the TEP members were asked if the pain sub-items are equally useful, or whether fewer pain items could be useful to minimize burden of data collection. They were also asked to consider whether these items should be required at discharge as well as admission, given the trade-off between usefulness and burden.

The TEP discussed several aspects and trends in pain assessment and pain management in PAC. One TEP member asked how pain changed between admission and discharge on these items in the Beta test, and the seemingly high rates of pain in the Beta findings. Another TEP member stated that the data elements should be assessed at admission and discharge and would provide “incredibly useful” information about the need for pain treatment interventions. The discussion addressed concerns about both over- and under-treatment of pain, and that standardized assessment could improve pain management, especially through items focused on the extent to which pain interferes with activities (e.g., sleep, therapy). The TEP did not directly address the issue of whether any data elements in the pain set could be eliminated to reduce burden, but they supported several individual data elements, which could be interpreted as support for the full set of items.

## 9. Impairments: Continence

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### Background and Rationale

Assessing bladder and bowel continence is important because these impairments are prevalent in patients/residents of PAC settings. Impairment of bladder or bowel continence has shown to be associated with adverse outcomes, including skin breakdown,<sup>35</sup> falls,<sup>36,37</sup> social isolation,<sup>38</sup> poor quality of life,<sup>39,40</sup> and depression.<sup>41</sup> Incontinence is also associated with increased resource intensity requirements in institutionalized settings.<sup>42,43</sup> Although continence management can relieve many symptoms, accurate continence assessment is essential for successful management. If bladder or bowel incontinence is identified, there is an opportunity for improving quality of care, patient/resident outcomes, and quality of life.

### TEP Discussion of Continence

During the September 2018 meeting, results of the national Beta test for the continence data elements (Appendix C: G3-G6) were presented to the TEP. The TEP members were then asked to discuss the Bladder Continence data elements (related to use of an appliance, timing of catheter placement, reason for catheter, need for assistance with appliance, and frequency of

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<sup>35</sup> Rohwer, K., Bliss, D. Z., & Savik, K. (2013). Incontinence-associated dermatitis in community-dwelling individuals with fecal incontinence. *J Wound Ostomy Continence Nurs*, 40(2), 181-184. doi:10.1097/WON.0b013e31827e8b3d

<sup>36</sup> Brown, J. S., Vittinghoff, E., Wyman, J. F., Stone, K. L., Nevitt, M. C., Ensrud, K. E., & Grady, D. (2000). Urinary incontinence: does it increase risk for falls and fractures? Study of Osteoporotic Fractures Research Group. *J Am Geriatr Soc*, 48(7), 721-725.

<sup>37</sup> Chiarelli, P. E., Mackenzie, L. A., & Osmotherly, P. G. (2009). Urinary incontinence is associated with an increase in falls: a systematic review. *Aust J Physiother*, 55(2), 89-95.

<sup>38</sup> Yip, S. O., Dick, M. A., McPencow, A. M., Martin, D. K., Ciarleglio, M. M., & Erikson, E. A. (2013). The association between urinary and fecal incontinence and social isolation in older women. *Am J Obstet Gynecol*, 208(2), 146.e141-147. doi:10.1016/j.ajog.2012.11.010

<sup>39</sup> Ko, Y., Lin, S. J., Salmon, J. W., & Bron, M. S. (2005). The impact of urinary incontinence on quality of life of the elderly. *Am J Manag Care*, 11(4 Suppl), S103-111.

<sup>40</sup> Xu, Dongjuan, and Robert L. Kane. (2013). Effect of Urinary Incontinence on Older Nursing Home Residents' Self-Reported Quality of Life. *Journal of the American Geriatrics Society*, 6(9), 1473-1481.

<sup>41</sup> Dugan, E., Cohen, S. J., Bland, D. R., Preisser, J. S., Davis, C. C., Suggs, P. K., & McGann, P. (2000). The association of depressive symptoms and urinary incontinence among older adults. *J Am Geriatr Soc*, 48(4), 413-416.

<sup>42</sup> Borrie, M. J., & Davidson, H. A. (1992). Incontinence in institutions: costs and contributing factors. *CMAJ: Canadian Medical Association Journal*, 147(3), 322-328.

<sup>43</sup> Shih, Y. C., Hartzema, A. G., & Tolleson-Rinehart, S. (2003). Labor costs associated with incontinence in long-term care facilities. *Urology*, 62(3), 442-446.

incontinent events) and the Bowel Continence data elements (related to use of an appliance, timing of appliance placement, need for assistance with the appliance, and frequency of incontinent events). The TEP members were asked to consider whether all sub-items were equally useful and whether a shorter version could be useful and minimize the burden. They were also asked whether these items should be required at discharge as well as admission, given the trade-off between usefulness and burden.

The TEP discussed the reasons for asking about bladder and bowel appliances. Stakeholders have previously stated that having this information would document what proportion of patients in the LTCH have devices, and help establish an accurate picture of the additional care these patients may require. It was mentioned that the reason for an appliance, often unknown at admission and inaccessible from the prior setting's EHR, is important because some appliances are placed in a previous setting to conserve staff time and resources (e.g., a catheter placed in the hospital setting because "they couldn't keep up with the wet bed"). Others stated that rates of catheter use are high in PAC facilities, but these questions "seem like a lot of real estate" (i.e., take up a lot of space in the assessment).

The TEP also discussed the importance of these questions in assessing the patient's ability to adapt and be successful in the community. An exchange about how often incontinence status factors into a decision about whether the patient is discharged to SNF versus home concluded that such decisions are often based on continence. In addition, it was stated that some patients/residents will provide inaccurate information indicating there will be a family member at home to help; in reality, the family member is not able or willing to assist with toileting. If ability to live in the community is the goal, other questions may be needed (i.e., related to if or how device or incontinence affects patient's/resident's ability to function). If not, more detailed questions to document appliance use may be necessary.

No suggestions were made for how to reduce the number of data elements on this topic, perhaps related to TEP members' questions about the goals or motivations for the items overall: without a clear idea of the goal of assessing continence, they were unable to recommend which data elements were most important. The TEP did not discuss the issue of assessment time points.

## 10. Observational Assessments for Patients/Residents Who Are Unable to Communicate: Cognition, Mood, and Pain

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### Background and Rationale

Patients or residents in PAC settings may be experiencing impairments in cognition or mood, or may be experiencing pain, but may be unable to communicate their needs easily to providers. It is important for patients/residents experiencing cognitive impairment or pain to undergo screening to detect presence and severity so that a care plan can be created and progress can be monitored. Feedback from the TEP and other expert advisers, and comments received during the August and September 2016 public comment period, identified the need for standardized patient assessment data elements to assess those patients/residents who are unable to complete interview-based assessments. The data elements in this section provide observational and staff assessment protocols for cognition, mood, and pain assessments that are otherwise administered through interviews.

