Antipsychotic Medication Measure Methodology

Proposal: Evaluate the Antipsychotic Medication Measure during the upcoming 2017-2018 performance period, as an unscored measure that does not impact or change the facility overall quality score or payments, for use as a scored measure in the 2018-2019 performance period.

Overview

California legislation requires the California Department of Public Health (CDPH) and the California Department of Health Care Services (DHCS) to implement a Skilled Nursing Facility Quality and Accountability Supplemental Program (SNF QASP). CDPH has contracted with Health Services Advisory Group, Inc. (HSAG) to assist with assessing facility performance in the SNF QASP on several measures, as well as assisting with new measure development. The QASP Program expressed interest in pursuing a new measure based on the Percent of Residents Who Received an Antipsychotic Medication (Long-Stay) Minimum Data Set (MDS) 3.0 measure. The QASP Program's intention for this new measure is to ensure that facilities are appropriately administering antipsychotic medications to their residents. Regulation of the use of antipsychotic medication in the nursing home setting has been a goal for the Centers for Medicare & Medicaid Services (CMS), and several attempts have been made to reduce the "off-label" use of the medication.[1] The Food and Drug Administration (FDA) has issued a warning on the use of antipsychotics due to the high risk of death for elderly dementia population, and the use of the antipsychotic medication measure became available in 2012 on Nursing Home Compare website.[2]

HSAG explored recent MDS data for patterns among facilities applying the existing Percent of Residents Who Received an Antipsychotic Medication measure's exclusion criteria and determined that a new antipsychotic medication measure, Percent of Dementia Residents Who Received an Antipsychotic Medication, could be developed that focused on the dementia population only. Along with the federal-level attempts to minimize risks from inappropriate use of antipsychotics, the Percent of Dementia Residents Who Received an Antipsychotic Medication measure is expected to help improve the practice of prescribing high-risk medications in the nursing home setting in California.

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[1]   The National Consumer Voice for Quality Long-Term Care. *The Misuse of Antipsychotics amongst Nursing Home Residents: A Status Update*. September 2012. Available at: http://theconsumervoice.org/uploads/files/issues/status-update.pdf. Accessed on: March 22, 2017.

[2]   The Centers for Medicare & Medicaid Services. *Description of Antipsychotic Medication Quality Measures on Nursing Home Compare*. Available at: https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandComplianc/Downloads/AntipsychoticMedicationQM.pdf. Accessed on: March 22, 2017.

Methodology

Percent of Residents Who Received an Antipsychotic Medication (Long-Stay) Measure CMS Specifications

The Percent of Residents Who Received an Antipsychotic Medication (Long-Stay) measure specification is defined as the percentage of long-stay residents who are receiving antipsychotic drugs in the target period. The current specifications for the Percent of Residents Who Received an Antipsychotic Medication has been defined by CMS as follows:

- **Numerator:** Long-stay residents with a selected target assessment where the following condition is true: antipsychotic medications received. This condition is defined as follows:
  - For assessments with target dates on or before 03/31/2012: (N0400A = [1]).
  - For assessments with target dates on or after 04/01/2012: (N0410A = [1,2,3,4,5,6,7]).
- **Denominator:** Long-stay residents with a selected target assessment, except those with exclusions.
- **Exclusions:** The following exclusions apply:
  - The resident did not qualify for the numerator and **any** of the following is true:
    - For assessments with target dates on or before 03/31/2012: (N0400A = [-]).
    - For assessment with target dates on or after 04/01/2012: (N0410A = [-]).
  - **Any** of the following related conditions are present on the target assessment (unless otherwise indicated):
    - Schizophrenia (I6000 = [1]).
    - Tourette's syndrome (I5350 = [1]).
    - Tourette's syndrome (I5350 = [1]) on the prior assessment if this item is not active on the target assessment and if a prior assessment is available.
    - Huntington's disease (I5250 = [1]).

Percent of Dementia Residents Who Received an Antipsychotic Medication Measure Specifications

HSAG performed an analysis that limited the denominator to long-stay residents with an active diagnosis of dementia. HSAG developed the specifications for the Percent of Dementia Residents Who Received an Antipsychotic Medication measure (based on CMS' specifications defined above) as follows:

- **Numerator:** Long-stay residents with a selected target assessment where the following condition is true: antipsychotic medications received for one or more days during the last seven days. This condition is defined as follows:
  - For assessments with target dates on or before 03/31/2012: (N0400A = [1]).
  - For assessments with target dates on or after 04/01/2012: (N0410A = [1,2,3,4,5,6,7]).
- **Denominator:** Long-stay residents with an active diagnosis of dementia (noted in I4200, I4800, or specifically by a code in I8000) on the target assessment, except those with exclusions.

