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# Final Specifications for SNF QRP Quality Measures and Standardized Resident Assessment Data Elements

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FINAL SPECIFICATIONS FOR SNF QRP QUALITY MEASURES AND STANDARDIZED  
RESIDENT ASSESSMENT DATA ELEMENTS

RTI International  
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# Table of Contents

Chapter 1 IMPACT Act Measures Beginning with the FY 2020 SNF QRP .....	1
Section 1: Cross-Setting Measures Development Work: An Introduction .....	1
Section 2: Cross-Setting Pressure Ulcer Measure: Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury .....	2
Measure Description .....	2
Purpose/Rationale for the Quality Measure .....	2
Denominator .....	5
Denominator Exclusions .....	6
Numerator .....	6
Measure Time Window.....	7
Items Included in the Quality Measure .....	8
Risk Adjustment Covariates.....	10
Quality Measure Calculation Algorithm.....	13
Section 3: An Application of IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633).....	16
Measure Description .....	16
Purpose/Rationale for the Quality Measure .....	16
Denominator .....	18
Numerator .....	19
Items Included in the Quality Measure .....	20
Risk Adjustment.....	21
Quality Measure Calculation Algorithm.....	24
Section 4: An Application of the IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634).....	25
Measure Description .....	25
Purpose/Rationale for the Quality Measure .....	25
Denominator .....	25
Numerator .....	26
Items Included in the Quality Measure .....	26
Risk Adjustment.....	28
Quality Measure Calculation Algorithm.....	31
Section 5: An Application of the IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635).....	33
Measure Description .....	33
Purpose/Rationale for the Quality Measure .....	33

Denominator .....	33
Numerator .....	34
Items Included in the Quality Measure .....	34
Risk Adjustment.....	35
Quality Measure Calculation Algorithm.....	39
Section 6: An Application of the IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636).....	40
Measure Description .....	40
Purpose/Rationale for the Quality Measure .....	40
Denominator .....	40
Numerator .....	41
Items Included in the Quality Measure .....	41
Risk Adjustment.....	43
Quality Measure Calculation Algorithm.....	46
Section 7: Measure updates for Potentially Preventable 30-Day Post-Discharge Measure for SNF QRP.....	47
Section 8: Public Display Period Update for the Discharge to Community-Post Acute Care SNF QRP and Medicare Spending Per Beneficiary-Post Acute Care SNF QRP Measures .....	48
Chapter 2 Standardized Data Elements.....	49
Section 1: Standardized Resident Assessment Data Element Work: An Introduction .....	49
Section 2: Functional Status.....	50
Section 3: Medical Conditions and Co-Morbidities.....	51
<b>Appendices</b>	
1 Reliability and Validity of Items used to Calculate Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury.....	53
2 National Stay-Level Incidence of New or Worsened Pressure Ulcers by Stage and Post-Acute Care Setting .....	57
3 Distribution of Observed Scores for Quality Measures: Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) and Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury .....	59
4 Data Elements Used in Calculation of Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury.....	61
5 Pressure Ulcer Quality Measure Item Standardization: Data Elements Collected for Calculation of Quality Measures used in IRF, LTCH, and SNF Quality Reporting Programs .....	63
6 Data Elements Used in Risk Adjustment of Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury .....	65
7 Self-Care and Mobility Items Included in Section GG of the IRF-PAI, MDS, and LTCH CARE Data Set to Assess Functional Status – Effective on or before October 1, 2018.....	67

# Chapter 1

## IMPACT Act Measures Beginning with the FY 2020 SNF QRP

### Section 1: Cross-Setting Measures Development Work: An Introduction

The Improving Medicare Post-Acute Care Transformation Act (IMPACT Act), enacted October 6, 2014, directs the Secretary of Health and Human Services to “specify quality measures on which Post-Acute Care (PAC) providers are required under the applicable reporting provisions to submit standardized resident assessment data” in several quality measure domains, including but not limited to incidence of major falls, skin integrity, and function. The IMPACT Act requires the implementation of quality measures to address these measure domains in Home Health Agencies (HHAs), Skilled Nursing Facilities (SNFs), Long-Term Care Hospitals (LTCHs), and Inpatient Rehabilitation Facilities (IRFs).

The IMPACT Act also requires, to the extent possible, the submission of such quality measure data through the use of a PAC assessment instrument and the modification of such instrument as necessary to enable such use. This requirement refers to the collection of such data by means of the Minimum Data Set (MDS) 3.0 for SNFs, the LTCH Continuity Assessment Record and Evaluation (CARE) Data Set for LTCHs, and the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) for IRFs.

For more information on the statutory history of the SNF, LTCH, or IRF QRP, please refer to the FY 2015 final rules. More information on the IMPACT Act is available at <https://www.govtrack.us/congress/bills/113/hr4994>.

In this document, we present specifications for the following quality measure finalized for the SNF QRP:

Outcome Measure: Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

Application of IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633)

Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634)

Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635)

Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636)

## Section 2: Cross-Setting Pressure Ulcer Measure: Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

### Measure Description

This cross-setting quality measure reports the percentage of patients/residents with Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, that are new or worsened since admission. This measure is a cross-setting quality measure to meet the requirements of the IMPACT Act addressing the domain of skin integrity and changes in skin integrity. This cross-setting quality measure is calculated using data from the MDS 3.0 assessment instrument for SNF residents, the LTCH CARE Data Set for LTCH patients, and the IRF-PAI for IRF patients. Data are collected separately in each of the three settings using standardized data elements. Data elements are referred to hereafter in this specification as items that have been standardized across the MDS 3.0, LTCH CARE Data Set, and IRF-PAI. It is important to note that data collection and measure calculation for this measure are conducted separately for each of the three provider settings and will not be combined across settings. See **Appendix 1** for additional information about measure and data element reliability and validity.

### Purpose/Rationale for the Quality Measure

This quality measure is finalized as a cross-setting quality measure to meet the requirements of the IMPACT Act of 2014 addressing the domain of skin integrity and changes in skin integrity. A pressure ulcer measure has previously been successfully implemented in NHs, SNFs, LTCHs and IRFs. The data for the pressure ulcer measure have been collected and submitted by LTCHs and IRFs (using the LTCH CARE Data Set and IRF-PAI, respectively) since October 1, 2012. Effective December 14, 2016, data for the pressure ulcer measure are publicly reported for LTCHs on CMS' Long-Term Care Hospital Compare at: <https://www.medicare.gov/longtermcarehospitalcompare/> and for IRFs on CMS' Inpatient Rehabilitation Facility Compare at: <https://www.medicare.gov/inpatientrehabilitationfacilitycompare/>.

In order to improve the quality measure and address recommendations provided by a cross-setting pressure ulcer Technical Expert Panel (TEP) and supported by the National Pressure Ulcer Advisory Panel (NPUAP), the quality measure has been modified in two ways. First, the measure has been modified to incorporate the addition of unstageable pressure ulcers due to slough or eschar, unstageable pressure ulcers due to non-removable dressing or device, and unstageable pressure ulcers presenting as deep tissue injuries in the numerator. Second, the measure calculation has been amended to include M0300 items instead of M0800 items for the IRF QRP and LTCH QRP. This item calculation modification is intended to reduce redundancies in assessment items. To reflect these two changes, the measure is being finalized for FY 2018 federal rulemaking as: Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury. This measure is intended to encourage IRFs, LTCHs, and SNFs to prevent pressure ulcer development or worsening, and to closely monitor and appropriately treat existing pressure ulcers.

Pressure ulcers are recognized as a serious medical condition. Considerable evidence exists regarding the seriousness of pressure ulcers, and the relationship between pressure ulcers and pain, decreased quality of life, and increased mortality in aging populations.<sup>1,2,3,4</sup> Pressure ulcers interfere with activities of daily living and functional gains made during rehabilitation, predispose patients to

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<sup>1</sup> Casey, G. (2013). "Pressure ulcers reflect quality of nursing care." *Nurs N Z* 19(10): 20-24.

<sup>2</sup> Gorzoni, M. L. and S. L. Pires (2011). "Deaths in nursing homes." *Rev Assoc Med Bras* 57(3): 327-331.

<sup>3</sup> Thomas, J. M., et al. (2013). "Systematic review: health-related characteristics of elderly hospitalized adults and nursing home residents associated with short-term mortality." *J Am Geriatr Soc* 61(6): 902-911.

<sup>4</sup> White-Chu, E. F., et al. (2011). "Pressure ulcers in long-term care." *Clin Geriatr Med* 27(2): 241-258.

osteomyelitis and septicemia, and are strongly associated with longer hospital stays, longer IRF stays, and mortality.<sup>5,6,7</sup> Additionally, patients with acute care hospitalizations related to pressure ulcers are more likely to be discharged to long-term care facilities (e.g., a nursing facility, an intermediate care facility, or a nursing home) than hospitalizations for all other conditions.<sup>8,9</sup>

Pressure ulcers typically result from prolonged periods of uninterrupted pressure on the skin, soft tissue, muscle, or bone.<sup>10,11,12</sup> Elderly individuals in IRFs, LTCHs, and SNFs have a wide range of impairments or medical conditions that increase their risk of developing pressure ulcers, including but not limited to, impaired mobility or sensation, malnutrition or under-nutrition, obesity, stroke, diabetes, dementia, cognitive impairments, circulatory diseases, and dehydration. The use of wheelchairs and medical devices (e.g., hearing aids, feeding tubes, tracheostomies, percutaneous endoscopic gastrostomy tubes), a history of pressure ulcers, or presence of a pressure ulcer at admission are additional factors that increase pressure ulcer risk in elderly patients.<sup>13,14,15,16,17,18,19,20,21</sup>

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- 5 Bates-Jensen BM. Quality indicators for prevention and management of pressure ulcers in vulnerable elders. *Ann Int Med.* 2001;135 (8 Part 2), 744-51.
  - 6 Park-Lee E, Caffrey C. Pressure ulcers among nursing home residents: United States, 2004 (NCHS Data Brief No. 14). Hyattsville, MD: National Center for Health Statistics, 2009. Available from <http://www.cdc.gov/nchs/data/databriefs/db14.htm>.
  - 7 Wang, H., et al. (2014). "Impact of pressure ulcers on outcomes in inpatient rehabilitation facilities." *Am J Phys Med Rehabil* 93(3): 207-216.
  - 8 Hurd D, Moore T, Radley D, Williams C. Pressure ulcer prevalence and incidence across post-acute care settings. Home Health Quality Measures & Data Analysis Project, Report of Findings, prepared for CMS/OCSQ, Baltimore, MD, under Contract No. 500-2005-000181 TO 0002. 2010.
  - 9 Institute for Healthcare Improvement (IHI). Relieve the pressure and reduce harm. May 21, 2007. Available from <http://www.ihl.org/resources/pages/improvementstories/relievethepressureandreduceharm.aspx>.
  - 10 Russo CA, Steiner C, Spector W. Hospitalizations related to pressure ulcers among adults 18 years and older, 2006 (Healthcare Cost and Utilization Project Statistical Brief No. 64). December 2008. Available from <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb64.pdf>.
  - 11 Reddy, M. (2011). "Pressure ulcers." *Clin Evid (Online)* 2011.
  - 12 Advancing Excellence in America's Nursing Homes (AEANH). Explore our goals.. n.d. Available from <https://www.nhqualitycampaign.org/goals.aspx>
  - 13 Reddy, M. (2011). "Pressure ulcers." *Clin Evid (Online)* 2011.
  - 14 Agency for Healthcare Research and Quality (AHRQ). Agency news and notes: pressure ulcers are increasing among hospital patients. January 2009. Available from <https://archive.ahrq.gov/news/newsletters/research-activities/jan09/0109RA22.html>
  - 15 Cai, S., et al. (2013). "Obesity and pressure ulcers among nursing home residents." *Med Care* 51(6): 478-486.
  - 16 DeJong, G., et al. (2014). "Factors Associated with Pressure Ulcer Risk in Spinal Cord Injury Rehabilitation." *Am J Phys Med Rehabil.* 2014 May 29. [Epub ahead of print]
  - 17 MacLean DS. Preventing & managing pressure sores. *Caring for the Ages.* March 2003;4(3):34-7.
  - 18 Michel, J. M., et al. (2012). "As of 2012, what are the key predictive risk factors for pressure ulcers? Developing French guidelines for clinical practice." *Ann Phys Rehabil Med* 55(7): 454-465.
  - 19 National Pressure Ulcer Advisory Panel (NPUAP) Board of Directors; Cuddigan J, Berlowitz DR, Ayello EA (Eds). Pressure ulcers in America: prevalence, incidence, and implications for the future. An executive summary of the National Pressure Ulcer Advisory Panel Monograph. *Adv Skin Wound Care.* 2001;14(4):208-15.
  - 20 Teno, J. M., et al. (2012). "Feeding tubes and the prevention or healing of pressure ulcers." *Arch Intern Med* 172(9): 697-701
  - 21 Centers for Medicare & Medicaid Services (CMS). Medicare program; changes to the hospital inpatient prospective payment system and fiscal year 2008 rates. *Fed Register.* August 22, 2007;72(162):47205.

Pressure ulcers are high-cost adverse events across the spectrum of health care settings, from acute hospitals to home health.<sup>22,23,24</sup> Pressure ulcer incidence rates vary considerably by clinical setting, ranging from 0.4% to 38% in acute care, 2.2% to 23.9% in SNFs and NHs, and 0% to 17% in home care.<sup>25</sup> No national survey of pressure ulcer incidence or prevalence has been conducted in LTCHs or IRFs. However, a study evaluating 2009 Medicare FFS claims data from post-acute care facilities found 15,995 secondary diagnosis claims of Stage 3 or 4 pressure ulcers in LTCHs; 2,342 secondary diagnosis claims of Stage 3 or 4 pressure ulcers in IRFs; and 9,939 secondary diagnosis claims of Stage 3 or Stage 4 pressure ulcers in SNFs.<sup>26</sup> Additionally, analysis conducted by RTI International examined the national incidence of new or worsened Stage 2, 3, or 4 pressure ulcers in LTCHs, SNFs, or IRFs at discharge compared with admission using discharges from January through December 2015. In LTCHs, RTI found a national incidence of 0.95 percent of new or worsened Stage 2 pressure ulcers, 0.65 percent of Stage 3 pressure ulcers, and 0.48 percent of Stage 4 pressure ulcers. In SNFs, RTI found a national incidence of 1.28 percent of new or worsened Stage 2 pressure ulcers, 0.26 percent of new or worsened Stage 3 pressure ulcers, and 0.05 percent of new or worsened Stage 4 pressure ulcers. In IRFs, RTI found a national incidence of 0.56 percent of new or worsened Stage 2 pressure ulcers, 0.09 percent of new or worsened Stage 3 pressure ulcers, and 0.01 percent of new or worsened Stage 4 pressure ulcers. See **Appendix 2 and 3** for further information on pressure ulcer incidence in PAC settings.

Pressure ulcers that are unstageable due to slough or eschar, unstageable due to non-removable dressing or device, and unstageable presenting as deep tissue injuries (DTI) are also potentially avoidable and considered to be important indicators of quality of care. Furthermore, some studies indicate that DTIs, if managed using appropriate care, can be resolved without deteriorating into Stage 3, or Stage 4 pressure ulcers.<sup>27, 28</sup>

The rate of unstageable pressure ulcers varies according to the type of unstageable pressure ulcer and setting. An analysis conducted by RTI International examined the national incidence of new or worsened unstageable pressure ulcers in IRFs, LTCHs, or SNFs at discharge compared with admission using discharges from January through December 2015. In IRFs, RTI found a national incidence of 0.14 percent of new unstageable pressure ulcers due to slough/eschar, 0.02 percent of new unstageable pressure ulcers due to non-removable dressing/device, and 0.26 percent of new DTIs. In LTCHs, RTI found a national incidence of 1.15 percent of new unstageable pressure ulcers due to slough/eschar, 0.05 percent of new unstageable pressure ulcers due to non-removable dressing/device, and 1.01 percent of new DTIs. In SNFs, RTI found a national incidence of 0.40 percent of new unstageable pressure ulcers due to slough/eschar, 0.02 percent of new unstageable pressure ulcers due to non-removable

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<sup>22</sup> Reddy, M. (2011). "Pressure ulcers." Clin Evid (Online) 2011.

<sup>23</sup> Centers for Medicare & Medicaid Services (CMS). Medicare program; changes to the hospital inpatient prospective payment system and fiscal year 2008 rates. Fed Register. August 22, 2007;72(162):47205.

<sup>24</sup> Kandilov AMG, Coomer NM, Dalton K. (2014) The impact of hospital-acquired conditions on Medicare program payments. MMRR 4(4): E1-E23

<sup>25</sup> Institute for Healthcare Improvement (IHI). Relieve the pressure and reduce harm. May 21, 2007. Available from <http://www.ihl.org/resources/pages/improvementstories/relievethethepressureandreduceharm.aspx>.

<sup>26</sup> Bernard SL, Dalton K, Lenfestey N F, Jarrett NM, Nguyen KH, Sorensen AV, Thaker S, West ND. Study to support a CMS report to Congress: Assess feasibility of extending the hospital-acquired conditions—present on admission IPPS payment policy to non-IPPS payment environments. Prepared for Centers for Medicare & Medicaid Services. 2011.