### TEP Discussion of Observational Assessments

During the September 2018 meeting, results of the national Beta test for the non-communicative assessment data elements (Appendix D: B3, D7-D9, and E4) were presented to the TEP. The TEP members were asked to discuss the data elements, including the Staff Assessment of Mental Status, the Staff Assessment of Pain or Distress, and the Patient Health Questionnaire-9 Observational Version (PHQ-9 OV). TEP members were asked how important it is to standardize the assessment of cognition, mood, and pain for patient/residents who are unable to communicate, and whether there are any concerns about the candidate assessment data elements.

One TEP member speculated that these assessments probably depend more on who conducts the assessment than who is being assessed, commenting that some assessors are willing to put in the effort required, and that training and practice in performing these assessments are key. Another suggested that she has observed that hospice nurses are faster at assessing non-communicative patients/residents for pain than other nurses who have less experience with non-communicative patients/residents in pain. One TEP member stated that OASIS does not contain mood and pain for non-verbal patients in home health but went on to describe an add-on scale for this subgroup in their system that exists outside of the mandated patient/resident assessments. This was offered as evidence that HHAs and other PAC providers are concerned with and make an effort to assess patients/residents who are unable to communicate, such as by discussion the patient with caregivers.



## 11. Summary of Findings from the TEP

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The September 2018 TEP meeting provided RAND and CMS a third opportunity to engage expert stakeholders on substantive issues related to the development and maintenance of cross-setting standardized patient assessment for PAC facilities in support of the IMPACT Act of 2014. In this meeting, TEP members discussed the subset of data elements included in the national Beta test on which more input was needed (i.e., data elements with less prior vetting and/or those with testing results that warranted discussion) and gave their opinions on the suitability of the data elements for standardization. The key findings from the TEP meeting are listed below.

### Assessments at Admission and Discharge

The TEP noted the importance of assessing many clinical topics at both admission and discharge, not only to understand change in a condition across a PAC stay but also to inform care at the next setting. However, there was also discussion about the potential burden—to patients as well as providers—of conducting lengthy assessments at both admission and discharge. The TEP felt strongly that a standard and concise transfer document was needed to facilitate care transitions between and among acute and PAC providers.

### Cognitive Function and Mental Status: Expression and Understanding

The TEP concurred with the RAND's assessment that the three-item set of Expression and Understanding data elements was a better candidate for standardization than the two-item set, based on results from the Beta test and greater specificity offered by the three-item set. The TEP also suggested minor changes to improve the clarity of the instructions in the three-item set.

### Cognitive Function and Mental Status: Behavioral Signs and Symptoms

The TEP agreed that the content of the Behavioral Signs and Symptoms data elements was important, but they raised several substantive issues related to assessment of these symptoms, such as the difficulty of discharging patients/residents to other PAC providers when a behavior issue has been documented. The TEP also suggested additional response options that could capture whether behavioral management strategies were used and/or had been reducing symptoms.

## Cognitive Function and Mental Status: PHQ-2 to 9

The TEP was supportive of the PHQ-2 to 9 hybrid data element set as a screener for signs and symptoms of depression. Some members of the TEP also affirmed the patient-centered orientation and relevance to clinical care of data elements in the PHQ-9 that focus on anxiety, sleep, and appetite, and they encouraged additional item development work around these types of topics.

## Medication Reconciliation

The TEP acknowledged the challenge of assessing medication safety and were moderately supportive about the Medication Reconciliation data elements tested in Beta. They were especially supportive of the focus on the six high-risk drug classes and using these data elements to assess whether the indication for a drug is recorded. Some TEP members saw the Medication Reconciliation items as having more value for home health than for the other settings. However, TEP members raised concerns regarding how these candidate items would be integrated with the DRR data elements.

## Medical Conditions: Pain

The TEP was supportive of the interview-based pain data elements included in the Beta test. They were particularly supportive of the items that focused on how pain interferes with activities, because understanding the extent to which pain interferes with function would enable clinicians to determine the need for pain treatment.

## Impairments: Continence

The TEP was unsure about the value or the goal of the numerous data elements related to continence included in the Beta test. They agreed that several of the data elements could be relevant to care planning and to calibrating resource intensity, but their discussions did not focus on a particular sub-set of items. TEP members noted that other quality and safety initiatives already focus on reducing catheter use. They also noted that if the goal is to record appliance use, the data elements could be simplified.

## Observational Assessments for Patients/Residents Who Are Unable to Communicate: Cognition, Mood, and Pain

The TEP affirmed the importance of assessing patients/residents who are not able to complete interview-based data elements, but highlighted the need for assessor training.

## Appendix A. Biographical Information for TEP Members

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*Susan Battaglia, RN-BC, RAC-CT* is the Director of Case Mix Management for Tara Cares, a consulting firm that provides supportive services to 35 facilities in seven states. Ms. Battaglia has worked in long-term care for over 35 years, beginning her career as a licensed practical nurse and later becoming a nurse manager. She is a 15-year active member of AANAC and has intimate knowledge of the MDS.

*Daniel Butts, MOT, OTR/L, MBA* is an Occupational Therapist and Senior Director of Rehabilitation Operations with the University of Pittsburgh Medical Center (UPMC) Rehabilitation Network. He provides leadership and direction on clinical programming, coordination of therapy services, and interdepartmental activities to all network inpatient rehabilitation units, skilled nursing facilities, and transitional rehabilitation units, with major contributions including successful development and implementation of new clinical programs.

*Judy Elmore, BS* is a Registered Pharmacist with a Clinical Pharmacy Degree and Vice President of Ancillary Operations at Covenant Care. She brings over 40 years of experience in health care management and operations across the continuum of care. Ms. Elmore brings a unique perspective to the TEP because of her strong interest and engagement in the practical aspects of HIT support for patient assessment. She was nominated by the National Association for the Support of Long-Term Care (NASL).

*Janet Herbold, PT, MPH, CHC* is the Senior Administrator and Corporate Compliance Officer for Burke Rehabilitation Hospital. She has served in various clinical and administrative capacities across the continuum of care for nearly 30 years, including research on the identification of predictors for determining disposition and functional outcomes and development of an outcomes assessment tool based on the FIM instrument for physical and occupational therapy delivered to patients in SNFs. Additionally, she is affiliated with and was nominated by the American Medical Rehabilitation Providers Association.