- **Exclusions:** The following exclusions apply:
    - The resident did not qualify for the numerator and **any** of the following is true:
        - For assessments with target dates on or before 03/31/2012: (N0400A = [-]).
        - For assessment with target dates on or after 04/01/2012: (N0410A = [-]).
    - **Any** of the following related conditions are present on the target assessment (unless otherwise indicated):
        - Schizophrenia (I6000 = [1]).
        - Tourette's syndrome (I5350 = [1]).
        - Tourette's syndrome (I5350 = [1]) on the prior assessment if this item is not active on the target assessment and if a prior assessment is available.
        - Huntington's disease (I5250 = [1]).

Summary of Findings

HSAG calculated the antipsychotic medication measure as defined in the MDS 3.0 Quality Measures User's Manual with the denominators limited to dementia patients only (i.e., the Percent of Dementia Residents Who Received an Antipsychotic Medication measure).[3] Identification of a dementia diagnosis was based on the single target assessment using the Alzheimer's Disease field (I4200), non-Alzheimer's Dementia field (I4800), and the active international classification of diseases (ICD) diagnosis codes listed in I8000 fields in active diagnosis section I.[4] The ICD-10 diagnosis codes used to identify dementia are listed in Table 1.

Table 1—Dementia Diagnosis Codes

ICD-10 Dementia Diagnosis Codes*
F01, F02, F03, G30, G35, B20
G31.0, A81.0, A81.1, A81.2, I67.3, G37.0, G37.1, A52.3
G31.83, F10.27, F18.17, F18.27, F18.97, F10.97, F19.97, F19.17, F19.27, F13.27
F13.97, A81.82, E75.02, E75.24, E75.25, A52.11, E83.01

*All ICD-10 codes that start with the codes in Table 1 were accepted.

Among 81,729 long-stay residents from the SFY 2015-2016 Q4 Quarterly Benchmark Report, 39,068 residents (47.80 percent) had a diagnosis of dementia on the target assessment. The Percent of Dementia Residents Who Received an Antipsychotic Medication measure specifications were applied to the 39,068 long-stay residents. Table 2 displays the summary statistics for facilities meeting the minimum denominator criteria (i.e., at least 30 residents) among the facilities included in 2015-2016 Annual Report.

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3   Centers for Medicare & Medicaid Services. MDS 3.0 Quality Measures User's Manual. April 1, 2016. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/MDS-30-QM-Users-Manual-V10.pdf. Accessed on: March 22, 2017.
4   American Association of Nurse Assessment Coordination. MDS 3.0 Resident Assessment Instrument User's Manual. October 2016. Available at: https://downloads.cms.gov/files/MDS-30-RAI-Manual-V114-October-2016.pdf. Accessed on: March 22, 2017.

Table 2—Percent of Dementia Residents Who Received an Antipsychotic Medication Measure Rate Summary (Target Period: 4/1/2016 – 6/30/2016)

Number of Facilities	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	Mean	Minimum Rate	Maximum Rate	Total Numerator	Total Denominator
483	26.47%	18.87%	12.82%	6.06%	2.38%	13.72%	0.00%	86.67%	3,323	23,122

There were 1,141 nursing home facilities with one or more long-stay residents with a diagnosis of dementia on the latest target assessment. When the minimum denominator size of 30 was applied, the number of facilities with reportable rates was reduced to 483 facilities. Figure 1, on the following page, shows the distribution of rates for the Percent of Dementia Residents Who Received an Antipsychotic Medication measure for facilities with a denominator greater than or equal to 30. While a majority of facilities have rates lower than 30 percent, some outliers with high usage of antipsychotic medication are observed.