<sup>27</sup> Sullivan, R. (2013). A Two-year Retrospective Review of Suspected Deep Tissue Injury Evolution in Adult Acute Care Patients. Ostomy Wound Management 59(9) <http://www.o-wm.com/article/two-year-retrospective-review-suspected-deep-tissue-injury-evolution-adult-acute-care-patien>

<sup>28</sup> Posthauer, ME, Zulkowski, K. (2005). Special to OWM: The NPUAP Dual Mission Conference: Reaching Consensus on Staging and Deep Tissue Injury. Ostomy Wound Management 51(4) <http://www.o-wm.com/content/the-npuap-dual-mission-conference-reaching-consensus-staging-and-deep-tissue-injury>

dressing/device, and 0.57 percent of new DTIs. See **Appendix 2 and 3** for further information on pressure ulcer incidence in PAC settings. There is some evidence to suggest that the proportion of pressure ulcers identified as DTI has increased over time. An international study spanning the time 2006 to 2009 found DTIs increased by three-fold, to nine percent of all observed ulcers in 2009 and that DTIs were more prevalent than either Stage 3 or 4 ulcers. During the same time period, the proportion of Stage 1 and 2 ulcers decreased, and the proportion of Stage 3 and 4 ulcers remained constant.<sup>29</sup>

As reported in the Federal Register, in 2006 the average cost for a hospital stay related to pressure ulcers was \$40,381.<sup>30</sup> As of 2010, the cost for treatment of Stage 4 hospital acquired pressure ulcers and complications averaged \$129,248 per admission.<sup>31</sup> Using data from 2009 and 2010, severe (Stage 3 and Stage 4) pressure ulcers acquired during a hospital stay were estimated to have increased CMS payments across 90-day episodes of care by at least \$18.8 million a year.<sup>32</sup>

The terminology and definitions developed by the National Pressure Ulcer Advisory Panel (NPUAP) for the care of pressure ulcers are often used to inform the PAC patient and resident assessment instruments and corresponding assessment manuals, specifically the IRF-PAI, the LTCH CARE Data Set, the MDS for SNFs, and the OASIS for HHAs. Considering the recent updates made by the NPUAP to their Pressure Ulcer Staging System, CMS intends to continue the adaptation of NPUAP terminology for coding the patient and resident assessment instruments. CMS will provide guidance which emphasizes that terminology related to these wounds may include injuries, as well as pressure ulcers, while retaining current holistic assessment instructions definitions and terminology. Further guidance and information on adaptation of the NPUAP guidelines, and definitions, and terminology, via assessment manuals and assessment instruments will be posted on the Web site at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-PAI-and-IRF-QRP-Manual.html>

## **Denominator**

Specific denominator definitions for each setting are provided below.

### *IRF Denominator*

The denominator is the total number of Medicare\* (Part A and Medicare Advantage) patient stays with an IRF-PAI assessment in the measure target period, except those that meet the exclusion criteria.

\*IRF-PAI data are submitted for Medicare patients (Part A and Medicare Advantage) only.

### *LTCH Denominator*

The denominator is the number of all-payer patient stays with both an admission and planned or unplanned discharge LTCH CARE Data Set assessment with the discharge date in the measure target period, except those that meet the exclusion criteria.

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<sup>29</sup> VanGilder, C, MacFarlane, GD, Harrison, P, Lachenbruch, C, Meyer, S (2010). The Demographics of Suspected Deep Tissue Injury in the United States: An Analysis of the International Pressure Ulcer Prevalence Survey 2006-2009. *Advances in Skin & Wound Care*. 23(6): 254-261.

<sup>30</sup> Centers for Medicare & Medicaid Services (CMS). Medicare program; changes to the hospital inpatient prospective payment system and fiscal year 2008 rates. *Fed Register*. August 22, 2007;72(162):47205.

<sup>31</sup> Brem, H., Maggi, J., Nierman, D., Rolnitzky, L., Bell, D., Rennert, R., ... Vladeck, B. (2010). High Cost of Stage IV Pressure Ulcers. *American Journal of Surgery*, 200(4), 473-477. <http://doi.org/10.1016/j.amjsurg.2009.12.021>

<sup>32</sup> Kandilov AMG, Coomer NM, Dalton K. (2014) The impact of hospital-acquired conditions on Medicare program payments. *MMRR* 4(4): E1-E23.

### *SNF Denominator*

The denominator is the number of Medicare Part A SNF stays in the selected time window for SNF residents ending during the selected time window, except those who meet the exclusion criteria.

### **Denominator Exclusions**

Specific denominator exclusions for each setting are provided below.

#### *IRF Denominator Exclusions:*

1. Patient stay is excluded if data on new or worsened Stage 2, 3, 4, and unstageable pressure ulcers, including deep tissue injuries, are missing at discharge; i.e., (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1 = [-] or M0300D2 = [-]) and (M0300E1 = [-] or M0300E2 = [-]) and (M0300F1 = [-] or M0300F2 = [-]) and (M0300G1 = [-] or M0300G2 = [-]).
2. Patient stay is excluded if the patient died during the IRF stay; i.e., Item 44C = [0].

#### *LTCH Denominator Exclusions:*

1. Patient stay is excluded if data on new or worsened Stage 2, 3, 4, and unstageable pressure ulcers, including deep tissue injuries, are missing on the planned or unplanned discharge assessment; i.e., (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1 = [-] or M0300D2 = [-]) and (M0300E1 = [-] or M0300E2 = [-]) and (M0300F1 = [-] or M0300F2 = [-]) and (M0300G1 = [-] or M0300G2 = [-]).
2. Patient stay is excluded if the patient died during the LTCH stay; i.e., A0250 = [12].

#### *SNF Denominator Exclusions:*

1. Resident stay is excluded if data on new or worsened Stage 2, 3, 4, and unstageable pressure ulcers, including deep tissue injuries are missing at discharge; i.e., (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1 = [-] or M0300D2 = [-]) and (M0300E1 = [-] or M0300E2 = [-]) and (M0300F1 = [-] or M0300F2 = [-]) and (M0300G1 = [-] or M0300G2 = [-]).
2. Resident stay is excluded if the resident died during the SNF stay.

### **Numerator**

Specific numerator definitions for each setting are provided below.

#### *IRF Numerator*

The numerator is the number of Medicare (Part A and Medicare Advantage) stays for which the IRF-PAI indicates one or more Stage 2-4 pressure ulcer(s), or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, that are new or worsened at discharge compared to admission.

- 1) Stage 2 (M0300B1) - (M0300B2) > 0, OR
- 2) Stage 3 (M0300C1) - (M0300C2) > 0, OR
- 3) Stage 4 (M0300D1) - (M0300D2) > 0, OR

- 4) Unstageable – Non-removable dressing/device (M0300E1) - (M0300E2) > 0, OR
- 5) Unstageable – Slough and/or eschar (M0300F1) - (M0300F2) > 0, OR
- 6) Unstageable – Deep tissue injury (M0300G1) - (M0300G2) > 0

*LTCH Numerator*

The numerator is the number of stays for which the discharge assessment indicates one or more new or worsened Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, compared to admission.

- 1) Stage 2 (M0300B1) - (M0300B2) > 0, OR
- 2) Stage 3 (M0300C1) - (M0300C2) > 0, OR
- 3) Stage 4 (M0300D1) - (M0300D2) > 0, OR
- 4) Unstageable – Non-removable dressing/device (M0300E1) - (M0300E2) > 0, OR
- 5) Unstageable – Slough and/or eschar (M0300F1) - (M0300F2) > 0, OR
- 6) Unstageable – Deep tissue injury (M0300G1) - (M0300G2) > 0

*SNF Numerator*

The numerator is the number of complete resident Medicare Part A stays for which the discharge assessment indicates one or more new or worsened Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, compared to admission.

- 1) Stage 2 (M0300B1) - (M0300B2) > 0, OR
- 2) Stage 3 (M0300C1) - (M0300C2) > 0, OR
- 3) Stage 4 (M0300D1) - (M0300D2) > 0, OR
- 4) Unstageable – Non-removable dressing/device (M0300E1) - (M0300E2) > 0, OR
- 5) Unstageable – Slough and/or eschar (M0300F1) - (M0300F2) > 0, OR
- 6) Unstageable – Deep tissue injury (M0300G1) - (M0300G2) > 0

**Measure Time Window**

Specific measure time window descriptions for each setting are provided below.

*IRF Time Window*

The measure will be calculated quarterly using a rolling 12 months of data. For public reporting, the quality measure score reported for each quarter is calculated using a rolling 12 months of data. All IRF records, except those that meet the exclusion criteria, during the 12 months will be included in the denominator and are eligible for inclusion in the numerator. For patients with multiple records during the 12-month time window, each record is eligible for inclusion in the measure.

*LTCH Time Window*

The measure will be calculated quarterly using a rolling 12 months of data. For public reporting, the quality measure score reported for each quarter is calculated using a rolling 12 months of

data. All LTCH stays, except those that meet the exclusion criteria, during the 12 months are included in the denominator and are eligible for inclusion in the numerator. For patients with multiple stays during the 12-month time window, each stay is eligible for inclusion in the measure.

#### *SNF Time Window*

The measure will be calculated quarterly using a rolling 12 months of data. For public reporting, the quality measure score reported for each quarter is calculated using a rolling 12 months of data. All Medicare Part A SNF stays, except those that meet the exclusion criteria, during the 12 months are included in the denominator and are eligible for inclusion in the numerator. For residents with multiple stays during the 12-month time window, each stay is eligible for inclusion in the measure.

### **Items Included in the Quality Measure**

See **Appendix 4 and 5** for a summary of the M0300 items in instruments across settings, and **Appendix 6** for a summary of the items used for risk adjustment.

#### *IRF Items:*

- Items from the time of discharge are listed below. These items are used to calculate the measure:
  - M0300B1 (Number of Stage 2 pressure ulcers), M0300B2 (Number of these Stage 2 pressure ulcers that were present upon admission),
  - M0300C1 (Number of Stage 3 pressure ulcers), M0300C2 (Number of these Stage 3 pressure ulcers that were present upon admission),
  - M0300D1 (Number of Stage 4 pressure ulcers), M0300D2 (Number of these Stage 4 pressure ulcers that were present upon admission),
  - M0300E1 (Number of unstageable pressure ulcers/injuries due to non-removable dressing/device), M0300E2 (Number of these unstageable pressure ulcers/injuries that were present upon admission),
  - M0300F1 (Number of unstageable pressure ulcers due to coverage of wound bed by slough and/or eschar), M0300F2 (Number of these unstageable pressure ulcers that were present upon admission),
  - M0300G1 (Number of unstageable pressure injuries presenting as deep tissue injury), M0300G2 (Number of these unstageable pressure injuries that were present upon admission).
- In addition, items from the time of admission used to risk-adjust this quality measure are listed below:
  1. Functional Mobility Admission Performance:
    - GG0170C (Functional Mobility Admission Performance; Lying to Sitting on Side of Bed);
  2. Bowel Continence:
    - H0400 (Bowel Continence);

3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:  
     I0900 (Peripheral Vascular Disease (PVD) or Peripheral Arterial Disease (PAD)); or  
     I2900 (Diabetes Mellitus);
4. Low Body Mass Index, based on Height and Weight at admission:  
     25A (Height); and  
     26A (Weight).

*LTCH Items:*

- Items from the planned or unplanned discharge assessment are listed below. These items are used to calculate the measure.
  - M0300B1 (Number of Stage 2 pressure ulcers), M0300B2 (Number of these Stage 2 pressure ulcers that were present upon admission),
  - M0300C1 (Number of Stage 3 pressure ulcers), M0300C2 (Number of these Stage 3 pressure ulcers that were present upon admission),
  - M0300D1 (Number of Stage 4 pressure ulcers), M0300D2 (Number of these Stage 4 pressure ulcers that were present upon admission),
  - M0300E1 (Number of unstageable pressure ulcers/injuries due to non-removable dressing/device), M0300E2 (Number of these unstageable pressure ulcers/injuries that were present upon admission),
  - M0300F1 (Number of unstageable pressure ulcers due to coverage of wound bed by slough and/or eschar), M0300F2 (Number of these unstageable pressure ulcers that were present upon admission),
  - M0300G1 (Number of unstageable pressure injuries presenting as deep tissue injury), M0300G2 (Number of these unstageable pressure injuries that were present upon admission).
- In addition, items from the admission assessment used to risk-adjust this quality measure are listed below:
  1. Functional Mobility Admission Performance:  
     GG0170C (Functional Mobility; Lying to Sitting on Side of Bed);
  2. Bowel Continence:  
     H0400 (Bowel Continence);
  3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:  
     I0900 (Peripheral Vascular Disease (PVD) or Peripheral Arterial Disease (PAD)); or  
     I2900 (Diabetes Mellitus);
  4. Low Body Mass Index, based on Height and Weight:  
     K0200A (Height); and  
     K0200B (Weight).

*SNF Items:*

- Items from the discharge assessment are listed below. These items are used to calculate the measure.:
  - M0300B1 (Number of Stage 2 pressure ulcers), M0300B2 (Number of these Stage 2 pressure ulcers that were present upon admission/entry or reentry),
  - M0300C1 (Number of Stage 3 pressure ulcers), M0300C2 (Number of these Stage 3 pressure ulcers that were present upon admission/entry or reentry),
  - M0300D1 (Number of Stage 4 pressure ulcers), M0300D2 (Number of these Stage 4 pressure ulcers that were present upon admission/entry or reentry),
  - M0300E1 (Number of unstageable pressure ulcers/injuries due to non-removable dressing/device), M0300E2 (Number of these unstageable pressure ulcers/injuries that were present upon admission/entry or reentry),
  - M0300F1 (Number of unstageable pressure ulcers due to coverage of wound bed by slough and/or eschar), M0300F2 (Number of these unstageable pressure ulcers that were present upon admission/entry or reentry),
  - M0300G1 (Number of unstageable pressure injuries presenting as deep tissue injury), M0300G2 (Number of these unstageable pressure injuries that were present upon admission/entry or reentry).
- In addition, items from the PPS 5-Day assessment used to risk-adjust this quality measure are listed below:
  1. Functional Mobility Admission Performance:
    - GG0170C (Functional Mobility; Lying to Sitting on Side of Bed);
  2. Bowel Continence:
    - H0400 (Bowel Continence);
  3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:
    - I0900 (Peripheral Vascular Disease (PVD) or Peripheral Arterial Disease (PAD)); or
    - I2900 (Diabetes Mellitus);
  4. Low Body Mass Index, based on Height and Weight:
    - K0200A (Height); and
    - K0200B (Weight).

**Risk Adjustment Covariates**

Specific covariate definitions for each setting are provided below.

*IRF Risk Adjustment Covariates*

For each patient stay covariate values are assigned either '0' for covariate condition not present or '1' for covariate condition present as reported at admission.

1. Functional Mobility Admission Performance:
  - Indicator of supervision/touching assistance or more assistance for the functional mobility item Lying to Sitting on Side of Bed at admission:

Covariate = [1] (yes) if GG0170C = [01, 02, 07, 09, 10, 88] ([01] = Dependent, [02] = Substantial/maximal assistance, [07] = Patient refused, [09] = Not applicable, [10] = Not attempted due to environmental limitations, [88] = Not attempted due to medical condition or safety concerns)

Covariate = [0] (no) if GG0170C = [03, 04, 05, 06, -, ^] (**[03] = Partial/moderate assistance, [04] = Supervision or touching assistance, [05] = Setup or clean-up assistance, [06] = Independent, [-] = No response available, [^] = Valid skip**)

## 2. Bowel Continence

Bowel Continence (H0400) at admission

Covariate = [1] (yes) if H0400 = [1, 2, 3] ([1] = Occasionally incontinent, [2] = Frequently incontinent, [3] = Always incontinent)

Covariate = [0] (no) if H0400 = [0, 9, -, ^] ([0] = Always continent, [9] = Not rated, [-] = No response available, [^] = Valid skip)

## 3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:

Covariate = [1] (yes) if any of the following are true:

1. I0900 = [1] (checked)
2. I2900 = [1] (checked)

Covariate = [0] (no) if I0900 = [0, -] AND I2900 = [0, -] ([0] = No, [-] = No response available)

## 4. Low body mass index (BMI), based on height (25A) and weight (26A):

Covariate = [1] (yes) if  $BMI \geq [12.0]$  AND  $\leq [19.0]$

Covariate = [0] (no) if  $BMI < [12.0]$  OR  $> [19.0]$

Covariate = [0] (no) if 25A = [0, 00, -] OR 26A = [-] ([-] = Not assessed/no information)

Where:  $BMI = (\text{weight} * 703 / \text{height}^2) = ([26A] * 703) / (25A^2)$  and the resulting value is rounded to one decimal place.

### *LTCH Risk Adjustment Covariates*

For each patient stay covariate values are assigned, either '0' for covariate condition not present or '1' for covariate condition present, as reported on the admission assessment.

#### 1. Functional Mobility Admission Performance:

Supervision/touching assistance or more for the functional mobility item Lying to Sitting on Side of Bed

Covariate = [1] (yes) if GG0170C = [01, 02, 07, 09, 10, 88] ([01] = Dependent, [02] = Substantial/maximal assistance, [07] = Patient refused, [09] = Not applicable, [10] = Not attempted due to environmental limitations, [88] = Not attempted due to medical condition or safety concerns)

Covariate = [0] (no) if GG0170C = [03, 04, 05, 06, -, ^] (**[03] = Partial/moderate assistance, [04] = Supervision or touching assistance, [05] = Setup or clean-up assistance, [06] = Independent, [-] = No response available, [^] = Valid skip**)

2. Bowel Continence:

Covariate = [1] (yes) if H0400 = [1, 2, 3] ([1] = Occasionally incontinent, [2] = Frequently incontinent, [3] = Always incontinent)

Covariate = [0] (no) if H0400 = [0, 9, -, ^] ([0] = Always continent, [9] = Not rated, [-]= No response available, [^] = Valid skip)

3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:

Covariate = [1] (yes) if any of the following are true:

3. I0900 = [1] (checked)

4. I2900 = [1] (checked)

Covariate = [0] (no) if I0900 = [0, -] AND I2900 = [0, -] ([0] = No, [-] = No response available)

4. Low body mass index (BMI), based on height (K0200A) and weight (K0200B) on the Admission assessment:

Covariate = [1] (yes) if  $BMI \geq [12.0]$  AND  $BMI \leq [19.0]$

Covariate = [0] (no) if  $BMI < [12.0]$  OR  $BMI > [19.0]$

Covariate = [0] (no) if K0200A = [0, 00, -] OR K0200B = [-] ([-] = Not assessed/ no information)

Where:  $BMI = (\text{weight} * 703 / \text{height}^2) = ([K0200B] * 703) / (K0200A^2)$  and the resulting value is rounded to one decimal place.

*SNF Risk Adjustment Covariates*

For each resident covariate values are assigned, either '0' for covariate condition not present or '1' for covariate condition present, as reported on the PPS 5-Day assessment.