*Kathleen Lawrence, MSN, RN, CWOCN* is the Wound Ostomy Continence Program Manager at Rutland Area Visiting Nurse and Hospice, a nonprofit agency in rural Vermont. She has an extensive background in clinical care with a specialty focus on wound, ostomy, and continence care, including comprehensive patient assessment, medication reconciliation, and evaluation of cognition, pain status, and functional abilities. Ms. Lawrence served as a past president and was nominated by the Wound Ostomy and Continence Nurses Society.

*Natalie Leland, PhD, OTR/L, BCG, FAOTA, FGSA* is an Associate Professor in the Department of Occupational Therapy at the University of Pittsburgh. She is also an Adjunct Assistant Professor of Health Services Policy & Practice at Brown University's School of Public Health. Dr. Leland has over ten years of clinical experience working in PAC as an occupational therapist. She has significant experience in conducting rehabilitation health services research with a focus on enhancing the quality of PAC services for older adults.

*Cheryl Phillips, MD, AGSF* is the President and Chief Executive Officer of the Special Needs Plan Alliance in Washington, D.C. Prior to this role, she was the Senior Vice President for Public Policy and Health Services at LeadingAge. She has also served as the Chief Medical Officer of On Lok Lifeways, the originator of the Program of All-Inclusive Care for the Elderly (PACE) model based in San Francisco, California, and the Medical Director for Senior Services and Chronic Disease Management for the Sutter Health System, a network of doctors, hospitals, and other health providers in northern California. As a fellowship-trained geriatrician, Dr. Phillips' clinical practice focused on nursing homes and the long-term care continuum.

*Marc Rothman, MD* is the Senior Vice President and Chief Medical Officer at Kindred Healthcare, Inc., where he oversees the company's quality and physician strategies nationwide across all four PAC settings. Prior to joining Kindred, Dr. Rothman practiced geriatric, post-acute, and palliative medicine and conducted research on patient decisionmaking, frailty, and PAC outcomes.

*Monica Sampson, PhD, CCC-SLP* is the Associate Director of Health Care Services in Speech-Language Pathology at the American Speech-Language-Hearing Association (ASHA). She has over 11 years of clinical experience working in post-acute rehabilitation settings, teaching future Speech-Language Pathologists, and conducting research examining the relationship between cognition and communication and practical constraints associated with implementation of measurement systems in health care settings.

*Peter W. Thomas, JD* is a Principal with the Washington, D.C.–based law firm of Powers, Pyles, Sutter, and Verville. He has been a legislative and regulatory advocate for over 20 years on behalf of health care and PAC providers as well as consumers with injuries, illnesses, disabilities, and chronic conditions. Mr. Thomas participates in multiple coalitions focused on health and disability advocacy, rehabilitation research policy and funding, and access to rehabilitation services and devices. Mr. Thomas provides a consumer perspective on the panel.

*Barbara Thomsen, CDM, CFPP, RAC-CT* is the MDS and Case Mix Audit Specialist at Hawkeye Care Centers in rural Iowa. Ms. Thomsen has worked across the state of Iowa with over 600 PAC facilities and agencies as the state's MDS/OASIS Automation Coordinator and Educator. Additionally, she has authored a number of articles on the MDS 3.0 and the importance of providing standardized, holistic assessments.

*John Votto, DO, FCCP* is the President and Chief Executive Officer of the Center for Special Care, the parent organization for the Hospital for Special Care. Dr. Votto joined the Hospital for Special Care in 1985, is chair of the National Association of Long-Term Hospitals' admission criteria development committee, and has participated in TEPs on the development of the CARE Tool and other panels addressing quality outcome measures, classification, and admission criteria.

*Michael Wasserman, MD, CMD* is the Chief Executive Officer of Rockport Healthcare Services in Los Angeles. Prior to this role, he was the Chief Medical Officer at Rockport Healthcare Services. He has also served as the Director of Nursing Homes for the Quality Improvement Organization in California, Health Services Advisory Group. Dr. Wasserman has served as a

clinical geriatrician and Medical Director across the continuum of care for nearly 30 years. In addition to his experience and expertise in quality improvement and implementation science, Dr. Wasserman brings the perspective of caregiver to his father-in-law to the TEP.

*Kathleen Witcoskie, RN* is the Vice President at Visiting Nurse Associations of America Health System. Ms. Witcoskie brings extensive knowledge in standardized patient assessment and regulations to the TEP. As an OASIS Specialist, she has completed reviews on over 500 assessments and trained over 200 clinicians. She was nominated by the Visiting Nurse Association of America.

*Kimber Walters Zappia, BSW, MBA* is the Executive Director of Transitions at Atrium Health. Trained in social work and human resources, Ms. Zappia has spent her career managing and improving healthcare practices across the continuum of post-acute care.

## Appendix B. TEP Meeting Agenda

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# Technical Expert Panel Agenda

September 17, 2018

Monday, September 17

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9:30 am	Check in
10:00 am	<b>Welcome</b> <i>Tara McMullen, Centers for Medicare and Medicaid Services</i> <i>Emily Chen, RAND</i>
10:05 am	<b>Recap of National Beta Test</b> <i>Maria Edelen, RAND Corporation</i>
10:20 am	<b>Assessing at Admission and Discharge</b>
10:50 am	<b>Mental Status</b> (PHQ-2 to 9)
11:15 am	<b>Other Categories</b> (Medication Reconciliation)
12:00 pm	<i>LUNCH</i>
12:45 pm	<b>Cognition</b> (Expression & Understanding, BSS, Pain)
1:30 pm	<b>Impairments</b> (Continence)
1:45 pm	<b>Non-communicative assessments</b> (BIMS, PHQ, Pain)
2:00 pm	Break & Rating Exercise
2:20 pm	<b>Debrief from Rating Exercise</b>
2:45 pm	<b>Wrap-Up</b>
3:00 pm	<b>Adjourn</b>

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## Appendix C. National Beta Test Communicative Admission Items

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The data elements contained in this Appendix are a sub-set of the items tested in the National Beta Test. Links to the full protocols from the Beta test are available at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/IMPACT-Act-of-2014/-IMPACT-Act-Standardized-Assessment-National-Testing-.html>.

For more information on the design of the National Beta Test, see the Special Open Door Presentation from Sept 27, 2017, available at: [https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917\\_v2.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917_v2.pdf)

### MODULE A: HEARING, VISION, EXPRESSION AND UNDERSTANDING

**Group 1:** Half of the national sample assessment protocols included the following three questions about speech clarity and the ability to be understood.

