Measure Information Form

Measure Name

Specifications Tab

Descriptive Information

Measure Name (Measure Title De.2.)

NQF 1879: Adherence to Antipsychotic Medications for Individuals with Schizophrenia

Measure Type De.1.

Process

Brief Description of Measure De.3.

Percentage of individuals at least 18 years of age as of the beginning of the measurement period with schizophrenia or schizoaffective disorder who had at least two prescription drug claims for antipsychotic medications and had a Proportion of Days Covered (PDC) of at least 0.8 for antipsychotic medications during the measurement period (12 consecutive months)

If Paired or Grouped De.4.

Not applicable

Subject/Topic Areas De.5.

Mental Health: Mental Health
Mental Health: Serious Mental Illness
Disparities

Measure Specifications

Measure-Specific Web Page S.1.

Not applicable

If This is an eMeasure S.2a.

Not applicable

Data Dictionary Code Table S.2b.

ICD-9 to ICD-10 Crosswalk and National Drug Code (NDC) Table are available in the attached file.

For Endorsement Maintenance S.3.

Date Endorsed: November 2, 2012
Release Notes
Statement of intent for the selection of ICD-10 codes: The goal was to convert this measure to a new code set, fully consistent with the intent of the original measure.

2011 Updates
- Updated NDCs as of October 28, 2011
- Added new 2011 CPT visit type codes, 99224-99226

- Added new 2011 CPT J-codes for depot injections, paliperidone (J2426), and updated olanzapine (J2358)
- Updated ICD-9-CM and ICD-10-CM diagnosis codes with 2011 changes for dementia to be excluded, added missing fifth digits to 290.1, 290.2, 290.4, and 294.1. Added V40.31, which replaces 294.11 as of October 2011

2012 Updates
- Updated NDCs as of October 31, 2012
- Harmonized measure with NCQA 1936 for NQF submission and endorsement
- Modified age requirement to at least 18 at the beginning of the measurement period
- Modified codes used to identify encounter type to align with NCQA 1936
- Removed the exclusion of depot injections following considerations for harmonization. Included antipsychotic depot drugs as part of the NDC list

2013 Updates
- Updated NDCs as of November 6, 2013
- Added aripiprazole long-acting injection to Atypical Antipsychotic Medications
- Updated the physician group attribution methodology and removed reference to UPIN, since UPIN is no longer used for the attribution

Numerator Statement S.4.

Individuals with schizophrenia or schizoaffective disorder who had at least two prescription drug claims for antipsychotic medications and have a PDC of at least 0.8 for antipsychotic medications

Time Period for Data S.5.

The time period of data is defined as any time during the measurement period (12 consecutive months).

Numerator Details S.6.

The numerator is defined as individuals with a PDC of 0.8 or greater

The PDC is calculated as follows:
PDC NUMERATOR
The PDC numerator is the sum of the days covered by the days' supply of all prescription drug claims for all antipsychotic medications. The period covered by the PDC starts on the day the first prescription is filled (index date) and lasts through the end of the measurement period, or death, whichever comes first. For prescription drug claims with a days' supply that extends beyond the end of the measurement period, count only the days for which the drug was available to the individual during the measurement period. If there are claims for the same drug (generic name) on the same date of service, keep the claim with the largest days' supply. If claims for the same drug (generic name) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

PDC DENOMINATOR
The PDC denominator is the number of days from the first prescription drug claim date through the end of the measurement period, or death date, whichever comes first.

Denominator Statement S.7.

Individuals at least 18 years of age as of the beginning of the measurement period with schizophrenia or schizoaffective disorder and at least two prescription drug claims for antipsychotic medications during the measurement period (12 consecutive months)

Target Population Category S.8.

Adult/Elderly Care

Denominator Details S.9.

Target population meets the following conditions:
1. Continuously enrolled in Part D with no more than a one-month gap in enrollment during the measurement period;

2. Continuously enrolled in Part A and Part B with no more than a one-month gap in Part A enrollment and no more than a one-month gap in Part B enrollment during the measurement period; and,
3. No more than one month of HMO (Health Maintenance Organization) enrollment during the measurement period.