1. Functional Mobility Admission Performance:

Covariate = [1] (yes) if GG0170C = [01, 02, 07, 09, 10, 88] ([01] = Dependent, [02] = Substantial/maximal assistance, [07] = Resident refused, [09] = Not applicable, [10] = Not attempted due to environmental limitations, [88] = Not attempted due to medical condition or safety concerns)

Covariate = [0] (no) if GG0170C = [03, 04, 05, 06, -, ^] (**[03] = Partial/moderate assistance, [04] = Supervision or touching assistance, [05] = Setup or clean-up assistance, [06] = Independent, [-] = No response available, [^] = Valid skip**)

2. Bowel Continence:

Covariate = [1] (yes) if H0400 = [1, 2, 3] (1 – Occasionally incontinent, 2 – Frequently incontinent, 3 – Always incontinent)

Covariate = [0] (no) if H0400 = [0, 9, -, ^] (0 – Always continent, 9 – Not rated, '[-]' – No response available, '[^]' – Valid skip)

3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:

Covariate = [1] (yes) if any of the following are true:

1. Active Peripheral Vascular Disease (PVD) or Peripheral Arterial Disease (PAD) in the last 7 days (I0900 = [1] (checked))

2. Active Diabetes Mellitus (DM) in the last 7 days (I2900 = [1] (checked))  
 Covariate = [0] (no) if I0900 = [0, -] AND I2900 = [0, -]
4. Low body mass index (BMI), based on height (K0200A) and weight (K0200B):  
 Covariate = [1] (yes) if  $BMI \geq [12.0]$  AND  $BMI \leq [19.0]$   
 Covariate = [0] (no) if  $BMI < [12.0]$  OR  $BMI > [19.0]$   
 Covariate = [0] (no) if K0200A = [0, 00, -] OR K0200B = [-] ([-] = Not assessed/ no information)
- Where:  $BMI = (\text{weight} * 703 / \text{height}^2) = ([K0200B] * 703) / (K0200A^2)$  and the resulting value is rounded to one decimal place.

### **Quality Measure Calculation Algorithm**

The following steps are used to calculate the measure:

#### **A. Calculate the facility observed score (steps 1 through 3)**

##### **Step 1.** Calculate the denominator count:

In the IRF setting, calculate the total number of stays with an IRF-PAI assessment ending in the measure time window, which do not meet the exclusion criteria.

In the LTCH setting, calculate the total number of stays with both an admission and discharge LTCH CARE Data Set assessment ending in the measure time window, which do not meet the exclusion criteria.

In the SNF setting, calculate the total number of complete Medicare Part A SNF stays ending in the measure time window, which do not meet the exclusion criteria.

##### **Step 2.** Calculate the numerator count:

In the IRF setting, calculate the total number of patient stays in the denominator whose IRF-PAI assessment indicates one or more new or worsened pressure ulcers at discharge compared to admission.

In the LTCH setting, calculate the total number of patient stays in the denominator whose discharge assessment indicates one or more new or worsened pressure ulcers compared to admission.

In the SNF setting, calculate the total number of Medicare Part A SNF stays in the denominator with discharge assessment that indicates one or more new or worsened pressure ulcers.

##### **Step 3.** Calculate the facility's observed score:

Divide the facility's numerator count by its denominator count to obtain the facility's observed score; that is, divide the result of step 2 by the result of step 1.

#### **B. Calculate the expected score for each patient/resident (steps 4 and 5)**

##### **Step 4.** Determine presence or absence of the pressure ulcer covariates for each patient/resident:

Assign covariate values, either '0' for covariate condition not present or '1' for covariate condition present, for each patient/resident for each of the four covariates as reported on the assessment at admission for the LTCH and IRF settings or the PPS 5-Day assessment for the SNF setting, as described in the Risk Adjustment section above.

**Step 5.** Calculate the expected score for each patient/resident with the following formula:

$$\text{Patient-/resident-level expected QM score} = 1 / [1 + e^{-X}] \quad (1)$$

Where  $e$  is the base of natural logarithms and  $X$  is a linear combination of the constant and the logistic regression coefficients times the covariate scores (from Formula [2], below).

$$X = \beta_0 + \beta_1 * COVA + \beta_2 * COVB + \beta_3 * COVC + \beta_4 * COVD \quad (2)$$

Where  $\beta_0$  is the logistic regression constant,  $\beta_1$  is the logistic regression coefficient for the first covariate,  $COVA$  is the patient/resident-level score for the first covariate,  $\beta_2$  is the logistic regression coefficient for the second covariate, and  $COVB$  is the patient-/resident-level score for the second covariate, etc. The regression constant and regression coefficients\* are numbers obtained through statistical logistic regression analysis.

\* Regression coefficients and constants are calculated separately for each facility type (IRF, LTCH, and SNF) and are updated each reporting period.

**C. Calculate the facility-level expected score (step 6)**

**Step 6.** Once an expected QM score has been calculated for all resident or patient stays for the IRF, LTCH, and SNF settings, calculate the facility-level expected QM score by averaging all resident-/patient-level expected scores.

**D. Calculate National mean observed QM score (steps 7 through 9)**

**Step 7.** Calculate the national denominator count:

Calculate the total number of resident or patient stays retained after exclusions and sum to derive the national denominator count.

**Step 8.** Calculate the national numerator count:

Calculate the total number of resident or patient stays in the denominator that triggered the QM and sum to derive the national numerator count.

**Step 9.** Calculate National mean observed QM score:

Divide the numerator count by its denominator count to obtain the national mean observed score; that is, divide the result of step 8 by the result of step 7.

**E. Calculate the Facility-level adjusted score (step 10)**

**Step 10.** Calculate the facility-level adjusted score based on the:

- Facility-level observed QM score (step 3),
- Facility-level expected QM score (step 6), and
- National mean observed QM score (step 9).\*

\*The national mean observed QM score is updated separately for each facility type (IRF, LTCH, and SNF) for each reporting period.

The calculation of the adjusted score uses the following equation:

$$Adj = 1 / [1 + e^{-y}] \quad (3)$$

where

- Adj is the facility-level adjusted QM score, and
- $y = (\text{Ln}(\text{Obs}/(1-\text{Obs})) - \text{Ln}(\text{Exp}/(1-\text{Exp})) + \text{Ln}(\text{Nat}/(1-\text{Nat})))$
- Obs is the facility-level observed QM score,
- Exp is the facility-level expected QM score,
- Nat is the national mean observed QM score,
- Ln indicates a natural logarithm, and
- $e$  is the base of natural logarithm.

Multiply the risk-adjusted score (Adj) by 100 and round the percent value to one decimal place. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place, otherwise leave the first decimal place unchanged. Drop all of the digits following the first decimal place.

Facility-level recoding instructions: If the facility-level observed score (step 3) equals 0, then the facility-level risk-adjusted percent is set to 0.0. If the facility-level observed score (step 3) equals 1, then the facility-level risk-adjusted percent is set to 100.0.

### Section 3: An Application of IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NOF #2633)

#### Measure Description

This quality measure estimates the risk-adjusted mean change in *self-care* score between admission and discharge for SNF Part A residents discharged from a SNF.

#### Purpose/Rationale for the Quality Measure

This finalized quality measure meets the requirements of the IMPACT Act addressing the domain of functional status, cognitive function, and changes in function and cognitive function. This finalized quality measure focuses on self-care activities. We finalized the same functional outcome measure for the IRF QRP in the FY 2016 IRF PPS final rule (80 FR 47111 through 47117). In developing the SNF functional outcome quality measures, we sought to build on our cross-setting function work by leveraging data elements currently collected in the MDS section GG, which would minimize additional data collection burden while increasing the feasibility of cross-setting item comparisons.

SNFs provide skilled services, such as skilled nursing or therapy services. Residents receiving care in SNFs include those whose illness, injury, or condition has resulted in a loss of function, and for whom rehabilitative care is expected to help regain that function. Treatment goals may include fostering residents' ability to manage their daily activities so that they can complete self-care and mobility activities as independently as possible, and, if feasible, return to a safe, active, and productive life in a community-based setting. Given that the primary goal of many SNF residents is improvement in function, SNF clinicians assess and document residents' functional status at admission and at discharge to evaluate not only the effectiveness of the rehabilitation care provided to individual residents but also the effectiveness of the SNF.

Examination of SNF data shows that SNF treatment practices directly influence resident outcomes. For example, therapy services provided to SNF residents have been found to be correlated with the functional improvement that SNF residents achieve (that is, functional outcomes).<sup>33</sup> Several studies found patients' functional outcomes vary based on treatment by physical and occupational therapists. Specifically, therapy was associated with significantly greater odds of improving mobility and self-care functional independence,<sup>34</sup> shorter length of stay,<sup>35</sup> and a greater likelihood of discharge to community.<sup>36</sup> Furthermore, Jung et al.<sup>37</sup> found that an additional hour of therapy treatment per week was associated with approximately a 3.1 percentage-point increase in the likelihood of returning to the community among residents with a hip fracture. Achieving these targeted resident outcomes, including

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<sup>33</sup> Jette, D. U., R. L. Warren, & C. Wirtalla. (2005). The relation between therapy intensity and outcomes of rehabilitation in skilled nursing facilities. *Archives of Physical Medicine and Rehabilitation*, 86 (3), 373-9.

<sup>34</sup> Lenze, E. J., Host, H. H., Hildebrand, M. W., Morrow-Howell, N., Carpenter, B., Freedland, K. E., ... & Binder, E. F. (2012). Enhanced medical rehabilitation increases therapy intensity and engagement and improves functional outcomes in post acute rehabilitation of older adults: a randomized-controlled trial. *Journal of the American Medical Directors Association*, 13(8), 708-712.

<sup>35</sup> Medicare Payment Advisory Commission (US). (2016). Report to the Congress: Medicare payment policy. Medicare Payment Advisory Commission.

<sup>36</sup> Cary, M. P., Pan, W., Sloane, R., Bettger, J. P., Hoenig, H., Merwin, E. I., & Anderson, R. A. (2016). Self-Care and Mobility Following Postacute Rehabilitation for Older Adults With Hip Fracture: A Multilevel Analysis. *Archives of Physical Medicine and Rehabilitation*. <http://doi.org/10.1016/j.apmr.2016.01.012>

<sup>37</sup> Jung, H. Y., Trivedi, A. N., Grabowski, D. C., & Mor, V. (2016). Does More Therapy in Skilled Nursing Facilities Lead to Better Outcomes in Patients With Hip Fracture? *Physical therapy*, 96(1), 81-89.

improved self-care and mobility functional independence, reduced length of stay, and increased discharges to the community, is a core goal of SNFs.

Among SNF residents receiving rehabilitation services, the amount of treatment received can vary. For example, the amount of therapy treatment provided varies by type (that is, for-profit versus not-for-profit) and location (that is, urban versus rural) of facility.<sup>38,39</sup> MedPAC<sup>40</sup> noted that while there was an overall increase in the share of intensive therapy days between 2002 and 2012, the for-profit and urban facilities had higher shares of intensive therapy than not-for-profit facilities and those located in rural areas. Data from 2011 to 2014 indicate that this variation is not explained by patient characteristics, such as activities of daily living, comorbidities and age, as SNF residents with stays in 2011 were more independent on average than the average SNF resident with stays in 2014. Because more intense therapy is associated with more functional improvement for certain beneficiaries, this variation in rehabilitation services supports the need to monitor SNF residents' functional outcomes. Therefore, we believe there is an opportunity for improvement in this area.

In addition, a recent analysis that examined the incidence, prevalence, and costs of common rehabilitation conditions found that back pain, osteoarthritis, and rheumatoid arthritis are the most common and costly conditions affecting more than 100 million individuals and costing more than \$200 billion per year.<sup>41</sup> Persons with these medical conditions are admitted to SNFs for rehabilitation treatment.

The use of standardized mobility and self-care data elements would standardize the collection of functional status data, which could improve communication when residents are transferred between providers. Most SNF residents receive care in an acute care hospital prior to the SNF stay, and many SNF residents receive care from another provider after the SNF stay.

Recent research provides empirical support for the risk adjustment variables for these quality measures. In a study of resident functional improvement in SNFs, Wysocki et al.<sup>42</sup> found that several resident conditions were significantly related to resident functional improvement, including cognitive impairment, delirium, dementia, heart failure, and stroke. Also, Cary et al. found that several resident characteristics were significantly related to resident functional improvement, including age, cognitive function, self-care function at admission, and comorbidities.<sup>43</sup>

The functional assessment items used to calculate the four quality measures are from the Continuity Assessment Record and Evaluation (CARE) Item Set, which was designed to standardize

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<sup>38</sup> Grabowski, D. C., Feng, Z., Hirth, R., Rahman, M., & Mor, V. (2013). Effect of nursing home ownership on the quality of post-acute care: An instrumental variables approach. *Journal of Health Economics*, 32(1), 12-21.

<sup>39</sup> Medicare Payment Advisory Commission (US). (2016). Report to the Congress: Medicare payment policy. Medicare Payment Advisory Commission.

<sup>40</sup> Medicare Payment Advisory Commission (US). (2016). Report to the Congress: Medicare payment policy. Medicare Payment Advisory Commission.

<sup>41</sup> Ma VY, Chan L, Carruthers KJ. Incidence, Prevalence, Costs, and Impact on Disability of Common Conditions Requiring Rehabilitation in the United States: Stroke, Spinal Cord Injury, Traumatic Brain Injury, Multiple Sclerosis, Osteoarthritis, Rheumatoid Arthritis, Limb Loss, and Back Pain. *Archives of Phys Med and Rehab* 2014

<sup>42</sup> Wysocki, A., Thomas, K. S., & Mor, V. (2015). Functional Improvement Among Short-Stay Nursing Home Residents in the MDS 3.0. *Journal of the American Medical Directors Association*, 16(6), 470-474. <http://doi.org/10.1016/j.jamda.2014.11.018>.

<sup>43</sup> Cary, M. P., Pan, W., Sloane, R., Bettger, J. P., Hoenig, H., Merwin, E. I., & Anderson, R. A. (2016). Self-Care and Mobility Following Postacute Rehabilitation for Older Adults With Hip Fracture: A Multilevel Analysis. *Archives of Physical Medicine and Rehabilitation*. <http://doi.org/10.1016/j.apmr.2016.01.012>.

assessment of patients'/residents' status across acute and post-acute settings, including inpatient rehabilitation facilities (IRFs), long-term care hospitals (LTCHs), SNFs, and home health agencies (HHAs). The CARE Item Set was developed and tested as part of the Post-Acute Care Payment Reform Demonstration. The functional status items on the CARE Item Set are daily activities that clinicians typically assess at the time of admission and/or at discharge to determine patients'/residents' needs, evaluate patient/resident progress, and prepare patients/residents and families for a transition to home or to another setting.

The development of the CARE Item Set and a description and rationale for each item is described in a report entitled "The Development and Testing of the Continuity Assessment Record and Evaluation (CARE) Item Set: Final Report on the Development of the CARE Item Set: Volume 1 of 3."<sup>9,44</sup>

Results of the reliability and validity testing conducted as part of the Post-Acute Care Payment Reform Demonstration found the functional status items to have acceptable reliability and validity in the acute and post-acute patient/resident populations. A description of the testing methodology and results are available in several reports, available at <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/CARE-Item-Set-and-B-CARE.html>.

### **Denominator**

The denominator is the number of SNF Medicare Part A resident stays, except those that meet the exclusion criteria.<sup>45</sup>

### **Denominator Exclusions**

This quality measure has 7 exclusion criteria:

1. Residents with incomplete stays.

Rationale: It can be challenging to gather accurate discharge functional status data for residents who experience incomplete stays.

Residents with incomplete stays include residents who are unexpectedly discharged to an acute care setting (short-stay acute hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 03, acute hospital], inpatient psychiatric facility [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 04, psychiatric hospital], or long-term care hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 09, long term care hospital]); residents who die (A2100, Discharge status = 08, Deceased) or leave a SNF against medical advice (A0310G, Type of assessment = 2, Unplanned discharge); and residents with a length of stay of less than 3 days (A2400C, End date of most recent Medicare stay – A2400B, Start date of most recent Medicare stay <3 Days).

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<sup>44</sup> Gage B, Constantine R, Aggarwal J, et al. The Development and Testing of the Continuity Assessment Record and Evaluation (CARE) Item Set: Final Report on the Development of the CARE Item Set Volume 1 of 3: RTI International;2012.

<sup>45</sup> Please note that critical access hospital with swing beds are exempt from the SNF PPS and are not required to submit quality data under the SNF QRP by means of the MDS per the requirements set forth by the IMPACT Act.

2. Residents who are independent with all self-care activities at the time of admission.  
Rationale: Residents who are independent with all self-care items at the time of admission are assigned the highest score on all self-care items, and thus, would not be able to show functional improvement on this same set of items at discharge.
3. Residents with the following medical conditions: coma; persistent vegetative state; complete tetraplegia; locked-in syndrome; severe anoxic brain damage, cerebral edema, or compression of brain.  
Rationale: These residents are excluded because they may have limited or less predictable improvement with the selected self-care items
  - Coma/Persistent vegetative state (B0100, Comatose = 1)
  - Complete Tetraplegia (see ICD-10 codes)
  - Locked-in Syndrome (see ICD-10 codes)
  - Severe anoxic brain damage (see ICD-10 codes)
  - Cerebral edema (see ICD-10 codes)
  - Compression of brain (see ICD-10 codes)
4. Residents younger than 21 years.  
Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21 years. (A1600. Entry Date - A0900. Birth Date < 21)
5. Residents discharged to hospice. (A2100 = 07, Hospice)  
Rationale: Resident goals may change during the SNF stay.
6. Residents who are not Medicare Part A beneficiaries.  
Rationale: For the SNF QRP, MDS data are submitted for Medicare Part A beneficiaries.
7. Residents who do not receive physical or occupational therapy services: (sum of O0400B1, Occupational therapy individual minutes + O0400B2, Occupational therapy concurrent minutes + O0400B3, Occupational therapy group minutes = 0) and (sum of O0400C1, Physical therapy individual minutes + O0400C2, Physical therapy concurrent minutes + O0400C3, Physical therapy group minutes = 0)  
Rationale: The focus of this measure is functional improvement for residents admitted to the SNF with an expectation of functional improvement due to skilled services, including physical and occupational therapy. Some SNF residents may receive skilled care, but not physical or occupational therapy services, and these residents are not included in the measure calculation.

### **Numerator**

The measure does not have a simple form for the numerator. This measure estimates the risk-adjusted change in self-care score between admission and discharge among SNF Medicare Part A residents, except those that meet the exclusion criteria. The change in self-care score is calculated as the difference between the discharge self-care score and the admission self-care score.