#### A3. Speech Clarity

**A3.** Select best description of speech pattern

- 0 = Clear speech – distinct intelligible words
- 1 = Unclear speech – slurred or mumbled words
- 2 = No speech – absence of spoken words
- 9 = **Unknown or unable to assess**

#### A4. Makes Self Understood

**A4.** Ability to express ideas and wants, consider both verbal and non-verbal expression

- 0 = Understood
- 1 = Usually understood – difficulty communicating some words or finishing thoughts but is able if prompted or given time
- 2 = Sometimes understood – ability is limited to making concrete requests
- 3 = Rarely/never understood
- 9 = **Unknown or unable to assess**

#### A5. Ability to Understand Others

**A5.** Understanding verbal content, however able (with hearing device or device if used)

- 0 = Understands – clear comprehension
- 1 = Usually understood – misses some part/intent of message but comprehends most conversation

- 2 = Sometimes understands – responds adequately to simple, direct communication only
- 3 = Rarely/never understands
- 9 = **Unknown or unable to assess**

**Group 2:** The other half of the national sample assessment protocols included the following two questions about expressing ideas and wants and understanding verbal content.

#### **A6. Expression of Ideas and Wants**

**A6.** Expression of Ideas and Wants (consider both verbal and non-verbal expression and excluding language barriers)

- 4 = Expresses complex messages without difficulty and with speech that is clear and easy to understand
- 3 = Exhibits some difficulty with expressing needs and ideas (e.g., some words or finishing thoughts) or speech is not clear
- 2 = Frequently exhibits difficulty with expressing needs and ideas
- 1 = Rarely/Never expresses self or speech is very difficult to understand
- 9 = **Unknown or unable to assess**

#### **A7. Understanding Verbal Content**

**A7.** Understanding Verbal Content (with hearing aid or device, if used and excluding language barriers)

- 4 = Understands: Clear comprehension without cues or repetitions
- 3 = Usually Understands: Understands most conversations, but misses some part/intent of message. Requires cues at times to understand
- 2 = Sometimes Understands: Understands only basic conversation or simple, direct phrases. Frequently requires cues to understand
- 1 = Rarely/Never Understands
- 9 = **Unknown or unable to assess**

## MODULE D. PAIN

**Group 1:** Half of the national sample assessment protocols included the following pain interview data elements which ask about pain experiences in the past 3 days.

### D1. Pain Presence

#### D1. ASK PATIENT/RESIDENT:

“Have you had pain or hurting any time during the past 3 days?”

- 0 = No [SKIP to D-TIME]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP to D-TIME]
- 9 = Unable to answer or no response [SKIP to D-TIME]

### D2. Pain Frequency

#### D2. ASK PATIENT/RESIDENT:

“How much of the time have you experienced pain or hurting over the last 3 days?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = Patient/resident declined to respond
- 9 = Unable to answer or no response

### D3. Pain Effect on Sleep

#### D3. ASK PATIENT/RESIDENT:

“Over the past 3 days, how much of the time has pain made it hard for you to sleep?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = Patient/resident declined to respond
- 9 = Unable to answer or no response

### D4. Pain Interference - Therapy Activities

#### D4a. ASK PATIENT/RESIDENT:

“Over the past 3 days, have you been offered any rehabilitation therapies (e.g., physical therapy, occupational therapy, speech therapy) by your care providers?”

- 0 = No [SKIP to D4c]
- 1 = Yes

- 7 = Patient/resident declined to respond [SKIP to D4c]
- 9 = Unable to answer or no response [SKIP to D4c]

**D4b. ASK PATIENT/RESIDENT:**

“Over the past 3 days, how often have you limited your participation in rehabilitation therapy sessions due to pain?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = Patient/resident declined to respond
- 9 = Unable to answer or no response

**D4c. ASK PATIENT/RESIDENT:**

“Over the past 3 days, how much of the time have you limited your day-to-day activities (excluding rehabilitation therapy sessions) because of pain?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = Patient/resident declined to respond
- 9 = Unable to answer or no response

**D5. Pain Severity**

**D5. SAY TO PATIENT/RESIDENT:**

“Please rate your worst pain over the past 3 days on a zero to ten scale, with zero being no pain and ten as the worst pain you can imagine.”

- 0 = No pain
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 = Worst pain imaginable
- 77 = Patient/resident declined to respond
- 99 = Unknown or unable to assess

## D6. Pain Relief

### D6. ASK PATIENT/RESIDENT:

“During the past 3 days how much relief have you felt from pain due to pain treatments and/or medications?”

- 1 = No relief
- 2 = Some relief
- 3 = Quite a bit of relief
- 4 = Very much relief
- 8 = Not applicable- patient/resident has not received pain treatments or medications in the past 3 days
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

**Group 2:** The other half of the national sample assessment protocols included the following pain interview data elements which ask about pain experiences in the past 5 days.

## D1. Pain Presence

### D1. ASK PATIENT/RESIDENT:

“Have you had pain or hurting any time in the last 5 days?”

- 0 = No [SKIP to D-TIME]
- 1 = Yes
- 7 = **Patient/resident declined to respond [SKIP to D-TIME]**
- 9 = **Unable to answer or no response [SKIP to D-TIME]**

## D2. Pain Frequency

### D2. ASK PATIENT/RESIDENT:

“How much of the time have you experienced pain or hurting over the last 5 days?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

## D3. Pain Effect on Sleep

### D3. ASK PATIENT/RESIDENT:

“Over the past 5 days, how much of the time has pain made it hard for you to sleep?”

- 1 = Rarely or not at all

- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

#### **D4. Pain Interference - Therapy Activities**

##### **D4a. ASK PATIENT/RESIDENT:**

“Over the past 5 days, have you been offered any rehabilitation therapies (e.g., physical therapy, occupational therapy, speech therapy) by your care providers?”

- 0 = No [**SKIP to D4c**]
- 1 = Yes
- 7 = **Patient/resident declined to respond** [**SKIP to D4c**]
- 9 = **Unable to answer or no response** [**SKIP to D4c**]

##### **D4b. ASK PATIENT/RESIDENT:**

“Over the past 5 days, how often have you limited your participation in rehabilitation therapy sessions due to pain?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

##### **D4c. ASK PATIENT/RESIDENT:**

“Over the past 5 days, how much of the time have you limited your day-to-day activities (excluding rehabilitation therapy sessions) because of pain?”

- 1 = Rarely or not at all
- 2 = Occasionally
- 3 = Frequently
- 4 = Almost Constantly
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

#### **D5. Pain Severity**

##### **D5. SAY TO PATIENT/RESIDENT:**

“Please rate your worst pain over the last 5 days on a zero to ten scale, with zero being no pain and ten as the worst pain you can imagine.”

- 0 = No pain
- 1

- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 = Worst pain imaginable
- 77 = **Patient/resident declined to respond**
- 99 = **Unknown or unable to assess**

#### D6. Pain Relief

##### **D6. ASK PATIENT/RESIDENT:**

“Over the past 5 days how much relief have you felt from pain due to pain treatments and/or medications?”