IDENTIFICATION OF SCHIZOPHRENIA
Individuals with schizophrenia or schizoaffective disorder are identified by having a diagnosis of schizophrenia within the inpatient or outpatient claims data. Individuals must have:

At least two encounters with a diagnosis of schizophrenia or schizoaffective disorder with different dates of service in an outpatient setting, emergency department setting, or non-acute inpatient setting during the measurement period;

OR

At least one encounter with a diagnosis of schizophrenia or schizoaffective disorder in an acute inpatient setting during the measurement period.

Table 1: Codes Used to Identify Schizophrenia or Schizoaffective Disorder Diagnosis
ICD-9-CM: 295.xx
ICD-10-CM: F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F25.0, F25.1, F25.8, F25.9

CODES USED TO IDENTIFY ENCOUNTER TYPE:
Table 2.1: Outpatient Setting
Current Procedural Terminology (CPT): 90804-90815, 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99429, 99510
HCPCS: G0155, G0176, G0177, G0409-G0411, H0002, H0004, H0031, H0034-H0037, H0039, H0040, H2000, H2001, H2010-H2020, M0064, S0201, S9480, S9484, S9485
UB-92 revenue: 0510, 0511, 0513, 0516-0517, 0519-0523, 0526-0529, 0900, 0901, 0902-0905, 0907, 0911-0917, 0919, 0982, 0983, 077x, 090x, 091x, 0961

OR

CPT: 90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876, 90880, 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291

WITH

Place of Service (POS): 03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 24, 33, 49, 50, 52, 53, 71, 72

Table 2.2: Emergency Department Setting
CPT: 99281-99285
UB-92 revenue: 045x, 0981, 0961

OR

CPT: 90801, 90802, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876, 99291

WITH

POS: 23

Table 2.3: Non-Acute Inpatient Setting
CPT: 99304-99310, 99315, 99316, 99318, 99324-99328, 99334-99337
HCPCS: H0017-H0019, T2048

UB-92 revenue: 0118, 0128, 0138, 0148, 0158, 019x, 0524, 0525, 055x, 066x, 1000, 1001, 1003-1005, 0961

OR

CPT: 90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876, 99291

WITH

POS: 31, 32, 56

Table 2.4: Acute Inpatient Setting
UB-92 revenue: 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x, 021x, 072x, 0987,080x, 0961

OR

CPT: 90801, 90802, 90816-90819, 90821-90824, 90826-90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90875, 90876, 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291

WITH

POS: 21, 51

The following are the oral antipsychotic medications by class for the denominator. The route of administration includes all oral formulations of the medications listed below.

Table 3: Oral Antipsychotic Medications
Typical Antipsychotic Medications:
chlorpromazine
fluphenazine
haloperidol
loxapine
molindone
perphenazine
pimozide
prochlorperazine
thioridazine
thiothixene
trifluoperazine

Atypical Antipsychotic Medications:
aripiprazole
asenapine
clozapine
iloperidone
lurasidone
olanzapine
paliperidone
quetiapine
risperidone
ziprasidone

Antipsychotic Combinations:
perphenazine-amitriptyline
olanzapine-fluoxetine

The following are the long-acting (depot) injectable antipsychotic medications by class for the denominator. The route of administration includes all injectable and intramuscular formulations of the medications listed below.

Table 4: Long-Acting Injectable Antipsychotic Medications
Typical Antipsychotic Medications:
fluphenazine decanoate (J2680)
haloperidol decanoate (J1631)

Atypical Antipsychotic Medications:
aripiprazole (J0400)
olanzapine pamoate (J2358)
paliperidone palmitate (J2426)
risperidone microspheres (J2794)

Note: Since the days' supply variable is not reliable for long-acting injections in administrative data, the days' supply is imputed as listed below for the long-acting (depot) injectable antipsychotic medications billed under Part D and Part B:
fluphenazine decanoate (J2680) – 28 days' supply
haloperidol decanoate (J1631) – 28 days' supply
aripiprazole (J0400) – 28 days' supply
olanzapine pamoate (J2358) – 28 days' supply
paliperidone palmitate (J2426) – 28 days' supply
risperidone microspheres (J2794) – 14 days' supply

Denominator Exclusions (NQF Includes "Exceptions" in the "Exclusion" Field) S.10.

Individuals with any diagnosis of dementia during the measurement period

Denominator Exclusion Details (NQF Includes "Exceptions" in the "Exclusion" Field) S.11.