## Items Included in the Quality Measure

For this quality measure, the following functional activities are assessed at the time of admission and at discharge:

### *Self-Care Items*

**GG0130A. Eating:** The ability to use suitable utensils to bring food and/or liquid to the mouth and swallow food and/or liquid once the meal is placed before the resident.

**GG0130B. Oral hygiene:** The ability to use suitable items to clean teeth. Dentures (if applicable): The ability to insert and remove dentures into and from the mouth, and manage denture soaking and rinsing with use of equipment.

**GG0130C. Toilet hygiene:** The ability to maintain perineal hygiene, adjust clothes before and after voiding or having a bowel movement. If managing an ostomy, include wiping the opening but not managing equipment.

**GG0130E. Shower/bathe self:** The ability to bathe self, including washing, rinsing, and drying self (excludes washing of back and hair). Does not include transferring in/out of tub/shower.

**GG0130F. Upper body dressing:** The ability to dress and undress above the waist; including fasteners, if applicable.

**GG0130G. Lower body dressing:** The ability to dress and undress below the waist, including fasteners; does not include footwear.

**GG0130H. Putting on/taking off footwear:** The ability to put on and take off socks and shoes or other footwear that is appropriate for safe mobility; including fasteners, if applicable.

### *Self-Care Rating Scale: Codes and Code Definitions*

*All items are coded using this rating scale:*

- 06. Independent** – Resident completes the activity by himself/herself with no assistance from a helper.
- 05. Setup or clean-up assistance** – Helper sets up or cleans up; resident completes activity. Helper assists only prior to or following the activity.
- 04. Supervision or touching assistance** – Helper provides verbal cues and/or touching/steading and/or contact guard assistance as resident completes activity. Assistance may be provided throughout the activity or intermittently.
- 03. Partial/moderate assistance** – Helper does LESS THAN HALF the effort. Helper lifts, holds, or supports resident's trunk or limbs, but provides less than half the effort.
- 02. Substantial/maximal assistance** – Helper does MORE THAN HALF the effort. Helper lifts or holds resident's trunk or limbs and provides more than half the effort.
- 01. Dependent** – Helper does ALL of the effort. Resident does none of the effort to complete the task. Or, the assistance of 2 or more helpers is required for the resident to complete the activity.

*If the activity was not attempted, code the reason:*

- 07. Patient refused**

- 09. **Not applicable** – Not attempted and the resident did not perform this activity prior to the current illness, exacerbation, or injury.
- 10. **Not attempted due to environmental limitations** (e.g., lack of equipment, weather constraints)
- 88. **Not attempted due to medical condition or safety concerns**

### **Risk Adjustment**

The risk adjustors used for this finalized quality measure are the following:

- **Age group at SNF admission** (A1600, Entry Date - A0900, Birth Date)
  - Younger than 54 years
  - 55 to 64 years
  - 65 to 74 years (reference category)
  - 75 to 84 years
  - 85 to 90 years
  - > 90 years of age and older
- **Admission self-care function score: continuous form**
- **Admission self-care function score: squared form**
- **Primary medical condition category**
  - Stroke (I0020, Primary medical condition category = 01)
  - Non-traumatic brain dysfunction (I0020, Primary medical condition category = 02) and traumatic brain dysfunction (I0020, Primary medical condition category = 03)
  - Non-traumatic spinal cord dysfunction (I0020, Primary medical condition category = 04)
  - Traumatic spinal cord dysfunction (I0020, Primary medical condition category = 05)
  - Progressive neurological conditions (I0020, Primary medical condition category = 06)
  - Other neurological conditions (I0020, Primary medical condition category = 07)
  - Amputation (I0020, Primary medical condition category = 08)
  - Hip and knee replacement (reference category) (I0020, Primary medical condition category = 09)
  - Fractures and other multiple trauma (I0020, Primary medical condition category = 10)
  - Other orthopedic conditions (I0020, Primary medical condition category = 11)
  - Debility and cardiorespiratory conditions (I0020, Primary medical condition category = 12)
  - Medically complex conditions (I0020, Primary medical condition category = 13)
  - Other medical condition (I0020, Primary medical condition category = 14)
- **Interactions between primary medical condition category and SNF admission self-care score**

- **Prior Surgery: Major surgery during the 100 days prior to the SNF admission** (J2000, Prior surgery = 1)
- **Prior Functioning: Self-care**
  - Dependent (GG0100A = 1)
  - Some help (GG0100A = 2)
  - Independent (GG0100A = 3), unknown (GG0100A = 8), not applicable (GG0100A = 9), or not assessed/no information (GG0100A = [-]) (reference category)
- **Prior Functioning: Indoor ambulation**
  - Dependent or some help (GG0100B = 1 or 2)
  - Independent (GG0100B = 3), unknown (GG0100B = 8), not applicable (GG0100B = 9), or not assessed/no information (GG0100B = [-]) (reference category)
- **Prior Device Use: Walker**
  - Yes (GG0110D is checked)
  - No (GG0110D not checked) (reference category)
- **Prior Device Use: Wheelchair/scooter**
  - Yes (GG0110A, manual wheelchair is checked or GG0110B, motorized wheelchair and/or scooter is checked)
  - No (GG0110A, manual wheelchair is not checked and GG0110B, motorized wheelchair and/or scooter is not checked) (reference category)
- **Prior Device Use: Mechanical lift**
  - Yes (GG0110C, mechanical lift is checked)
  - No (GG0110C, mechanical lift is not checked) (reference category)
- **Prior Device Use: Orthotics/prosthetics**
  - Yes (GG0110E, orthotics/prosthetics is checked)
  - No (reference category) (GG0110E, orthotics/prosthetics not checked)
- **Presence of Stage 2 pressure ulcer(s) at admission** (M0300B1  $\geq$  1)
- **Presence of severe pressure ulcer/injury at admission**
  - Stage 3 (M0300C1, Number of Stage 3 pressure  $\geq$  1), Stage 4 (M0300D1, Number of Stage 3 pressure ulcers  $\geq$  1) or Unstageable pressure ulcer/injury) (M0300E1, Number of unstageable pressure ulcers due to non-removable dressing  $\geq$  1 or M0300F1, Number of these unstageable pressure ulcers due to slough and/or eschar  $\geq$  1 or M0300G1, Number of these unstageable pressure ulcers due to deep tissue injury  $\geq$  1)
- **Cognitive Abilities: Brief Interview for Mental Status (BIMS) score**
  - Severely impaired = C0500, BIMS Summary Score  $\leq$  7 or C0900Z, None of the above were recalled is checked or only one of the following is checked: C0900A, C0900B, C0900C, C0900D;

- Moderately impaired: if C0500, BIMS Summary Score = 8, 9, 10, 11, 12 or 2 of the following are checked: C0900A, C0900B, C0900C, C0900D;
- Intact (reference category): if C0500, BIMS Summary Score = 13, 14, or 15 or 3 or 4 of the following are checked: C0900A, C0900B, C0900C, C0900D
- **Communication Impairment: Ability to express ideas and wants *and* Understanding verbal and non-verbal content**
  - Moderate to severe communication limitations: Rarely/never understands (B0800, Ability to understand others = 3); or sometimes understands (B0800, Ability to understand others = 2); or rarely/never understood (B0700, Makes self understood = 3); or sometimes understood (B0700, Makes self understood = 2);
  - Mild to no communication limitations (reference category): Usually understands (B0800, Ability to understand others = 1), understands (B0800, Ability to understand others = 0); and usually understood (B0700, Makes self understood = 1), understood (B0700, Makes self understood = 0), or Not assessed/no information (B0700 = [-] or B0800 = [-])
- **Urinary Continence**
  - Occasionally (H0300, Urinary continence = 1), frequently incontinent (H0300, Urinary continence = 2) or always incontinent (H0300, Urinary continence = 3)
  - Continent (H0300, Urinary continence = 0), catheter, ostomy or no urine output (H0300, Urinary continence = 9), or Not assessed/no information (H0300, Urinary continence = [-]) (reference category)
- **Bowel Continence**
  - Occasionally (H0400, Bowel continence = 1) or frequently incontinent (H0400, Bowel continence = 2) or always incontinent (H0400, Bowel continence = 3)
  - Continent (H0400, Bowel continence = 0) or had ostomy or did not have a bowel movement for the entire 7 days (H0400, Bowel continence = 9), or Not assessed/no information (H0400, Bowel continence = [-]) (reference category)
- **Tube feeding (K0510B1 = 1) or total parenteral nutrition (K0510A1 = 1)**
- **Comorbidities (hierarchical condition categories):**
  - Major Infections: Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock; and Other Infectious Diseases
  - Metastatic Cancer and Acute Leukemia
  - Diabetes: Diabetes with Chronic Complications; Diabetes without Complication; Type I Diabetes Mellitus
  - Other Significant Endocrine and Metabolic Disorders
  - Delirium and Encephalopathy
  - Dementia: Dementia With Complications; Dementia Without Complications
  - Tetraplegia (excluding complete tetraplegia) and paraplegia
  - Multiple Sclerosis
  - Parkinson’s and Huntington’s Diseases

- Angina Pectoris
- Coronary Atherosclerosis/Other Chronic Ischemic Heart Disease
- Hemiplegia, Other Late Effects of Cerebrovascular Accident: Hemiplegia/Hemiparesis; Late Effects of Cerebrovascular Disease, Except Paralysis
- Dialysis Status and Chronic Kidney Disease - Stage 5
- Urinary Obstruction and Retention
- Amputations: Traumatic Amputations and Complications; Amputation Status, Lower Limb/Amputation Complications; Amputation Status, Upper Limb

### **Quality Measure Calculation Algorithm**

The following steps are used to calculate the measure:

1. Sum the scores of the admission self-care items to create an admission self-care score for each resident, after ‘activity not attempted’ codes and any dashes are recoded to 1 (score range: 7 to 42).
2. Sum the scores of the discharge self-care items to create a discharge self-care score for each resident, after ‘activity not attempted’ codes and any dashes are recoded to 1 (score range: 7 to 42).
3. Using stay-level records, identify the stay-level records of residents who meet the exclusion criteria and exclude them from analyses.
4. Calculate the difference between the admission self-care score (from step 1) and the discharge self-care score (from step 2) for each resident to create a change in self-care score for each resident.
5. Calculate an expected change in self-care score for each resident using the intercept and regression coefficients from national data and each resident’s admission characteristics (risk adjustors).
6. Calculate an average observed change in self-care score for each SNF. This is the facility-level observed change in self-care score.
7. Calculate an average expected change in self-care score for each SNF. This is the facility-level expected change in self-care score.
8. Calculate the difference between the facility-level observed change score and the facility-level expected change score to create an observed minus expected difference. A value that is 0 indicates the observed score and expected score are equal. A value that is higher than 0 indicates that the observed change score is higher (better) than the expected score. A value that is less than 0 indicates that the observed change score is lower (worse) than the expected score.
9. Add each SNF’s difference value (from step 8) to the national average change in self-care score. This is the SNF’s risk-adjusted mean self-care change score.

## **Section 4: An Application of the IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NOF #2634)**

### **Measure Description**

This quality measure estimates the average risk-adjusted mean change in *mobility score* between admission and discharge for Medicare Part A residents discharged from a SNF.

### **Purpose/Rationale for the Quality Measure**

As noted above, SNFs provide rehabilitation services to many residents with a goal of improving resident functioning. This is the second functional outcome quality measure being finalized to meet the requirements of the IMPACT Act, addressing the domain of functional status, cognitive function, and changes in function and cognitive function. This finalized quality measure focuses on mobility activities. We finalized the same functional outcome measure for the IRF QRP in the FY 2016 IRF PPS final rule (80 FR 47111 through 47117).

### **Denominator**

The denominator is the number of SNF Medicare Part A resident stays, except those that meet the exclusion criteria.<sup>46</sup>

### **Denominator Exclusions**

This quality measure has 7 exclusion criteria:

1. Residents with incomplete stays.

**Rationale:** It can be challenging to gather accurate discharge functional status data for residents who experience incomplete stays.

Residents with incomplete stays include residents who are unexpectedly discharged to an acute care setting (short-stay acute hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 03, acute hospital], inpatient psychiatric facility [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 04, psychiatric hospital], or long-term care hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 09, long term care hospital]); residents who die (A2100, Discharge status = 08, Deceased) or leave a SNF against medical advice (A0310G, Type of assessment = 2, Unplanned discharge); and residents with a length of stay of less than 3 days (A2400C, End date of most recent Medicare stay – A2400B, Start date of most recent Medicare stay <3 Days)

2. Residents who are independent with all mobility activities at the time of admission.

**Rationale:** Residents who are independent with all mobility items at the time of admission are assigned the highest score on all mobility items, and thus, would not be able to show functional improvement on this same set of items at discharge.

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<sup>46</sup> Please note that critical access hospital with swing beds are exempt from the SNF PPS and are not required to submit quality data under the SNF QRP by means of the MDS per the requirements set forth by the IMPACT Act.

3. Residents with the following medical conditions: coma; persistent vegetative state; complete tetraplegia; locked-in syndrome; severe anoxic brain damage, cerebral edema, or compression of brain.

Rationale: These residents are excluded because they may have limited or less predictable improvement with the selected self-care items

- Coma/Persistent vegetative state (B0100, Comatose = 1)
- Complete Tetraplegia (see ICD-10 codes)
- Locked-in Syndrome (see ICD-10 codes)
- Severe anoxic brain damage (see ICD-10 codes)
- Cerebral edema (see ICD-10 codes)
- Compression of brain (see ICD-10 codes)

4. Residents younger than 21 years.

Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21 years. (A1600. Entry Date - A0900. Birth Date <21)

5. Residents discharged to hospice. (A2100 = 07 Hospice)

Rationale: Resident goals may change during the SNF stay.

6. Residents who are not Medicare Part A beneficiaries.

Rationale: For the SNF QRP, MDS data are submitted for Medicare Part A beneficiaries.

7. Residents who do not receive physical or occupational therapy services (sum of O0400B1, Occupational therapy individual minutes + O0400B2, Occupational therapy concurrent minutes + O0400B3, Occupational therapy group minutes = 0) and (sum of O0400C1, Physical therapy individual minutes + O0400C2, Physical therapy concurrent minutes + O0400C3, Physical therapy group minutes = 0)

Rationale: The focus of this measure is functional improvement for residents admitted to the SNF with an expectation of functional improvement due to skilled services, including physical and occupational therapy. Some SNF residents may receive skilled care, but not physical or occupational therapy services, and these residents are not included in the measure calculation.

## **Numerator**

The measure does not have a simple form for the numerator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among SNF Medicare Part A residents, except those that meet the exclusion criteria. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.

## **Items Included in the Quality Measure**

For the quality measure, the following functional activities are assessed at the time of admission and discharge:

### *Mobility Items*

- GG0170A. Roll left and right:** The ability to roll from lying on back to left and right side, and roll back to back on the bed.
- GG0170B. Sit to lying:** The ability to move from sitting on side of bed to lying flat on the bed.
- GG0170C. Lying to sitting on side of bed:** The ability to move from lying on the back to sitting on the side of the bed with feet flat on the floor, no back support.
- GG0170D. Sit to stand:** The ability to come to a standing position from a position of sitting in a chair, wheelchair or on the side of the bed.
- GG0170E. Chair/bed-to-chair transfer:** The ability to transfer to and from a chair (or wheelchair).
- GG0170F. Toilet transfer:** The ability to get on and off a toilet or commode.
- GG0170G. Car transfer:** The ability to transfer in and out of a car or van on the passenger side. Does not include the ability to open/close door or fasten seat belt.
- GG0170I. Walk 10 feet:** Once standing, the ability to walk at least 10 feet (3 meters) in room, corridor, or similar space.
- GG0170J. Walk 50 feet with two turns:** Once standing, the ability to walk 50 feet and make two turns.
- GG0170K. Walk 150 feet:** Once standing, the ability to walk at least 150 feet (45 meters) in corridor or similar space.
- GG0170L. Walking 10 feet on uneven surfaces:** The ability to walk 10 feet on uneven or sloping surfaces (indoor or outdoor), such as turf or gravel.
- GG0170M. 1 step (curb):** The ability to step over a curb and/or up and down one step
- GG0170N. 4 steps:** The ability to go up and down four steps with or without a rail.
- GG0170P. 12 steps:** The ability to go up and down 12 steps with or without a rail.
- GG0170O. Picking up object:** The ability to bend/stoop from a standing position to pick up a small object, such as a spoon, from the floor.

### *Mobility Rating Scale: Codes and Code Definitions*

- All items are coded using this rating scale:**06. Independent** – Resident completes the activity by himself/herself with no assistance from a helper.
- 05. Setup or clean-up assistance** – Helper sets up or cleans up; resident completes activity. Helper assists only prior to or following the activity.
- 04. Supervision or touching assistance** – Helper provides verbal cues and/or touching/steading and/or contact guard assistance as resident completes activity. Assistance may be provided throughout the activity or intermittently.
- 03. Partial/moderate assistance** – Helper does LESS THAN HALF the effort. Helper lifts, holds, or supports resident's trunk or limbs, but provides less than half the effort.
- 02. Substantial/maximal assistance** – Helper does MORE THAN HALF the effort. Helper lifts or holds resident's trunk or limbs and provides more than half the effort.

- 01. Dependent** – Helper does ALL of the effort. Resident does none of the effort to complete the task. Or, the assistance of 2 or more helpers is required for the resident to complete the activity.

*If the activity was not attempted, code the reason:*

- 07. Patient refused**

- 09. Not applicable** – Not attempted and the resident did not perform this activity prior to the current illness, exacerbation, or injury.