- 1 = No relief
- 2 = Some relief
- 3 = Quite a bit of relief
- 4 = Very much relief
- 8 = Not applicable- patient/resident has not received pain treatments or medications in the past 5 days
- 7 = **Patient/resident declined to respond**
- 9 = **Unable to answer or no response**

## MODULE E: MOOD

### E1. PHQ<sup>®</sup> 2 to 9

#### E1a1. SYMPTOM PRESENCE

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by little interest or pleasure in doing things?”

- 0 = No [SKIP TO E1b1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1b1]
- 9 = Unknown or unable to assess [SKIP TO E1b1]

#### E1a2. SYMPTOM FREQUENCY

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by having little interest or pleasure in doing things?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

#### E1b1. SYMPTOM PRESENCE

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by feeling down, depressed, or hopeless?”

- 0 = No [SKIP TO E1c1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1c1]
- 9 = Unknown or unable to assess [SKIP TO E1c1]

#### E1b2. SYMPTOM FREQUENCY

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by feeling down, depressed, or hopeless?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

If either E1a2 or E1b2 is coded 2 or 3, CONTINUE asking the questions below. If not, END the PHQ interview and SKIP to E-TIME.

**E1c1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by trouble falling or staying asleep, or sleeping too much?”

- 0 = No [SKIP to E1d1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP to E1d1]
- 9 = Unknown or unable to assess [SKIP to E1d1]

**E1c2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by having trouble falling or staying asleep, or sleeping too much?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1d1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by feeling tired or having little energy?”

- 0 = No [SKIP to E1e1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP to E1e1]
- 9 = Unknown or unable to assess [SKIP to E1e1]

**E1d2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by feeling tired or having little energy?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1e1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by a poor appetite or overeating?”

- 0 = No [SKIP TO E1f1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1f1]
- 9 = Unknown or unable to assess [SKIP TO E1f1]

**E1e2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by a poor appetite or overeating?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1f1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by feeling bad about yourself – or that you are a failure or have let yourself or your family down?”

- 0 = No [SKIP TO E1g1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1g1]
- 9 = Unknown or unable to assess [SKIP TO E1g1]

**E1f2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by feeling bad about yourself – or that you are a failure or have let yourself or your family down?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1g1. SYMPTOM PRESENCE:**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by trouble concentrating on things, such as reading the newspaper or watching television?”

- 0 = No [SKIP TO E1h1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1h1]

- 9 = Unknown or unable to assess [SKIP TO E1h1]

**E1g2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by trouble concentrating on things, such as reading the newspaper or watching television?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1h1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual?”

- 0 = No [SKIP TO E1i1]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO E1i1]
- 9 = Unknown or unable to assess [SKIP TO E1i1]

**E1h2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = Patient/resident declined to respond
- 9 = Unknown or unable to assess

**E1i1. SYMPTOM PRESENCE**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, have you been bothered by thoughts that you would be better off dead, or hurting yourself in some way?”

- 0 = No [SKIP TO PHQ-9 TOTAL score]
- 1 = Yes
- 7 = Patient/resident declined to respond [SKIP TO PHQ-9 TOTAL score]
- 9 = Unknown or unable to assess [SKIP TO PHQ-9 TOTAL score]

**E1i2. SYMPTOM FREQUENCY**

**ASK PATIENT/RESIDENT:** “Over the last 2 weeks, how often have you been bothered by thoughts that you would be better off dead, or hurting yourself in some way?”

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 7 = **Patient/resident declined to respond**
- 9 = **Unknown or unable to assess**

**PHQ-9 TOTAL: Add values from E1a2, E1b2, E1c2, E1d2, E1e2, E1f2, E1g2, E1h2, E1i2 and E1j2 →**

## MODULE H: BEHAVIORAL SIGNS AND SYMPTOMS

### H1. Presence and Frequency

**INSTRUCTIONS: ALL ITEMS IN MODULE H: BEHAVIORAL SIGNS AND SYMPTOMS ARE BASED ON STAFF/CAREGIVER INPUT OR CHART REVIEW. DO NOT ASK PATIENT/RESIDENT.**

**RECORD RESPONSES BASED ON BEHAVIORS IN THE PAST 3 DAYS.**

#### H1a. Physical behavioral symptoms directed toward others

(e.g., hitting, kicking, pushing, scratching, grabbing, abusing others sexually)

- 0 = Behavior not exhibited
- 1 = Behavior of this type occurred 1 day
- 2 = Behavior of this type occurred 2 days, but less than daily
- 3 = Behavior of this type occurred daily
- 9 = **Unknown or unable to assess**

#### H1b. Verbal behavioral symptoms directed toward others

(e.g., threatening others, screaming at others, cursing at others)

- 0 = Behavior not exhibited
- 1 = Behavior of this type occurred 1 day
- 2 = Behavior of this type occurred 2 days, but less than daily
- 3 = Behavior of this type occurred daily
- 9 = **Unknown or unable to assess**

#### H1c. Other behavioral symptoms not directed toward others

(e.g., physical symptoms such as hitting or scratching self, pacing, rummaging, public sexual acts, disrobing in public, throwing or smearing food or bodily wastes, or verbal/vocal symptoms like screaming, disruptive sounds)

- 0 = Behavior not exhibited
- 1 = Behavior of this type occurred 1 day
- 2 = Behavior of this type occurred 2 days, but less than daily
- 3 = Behavior of this type occurred daily
- 9 = **Unknown or unable to assess**

### H2. Impact on Patient/Resident

**IF ALL RESPONSES TO H1a, H1b, AND H1c ARE CODED AS EITHER “(0) – BEHAVIOR NOT EXHIBITED”) OR “(9) – UNKNOWN OR UNABLE TO ASSESS”, SKIP TO H4**

**IMPACT ON PATIENT/RESIDENT**

**INSTRUCTIONS: CONSIDERING ALL THE BEHAVIORAL SYMPTOMS NOTED IN H1A, H1B, AND H1C, DID ANY OF THE IDENTIFIED SYMPTOM(S):**

**H2a.** Put the patient/resident at significant risk for physical illness or injury?

- 0 = No
- 1 = Yes
- 9 = **Unknown or unable to assess**

**H2b.** Significantly interfere with the patient's/resident's care?

- 0 = No
- 1 = Yes
- 9 = **Unknown or unable to assess**

**H2c.** Significantly interfere with the patient's/resident's participation in activities or social interaction?

- 0 = No
- 1 = Yes
- 8 = Not Applicable
- 9 = **Unknown or unable to assess**

**H3. Impact on Others**

**IMPACT ON OTHERS**

**INSTRUCTIONS: CONSIDERING ALL THE BEHAVIORAL SYMPTOMS NOTED IN H1A, H1B, AND H1C, DID ANY OF THE IDENTIFIED SYMPTOM(S):**

**H3a.** Put others at significant risk for physical injury?

- 0 = No
- 1 = Yes
- 9 = **Unknown or unable to assess**

**H3b.** Significantly intrude on the privacy or activity of others?

- 0 = No
- 1 = Yes
- 9 = **Unknown or unable to assess**

**H3c.** Significantly disrupt the delivery of care or living environment of others?

- 0 = No

- 1 = Yes
- 9 = **Unknown or unable to assess**

#### **H4. Rejection of Care, Presence and Frequency**

**H4.** Did the patient/resident reject evaluation or care (e.g., bloodwork, taking medications, ADL assistance) that is offered by members of the care team or caregiver and necessary to achieve the patient's/resident's goals for health and well-being?