Individuals with any diagnosis of dementia are identified with the diagnosis codes listed below.

Table 5: Codes Used to Identify Dementia
ICD-9-CM: 290.0, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 290.8, 290.9, 291.2, 294.10, 294.11, 330.1, 331.0, 331.19, 331.82

ICD-10-CM: E75.00, E75.01, E75.02, E75.09, E75.10, E75.11, E75.19, E75.4, F01.50, F01.51, F02.80, F02.81, F03, F05, F10.27, G30.0, G30.1, G30.8, G30.9, G31.09, G31.83

Stratification Details/Variables S.12.

Depending on the operational use of the measure, measure results will be stratified by:
• State
• Physician Group*
• Age – Divided into six categories: 18-24, 25-44, 45-64, 65-74, 75-84, and 85+ years
• Race/Ethnicity
• Dual Eligibility

*See **Calculation Algorithm/Measure Logic S.18** below for physician group attribution methodology used for this measure.

Risk Adjustment Type S.13.

No risk adjustment or risk stratification

Statistical Risk Model and Variables S.14.

Not applicable

Detailed Risk Model Specifications S.15.

Not applicable

Type of Score S.16.

Rate/proportion

Interpretation of Score S.17.

Better quality = higher score

Calculation Algorithm/Measure Logic S.18.

Target Population: Individuals at least 18 years of age as of the beginning of the measurement period who have met the enrollment criteria for Part A, B, and D

Denominator: Individuals at least 18 years of age as of the beginning of the measurement period with schizophrenia or schizoaffective disorder and at least two prescription drug claims for antipsychotic medications during the measurement period (12 consecutive months)

Create Denominator:
1. Pull individuals who are 18 years of age or older as of the beginning of the measurement period.
2. Include individuals who were continuously enrolled in Part D coverage during the measurement period, with no more than a one-month gap in enrollment during the measurement period, or up until their death date if they died during the measurement period.
3. Include individuals who had no more than a one-month gap in Part A enrollment, no more than a one-month gap in Part B enrollment, and no more than one month of HMO (Health Maintenance Organization) enrollment during the current measurement period (fee-for-service [FFS] individuals only).
4. Of those individuals identified in Step 3, keep individuals who had:
   At least two encounters with a diagnosis of schizophrenia of schizoaffective disorder with different dates of service in an outpatient setting, emergency department setting, or non-acute inpatient setting during the measurement period;
   OR
   Individuals who had at least one encounter with a diagnosis of schizophrenia or schizoaffective disorder in an acute inpatient setting during the measurement period.
5. For the individuals identified in Step 4, extract Part D claims for any antipsychotic medication during the measurement period. Attach the generic name and the drug ID to the dataset.
6. Of the individuals identified in Step 5, exclude those who did not have at least two prescription drug claims for any antipsychotic medication on different dates of service (identified by having at least two Part D claims with the specific codes) during the measurement period.
7. Exclude those individuals with a diagnosis of dementia during the measurement period.

Numerator: Individuals with schizophrenia or schizoaffective disorder who had at least two prescription drug claims for antipsychotic medications and have a PDC of at least 0.8 for antipsychotic medications

Create Numerator:
For the individuals in the denominator, calculate the PDC for each individual according to the following methods:
1. Determine the individual's medication therapy period, defined as the number of days from the index prescription date through the end of the measurement period, or death, whichever comes first. The index date is the service date (fill date) of the first prescription drug claim for an antipsychotic medication in the measurement period.
2. Within the medication therapy period, count the days the individual was covered by at least one drug in the antipsychotic medication class based on the prescription drug claim service date and days of supply.
   a. Sort and de-duplicate Part D antipsychotic medication claims by beneficiary ID, service date, generic name, and descending days' supply. If prescriptions for the same drug (generic name) are dispensed on the same

date of service for an individual, keep the dispensing with the largest days' supply.
  b. Calculate the number of days covered by antipsychotic drug therapy per individual.
      i. For prescription drug claims with a days' supply that extends beyond the end of the measurement period, count only the days for which the drug was available to the individual during the measurement period.
      ii. If claims for the same drug (generic name) overlap, then adjust the prescription start date to be the day after the previous fill has ended.
      iii. If claims for different drugs (different generic names) overlap, do not adjust the prescription start date.
3. Calculate the PDC for each individual. Divide the number of covered days found in Step 2 by the number of days in the individual's medication therapy period found in Step 1.