- 10. Not attempted due to environmental limitations** (e.g., lack of equipment, weather constraints)

- 88. Not attempted due to medical condition or safety concerns**

### **Risk Adjustment**

The risk adjustors used for this finalized quality measure are the following:

- **Age group at SNF admission** (A1600, Entry Date - A0900, Birth Date)
  - Younger than 54 years
  - 55 to 64 years
  - 65 to 74 years (reference category)
  - 75 to 84 years
  - 85 to 90 years
  - 90 years or older
- **Admission mobility function score: continuous score**
- **Admission mobility function score: squared form**
- **Primary medical condition category**
  - Stroke (I0020, Primary medical condition category = 01)
  - Non-traumatic brain dysfunction (I0020, Primary medical condition category = 02) and Traumatic brain dysfunction (I0020, Primary medical condition category = 03)
  - Non-traumatic spinal cord dysfunction (I0020, Primary medical condition category = 04)
  - Traumatic spinal cord dysfunction (I0020, Primary medical condition category = 05)
  - Progressive neurological conditions (I0020, Primary medical condition category = 06)
  - Other neurological conditions (I0020, Primary medical condition category = 07)
  - Amputation (I0020, Primary medical condition category = 08)
  - Hip and knee replacements (reference category) (I0020, Primary medical condition category = 09)
  - Fractures and other multiple trauma (I0020, Primary medical condition category = 10)
  - Other orthopedic conditions (I0020, Primary medical condition category = 11)
  - Debility, cardiorespiratory conditions (I0020, Primary medical condition category = 12)

- Medically complex conditions (I0020, Primary medical condition category = 13)
- Other medical conditions (I0020, Primary medical condition category = 14)
- **Interactions of medical condition category and admission mobility score and primary**
- **Prior Surgery: Major surgery during the 100 days prior to the SNF admission**
  - J2000, Prior surgery = 01
- **Prior Functioning: Indoor Mobility (ambulation)**
  - Dependent (GG0100B = 1)
  - Some help (GG0100B = 2)
  - Independent (GG0100B = 3), Unknown (GG0100B = 8), Not Applicable ((GG0100B = 9), or not assessed/no information (GG0100B = [-]) (reference category)
- **Prior Functioning: Stairs**
  - Dependent (GG0100C = 1)
  - Some help (GG0100C = 2)
  - Independent (GG0100C = 3), unknown (GG0100C = 8), not applicable (GG0100C = 9), not assessed/no information (GG0100C = [-]) (reference category)
- **Prior Functioning: Functional Cognition**
  - Dependent (GG0100D = 1)
  - Independent (GG0100D = 3), some help (GG0100D = 2), unknown (GG0100D = 8), not applicable (GG0100D = 9), or not assessed/no information (GG0100D = [-]) (reference category)
- **Prior Device Use: Walker**
  - Yes (GG0110D is checked)
  - No (GG0110D is not checked) (reference category)
- **Prior Device Use: Wheelchair/scooter**
  - Yes (GG0110A, manual wheelchair is checked or GG0110B, motorized wheelchair and/or scooter is checked)
  - No (GG0110A, manual wheelchair is not checked and GG0110B, motorized wheelchair and/or scooter is not checked) (reference category)
- **Prior Device Use: Mechanical lift**
  - Yes (GG0110C, mechanical lift is checked)
  - No (GG0110C, mechanical lift is not checked) (reference category)
- **Prior Device Use: Orthotics/prosthetics**
  - Yes (GG0110E, orthotics/prosthetics is checked)
  - No, or unknown (reference category) (GG0110E, orthotics/prosthetics is not checked)

- **Communication Impairment: Ability to express ideas and wants *and* Understanding verbal and non-verbal content**
  - Moderate to severe communication impairment: Rarely/never understands (B0800, Ability to understand others = 3); or sometimes understands (B0800, Ability to understand others = 2); or rarely/never understood (B0700, Makes self understood = 3); or sometimes understood (B0700, Makes self understood = 2);
  - Mild communication impairment: Usually understands (B0800, Ability to understand others = 1) or usually understood (B0700, Makes self understood = 1)
  - No communication impairment: Understands (B0800, Ability to understand others = 0); or understood (B0700, Makes self understood = 0), or Not assessed/no information (B0700 = [-] or B0800 = [-]) (reference category)
- **Cognitive Abilities: Brief Interview for Mental Status (BIMS) score:**
  - Severely impaired: C0500, BIMS Summary Score  $\leq 7$  or C0900Z, None of the above were recalled is checked or only one of the following is checked: C0900A, C0900B, C0900C, C0900D);
  - Moderately impaired: C0500, BIMS Summary Score = 8, 9, 10, 11, 12 or 2 of the following items are checked: C0900A, C0900B, C0900C, C0900D);
  - Intact (reference category): C0500, BIMS Summary Score = 13, 14, or 15 or 3 or 4 of the following are checked: C0900A, C0900B, C0900C, C0900D)
- **Urinary Continence:**
  - Occasionally (H0300, Urinary continence = 1), frequently incontinent (H0300, Urinary continence = 2) or always incontinent: H0300, Urinary continence = 3
  - Continent (H0300, Urinary continence = 0), catheter, ostomy or no urine output (H0300, Urinary continence = 9), or Not assessed/no information (H0300, Urinary continence = [-]) (reference category)
- **Bowel Continence:**
  - Occasionally (H0400, Bowel continence = 1) or frequently incontinent (H0400, Bowel continence = 2) or always incontinent (H0400, Bowel continence = 3)
  - Continent (H0400, Bowel continence = 0) or had ostomy or did not have a bowel movement for the entire 7 days (H0400, Bowel continence = 9), or Not assessed/no information (H0400, Bowel continence = [-]) (reference category)
- **Presence of Stage 2 pressure ulcer at admission** (M0300B1, Number of stage 2 pressure ulcers  $\geq 1$ )
- **Presence of severe pressure ulcer/injury at admission**
  - Stage 3 (M0300C1, Number of Stage 3 pressure ulcers  $\geq 1$ ), Stage 4 (M0300D1, Number of Stage 4 pressure ulcers  $\geq 1$ ) or Unstageable pressure ulcer/injury (M0300E1, Number of unstageable pressure ulcers (due to non-removable dressing)  $\geq 1$  or M0300F1, Number of unstageable pressure ulcers (due to slough and/or eschar)  $\geq 1$  or M0300G1, Number of unstageable pressure ulcers (due to deep tissue injury)  $\geq 1$ )
- **Tube feeding** (K0510B1 = 1) **or total parenteral nutrition** (K0510A1 = 1)

- **History of Falls: history of one or more falls in the 6 months prior to admission** (J1700A, fall any time in the last month prior to admission/entry or reentry =1 or J1700B, fall any time in the last 2-6 months prior to admission/entry or reentry = 1)
- **Comorbidities (hierarchical condition categories)**
  - Central nervous system (CNS) Infections: Bacterial, Fungal, and Parasitic Central Nervous System Infections; Viral and Late Effects Central Nervous System Infections
  - Other Infectious Diseases (HCC 7)
  - Metastatic Cancer and Acute Leukemia
  - Lymphoma and Other Cancers
  - Other Major Cancers: Colorectal, Bladder, and Other Cancers; Other Respiratory and Heart Neoplasms; Other Digestive and Urinary Neoplasms; Other Neoplasms
  - Dementia: Dementia With Complications; Dementia Without Complications
  - Mental Health Disorders: Schizophrenia; Major Depressive, Bipolar, and Paranoid Disorders; Reactive and Unspecified Psychosis; Personality Disorders
  - Tetraplegia (excluding complete tetraplegia) and paraplegia
  - Multiple Sclerosis
  - Coronary Atherosclerosis/Other Chronic Ischemic Heart Disease
  - Hemiplegia/Other Late Effects of Cerebrovascular Accident: Hemiplegia/Hemiparesis; Late Effects of Cerebrovascular Disease, Except Paralysis
  - Aspiration, Bacterial, and Other Pneumonias: Aspiration and Specified Bacterial Pneumonias; Pneumococcal Pneumonia, Empyema, Lung Abscess
  - Legally Blind
  - Dialysis Status and Chronic Kidney Disease - Stage 5
  - Chronic Kidney Disease - Stages 1-4, Unspecified: Chronic Kidney Disease, Severe (Stage 4); Chronic Kidney Disease, Moderate (Stage 3); Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)
  - Major Fracture, Except of Skull, Vertebrae, or Hip
  - Amputations: Traumatic Amputations and Complications; Amputation Status, Lower Limb/Amputation Complications; Amputation Status, Upper Limb

### **Quality Measure Calculation Algorithm**

The following steps are used to calculate the measure:

1. Sum the scores of the admission mobility items to create an admission mobility score for each resident, after 'activity not attempted' codes and dashes are recoded to 1 (score range: 15 to 90).
2. Sum the scores of the discharge mobility items to create a discharge mobility score for each resident, after 'activity not attempted' codes and dashes are recoded to 1 (score range: 15 to 90).

3. Using SNF stay records, identify the records of residents who meet the exclusion criteria and exclude them from analyses.
4. Calculate the difference between the admission mobility score (from step 1) and the discharge mobility score (from step 2) for each resident to create a change in mobility score for each resident.
5. Calculate an expected change in mobility score for each resident using the intercept and regression coefficients from national data and each resident's admission characteristics (risk adjustors).
6. Calculate an average observed change in mobility score for each SNF (using the resident data calculated in step 4). This is the facility-level observed change in mobility score.
7. Calculate an average expected change in mobility score for each SNF (using the resident data from step 5). This is the facility-level expected change in mobility score.
8. Calculate the difference between the facility-level observed change score and the facility-level expected change score to create an observed minus expected difference. A value that is 0 indicates the observed score and expected score are equal. A value that is higher than 0 indicates that the observed change score is higher (better) than expected. A value that is less than 0 indicates that the observed change score is lower (worse) than the expected score.
9. Add each SNF's difference value (from step 8) to the national average change in mobility score. This is the SNF's risk-adjusted mean mobility change score.

## **Section 5: An Application of the IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NOF #2635)**

### **Measure Description**

This finalized quality measure estimates the percentage of SNF residents who meet or exceed an expected discharge self-care score.

### **Purpose/Rationale for the Quality Measure**

As noted above, SNFs provide rehabilitation services to many residents with a goal of improving resident functioning. This is the third quality measure being finalized to meet the requirements of the IMPACT Act, addressing the domain of functional status, cognitive function, and changes in function and cognitive function. This finalized quality measure focuses on self-care activities. We finalized the same functional outcome measure for the IRF QRP in the FY 2016 IRF PPS final rule (80 FR 47111 through 47117).

### **Denominator**

The denominator is the number of SNF Medicare Part A resident stays, except those that meet the exclusion criteria.<sup>47</sup>

### **Denominator Exclusions**

This quality measure has 6 exclusion criteria:

1. Residents with incomplete stays.

Rationale: It can be challenging to gather accurate discharge functional status data for residents who experience incomplete stays.

Residents with incomplete stays include residents who are unexpectedly discharged to an acute care setting (short-stay acute hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 03, acute hospital], inpatient psychiatric facility [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 04, psychiatric hospital], or long-term care hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 09, long term care hospital]); residents who die (A2100, Discharge status = 08, Deceased) or leave a SNF against medical advice (A0310G, Type of assessment = 2, Unplanned discharge); and residents with a length of stay of less than 3 days (A2400C, End date of most recent Medicare stay – A2400B, Start date of most recent Medicare stay <3 Days)

2. Residents with the following medical conditions: coma; persistent vegetative state; complete tetraplegia; locked-in syndrome; severe anoxic brain damage, cerebral edema, or compression of brain.

Rationale: These residents are excluded because they may have limited or less predictable improvement with the selected self-care items

- Coma/Persistent vegetative state (B0100, Comatose = 1)

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<sup>47</sup> Please note that critical access hospital with swing beds are exempt from the SNF PPS and are not required to submit quality data under the SNF QRP by means of the MDS per the requirements set forth by the IMPACT Act.

- Complete Tetraplegia (see ICD codes)
  - Locked-in Syndrome (see ICD-10 codes)
  - Severe anoxic brain damage (see ICD-10 codes)
  - Cerebral edema (see ICD-10 codes)
  - Compression of brain (see ICD-10 codes)
3. Residents younger than 21 years (A1600. Entry Date - A0900. Birth Date < 21)  
Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21 years.
  4. Residents discharged to hospice (A2100 = 07, Hospice).  
Rationale: Resident goals may change during the SNF stay.
  5. Residents who are not Medicare Part A beneficiaries.  
Rationale: For the SNF QRP, MDS data are submitted for Medicare Part A beneficiaries.
  6. Residents who do not receive physical or occupational therapy services (sum of O0400B1, Occupational therapy individual minutes + O0400B2, Occupational therapy concurrent minutes + O0400B3, Occupational therapy group minutes = 0) and (sum of O0400C1, Physical therapy individual minutes + O0400C2, Physical therapy concurrent minutes + O0400C3, Physical therapy group minutes = 0) .  
Rationale: The focus of this measure is functional improvement for residents admitted to the SNF with an expectation of functional improvement due to skilled services, including physical and occupational therapy. Some SNF residents may receive skilled care, but not physical or occupational therapy services, and these residents are not included in the measure calculation.

## Numerator

The numerator is the number of Medicare Part A residents in an SNF, except those that meet the exclusion criteria, with a discharge self-care score that is equal to or higher than the calculated expected discharge self-care score.

## Items Included in the Quality Measure

The following functional activities are assessed at the time of admission and discharge:

### *Self-Care Items*

**GG0130A. Eating:** The ability to use suitable utensils to bring food and/or liquid to the mouth and swallow food and /or liquid once the meal is placed before the resident.

**GG0130B. Oral hygiene:** The ability to use suitable items to clean teeth. Dentures (if applicable): The ability to insert and remove dentures into and from the mouth, and manage denture soaking and rinsing with use of equipment.

**GG0130C. Toilet hygiene:** The ability to maintain perineal hygiene, adjust clothes before and after voiding or having a bowel movement. If managing an ostomy, include wiping the opening but not managing equipment.

**GG0130E. Shower/bathe self:** The ability to bathe self, including washing, rinsing, and drying self (excludes washing of back and hair). Does not include transferring in or out of tub/shower.

**GG0130F. Upper body dressing:** The ability to dress and undress above the waist; including fasteners, if applicable

**GG0130G. Lower body dressing:** The ability to dress and undress below the waist, including fasteners. Does not include footwear.

**GG0130H. Putting on/taking off footwear:** The ability to put on and take off socks and shoes or other footwear that are appropriate for safe mobility; including fasteners, if applicable.

### *Self-Care Rating Scale: Codes and Code Definitions*

*All items are coded using this rating scale:*

- 06. Independent** – Resident completes the activity by himself/herself with no assistance from a helper.
- 05. Setup or clean-up assistance** – Helper sets up or cleans up; resident completes activity. Helper assists only prior to or following the activity.
- 04. Supervision or touching assistance** – Helper provides verbal cues and/or touching/steading and/or contact guard assistance as resident completes activity. Assistance may be provided throughout the activity or intermittently.
- 03. Partial/moderate assistance** – Helper does LESS THAN HALF the effort. Helper lifts, holds, or supports resident's trunk or limbs, but provides less than half the effort.
- 02. Substantial/maximal assistance** – Helper does MORE THAN HALF the effort. Helper lifts or holds resident's trunk or limbs and provides more than half the effort.
- 01. Dependent** – Helper does ALL of the effort. Resident does none of the effort to complete the task. Or, the assistance of 2 or more helpers is required for the resident to complete the activity.

*If the activity was not attempted, code the reason:*

- 07. Patient refused**
- 09. Not applicable** – Not attempted and the resident did not perform this activity prior to the current illness, exacerbation, or injury.
- 10. Not attempted due to environmental limitations** (e.g., lack of equipment, weather constraints)
- 88. Not attempted due to medical condition or safety concerns**

### **Risk Adjustment**

The risk adjustors used for this quality measure are the following:

- **Age group at SNF admission** (A1600, Entry Date - A0900, Birth Date)
  - Younger than 54 years
  - 55 to 64 years
  - 65 to 74 years (reference category)
  - 75 to 84 years

- 85 to 90 years
- > 90 years of age and older
- **Admission self-care function score: continuous form**
- **Admission self-care function score: squared form**
- **Primary medical condition category**
  - Stroke (I0020, Primary medical condition category = 01)
  - Non-traumatic brain dysfunction (I0020, Primary medical condition category = 02) and traumatic brain dysfunction (I0020, Primary medical condition category = 03)
  - Non-traumatic spinal cord dysfunction (I0020, Primary medical condition category = 04)
  - Traumatic spinal cord dysfunction (I0020, Primary medical condition category = 05)
  - Progressive neurological conditions (I0020, Primary medical condition category = 06)
  - Other neurological conditions (I0020, Primary medical condition category = 07)
  - Amputation (I0020, Primary medical condition category = 08)
  - Hip and knee replacement (reference category) (I0020, Primary medical condition category = 09)
  - Fractures and other multiple trauma (I0020, Primary medical condition category = 10)
  - Other orthopedic conditions (I0020, Primary medical condition category = 11)
  - Debility and cardiorespiratory conditions (I0020, Primary medical condition category = 12)
  - Medically complex conditions (I0020, Primary medical condition category = 13)
  - Other medical conditions (I0020, Primary medical condition category = 14)
- **Interactions between primary medical condition category and SNF admission self-care score**
- **Prior Surgery: Major surgery during the 100 days prior to the SNF admission (J2000, Prior surgery = 1)**
- **Prior Functioning: Self-care**
  - Dependent (GG0100A = 1)
  - Some help (GG0100A = 2)
  - Independent (GG0100A = 3), unknown (GG0100A = 8), not applicable (GG0100A = 9), or not assessed/no information (GG0100A = [-]) (reference category)
- **Prior Functioning: Indoor ambulation**
  - Dependent or some help (GG0100B = 1 or 2)
  - Independent (GG0100B = 3), unknown (GG0100B = 8), not applicable (GG0100B = 9), or not assessed/no information (GG0100B = [-]) (reference category)