**Do not include behaviors that have already been addressed (e.g., by discussion or care planning with the patient/resident or family), and determined to be consistent with patient/resident values, preferences, or goals.**

- 0 = Behavior not exhibited
- 1 = Behavior of this type occurred 1 day
- 2 = Behavior of this type occurred 2 days, but less than daily
- 3 = Behavior of this type occurred daily
- 9 = **Unknown or unable to assess**

## MODULE I: MEDICATION RECONCILIATION

### I1. Medication Reconciliation

**I1a.** Is the patient/resident currently taking any medications in any of the following medication classes?

**CHECK "NO" OR "YES" FOR EACH OF THE MEDICATION CLASSES LISTED BELOW**

	NO (0)	YES (1)
I1a1: Anticoagulants		
I1a2: Antiplatelets (excluding 81 mg aspirin)		
I1a3: Hypoglycemics (including insulin)		
I1a4: Opioids		
I1a5: Antipsychotics		
I1a6: Antimicrobials (excluding topicals)		

**I1b.** Was there an indication noted for all medications in these medication classes on the most recent medication list?

**CHECK ONE BOX FOR EACH OF THE MEDICATION CLASSES THE PATIENT/RESIDENT IS TAKING**

	NO (0)	YES (1)
I1b1: Anticoagulants		
I1b2: Antiplatelets (excluding 81 mg aspirin)		
I1b3: Hypoglycemics (including insulin)		
I1b4: Opioids		
I1b5: Antipsychotics		
I1b6: Antimicrobials (excluding topicals)		

**I1c.** Were there discrepancies involving medications in these medication classes?

**CHECK ONE BOX FOR EACH OF THE MEDICATION CLASSES THE PATIENT/RESIDENT IS TAKING**

	NO (0)	YES (1)
I1c1: Anticoagulants		
I1c2: Antiplatelets		

(excluding 81 mg aspirin)		
I1c3: Hypoglycemics (including insulin)		
I1c4: Opioids		
I1c5: Antipsychotics		
I1c6: Antimicrobials (excluding topicals)		

**I1d.** Were the patient's/resident's discrepancies regarding these medication classes addressed by involving the patient/resident or patient's/resident's family/formal caregiver?

**CHECK ONE BOX FOR EACH OF THE MEDICATION CLASSES THE PATIENT/RESIDENT IS TAKING**

	NO (0)	YES (1)
I1d1: Anticoagulants		
I1d2: Antiplatelets (excluding 81 mg aspirin)		
I1d3: Hypoglycemics (including insulin)		
I1d4: Opioids		
I1d5: Antipsychotics		
I1d6: Antimicrobials (excluding topicals)		

**11e.** Were discrepancies regarding these medication classes communicated to the physician (or physician-designee) within 24 hours of admission/discharge/SOC/ROC?

**CHECK ONE BOX FOR EACH OF THE MEDICATION CLASSES THE PATIENT/RESIDENT IS TAKING**

	Yes - Discrepancy communicated within 24 hours (2)	No - Discrepancy communicated more than 24 hours later or timing not clear (1)	No - Discrepancy not communicated (0)
11e1: Anticoagulants			
11e2: Antiplatelets (excluding 81 mg aspirin)			
11e3: Hypoglycemics (including insulin)			
11e4: Opioids			
11e5: Antipsychotics			
11e6: Antimicrobials (excluding topicals)			

**11f.** Were recommended physician (or physician-designee) actions regarding discrepancies for these medication classes carried out within 24 hours after the physician responded?

**CHECK ONE BOX FOR EACH OF THE MEDICATION CLASSES THE PATIENT/RESIDENT IS TAKING**

	Yes – Actions carried out within 24 hours (2)	No – Actions carried out more than 24 hours later or timing not clear (1)	No – Actions not carried out (0)	Physician or Physician-Designee Has not Responded (8)
11f1: Anticoagulants				
11f2: Antiplatelets (excluding 81 mg aspirin)				
11f3: Hypoglycemics (including insulin)				
11f4: Opioids				
11f5: Antipsychotics				
11f6: Antimicrobials (excluding topicals)				

**11g.** Was the reconciled medication list (for all medications) communicated to any of the following?

**CHECK ALL THAT APPLY**

- 1 = Patient/resident or patient's/resident's family/formal caregiver
- 2 = Prescribers and the care team responsible for the patient's/resident's care following admission/discharge/SOC/ROC
- 3 = Patient's/resident's pharmacy that will be filling most of the medications following admission/discharge/SOC/ROC
- 4 = None of the above (list not communicated)

## MODULE G: CONTINENCE

Note: Data elements in this module of the national Beta test required assessors to respond to each item with respect to the four time periods shown in the response columns (Day 1, Day 3, etc.). This information was collected for testing purposes only; a standardized version of any of these data elements would likely include only one assessment timeframe.

For more information on the design of the National Beta Test, see the Special Open Door Presentation from Sept 28, 2017, available at: [https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917\\_v2.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/Sept-2017-CMS-SODF-IMPACT-Act-92917_v2.pdf).