Figure 1—Distribution of Percent of Dementia Residents Who Received an Antipsychotic Medication Rate among Facilities with Minimum Denominator of 30
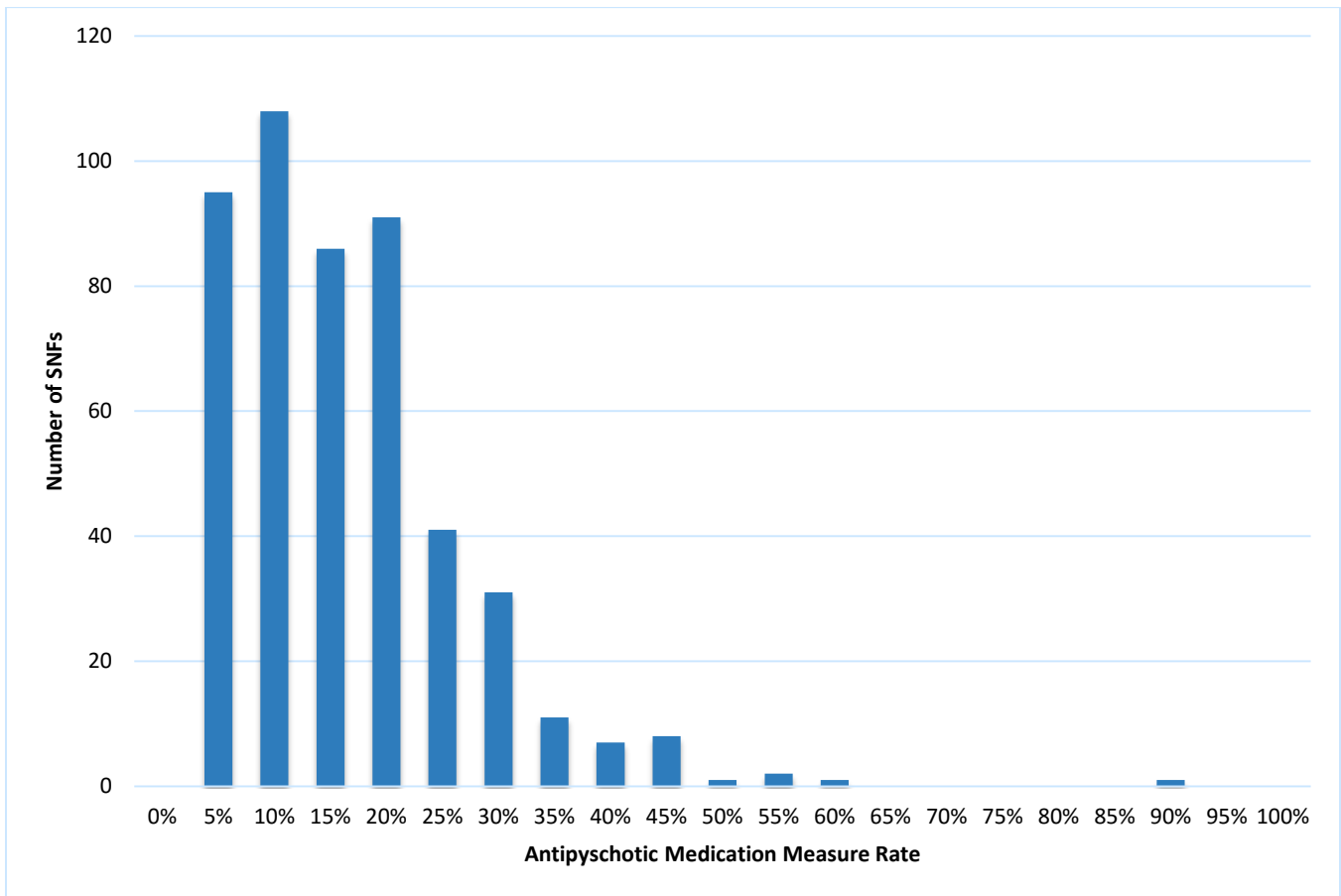
Data Assumptions and Limitations

The requirement for dementia diagnosis is a modification that HSAG applied to the existing CMS measure specifications. The MDS dataset does not include a resident's comprehensive medical history, but only the diagnoses managed by the nursing home at the time of the assessment in the active diagnosis fields. Hence, the dementia cases identified from the MDS dataset are limited to the active cases that drive the current plan of care at the facility.

Point Allocation Distribution

The Percent of Dementia Residents Who Received an Antipsychotic Medication measure will be an informational measure for the 2016-2017 Annual Report.

Color coding was used throughout the facility-level results worksheet to indicate how the facility performed compared to defined benchmarks. Cells in the facility-specific worksheet were assigned a red, light green, or dark green shading to indicate the following:

- *Red shading:* the facility did not meet the Statewide average and would not receive any points for the measure.
- *Light green shading:* the facility met or exceeded the Statewide average, but did not meet the 75th percentile, and would receive half of the possible points for the measure.
- *Dark green shading:* the facility met or exceeded the 75th percentile and would receive all possible points for the measure.

Please note, the color coding in the worksheet is informational to show facilities the points they would receive in future years. Since this will be an informational measure for the first year starting with the 2016-2017 Annual Report, facilities will not receive any points for this measure.