- **Prior Device Use: Walker**
  - Yes (GG0110D is checked)
  - No (GG0110D is not checked) (reference category)
- **Prior Device Use: Wheelchair/scooter**
  - Yes (GG0110A, manual wheelchair is checked or GG0110B, motorized wheelchair and/or scooter is checked)
  - No (GG0110A, manual wheelchair is not checked and GG0110B, motorized wheelchair and/or scooter is not checked) (reference category)
- **Prior Device Use: Mechanical lift**
  - Yes (GG0110C, mechanical lift is checked)
  - No (GG0110C, mechanical lift is not checked) (reference category)
- **Prior Device Use: Orthotics/prosthetics**
  - Yes (GG0110E, orthotics/prosthetics is checked)
  - No, or unknown (GG0110E, orthotics/prosthetics is not checked) (reference category)
- **Presence of Stage 2 pressure ulcer at admission** (M0300B1  $\geq$  1)
- **Presence of severe pressure ulcer/injury at admission**
  - Stage 3 (M0300C1, Number of Stage 3 pressure ulcers  $\geq$  1), Stage 4 (M0300D1, Number of Stage 3 pressure ulcers  $\geq$  1) or Unstageable pressure ulcer/injury) (M0300E1, Number of unstageable pressure ulcers (due to non-removable dressing)  $\geq$  1 or M0300F1, Number of unstageable pressure ulcers (due to slough and/or eschar)  $\geq$  1 or M0300G1, Number of unstageable pressure ulcers (due to deep tissue injury)  $\geq$  1)
- **Cognitive Abilities: Brief Interview for Mental Status (BIMS) score**
  - Severely impaired = C0500, BIMS Summary Score  $\leq$  7 or C0900Z, None of the above were recalled is checked or only one of the following is checked: C0900A, C0900B, C0900C, C0900D);
  - Moderately impaired: C0500, BIMS Summary Score = 8, 9, 10, 11, 12 or 2 of the following are checked: C0900A, C0900B, C0900C, C0900D);
  - Intact : C0500, BIMS Summary Score = 13, 14, or 15 or 3 or 4 of the following are checked: C0900A, C0900B, C0900C, C0900D) (reference category)
- **Communication Impairment: Ability to express ideas and wants *and* Understanding verbal and non-verbal content**
  - Moderate to severe communication limitations: Rarely/never understands (B0800, Ability to understand others = 3); or sometimes understands (B0800, Ability to understand others = 2); or rarely/never understood (B0700, Makes self understood = 3); or sometimes understood (B0700, Makes self understood = 2);
  - Mild to no communication limitations (reference category): Usually understands (B0800, Ability to understand others = 1), understands (B0800, Ability to understand others = 0); and usually understood (B0700, Makes self understood = 1), understood (B0700, Makes self understood = 0), or Not assessed/no information (B0700 = [-] or B0800 = [-])

- **Urinary Continence**
  - Occasionally (H0300, Urinary continence = 1), frequently incontinent (H0300, Urinary continence = 2) or always incontinent: H0300, Urinary continence = 3
  - Continent (H0300, Urinary continence = 0), catheter, ostomy, no urine output (H0300, Urinary continence = 9), or Not assessed/no information (H0300, Urinary continence = [-]) (reference category)
- **Bowel Continence**
  - Occasionally (H0400, Bowel continence = 1) or frequently incontinent (H0400, Bowel continence = 2) or always incontinent (H0400, Bowel continence = 3)
  - Continent (H0400, Bowel continence = 0) or had ostomy or did not have a bowel movement for the entire 7 days (H0400, Bowel continence = 9), or Not assessed/no information (H0400, Bowel continence = [-]) (reference category)
- **Tube feeding (K0510B1 = 1) or total parenteral nutrition; K0510A1 =**
- **Comorbidities (hierarchical condition categories):**
  - Major Infections: Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock; and Other Infectious Diseases
  - Metastatic Cancer and Acute Leukemia
  - Diabetes: Diabetes with Chronic Complications; Diabetes without Complication; Type I Diabetes Mellitus
  - Other Significant Endocrine and Metabolic Disorders
  - Delirium and Encephalopathy
  - Dementia: Dementia With Complications; Dementia Without Complications
  - Tetraplegia (excluding complete tetraplegia) and paraplegia
  - Multiple Sclerosis
  - Parkinson´s and Huntington´s Diseases
  - Angina Pectoris
  - Coronary Atherosclerosis/Other Chronic Ischemic Heart Disease
  - Hemiplegia, Other Late Effects of Cerebrovascular Accident: Hemiplegia/Hemiparesis; Late Effects of Cerebrovascular Disease, Except Paralysis
  - Dialysis Status and Chronic Kidney Disease - Stage 5
  - Urinary Obstruction and Retention
  - Amputations: Traumatic Amputations and Complications; Amputation Status, Lower Limb/Amputation Complications; Amputation Status, Upper Limb

### **Quality Measure Calculation Algorithm**

The following steps are used to calculate the measure:

1. Sum the scores of the discharge self-care items to create a discharge self-care score for each resident, after 'activity not attempted' codes are recoded to 1 (score range: 7 to 42). This is the resident's observed discharge score.
2. Calculate an expected discharge self-care score for each SNF resident using the intercept and regression coefficients from national data and each resident's admission characteristics (risk adjustors). Identify the stay-level records of residents who meet the exclusion criteria and exclude them from analyses.
3. Compare each resident's observed and expected discharge self-care score and classify the difference as
  - a. Observed discharge score is equal to or higher than the expected discharge score, or
  - b. Observed discharge score is lower than the expected discharge score.
4. Sum the number of residents whose observed discharge score is the same as or higher than the expected discharge score. This is the numerator.
5. The denominator is the total number of residents in the SNF who do not meet the exclusion criteria.
6. The percent is calculated as the numerator divided by the denominator and then multiplied by 100.

## **Section 6: An Application of the IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NOF #2636)**

### **Measure Description**

This finalized quality measure estimates the percentage of SNF residents who meet or exceed an expected discharge mobility score.<sup>48</sup>

### **Purpose/Rationale for the Quality Measure**

As noted above, SNFs provide rehabilitation services to many residents with a goal of improving resident functioning. This is the fourth quality measure being finalized to meet the requirements of the IMPACT Act, addressing the domain of functional status, cognitive function, and changes in function and cognitive function. This finalized quality measure focuses on mobility activities. We finalized the same functional outcome measure for the IRF QRP in the FY 2016 IRF PPS final rule (80 FR 47111 through 47117).

### **Denominator**

The denominator is the number of SNF Medicare Part A resident stays, except those that meet the exclusion criteria.

### **Denominator Exclusions**

This quality measure has 6 exclusion criteria:

1. Residents with incomplete stays.

Rationale: It can be challenging to gather accurate discharge functional status data for residents who experience incomplete stays.

Residents with incomplete stays include residents who are unexpectedly discharged to an acute care setting (short-stay acute hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 03, acute hospital], inpatient psychiatric facility [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 04, psychiatric hospital], or long-term care hospital [A0310G, Type of assessment = 2, Unplanned discharge or A2100, Discharge status = 09, long term care hospital]); residents who die (A2100, Discharge status = 08, Deceased) or leave a SNF against medical advice (A0310G, Type of assessment = 2, Unplanned discharge); and residents with a length of stay of less than 3 days (A2400C, End date of most recent Medicare stay – A2400B, Start date of most recent Medicare stay <3 Days)

2. Residents with the following medical conditions: coma; persistent vegetative state; complete tetraplegia; locked-in syndrome; severe anoxic brain damage, cerebral edema, or compression of brain.

Rationale: These residents are excluded because they may have limited or less predictable improvement with the selected self-care items

- Coma/Persistent vegetative state (B0100, Comatose = 1)

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<sup>48</sup> Please note that critical access hospital with swing beds are exempt from the SNF PPS and are not required to submit quality data under the SNF QRP by means of the MDS per the requirements set forth by the IMPACT Act.

- Complete Tetraplegia (see ICD-10 codes)
  - Locked-in Syndrome (see ICD-10 codes)
  - Severe anoxic brain damage (see ICD-10 codes)
  - Cerebral edema (see ICD-10 codes)
  - Compression of brain (see ICD-10 codes)
3. Residents younger than 21 years (A1600. Entry Date - A0900. Birth Date < 21).  
Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21 years.
  4. Residents discharged to hospice (A2100 = 07, Hospice).  
Rationale: Resident goals may change during the IRF stay.
  5. Residents who are not Medicare Part A beneficiaries.  
Rationale: For the SNF QRP, MDS data are submitted for Medicare Part A beneficiaries.
  6. Residents who do not receive physical or occupational therapy services (sum of O0400B1, Occupational therapy individual minutes + O0400B2, Occupational therapy concurrent minutes + O0400B3, Occupational therapy group minutes = 0) and (sum of O0400C1, Physical therapy individual minutes + O0400C2, Physical therapy concurrent minutes + O0400C3, Physical therapy group minutes = 0).  
Rationale: The focus of this measure is functional improvement for residents admitted to the SNF with an expectation of functional improvement due to skilled services, including physical and occupational therapy. Some SNF residents may receive skilled care, but not physical or occupational therapy services, and these residents are not included in the measure calculation.

## Numerator

The numerator is the number of Medicare Part A residents in an SNF, except those that meet the exclusion criteria, with a discharge mobility score that is equal to or higher than a calculated expected discharge mobility score.

## Items Included in the Quality Measure

For the quality measure, the following functional activities are assessed at the time of admission and discharge:

### *Mobility Items*

**GG0170A. Roll left and right:** The ability to roll from lying on back to left and right side, and roll back to back on the bed.

**GG0170B. Sit to lying:** The ability to move from sitting on side of bed to lying flat on the bed.

**GG0170C. Lying to sitting on side of bed:** The ability to move from lying on the back to sitting on the side of the bed with feet flat on the floor, no back support.

**GG0170D. Sit to stand:** The ability to come to a standing position from sitting in a chair, wheelchair or on the side of the bed.

- GG0170E. Chair/bed-to-chair transfer:** The ability to transfer to and from a chair (or wheelchair).
- GG0170F. Toilet transfer:** The ability to get on and off a toilet or commode.
- GG0170G. Car transfer:** The ability to transfer in and out of a car or van on the passenger side. Does not include the ability to open/close door or fasten seat belt.
- GG0170I. Walk 10 feet:** Once standing, the ability to walk at least 10 feet (3 meters) in room, corridor, or similar space.
- GG0170J. Walk 50 feet with two turns:** The ability to walk 50 feet and make two turns.
- GG0170K. Walk 150 feet (45 m):** Once standing, the ability to walk at least 150 feet (45 meters) in corridor or similar space.
- GG0170L. Walking 10 feet on uneven surfaces:** The ability to walk 10 feet on uneven or sloping surfaces (indoor or outdoor), such as turf or gravel.
- GG0170M. 1 step (curb):** The ability to step over a curb and/or up and down one step.
- GG0170N. 4 steps:** The ability to go up and down four steps, with or without a rail.
- GG0170O. 12 steps:** The ability to go up and down 12 steps, with or without a rail.
- GG0170P. Picking up object:** The ability to bend/stoop from a standing position to pick up a small object, such as a spoon from the floor.

*Mobility Rating Scale: Codes and Code Definitions*

*All items are coded using this rating scale:*

- 06. Independent** – Resident completes the activity by himself/herself with no assistance from a helper.
- 05. Setup or clean-up assistance** – Helper sets up or cleans up; resident completes activity. Helper assists only prior to or following the activity.
- 04. Supervision or touching assistance** – Helper provides verbal cues and/or touching/steading and/or contact guard assistance as resident completes activity. Assistance may be provided throughout the activity or intermittently.
- 03. Partial/moderate assistance** – Helper does LESS THAN HALF the effort. Helper lifts, holds, or supports resident’s trunk or limbs, but provides less than half the effort.
- 02. Substantial/maximal assistance** – Helper does MORE THAN HALF the effort. Helper lifts or holds resident’s trunk or limbs and provides more than half the effort.
- 01. Dependent** – Helper does ALL of the effort. Resident does none of the effort to complete the task. Or, the assistance of 2 or more helpers is required for the resident to complete the activity.

*If the activity was not attempted, code the reason:*

- 07. Patient refused**
- 09. Not applicable** – Not attempted and the resident did not perform this activity prior to the current illness, exacerbation, or injury.
- 10. Not attempted due to environmental limitations** (e.g., lack of equipment, weather constraints)

## 88. Not attempted due to medical condition or safety concerns

### Risk Adjustment

The risk adjustors used for this finalized quality measure are the following:

- **Age group at SNF admission** (A1600, Entry Date - A0900, Birth Date)
  - Younger than 54 years
  - 55 to 64 years
  - 65 to 74 years (reference category)
  - 75 to 84 years
  - 85 to 90 years
  - 90 years or older
- **Admission mobility function score: continuous score:**
- **Admission mobility function score: squared form**
- **Primary medical condition category**
  - Stroke (I0020, Primary medical condition category = 01)
  - Non-traumatic brain dysfunction (I0020, Primary medical condition category = 02) and Traumatic brain dysfunction (I0020, Primary medical condition category = 03)
  - Non-traumatic spinal cord dysfunction (I0020, Primary medical condition category = 04)
  - Traumatic spinal cord dysfunction (I0020, Primary medical condition category = 05)
  - Progressive neurological conditions (I0020, Primary medical condition category = 06)
  - Other neurological conditions (I0020, Primary medical condition category = 07 )
  - Amputation (I0020, Primary medical condition category = 08)
  - Hip and knee replacements (reference category) (I0020, Primary medical condition category = 09)
  - Fractures and other multiple trauma (I0020, Primary medical condition category = 10)
  - Other orthopedic conditions (I0020, Primary medical condition category = 11)
  - Debility, cardiorespiratory conditions (I0020, Primary medical condition category = 12)
  - Medically complex conditions (I0020, Primary medical condition category = 13)
  - Other medical conditions (I0020, Primary medical condition category = 14)
- **Interactions of medical condition category and admission mobility score and primary**
- **Prior Surgery: Major surgery during the 100 days prior to the SNF admission**
  - J2000, Prior surgery = 01
- **Prior Functioning: Indoor Mobility (ambulation)**
  - Dependent (GG0100B = 1)

- Some help (GG0100B = 2)
- Independent (GG0100B = 3), Unknown (GG0100B = 8), Not Applicable ((GG0100B = 9), or not assessed/no information (GG0100B = [-]) (reference category)
- **Prior Functioning: Stairs**
  - Dependent (GG0100C = 1)
  - Some help (GG0100C = 2)
  - Independent (GG0100C = 3), unknown (GG0100C = 8), not applicable (GG0100C = 9), not assessed/no information (GG0100C = [-]) (reference category)
- **Prior Functioning: Functional Cognition**
  - Dependent (GG0100D = 1)
  - Independent (GG0100D = 3), some help (GG0100D = 2), unknown (GG0100D = 8), not applicable (GG0100D = 9), or not assessed/no information (GG0100D = [-]) (reference category)
- **Prior Device Use: Walker**
  - Yes (GG0110D is checked)
  - No (GG0110D is not checked) (reference category)
- **Prior Device Use: Wheelchair/scooter**
  - Yes (GG0110A, manual wheelchair is checked or GG0110B, motorized wheelchair and/or scooter is checked)
  - No (GG0110A, manual wheelchair is not checked and GG0110B, motorized wheelchair and/or scooter is not checked) (reference category)
- **Prior Device Use: Mechanical lift**
  - Yes (GG0110C, mechanical lift is checked)
  - No (GG0110C, mechanical lift is not checked) (reference category)
- **Prior Device Use: Orthotics/prosthetics**
  - Yes (GG0110E, orthotics/prosthetics is checked)
  - No, or unknown (GG0110E, orthotics/prosthetics is not checked) (reference category)
- **Communication Impairment: Ability to express ideas and wants *and* Understanding verbal and non-verbal content**
  - Moderate to severe communication impairment: Rarely/never understands (B0800, Ability to understand others = 3); or sometimes understands (B0800, Ability to understand others = 2); or rarely/never understood (B0700, Makes self understood = 3);; or sometimes understood (B0700, Makes self understood = 2);
  - Mild communication impairment: Usually understands (B0800, Ability to understand others = 1) or usually understood (B0700, Makes self understood = 1)
  - No communication impairment: Understands (B0800, Ability to understand others = 0); or understood (B0700, Makes self understood = 0) (reference category), or Not assessed/no information (B0700 = [-] or B0800 = [-])

- **Cognitive Abilities: Brief Interview for Mental Status (BIMS) score:**
  - Severely impaired = C0500, BIMS Summary Score  $\leq 7$  or C0900Z, None of the above were recalled is checked or only one of the following is checked: C0900A, C0900B, C0900C, C0900D);
  - Moderately impaired: C0500, BIMS Summary Score = 8, 9, 10, 11, 12 or 2 of the following are checked: C0900A, C0900B, C0900C, C0900D);
  - Intact: C0500, BIMS Summary Score = 13, 14, or 15 or 3 or 4 of the following is checked: C0900A, C0900B, C0900C, C0900D ) (reference category)
- **Urinary Continence:**
  - Occasionally (H0300, Urinary continence = 1), frequently incontinent (H0300, Urinary continence = 2) or always incontinent: H0300, Urinary continence = 3
  - Continent (H0300, Urinary continence = 0), catheter, ostomy or no urine output (H0300, Urinary continence = 9), or Not assessed/no information (H0300, Urinary continence = [-]) (reference category)
- **Bowel Continence:**
  - Occasionally (H0400, Bowel continence = 1) or frequently incontinent (H0400, Bowel continence = 2) or always incontinent: (H0400, Bowel continence = 3)
  - Continent (H0400, Bowel continence = 0) or had ostomy or did not have a bowel movement for the entire 7 days (H0400, Bowel continence = 9), or Not assessed/no information (H0400, Bowel continence = [-]) (reference category)
- **Presence of Stage 2 pressure ulcer at admission** (M0300B1, Number of stage 2 pressure ulcers  $\geq 1$ )
- **Presence of severe pressure ulcer/injury at admission**
  - Stage 3 (M0300C1, Number of Stage 3 pressure ulcers  $\geq 1$ ), Stage 4 (M0300D1, Number of Stage 4 pressure ulcers  $\geq 1$ ) or Unstageable pressure ulcer/injury) (M0300E1, Number of unstageable pressure ulcers (due to non-removable dressing)  $\geq 1$  or M0300F1, Number of unstageable pressure ulcers (due to slough and/or eschar)  $\geq 1$  or M0300G1, Number of these unstageable pressure ulcers (due to deep tissue injury)  $\geq 1$ )
- **Tube feeding** (K0510B1 = 1) **or total parenteral nutrition** (K0510A1 = 1)
- **History of Falls: history of one or more falls in the 6 months prior to admission** (J1700A, fall any time in the last month prior to admission/entry or reentry =1 or J1700B, fall any time in the last 2-6 months prior to admission/entry or reentry = 1)
- **Comorbidities (hierarchical condition categories)**
  - Central nervous system (CNS) Infections: Bacterial, Fungal, and Parasitic Central Nervous System Infections; Viral and Late Effects Central Nervous System Infections
  - Other Infectious Diseases (HCC 7)
  - Metastatic Cancer and Acute Leukemia
  - Lymphoma and Other Cancers
  - Other Major Cancers: Colorectal, Bladder, and Other Cancers; Other Respiratory and Heart Neoplasms; Other Digestive and Urinary Neoplasms; Other Neoplasms

- Dementia: Dementia With Complications; Dementia Without Complications
- Mental Health Disorders: Schizophrenia; Major Depressive, Bipolar, and Paranoid Disorders; Reactive and Unspecified Psychosis; Personality Disorders
- Tetraplegia (excluding complete tetraplegia) and paraplegia
- Multiple Sclerosis
- Coronary Atherosclerosis/Other Chronic Ischemic Heart Disease
- Hemiplegia/Other Late Effects of Cerebrovascular Accident: Hemiplegia/Hemiparesis; Late Effects of Cerebrovascular Disease, Except Paralysis
- Aspiration, Bacterial, and Other Pneumonias: Aspiration and Specified Bacterial Pneumonias; Pneumococcal Pneumonia, Empyema, Lung Abscess
- Legally Blind
- Dialysis Status and Chronic Kidney Disease - Stage 5
- Chronic Kidney Disease - Stages 1-4, Unspecified: Chronic Kidney Disease, Severe (Stage 4); Chronic Kidney Disease, Moderate (Stage 3); Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)
- Major Fracture, Except of Skull, Vertebrae, or Hip
- Amputations: Traumatic Amputations and Complications; Amputation Status, Lower Limb/Amputation Complications; Amputation Status, Upper Limb

### **Quality Measure Calculation Algorithm**

The following steps are used to calculate the measure:

1. Sum the scores of the discharge mobility items to create a discharge mobility score for each resident, after ‘activity not attempted’ values are recoded to 1 (score range: 15 to 90). This is the resident’s observed discharge score.
2. Calculate an expected discharge mobility score for each SNF resident using the intercept and regression coefficients from national data and each resident’s admission characteristics (risk adjustors).
3. Identify the stay-level records of residents who meet the exclusion criteria and exclude them from analyses.
4. Compare each resident’s observed and expected discharge mobility score and classify the difference as
  - a. Observed discharge score is equal to or higher than the expected discharge score, or
  - b. Observed discharge score is lower than the expected discharge score.
5. Sum the number of residents whose observed discharge score is the same as or higher than the expected discharge score. This is the numerator.
6. The denominator is the total number of residents in the SNF who do not meet the exclusion criteria.
7. The percent is calculated as the numerator divided by the denominator and then multiplied by 100.