### G3. Bladder Appliance Use

<b>G3a. Does this patient/resident use a bladder appliance?</b>	<b>Day 1</b>	<b>Day 3</b>	<b>Day 5</b>	<b>Day 7</b>
<b>CHECK ALL THAT APPLY</b>				
1 = Indwelling urethral catheter	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
2 = Other indwelling catheter (include suprapubic catheter and nephrostomy tube)	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
3 = External catheter (include condom catheter)	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
4 = Urostomy	<input type="checkbox"/> 4	<input type="checkbox"/> 4	<input type="checkbox"/> 4	<input type="checkbox"/> 4
5 = Intermittent catheterization	<input type="checkbox"/> 5	<input type="checkbox"/> 5	<input type="checkbox"/> 5	<input type="checkbox"/> 5
6 = Other	<input type="checkbox"/> 6	<input type="checkbox"/> 6	<input type="checkbox"/> 6	<input type="checkbox"/> 6
7 = Patient/resident <b>does not use</b> a bladder appliance	<input type="checkbox"/> 7	<input type="checkbox"/> 7	<input type="checkbox"/> 7	<input type="checkbox"/> 7
<b>Notes:</b> _____				

<b>G3b. If patient/resident has indwelling or external CATHETER, was the CATHETER placed while the patient/resident was in the current setting?</b>	<b>Day 1</b>	<b>Day 3</b>	<b>Day 5</b>	<b>Day 7</b>
0 = No	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
1 = Yes	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
8 = <b>Not applicable</b>	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8
9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9
<b>Notes:</b> _____				

<b>G3c.</b> If patient/resident has an indwelling or external CATHETER placed in current setting (G3b=1), what is the PRIMARY reason the catheter was put in place?	Day 1	Day 3	Day 5	Day 7
1 = Retention 2 = Skin Condition (pressure injury, surgical wound, rash, other) 3 = Monitor Urine Output 4 = Patient preference (e.g., patient or proxy desires as part of comfort, end-of-life or hospice care plan) 5 = Other (specify): _____ 8 = <b>Not applicable</b> 9 = <b>Unknown or Unable to assess</b>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <hr/> <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <hr/> <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <hr/> <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <hr/> <input type="checkbox"/> 8 <input type="checkbox"/> 9
<b>Notes:</b> _____				

<b>G3d.</b> IF PATIENT/RESIDENT USES A BLADDER APPLIANCE: Does the patient/resident need assistance to manage use of the bladder appliance for ANY reason (e.g., cognitive impairment/mental status, physical limitation, medical issue, etc.)?	Day 1	Day 3	Day 5	Day 7
0 = No 1 = Yes 8 = <b>Not applicable</b> 9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9
<b>Notes:</b> _____				

#### G4. Bladder Frequency of Incontinent Events

G4. Indicate the frequency of incontinent events.	Day 1	Day 3	Day 5	Day 7
0 = No incontinent events during the assessment period	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
1 = Incontinent events less than daily (on at least one day but not every day during the assessment period)	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
2 = Incontinent events daily (at least once a day on each day during the assessment period)	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
3 = Incontinent events more than daily (more than once a day on each day during the assessment period)	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
8 = <b>Not applicable</b> (e.g., patient/resident has indwelling catheter or no urine output due to renal failure)	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8
9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9
<b>Notes:</b> _____				

#### G5. Bowel Appliance Use

G5a. Does this patient/resident use an indwelling or external bowel appliance (ostomy or other fecal diversion appliance)?	Day 1	Day 3	Day 5	Day 7
0 = No	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
1 = Yes	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
<b>Notes:</b> _____				

G5b. IF PATIENT/RESIDENT USES AN INDWELLING OR EXTERNAL BOWEL APPLIANCE (G5a=1; YES), was the appliance placed while the patient/resident was in the current setting?	Day 1	Day 3	Day 5	Day 7
<input type="checkbox"/> 0 = No	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<input type="checkbox"/> 1 = Yes	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
<input type="checkbox"/> 8 = <b>Not applicable</b>	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8	<input type="checkbox"/> 8
<input type="checkbox"/> 9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9	<input type="checkbox"/> 9

Notes: _____				
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<b>G5c. IF PATIENT/RESIDENT USES AN INDWELLING OR EXTERNAL BOWEL APPLIANCE (G5a=1; YES), does the patient/resident need assistance to manage use of the bowel appliance for <u>ANY</u> reason (e.g., cognitive impairment/mental status, physical limitation, medical issue, etc.)?</b>	<b>Day 1</b>	<b>Day 3</b>	<b>Day 5</b>	<b>Day 7</b>
	<input type="checkbox"/> 0 = No <input type="checkbox"/> 1 = Yes <input type="checkbox"/> 8 = <b>Not applicable</b> <input type="checkbox"/> 9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 8 <input type="checkbox"/> 9
Notes: _____				

**G6. Bowel Frequency of Incontinent Events**

<b>G6. Indicate the frequency of incontinent events.</b>	<b>Day 1</b>	<b>Day 3</b>	<b>Day 5</b>	<b>Day 7</b>
0 = No incontinent events during the assessment period 1 = Incontinent events only once during the assessment period 2 = Incontinent events more than once during the assessment period 3 = No bowel output during the assessment period 8 = <b>Not applicable</b> (e.g., patient/resident has a colostomy) 9 = <b>Unknown or unable to assess</b>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 8 <input type="checkbox"/> 9	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 8 <input type="checkbox"/> 9
Notes: _____				

## Appendix D. National Beta Test Non-Communicative Items

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### MODULE B: COGNITION II

#### B3. Staff Assessment of Mental Status

<p><b>B3a. Short-term Memory OK:</b> Seems or appears to recall after 5 minutes</p> <p><input type="checkbox"/> 0 = Memory OK</p> <p><input type="checkbox"/> 1 = Memory problem</p> <p><input type="checkbox"/> 9 = <b>Unknown or unable to assess</b></p>
<p><b>B3b. Long-term Memory OK:</b> Seems or appears to recall long past</p> <p><input type="checkbox"/> 0 = Memory OK</p> <p><input type="checkbox"/> 1 = Memory problem</p> <p><input type="checkbox"/> 9 = <b>Unknown or unable to assess</b></p>
<p><b>B3c. Memory/Recall Ability:</b> Is the patient/resident normally able to recall:</p>
<p><b>B3c1. Current season</b></p> <p><input type="checkbox"/> 0 = No</p> <p><input type="checkbox"/> 1 = Yes</p> <p><input type="checkbox"/> 9 = <b>Unknown or unable to assess</b></p>
<p><b>B3c2. Location of own room</b></p> <p><input type="checkbox"/> 0 = No</p> <p><input type="checkbox"/> 1 = Yes</p> <p><input type="checkbox"/> 9 = <b>Unknown or unable to assess</b></p>
<p><b>B3c3. Staff names and faces</b></p> <p><input type="checkbox"/> 0 = No</p> <p><input type="checkbox"/> 1 = Yes</p> <p><input type="checkbox"/> 9 = <b>Unknown or unable to assess</b></p>

**B3c4.** That he or she is in a nursing facility/hospital bed/rehabilitation facility/home

- 0 = No
- 1 = Yes
- 9 = **Unknown or unable to assess**

**B3d. Cognitive Skills for Daily Decision Making:** Made decisions regarding tasks of daily life:

- 0 = Independent – decisions consistent/reasonable
- 1 = Modified independence – some difficulty in new situations only
- 2 = Moderately impaired – decisions poor; cues/supervision required
- 3 = Severely impaired – never/rarely made decisions
- 9 = **Unknown or unable to assess**

## MODULE D. PAIN II

### D7. Observational Assessment of Pain or Distress

#### D7. Observational Assessment of Pain or Distress

FOR ALL PATIENTS/RESIDENTS WHO ARE UNABLE TO PARTICIPATE IN THE PAIN INTERVIEW, PLEASE NOTE WHETHER ANY OF THE FOLLOWING BEHAVIORS WERE OBSERVED.