An example of SAS code for Steps 1-3 was adapted from Pharmacy Quality Alliance (PQA) and is available at the URL: http://www2.sas.com/proceedings/forum2007/043-2007.pdf.

4. Of the individuals identified in Step 3, count the number of individuals with a calculated PDC of at least 0.8 for the antipsychotic medications. This is the numerator.

Physician Group Attribution:
Physician group attribution was adapted from Generating Medicare Physician Quality Performance Measurement Results (GEM) Project: Physician and Other Provider Grouping and Patient Attribution Methodologies (http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/GEM/downloads/GEMMethodologies.pdf). The following is intended as guidance and reflects only one of many methodologies for assigning individuals to a medical group. Please note that the physician group attribution methodology excludes patients who died, even though the overall measure does not.

I. Identify Physician and Medical Groups
1. Identify all Tax Identification Numbers (TINs)/National Provider Identification (NPIs) combinations from all Part B claims in the measurement year and the prior year. Keep records with valid NPI. Valid NPIs have 10 numeric characters (no alpha characters).
2. For valid NPIs, pull credentials and specialty code(s) from the CMS provider tables.
3. Create one record per NPI with all credentials and all specialties. A provider may have more than one specialty.
4. Attach TIN to NPI, keeping only those records with credentials indicating a physician (MD or DO), physician assistant (PA), or nurse practitioner (NP).
5. Identify medical group TINs: Medical group TINs are defined as TINs that had physician, physician assistant, or nurse practitioner provider specialty codes on at least 50% of Part B carrier claim line items billed by the TIN during the measurement year or prior year. (The provider specialty codes are listed after Patient Attribution.)
    a. Pull Part B records billed by TINS identified in Step 4 during the measurement year and prior year.
    b. Identify claims that had the performing NPI (npi_prfrmg) in the list of eligible physicians/TINs, keeping those that match by TIN, performing NPI, and provider state code.
    c. Calculate the percentage of Part B claims that match by TIN, npi_prfrmg, and provider state code for each TIN, keeping those TINs with percentages greater than or equal to 50%.
    d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all nine digits or values of 012345678, 012345678, 123456789, 987654321, or 87654321.
6. Identify TINs that are not solo practices.
    a. Pull Part B records billed by physicians identified in Step 4 for the measurement year and/or prior year.
    b. Count unique NPIs per TIN.
    c. Keep only those TINs having two or more providers.
    d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all nine digits or values of 012345678, 012345678, 123456789, 987654321, or 87654321.
7. Create final group of TINs from Step 5 and Step 6 (TINs that are medical groups and are not solo practices).
8. Create file of TINs and NPIs associated with those TINs. These are now referred to as the medical group TINs.
9. Determine the specialty of the medical group (TIN) to be used in determining the specialty of nurse practitioners and physician assistants. The plurality of physician providers in the medical group determines the specialty of care

for nurse practitioners and physician assistants.
   a. From the TIN/NPI list created in Step 8, count the NPIs per TIN/specialty.
   b. The specialty with the maximum count is assigned to the medical group.

II. Identify Individual Sample and Claims
10. Create individual sample.
   a. Pull individuals with 11+ months of Parts A, B, & D during the measurement year.
   b. Verify the individual did not have any months with Medicare as secondary payer. Remove individuals with BENE_PRMRY_PYR_CD not equal to one of the following:
      - A = working-age individual/spouse with an employer group health plan (EGHP)
      - B = End Stage Renal Disease (ESRD) in the 18-month coordination period with an EGHP
      - G = working disabled for any month of the year
   c. Verify the individual resides in the U.S., Puerto Rico, Virgin Islands, or Washington D.C.
   d. Exclude individuals who enter the Medicare hospice at any point during the measurement year.
   e. Exclude individuals who died during the measurement year.
11. For individuals identified in Step 10, pull office visit claims that occurred during the measurement year and in the six months prior to the measurement year.
   a. Office visit claims have CPT codes of 99201-99205, 99211-99215, and 99241-99245.
   b. Exclude claims with no npi_prfrmg.
12. Attach medical group TIN to claims by NPI.