## **Section 7: Measure updates for Potentially Preventable 30-Day Post-Discharge Measure for SNF QRP**

The Potentially Preventable 30-Day Post-Discharge Readmission Measure for SNF QRP was adopted in the FY 2017 SNF PPS Final Rule (81 FR 52030 through 52034). The measure specifications for this measure can be found at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/Measure-Specifications-for-FY17-SNF-QRP-Final-Rule.pdf>.

In the FY 2018 SNF PPS Final Rule, CMS made the following modifications to the years of data and public reporting dates for this measure.

- Increase the measurement period for this measure from one year to two years. This change will increase the number of SNFs with 25 stays or more, which is the minimum number of stays required for public reporting. Furthermore, this modification will align the SNF measure more closely with the IRF and LTCH post-discharge PPR measures developed to meet the IMPACT Act requirements, which are calculated on two consecutive years of data.
- For public reporting of this measure, shift this measure from calendar year to fiscal year, beginning with publicly reporting on claims data for discharges in fiscal years 2016 and 2017.

## **Section 8: Public Display Period Update for the Discharge to Community-Post Acute Care SNF QRP and Medicare Spending Per Beneficiary-Post Acute Care SNF QRP Measures**

In the FY 2017 SNF PPS Final Rule, CMS adopted the Discharge to Community-Post Acute Care (PAC) SNF QRP (81 FR 52021 through 52029) and Medicare Spending Per Beneficiary-PAC SNF QRP (81 FR 52014 through 52021) measures. The specifications for the Discharge to Community-PAC SNF QRP measure can be found at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/Measure-Specifications-for-FY17-SNF-QRP-Final-Rule.pdf>. The specifications for the Medicare Spending Per Beneficiary-PAC SNF QRP measure can be found at: [https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/2016\\_04\\_06\\_mspb\\_pac\\_measure\\_specifications\\_for\\_rulemaking.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/2016_04_06_mspb_pac_measure_specifications_for_rulemaking.pdf).

As previously adopted in the FY 2017 SNF PPS final rule (81 FR 52045 through 52047), confidential feedback reports for these 2 claims-based measures will be based on calendar year 2016 and data collected for discharges beginning January 1, 2016 through December 31, 2016. In the FY 2018 SNF PPS Final Rule CMS finalized a modification to the measurement period for public reporting of this measure, shifting from a calendar year to fiscal year cycle, beginning with public reporting of claims data for discharges in fiscal year 2017.

## Chapter 2

### Standardized Data Elements

#### Section 1: Standardized Resident Assessment Data Element Work: An Introduction

The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT Act) requires CMS to develop, implement, and maintain standardized resident assessment data elements for PAC settings. The goals of implementing cross-setting standardized resident assessment data elements are to facilitate care coordination, interoperability, and improve outcomes of Medicare beneficiaries and other patients receiving post-acute care. Existing PAC assessment instruments (i.e., Outcome and Assessment Information Set (OASIS) for HHAs, Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) for IRFs, LTCH CARE Data Set (LCDS) for LTCHs, and the Minimum Data Set (MDS) for SNFs) often collect data items pertaining to similar concepts, but the individual data elements -- questions and response options -- vary by assessment instrument. With a few exceptions, the data elements collected in these assessment instruments are not currently standardized or interoperable, therefore, patient responses across the assessment instruments cannot be compared easily. The IMPACT Act further requires that the assessment instruments described above be modified to include core data elements on health assessment categories and that such data be standardized and interoperable. Implementation of a core set of standardized assessment items across PAC settings has important implications for Medicare beneficiaries and other patients receiving post-acute care, families, providers, and policymakers. CMS is finalizing standardized resident assessment data elements for five categories specified in the IMPACT Act. These categories are:

1. Functional status, such as mobility and self-care
2. Cognitive function (e.g., able to express ideas and to understand normal speech) and mental status (e.g., depression and dementia)
3. Special services, treatments, and interventions (e.g., need for ventilator, dialysis, chemotherapy, and total parenteral nutrition)
4. Medical conditions and co-morbidities (e.g., diabetes, heart failure, and pressure ulcers)
5. Impairments (e.g., incontinence; impaired ability to hear, see, or swallow)

In the following sections, we present specifications and evidence of support for the standardized resident assessment data elements finalized in the SNF QRP.

We are finalizing the standardized resident assessment data elements that we proposed to adopt for the IMPACT Act categories of Functional Status and Medical Conditions and Co-Morbidities. The standardized resident assessment data that we proposed for these clinical categories are collected and used to calculate the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (NQF # 0678) measure and the Application of Percent of Long-Term Care Hospital Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) measure.

We will not finalize the standardized resident assessment data element proposals due to the substantial comments requesting the delay for standardized resident assessment data element implementation coupled with extensive comments on the increase in burden the proposed standardized resident assessment data element policy would impose on facilities, and the need for time to prepare and implement training, manuals, and reports. We intend to adopt standardized resident assessment data elements for the three categories of Cognitive Function and Mental Status; Special Services, Treatments, and Interventions; and Impairments no later than in the FY 2020 SNF PPS proposed rule.

## Section 2: Functional Status

Beginning with the FY 2020 SNF QRP, we are finalizing that the submission of the admission and discharge performance data used in the measure, Application of Percent of Long-Term Care Hospital Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631), that we finalized in the FY 2016 SNF PPS final rule (80 FR 46444 through 46453), also meets the requirement for the collection of standardized resident assessment data in the area of Functional Status.

This cross-setting function process measure requires the collection of admission and discharge functional status data using standardized clinical assessment items, or data elements, which assess specific functional activities, that is, 3 self-care and 9 mobility activities. These activities are coded using a 6-level rating scale that indicates the patient's level of independence with the activity; higher scores indicate more independence. For more information about this quality measure, we refer readers to the FY 2016 SNF PPS final rule (80 FR 46444 through 46453).

A table showing the functional status data elements for the measure, Application of Percent of Long-Term Care Hospital Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631), included in the MDS 3.0, IRF-PAI 2.0 and LCDS 4.00 is provided in **Appendix 7**.

### **Section 3: Medical Conditions and Co-Morbidities**

Standardized resident assessment data elements to satisfy the IMPACT Act category of Medical conditions and comorbidities are already submitted for calculation of the measure the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678), which was finalized for adoption into the SNF QRP in the FY 2016 SNF PPS final rule, and for the other PAC quality reporting programs in the, the FY 2014 IRF PPS final rule, FY 2014 IPPS/LTCH PPS final rule, and the CY 2016 HH PPS final rule. The standardized resident assessment data elements used to calculate and risk adjust this measure fall under the IMPACT Act category “medical conditions and comorbidities,” listed in section 1899B(b)(1)(B) of the Act, which includes pressure ulcers and diabetes. The data elements used to calculate the finalized measure, Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury, are also related to the category of medical conditions and comorbidities, are described in Chapter 2, Section 2 of this document.

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## Appendix 1

# Reliability and Validity of Items used to Calculate Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

The assessment items used in the quality measure Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury have undergone rigorous reliability and validity testing. The goal of reliability testing is to ensure that items on an assessment obtain consistent results when assessed by different individuals. Validity testing determines if an item measures what it intends to measure. Testing of pressure ulcer assessment items conducted across post-acute care settings indicated high inter-rater reliability of the items. In addition, testing showed that inclusion of unstageable pressure ulcers in the measure increased variability of scores in IRFs, LTCHs, and SNFs and may improve the ability of the measure to distinguish between high and low performing facilities. Also, support from Technical Expert Panels (TEP), the National Pressure Ulcer Advisory Panel (NPUAP), and public commenters offer construct validity. A brief summary of testing conducted on the pressure ulcer assessment items is provided below.

### Item-Level Reliability Testing (MDS 3.0)

Item reliability for data elements assessing pressure ulcers, including unstageable pressure ulcers, was tested for the nursing home setting during implementation of MDS 3.0. Testing results are from the RAND Development and Validation of MDS 3.0 project.<sup>33</sup> The project consisted of a representative sample of for-profit and not-for-profit facilities, and hospital-based and freestanding facilities, which included 71 community nursing facilities in 8 states and 19 Veterans Affairs (VA) nursing homes. The sample included 3,822 residents from community nursing homes and 764 residents from VA nursing homes. The RAND pilot test of the MDS 3.0 items showed good reliability and are applicable to the IRF-PAI as well as the LTCH Continuity Assessment Record and Evaluation (CARE) Data Set because the items tested are the same as those used in the IRF-PAI and LTCH CARE Data Set. Furthermore, the MDS 3.0 testing results are appropriate to apply to the evaluation of the LTCH and IRF items because the items are identical across assessments, and there is significant overlap in the populations cared for by these providers. The short stay nursing home NQF endorsed measure, Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678), was endorsed by NQF to include the IRF and LTCH settings using this MDS data as evidence of reliability and validity.

Across the pressure ulcer items, average gold-standard to gold-standard kappa statistic was 0.905. The average gold-standard to facility-nurse kappa statistic was 0.937. These kappa scores indicate “almost perfect” agreement using the Landis and Koch standard for strength of agreement.<sup>34</sup> We believe that the kappa statistics comparing gold-standard nurse to facility nurse responses should be sufficient for evaluation of the validity of these items as well. The results of this study are publicly available on the CMS website.

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<sup>33</sup> Saliba, D., & Buchanan, J. (2008, April). *Development and validation of a revised nursing home assessment tool: MDS 3.0*. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation. Retrieved from <http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf>.

<sup>34</sup> Landis, R., & Koch, G. (1977, March). The measurement of observer agreement for categorical data. *Biometrics* 33(1), 159-174.

More specifically, the RAND project found a high level of inter-rater reliability for assessment items used to calculate the pressure ulcer quality measure, including assessment items for unstageable pressure ulcers. The study included the following results<sup>35</sup>:

- Number of existing stage 2 pressure ulcers: Kappa statistic = 0.993 (weighted)
- Number of stage 2 ulcers present on admission: Kappa statistic= 0.966 (weighted)
- Percent agreement for number of stage 3, stage 4, and nonstageable ulcers existing and present on admission was 100%

### **Item-Level Reliability Testing (CARE/PAC PRD)**

Additional inter-rater reliability testing of pressure ulcer items similar to those used to calculate the quality measure in the IRF, LTCH and SNF settings was conducted as a part of the PAC PRD.<sup>36</sup> For the pressure ulcer item “Does this patient have one or more unhealed pressure ulcer(s) at stage 2 or higher or unstageable?” The kappa score across all settings (acute, IRF, LTCH, SNF and HHA) was 0.845, indicating almost perfect agreement. Setting specific scores are presented below. Kappa statistics for IRF, LTCH, SNF and HHA ranged from 0.58 to 0.92 indicating “moderate” to “almost perfect” agreement.

For the pressure ulcer items collecting number of pressure ulcers present at assessment by stage, the kappa scores across all settings (acute, HHA, IRF, LTCH, SNF) were:

- Stage 2 Pressure Ulcers = 0.815
- Stage 3 Pressure Ulcers = 0.852
- Stage 4 Pressure Ulcers = 0.780

For the pressure ulcer item “Number of pressure ulcers present at admission by stage- Unstageable”, the kappa score across settings was 0.652, indicating substantial agreement. A setting specific score was only provided for the LTCH setting (kappa= 0.417, moderate agreement) as the sample size for most individual settings was too small to report (< 15).

Results of the PAC PRD study are publicly available at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/CARE-Item-Set-and-B-CARE.html>

### **Additional Testing**

RTI performed additional testing of the measure to compare the performance of the measure with finalized changes to the measure as currently specified.<sup>37</sup> Testing of the finalized measure, including adding unstageable pressure ulcers to the quality measure, increased performance scores in all settings (with scores increasing by 0.1% in IRF settings and 1.7% in NH/SNF settings) and increased the variability of measures scores. This increased variability of scores across quarters and deciles may

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<sup>35</sup> Saliba, D., & Buchanan, J. (2008, April). *Development and validation of a revised nursing home assessment tool: MDS 3.0. Appendices*. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation. Retrieved from [http://www.geronet.med.ucla.edu/centers/borun/Appendix\\_A-G.pdf](http://www.geronet.med.ucla.edu/centers/borun/Appendix_A-G.pdf)

<sup>36</sup> Smith, L., Deutsch, A., Hand, L., Etlinger, A., Ross, J., Abbate, J., Gage-Croll, Z., Barch, D., Gage, B. (2012, September). Continuity Assessment Record and Evaluation (CARE) Item Set: Additional Provider-Type Specific Interrater Reliability Analyses. Contract No. HHSM-500-2005-00291. Research Triangle Park, NC: RTI

<sup>37</sup> Schwartz, M., Barch, D. H., Kaur, R., Pardasaney, P. K., Seibert, J. H., Kandilov, A. M., Frank, J. M., et al. (2016, January). The development of a cross-setting pressure ulcer measure: Addition of unstageable pressure ulcers and transition to M0300 items. Prepared for Centers for Medicare & Medicaid Services.

improve the ability of the measure to distinguish between high and low performing facilities. RTI presented the results of their findings during the July 18, 2016 TEP. Information regarding this study are also included in the TEP Summary Report.

Testing results by setting are as follows:

- IRF: The mean IRF risk-adjusted score increased from the original measure of 0.9% to 1.0% for reporting period Q1 2015 when we transition to M0300 items and add unstageable pressure ulcer items.
- LTCH: In the mean LTCH risk-adjusted score increased from the original measure of 2.6% to 2.8% for reporting period Q2 2014 when we transition to M0300 items and add unstageable pressure ulcer items.
- In NH/SNFs for reporting period Q1 2012, the mean risk-adjusted score increased from the original measure of 1.8% to 3.5% when we transitioned to M0300 items and added unstageable pressure ulcer items to the measure.

### Construct Validity

A TEP meeting was held on July 18, 2016 to discuss potential changes to the measure, including changes in the data elements used to calculate the measure. During the TEP meeting, RTI presented analyses to show the impact of a transition to calculation of the measure using M0300/M1313 items and inclusion of unstageable pressure ulcers in the measure calculation. Overall, the TEP was supportive of the data element changes as well as inclusion of unstageable pressure ulcers in the measure calculation, indicating construct validity.

Specific feedback from TEP members regarding the potential transition to M0300/M1313 items is excerpted here:

*Some TEP members expressed preference for the M0300 items over the M0800 items due to differences in wording. The M0800 items collect data on “worsening in pressure ulcer status,” while the M0300 items collect data on “current number of unhealed pressure ulcers.” One TEP member stated a preference for the neutral wording of the M0300 items over the M0800 items, which could potentially be interpreted to assign blame for the worsened pressure ulcers. Another TEP member stated a preference for the perceived clarity of the M0300 items, which collect both the current number of pressure ulcers and the number that were present on admission, over the M0800 items, which require the data abstracter to perform a mental calculation to determine the number of new or worsened pressure ulcers, thus providing an opportunity for error.*

None of the TEP members stated preference of the use of M0800 items instead of M0300 items in calculation of the finalized quality measure and none of the members expressed objections to the modification. However, the TEP requested that consistent training across all post-acute care settings be made available to providers to support the measure. The TEP summary report is publicly available and is soon to be available on CMS’ website.<sup>38</sup>

Also, prior cross-setting TEP meetings held in June and November 2013 yielded support for the inclusion of unstageable pressure ulcers in the quality measure. During these meetings, TEP members concurred that newly-acquired unstageable pressure ulcers, including suspected deep tissue injuries, should be captured in the quality measure for pressure ulcers. The TEP also advised that if a Stage 1 or 2 pressure ulcer becomes unstageable due to slough or eschar, it should be considered worsened in the

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<sup>38</sup> Seibert, J., Frank, J., Free, L., Waldron, D. (2016, December). Technical Expert Panel Summary Report: Refinement of the Percent of Patients or Residents with Pressure Ulcers that are New or Worsened (Short-Stay) (NQF #0678) Quality Measure for Skilled Nursing Facilities (SNFs), Inpatient Rehabilitation Facilities (IRFs),

quality measure for pressure ulcers. CMS and the measure development contractor received additional feedback from technical and clinical advisors and the National Pressure Ulcer Advisory Panel (NPUAP) in January 2014 supporting inclusion of unstageable pressure ulcers in the measure numerator.