PATIENTS/RESIDENTS SHOULD BE OBSERVED TWICE DAILY (MORNING AND EVENING) DURING CARE ACTIVITIES (I.E., DURING TRANSFER PROCEDURES, REPOSITIONING, BATHING, TOILETING, WOUND CARE/DRESSING CHANGES, RANGE OF MOTION, AMBULATING, OR OTHER EXERCISES, ETC.), WHEN BEHAVIORAL SIGNS OF POTENTIAL PAIN OR DISTRESS ARE MOST LIKELY TO BE EXPRESSED, OVER THE COURSE OF 3 CONSECUTIVE DAYS.

#### CHECK ALL THAT APPLY

- a = Non-verbal sounds (e.g., crying, whining, gasping, moaning, or groaning)
- b = Vocal complaints of pain (e.g., “that hurts, ouch, stop”)
- c = Facial expressions (e.g., grimaces, wincing, wrinkled forehead, furrowed brow, clenched teeth or jaw, rapid eye blinking; tightly closed eyes)
- d = Body movements or postures (e.g., bracing, guarding, rubbing or massaging a body part/area, clutching or holding a body part during movement, rigid, tense body posture; withdrawing an extremity to an external stimulus; fidgeting; increased pacing, rocking; restricted movement; gait or mobility changes)
- z = None of these signs observed or documented. **[SKIP TO DNC-TIME]**

### D8. Frequency of Indicators of Pain or Distress

**D8.** For patients/residents who demonstrated any indicators of potential pain or distress listed in D7: Observational Assessment of Pain or Distress, identify the frequency with which patient/resident complains or shows evidence of potential pain or distress over the past 3 days.

- 1 = Indicators of potential pain or distress observed less than daily
- 2 = Indicators of potential pain or distress observed daily (at least once per day on each day of the assessment window)

- 3 = Indicators of potential pain or distress observed more than daily (multiple times per day on each day of the assessment window)
- 9 = **Unknown or unable to assess**

**D9. Did Indicators of Pain or Distress Resolve/Diminish with Pain Medications or Treatment**

**D9.** For patients/residents who demonstrated any indicators of potential pain or distress listed in F7: Observational Assessment of Pain or Distress, is there any evidence that these indicators resolved or diminished in response to pain medications or treatments over the past 3 days?

- 0 = No
- 1 = Yes
- 8 = **Not applicable** – patient/resident has not received pain medications or treatments within the past 3 days
- 9 = **Unknown or unable to assess**

## MODULE E: MOOD II

### E4. Staff Assessment of Patient/Resident Mood (PHQ-9-OV®)

**E4a1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident have little interest or pleasure in doing things?

- 0 = No [SKIP TO E4b1]
- 1 = Yes
- 9 = Unknown or unable to assess [SKIP TO E4b1]

**E4a2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident have little interest or pleasure in doing things?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = Unknown or unable to assess

**E4b1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident feel or appear down, depressed, or hopeless?

- 0 = No [SKIP TO E4c1]
- 1 = Yes
- 9 = Unknown or unable to assess [SKIP TO E4c1]

**E4b2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident feel or appear down, depressed, or hopeless?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = Unknown or unable to assess

**E4c1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident have trouble falling or staying asleep, or sleeping too much?

- 0 = No [Skip to E4d1]
- 1 = Yes
- 9 = Unknown or unable to assess [Skip to E4d1]

**E4c2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident have trouble falling or staying asleep, or sleeping too much?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**E4d1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident feel tired or have little energy?

- 0 = No [**SKIP to E4e1**]
- 1 = Yes
- 9 = **Unknown or unable to assess [SKIP to E4e1]**

**E4d2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident feel tired or have little energy?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**E4e1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident have a poor appetite or overeating?

- 0 = No [**SKIP TO E4f1**]
- 1 = Yes
- 9 = **Unknown or unable to assess [SKIP TO E4f1]**

**E4e2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident have a poor appetite or overeating?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**E4f1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident indicate that s/he feels bad about self, is a failure, or has let self or family down?

- 0 = No [SKIP TO E4g1]
- 1 = Yes
- 9 = Unknown or unable to assess [SKIP TO E4g1]

**E4f2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident indicate that s/he feels bad about self, is a failure, or has let self or family down?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = Unknown or unable to assess

**E4g1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident have trouble concentrating on things, such as reading the newspaper or watching television?

- 0 = No [SKIP TO E4h1]
- 1 = Yes
- 9 = Unknown or unable to assess [SKIP TO E4h1]

**E4g2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident have trouble concentrating on things, such as reading the newspaper or watching television?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = Unknown or unable to assess

**E4h1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident move or speak so slowly that other people have noticed? Or the opposite, being so fidgety or restless that s/he has been moving around a lot more than usual?

- 0 = No [SKIP TO E4i1]
- 1 = Yes
- 9 = Unknown or unable to assess [SKIP TO E4i1]

**E4h2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident move or speak so slowly that other people have noticed. Or the opposite, being so fidgety or restless that s/he has been moving around a lot more than usual?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)

- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**E4i1. SYMPTOM PRESENCE:** Over the last 2 weeks, did the patient/resident state that life isn't worth living, wishes for death, or attempts to harm self?

- 0 = No [**SKIP TO E4j1**]
- 1 = Yes
- 9 = **Unknown or unable to assess [SKIP TO E4j1]**

**E4i2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often did the patient/resident state that life isn't worth living, wishes for death, or attempts to harm self?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**E4j1. SYMPTOM PRESENCE:** Over the last 2 weeks, was the patient/resident being short-tempered, easily annoyed?

- 0 = No [**SKIP TO PHQ-9 TOTAL SCORE**]
- 1 = Yes
- 9 = **Unknown or unable to assess [SKIP TO PHQ-9 TOTAL SCORE]**

**E4j2. SYMPTOM FREQUENCY:** Over the last 2 weeks, how often was the patient/resident being short-tempered, easily annoyed?

- 0 = Never or 1 day
- 1 = 2-6 days (several days)
- 2 = 7-11 days (half or more of the days)
- 3 = 12-14 days (nearly every day)
- 9 = **Unknown or unable to assess**

**PHQ-9 OV TOTAL:** Add values from E4a2, E4b2, E4c2, E4d2, E4e2, E4f2, E4g2, E4h2, E4i2, E4j2

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