III. Patient Attribution
13. Pull all Part B office claims from Step 12 with specialties indicating primary care or psychiatry (see list of provider specialties and specialty codes below). Attribute each individual to at most one medical group TIN for each measure.
   a. Evaluate specialty on claim (HSE_B_HCFA_PRVDR_SPCLTY_CD) first. If specialty on claim does not match any of the measure-specific specialties, then check additional specialty fields.
   b. If the provider specialty indicates nurse practitioners or physician assistants (code 50 or code 97), then assign the medical group specialty determined in Step 9.
14. For each individual, count claims per medical group TIN. Keep only individuals with two or more E&M claims.
15. Attribute individual to the medical group TIN with the most claims. If a tie occurs between medical group TINs, attribute the TIN with the most recent claim.
16. Attach the medical group TIN to the denominator and numerator files by individual.

Provider Specialties and Specialty Codes
Provider specialties and specialty codes include only physicians, physician assistants, and nurse practitioners for physician grouping, TIN selection, and patient attribution. The provider specialty codes and the associated provider specialty are shown below:

01—General practice*
02—General surgery
03—Allergy/immunology
04—Otolaryngology
05—Anesthesiology
06—Cardiology
07—Dermatology
08—Family practice*
09—Interventional pain management
10—Gastroenterology
11—Internal medicine*
12—Osteopathic manipulative therapy
13—Neurology
14—Neurosurgery
16—Obstetrics/gynecology*

18—Ophthalmology
20—Orthopedic surgery
22—Pathology
24—Plastic and reconstructive surgery
25—Physical medicine and rehabilitation
26—Psychiatry*
28—Colorectal surgery
29—Pulmonary disease
30—Diagnostic radiology
33—Thoracic surgery
34—Urology
37—Nuclear medicine
38—Geriatric medicine*
39—Nephrology
39—Pediatric medicine
40—Hand surgery
44—Infectious disease
46—Endocrinology
50—Nurse practitioner*
66—Rheumatology
70—Multi-specialty clinic or group practice*
72—Pain management
76—Peripheral vascular disease
77—Vascular surgery
78—Cardiac surgery
79—Addiction medicine
81—Critical care (intensivists)
82—Hematology
83—Hematology/oncology
84—Preventive medicine*
85—Maxillofacial surgery
86—Neuropsychiatry*
90—Medical oncology
91—Surgical oncology
92—Radiation oncology
93—Emergency medicine
94—Interventional radiology
97—Physician assistant*
98—Gynecologist/oncologist
99—Unknown physician specialty
Other—NA
 *Provider specialty codes specific to this measure

Calculation Algorithm/Measure Logic Diagram URL or Attachment S.19.

Not applicable

Sampling S.20.

Not applicable; this measure does not use a sample or survey.

Survey/Patient-Reported Data S.21.

Not applicable; this measure does not use a sample or survey.

Missing Data S.22.

To reduce the potential for measure result bias, patients who have prescription drug claims with missing days' supply

are excluded from the analysis.

Data Source S.23.

Administrative Claims
Electronic Clinical Data: Pharmacy
Other: Please see the next section for further details.

Data Source or Collection Instrument S.24.

For measure calculation, the following Medicare files are required:
- Denominator tables
- Prescription drug benefit (Part D) coverage tables
- Beneficiary file
- Institutional claims (Part A)
- Non-institutional claims (Part B)—physician carrier/non-DME
- Prescription drug benefit (Part D) claims

For physician group attribution, the following are required:
- Non-institutional claims (Part B)—physician carrier/non-DME
- Denominator tables to determine individual enrollment
- Beneficiary file or coverage table to determine hospice benefit and Medicare as secondary payer status
- CMS physician and physician specialty tables

Payer Source:
- Medicare FFS
- Prescription Drug Plans (PDPs)

Data Source or Collection Instrument (Reference) S.25.

Not applicable; this measure does not use a data collection instrument.

Level of Analysis S.26.

Health Plan
Clinician: Group/Practice
Population: State

Care Setting S.27.

Ambulatory Care: Clinician Office
Behavioral Health/Psychiatric: Outpatient

Composite Performance Measure S.28.

Not applicable

Version Number and Effective Date

Version 3.0
January 1, 2013 – December 31, 2013

Measure Steward

Centers for Medicare & Medicaid Services (CMS)
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