### **Functional Mobility Risk Adjustment in SNF**

Since the IMPACT Act requires submission of standardized assessment data, there is a need to standardize risk adjustment for the measure Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury across settings. In the SNF setting, G0110A1 is used to measure limitations in bed mobility in the pressure ulcer measure, Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678). However, in the finalized measure, the risk adjuster item G0110A1. Activities of Daily Living (ADL) Assistance: Bed Mobility Self-Performance will be replaced with the item GG0170C. Mobility: Lying to Sitting on Side of Bed for the SNF setting measure in order to align with the risk adjuster items used in the LTCH and IRF setting measures. Using data from SNF discharges between October 1, 2016 through December 15, 2016, RTI conducted testing on the comparability of analogously coded assessment items G0110A1 and GG0170C. Testing results indicate high concordance for those coded analogously as indicating high risk for limitations in bed mobility using both items at 93.85 percent. Overall concordance for high and low risk for limitations in bed mobility using both items was 89.45 percent. The correlation between the G0110A1 and GG0170C assessment items in the SNF population was found to be of medium effect, according to Cohen's standard (Spearman coefficient=0.324).

Additional testing was conducted to provide a comparison of incidence of new or worsened pressure ulcers according to how residents are characterized using the different bed mobility items: G0110A1 and GG0170C. The percent of individuals who had a new or worsened pressure ulcer and were coded as high risk for limitations in bed mobility using the item G0110A1 was 3.28, while the percent of individuals who had a new or worsened pressure ulcer and were coded as high risk for limitations in bed mobility using the item GG0170C was 3.35. Similar rates of new or worsened pressure ulcers among both groups indicates support for the replacement of G0110A1 with GG0170C to increase harmonization across settings.

## Appendix 2

### National Stay-Level Incidence of New or Worsened Pressure Ulcers by Stage and Post-Acute Care Setting

Table 1 lists the national stay-level incidence of new or worsened pressure ulcers at different stages. Data for IRFs come from IRF-PAI, data for LTCHs come from LTCH CARE Data Set, and data for SNFs come from MDS.

**Table 1. National stay-level incidence of new or worsened pressure ulcers by stage and post-acute care setting**

Pressure Ulcer Stage	IRF stays (%)	LTCH stays (%)	SNF stays (%)
Stage 2	0.56	0.95	1.28
Stage 3	0.09	0.65	0.26
Stage 4	0.01	0.48	0.05
Unstageable due to slough and/or eschar	0.14	1.15	0.40
Unstageable due to non-removable dressing/device	0.02	0.05	0.02
Deep tissue injury	0.26	1.01	0.57

SOURCE: RTI analysis of January 1, 2015 – December 31, 2015 IRF-PAI, LTCH CARE Data Set, and MDS

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### Appendix 3

## Distribution of Observed Scores for Quality Measures: Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) and Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

**Tables 1-3** below list the distributions of observed scores on the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) quality measure, and the pressure ulcer quality measure finalized for the IRF QRP, LTCH QRP, and SNF QRP beginning with FY 2020, Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury.

**Table 1. IRF: Distribution of Observed Scores for Quality Measures: Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) and Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury**

	n	Mean (%)	Sd (%)	P10 (%)	P25 (%)	P50 (%)	P75 (%)	P90 (%)	% Perfect Score <sup>1</sup>
Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678)	1,106	0.64	1.182	0.00	0.00	0.00	0.95	2.06	62.93
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	1,106	1.46	1.933	0.00	0.00	0.94	2.27	3.85	42.86

SOURCE: RTI analysis of October 1, 2016 – December 31, 2016 IRF-PAI

<sup>1</sup> The perfect score column refers to the proportion of facilities with scores of zero for this measure.

**Table 2. LTCH: Distribution of Observed Scores for Quality Measures: Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) and Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury**

	n	Mean (%)	Sd (%)	P10 (%)	P25 (%)	P50 (%)	P75 (%)	P90 (%)	% Perfect Score <sup>1</sup>
Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678)	421	1.95	2.481	0.00	0.53	1.29	2.49	4.17	12.11
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	421	3.73	3.216	0.45	1.53	2.97	4.89	8.11	5.46

SOURCE: RTI analysis of January 1, 2015 – December 31, 2015 LTCH CARE Dataset

<sup>1</sup> The perfect score column refers to the proportion of facilities with scores of zero for this measure.

**Table 3. Distribution of Observed Scores for Quality Measures: Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678) and Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury**

	n	Mean (%)	Sd (%)	P10 (%)	P25 (%)	P50 (%)	P75 (%)	P90 (%)	% Perfect Score <sup>1</sup>
Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678)	14,153	1.75	2.121	0.00	0.00	1.19	2.53	4.32	29.11
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	14,153	2.58	2.655	0.00	0.65	2.00	3.70	5.83	20.32

SOURCE: RTI analysis of October 1, 2015 – September 30, 2016 MDS

<sup>1</sup>The perfect score column refers to the proportion of facilities with scores of zero for this measure.

## Appendix 4

### Data Elements Used in Calculation of Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

IRF		LTCH		SNF	
M0300 – Current Number of Unhealed Pressure Ulcers/Injuries at Each Stage					
<b>B. Stage 2:</b> Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.		<b>B. Stage 2:</b> Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.		<b>B. Stage 2:</b> Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.	
Enter number <input type="text"/>	1: Number of Stage 2 pressure ulcers. If 0 skip to M0300C, Stage 3	Enter number <input type="text"/>	1: Number of Stage 2 pressure ulcers. If 0 skip to M0300C, Stage 3	Enter number <input type="text"/>	1: Number of Stage 2 pressure ulcers. If 0 skip to M0300C, Stage 3
Enter number <input type="text"/>	2: Number of <u>these</u> Stage 2 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 2 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 2 pressure ulcers that were present upon admission/entry or reentry. Enter how many were noted at the time of admission/entry or reentry.
<b>C. Stage 3:</b> Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.		<b>C. Stage 3:</b> Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.		<b>C. Stage 3:</b> Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.	
Enter number <input type="text"/>	1: Number of Stage 3 pressure ulcers. If 0 skip to M0300D, Stage 4	Enter number <input type="text"/>	1: Number of Stage 3 pressure ulcers. If 0 skip to M0300D, Stage 4	Enter number <input type="text"/>	1: Number of Stage 3 pressure ulcers. If 0 skip to M0300D, Stage 4
Enter number <input type="text"/>	2: Number of <u>these</u> Stage 3 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 3 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 3 pressure ulcers that were present upon admission/entry or reentry. Enter how many were noted at the time of admission / entry or reentry
<b>D. Stage 4:</b> Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.		<b>D. Stage 4:</b> Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.		<b>D. Stage 4:</b> Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.	
Enter number <input type="text"/>	1: Number of Stage 4 pressure ulcers. If 0 skip to M0300E, Unstageable non-removable dressing/device	Enter number <input type="text"/>	1: Number of Stage 4 pressure ulcers. If 0 skip to M0300E, Unstageable non-removable dressing/device	Enter number <input type="text"/>	1: Number of Stage 4 pressure ulcers. If 0 skip to M0300E, Unstageable non-removable dressing/device

(continued)

IRF		LTCH		SNF	
Enter number <input type="text"/>	2: Number of <u>these</u> Stage 4 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 4 pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> Stage 4 pressure ulcers that were present upon admission/ entry or reentry. Enter how many were noted at the time of admission / entry or reentry.
<b>E. Unstageable</b> - Non-removable dressing/device: Known but not stageable due to non-removable dressing/device.		<b>E. Unstageable</b> - Non-removable dressing/device: Known but not stageable due to non-removable dressing/device.		<b>E. Unstageable</b> - Non-removable dressing/device: Known but not stageable due to non-removable dressing/device.	
Enter number <input type="text"/>	1: Number of unstageable pressure ulcers/injuries due to non-removable dressing/device. If 0 skip to M0300F, Unstageable – Slough and/or eschar	Enter number <input type="text"/>	1: Number of unstageable pressure ulcers/injuries due to non-removable dressing/device. If 0 skip to M0300F, Unstageable – Slough and/or eschar	Enter number <input type="text"/>	1: Number of unstageable pressure ulcers/injuries due to non-removable dressing/device. If 0 skip to M0300F, Unstageable – Slough and/or eschar
Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers/injuries that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers/injuries that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers/injuries that were present upon admission/ entry or reentry. Enter how many were noted at the time of admission / entry or reentry.
<b>F. Unstageable</b> - slough and/or eschar: Known but not stageable due to coverage of wound bed by slough and/or eschar.		<b>F. Unstageable</b> - slough and/or eschar: Known but not stageable due to coverage of wound bed by slough and/or eschar.		<b>F. Unstageable</b> - slough and/or eschar: Known but not stageable due to coverage of wound bed by slough and/or eschar.	
Enter number <input type="text"/>	1: Number of unstageable pressure ulcers due to coverage of the wound bed by slough and/or eschar. If 0 skip to M0300G, Unstageable – Deep tissue injury	Enter number <input type="text"/>	1: Number of unstageable pressure ulcers due to coverage of the wound bed by slough and/or eschar. If 0 skip to M0300G, Unstageable – Deep tissue injury	Enter number <input type="text"/>	1: Number of unstageable pressure ulcers due to coverage of the wound bed by slough and/or eschar. If 0 skip to M0300G, Unstageable – Deep tissue injury
Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure ulcers that were present upon admission/ entry or reentry. Enter how many were noted at the time of admission / entry or reentry.
<b>G. Unstageable</b> - Deep tissue injury		<b>G. Unstageable</b> - Deep tissue injury		<b>G. Unstageable</b> - Deep tissue injury	
Enter number <input type="text"/>	1. Number of unstageable pressure injuries presenting as deep tissue injury. If 0 skip to N2005, Medication Intervention	Enter number <input type="text"/>	1: Number of unstageable pressure injuries presenting as deep tissue injury. If 0 skip to N2005, Medication Intervention	Enter number <input type="text"/>	1. Number of unstageable pressure injuries presenting as deep tissue injury. If 0 skip to M1030, Number of Venous and Arterial Ulcers
Enter number <input type="text"/>	2. Number of <u>these</u> unstageable pressure injuries that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2: Number of <u>these</u> unstageable pressure injuries that were present upon admission. Enter how many were noted at the time of admission.	Enter number <input type="text"/>	2. Number of <u>these</u> unstageable pressure injuries that were present upon admission/ entry or reentry. Enter how many were noted at the time of admission / entry or reentry.

**Appendix 5**  
**Pressure Ulcer Quality Measure Item Standardization: Data  
Elements Collected for Calculation of Quality Measures used in  
IRF, LTCH, and SNF Quality Reporting Programs**

IRF, LTCH, and SNF PAC Settings: Items Collected at Discharge				
Item	Item Description	IRF-PAI v2.0 (effective 10/1/2018)	LTCH CARE Data Set v4.00 (effective 7/1/2018)	MDS 3.0 (effective 10/1/2018)
<b>M0300</b>	<b>Current Number of Unhealed Pressure Ulcers/Injuries at Each Stage</b>			
<i>A</i>	Number of Stage 1 pressure injuries	X	X	X
<i>B1</i>	Number of Stage 2 pressure ulcers	X	X	X
<i>B2</i>	Number of these Stage 2 pressure ulcers that were present upon admission	X	X	X
<i>C1</i>	Number of Stage 3 pressure ulcers	X	X	X
<i>C2</i>	Number of these Stage 3 pressure ulcers that were present upon admission	X	X	X
<i>D1</i>	Number of Stage 4 pressure ulcers	X	X	X
<i>D2</i>	Number of these Stage 4 pressure ulcers that were present upon admission	X	X	X
<i>E1</i>	Number of unstageable pressure ulcers/injuries due to non-removable dressing/device	X	X	X
<i>E2</i>	Number of these unstageable pressure ulcers/injuries that were present upon admission	X	X	X
<i>F1</i>	Number of unstageable pressure ulcers due to coverage of wound bed by slough and/or eschar	X	X	X
<i>F2</i>	Number of these unstageable pressure ulcers that were present upon admission	X	X	X
<i>G1</i>	Number of unstageable pressure injuries presenting as deep tissue injury	X	X	X
<i>G2</i>	Number of these unstageable pressure injuries that were present upon admission	X	X	X

X = Item is present

## Appendix 6

### Data Elements Used in Risk Adjustment of Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

IRF Risk Adjustment Covariates	LTCH Risk Adjustment Covariates	SNF Risk Adjustment Covariates
<b>Functional Mobility Admission Performance</b>		
<p><b>GG0170C. Mobility: Lying to Sitting on Side of Bed:</b> The ability to move from lying on the back to sitting on the side of the bed with feet flat on the floor, and with no back support.</p> <p>06. Independent 05. Setup or clean-up assistance 04. Supervision or touching assistance 03. Partial/moderate assistance 02. Substantial/maximal assistance 01. Dependent</p> <p>If activity was not attempted, code reason:</p> <p>07. Patient refused 09. Not applicable 10. Not attempted due to environmental limitations 88. Not attempted due to medical condition or safety concerns</p>	<p><b>GG0170C. Mobility: Lying to Sitting on Side of Bed:</b> The ability to move from lying on the back to sitting on the side of the bed with feet flat on the floor, and with no back support.</p> <p>06. Independent 05. Setup or clean-up assistance 04. Supervision or touching assistance 03. Partial/moderate assistance 02. Substantial/maximal assistance 01. Dependent</p> <p>If activity was not attempted, code reason:</p> <p>07. Patient refused 09. Not applicable 10. Not attempted due to environmental limitations 88. Not attempted due to medical condition or safety concerns</p>	<p><b>GG0170C. Mobility: Lying to Sitting on Side of Bed:</b> The ability to move from lying on the back to sitting on the side of the bed with feet flat on the floor, and with no back support.</p> <p>06. Independent 05. Setup or clean-up assistance 04. Supervision or touching assistance 03. Partial/moderate assistance 02. Substantial/maximal assistance 01. Dependent</p> <p>If activity was not attempted, code reason:</p> <p>07. Resident refused 09. Not applicable 10. Not attempted due to environmental limitations 88. Not attempted due to medical condition or safety concerns</p>
<b>Bowel Continence</b>		
<p><b>H0400. Bowel Continence</b></p> <p>0. Always continent 1. Occasionally incontinent 2. Frequently incontinent 3. Always incontinent 9. Not rated</p>	<p><b>H0400. Bowel Continence</b></p> <p>0. Always continent 1. Occasionally incontinent 2. Frequently incontinent 3. Always incontinent 9. Not rated</p>	<p><b>H0400. Bowel Continence</b></p> <p>0. Always continent 1. Occasionally incontinent 2. Frequently incontinent 3. Always incontinent 9. Not rated</p>
<b>Peripheral Vascular Disease (PVD) / Peripheral Arterial Disease (PAD) or Diabetes</b>		
<p><b>I0900. Peripheral Vascular Disease (PVD) / Peripheral Arterial Disease (PAD)</b></p> <p>0. Does not have PVD or PAD 1. Have PVD or PAD</p> <p><b>I2900 Diabetes Mellitus (DM)</b></p> <p>0. Does not have DM 1. Has DM</p>	<p><b>I0900. Peripheral Vascular Disease (PVD) / Peripheral Arterial Disease (PAD)</b></p> <p>0. Does not have PVD or PAD 1. Have PVD or PAD</p> <p><b>I2900 Diabetes Mellitus (DM)</b></p> <p>0. Does not have DM 1. Has DM</p>	<p><b>I0900. Peripheral Vascular Disease (PVD) / Peripheral Arterial Disease (PAD)</b></p> <p>0. Did not have PVD or PAD in the last 7 days 1. Had PVD or PAD in the last 7 days</p> <p><b>I2900 Diabetes Mellitus (DM)</b></p> <p>0. Did not have DM in the last 7 days 1. Had DM in the last 7 days</p>
<b>Height and Weight (Low Body Mass Index)</b>		
<p><b>25A (Height); and 26A (Weight).</b></p>	<p><b>K0200A (Height); and K0200B (Weight).</b></p>	<p><b>K0200A (Height); and K0200B (Weight).</b></p>

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## Appendix 7

### Self-Care and Mobility Items Included in Section GG of the IRF-PAI, MDS, and LTCH CARE Data Set to Assess Functional Status – Effective on or before October 1, 2018

**Table 1** lists the function items included in Section GG of the IRF-PAI, MDS, and LTCH CARE Data Set that are adopted as standardized data elements in FY 2018 IRF PPS, LTCH PPS and SNF PPS to satisfy the requirement to report standardized patient assessment data under section 1899B(b)(1)(B)(i) of the Act addressing functional status, such as mobility and self-care at admission to a PAC provider and before discharge from a PAC provider.

**Table 1. Self-Care and Mobility Items Included in Section GG of the IRF-PAI, LTCH CARE Data Set, and MDS That are Adopted as Standardized Data Elements – Effective October 1, 2018**

Item	Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) Version 2.0	Long-Term Care Hospital CARE Data Set Version 4.00	Minimum Data Set (MDS) 3.0 Version 1.16.0
<b>Self-Care</b>			
GG0130A Eating*	✓	✓	✓
GG0130B Oral hygiene*	✓	✓	✓
GG0130C Toileting hygiene*	✓	✓	✓
<b>Mobility</b>			
GG0170B Sit to lying*	✓	✓	✓
GG0170C Lying to sitting on side of bed*	✓	✓	✓
GG0170D Sit to stand*	✓	✓	✓
GG0170E Chair/bed-to-chair transfer*	✓	✓	✓
GG0170F Toilet transfer*	✓	✓	✓
GG0170J Walk 50 feet with two turns*	✓	✓	✓
GG0170K Walk 150 feet*	✓	✓	✓
GG0170R Wheel 50 feet with two turns*	✓	✓	✓
GG0170S Wheel 150 feet*	✓	✓	✓

**NOTES:**

\* Items included in cross-setting quality measure, Application of Percent of Long-Term Care Hospital Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function (NQF #2631) and finalized as standardized data elements in FY 2018 IRF PPS, SNF PPS and LTCH PPS.