Adherence to Antipsychotic Medications For Individuals with Schizophrenia

3a Measure Information Form (MIF)

Data Source

Electronic administrative data/claims; pharmacy data

For measure calculation, the following Medicare files were 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 were 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 payor status
- CMS physician and physician specialty tables
- National Plan & Provider Enumeration System (NPPES) database

Measure Set ID

TBD

Version Number and Effective Date

Version 2

January 1, 2012 – December 31, 2012

CMS Approval Date

TBD

NQF ID

NQF 1879

Date Endorsed

November 2, 2012

Care Setting

Ambulatory care

Office

Behavioral Health/Psychiatric: Outpatient

Unit of Measurement

Population: States

Clinicians: Group

Measurement Duration

Any time during the measurement period (12 consecutive months)

Measurement Period

Year

Measure Type

Process

Measure Scoring

Rate/proportion

Payer Source

Medicare fee-for-service (FFS)

Prescription Drug Plans (PDPs)

Improvement Notation

Better quality = higher score

Measure steward

Centers for Medicare & Medicaid Services (CMS)

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Not applicable

Measure Description

The measure calculates the percentage of individuals 18 years of age or greater as of the beginning of the measurement period with schizophrenia or schizoaffective disorder who are prescribed an antipsychotic medication, with adherence to the antipsychotic medication [defined as a Proportion of Days Covered (PDC)] of at least 0.8 during the measurement period (12 consecutive months).

Rationale

A large body of evidence has shown that antipsychotic medications are effective in treating acute psychotic exacerbations of schizophrenia and in reducing the likelihood of relapse. The Schizophrenia Patient Outcomes Research Team (PORT) recommends that “persons who experience acute symptom relief with an antipsychotic medication should continue to receive this medication for at least 1 year” (Lehman & Steinwachs, 1998), and according to the American Psychiatric Association Clinical Practice Guidelines, “antipsychotic medications substantially reduce the risk of relapse in the stable phase of illness and are strongly recommended” (Lehman et

al., 2004). This measure will describe the degree of compliance or non-compliance with these recommendations. By providing information on the percentage of schizophrenic individuals with appropriate long-term use of antipsychotic medications, this measure has the potential to improve management of schizophrenia.

This measure relates to mental disorders that have been identified by AHRQ as a priority area for future effectiveness metrics (2009) and by the Institute of Medicine as a priority area (2003).

Approximately 1.1% of the adult American population has schizophrenia (Regier et al., 1993). Individuals suffering from schizophrenia have service utilization rates above 60% (Regier et al.), and the overall U.S. cost of schizophrenia has been estimated at $11.6 to $19.5 billion annually (Andrews et al., 1985). Antipsychotic medications have proven to be effective in treating this disease, and this measure will help to capture the extent of utilization of this treatment.

References:

Agency for Healthcare Research and Quality (AHRQ). (March 2009). *National healthcare disparities report 2008*. AHRQ Publication No. 09-0002. Retrieved December 15, 2009, from http://www.ahrq.gov/qual/qrdr08.htm.

Andrews, G., Hall, W., Goldstein, G., Lapsley, H., Bartels, R., & Silove, D. (1985). The economic costs of schizophrenia. Implications for public policy. *Archives of General Psychiatry, 42*(6), 537-543.

Institute of Medicine. (2003). *Priority areas for national healthcare action: Transforming health care quality*. Retrieved November 3, 2009, from http://books.nap.edu/openbook.php?record_id=10593&page=1ion

Lehman, A. F., Lieberman, J. A., Dixon, L. B., McGlashan, T. H., Miller, A. L., Perkins, D. O., et al. (2004). Practice guideline for the treatment of patients with schizophrenia, second edition. *American Journal of Psychiatry, 161*(2 Suppl), 1–56.

Lehman, A. F. & Steinwachs, D. M. (1998). Patterns of usual care for schizophrenia: Initial results from the Schizophrenia Patient Outcomes Research Team (PORT) Client Survey. *Schizophrenia Bulletin, 24*(1), 11-20; discussion 20-32.

Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto U.S. mental and addictive disorders service system. Epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry, 50*(2), 85-94.

Clinical Recommendation Statement

The 2009 PORT Schizophrenia Psychopharmacological Treatment Recommendations state the following about "Maintenance Antipsychotic Medication Treatment": “People with treatment-responsive, multi-episode schizophrenia who experience acute and sustained symptom relief with an antipsychotic medication should be offered continued antipsychotic treatment in order to maintain symptom relief and to reduce the risk of relapse or worsening of positive symptoms." This recommendation is found on page 76 of the 2009 PORT Treatment Recommendations in the section entitled "Maintenance Pharmacotherapy in Treatment-Responsive People with Schizophrenia" (Buchanan et al., 2010).

References

Buchanan, R. W., Kreyenbuhl, J., Kelly, D. L., Noel, J. M., Boggs, D. L., Fischer, B. A., et al. (2010). The 2009 Schizophrenia PORT psychopharmacological treatment recommendations and summary statements. *Schizophr Bulletin,* 36, 71-93.

Release Notes/Summary of Changes

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

- See Codes Table attachment for updated NDC list.

- Updated National Drug Codes (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 National Drug Codes (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.
- See Codes Table attachment for NDC Updates and ICD-9-CM to ICD-10-CM Crosswalk.

Technical Specifications

- **Target Population**

  At least 18 years of age as of the beginning of the measurement year

Denominator

- **Denominator Statement**

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

- **Denominator Details**

  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 with different dates of service in an outpatient setting, emergency department setting, or nonacute inpatient setting during the measurement period;

  Or

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

  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:

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

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

NONACUTE 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

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.

TYPICAL ANTIPSYCHOTIC MEDICATIONS:
chlorpromazine
fluphenazine
haloperidol
loxapine
molindone
perphenazine
perphenazine-amitriptyline
pimozide
prochlorperazine
thioridazine
thiothixene
trifluoperazine

ATYPICAL ANTIPSYCHOTIC MEDICATIONS:
aripiprazole
asenapine
clozapine
olanzapine
olanzapine-fluoxetine
iloperidone
lurasidone
paliperidone
quetiapine
risperidone
ziprasidone

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.

TYPICAL ANTIPSYCHOTIC MEDICATIONS:
fluphenazine decanoate (J2680)
haloperidol decanoate (J1631)

ATYPICAL ANTIPSYCHOTIC MEDICATIONS:
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
olanzapine pamoate (J2358) – 28 days' supply
paliperidone palmitate (J2426) – 28 days' supply
risperidone microspheres (J2794) – 14 days' supply

- **Denominator Exceptions and Exclusions**

  We excluded the following individuals from the denominator:

  EXCLUSION

  Individuals with any diagnosis of dementia during the measurement period

- **Denominator Exceptions and Exclusions Details**

  EXCLUSION

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

  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

Numerator

- **Numerator Statement**

  Individuals with schizophrenia or schizoaffective disorder who filled at least two prescriptions for any antipsychotic medication and have a Proportion of Days Covered (PDC) for antipsychotic medications of at least 0.8

- **Numerator Details**

  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 antipsychotic prescriptions. 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 prescriptions 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 prescriptions for the same drug (generic name or 10-digit generic product identifier [GPI]) on the same date of service, keep the prescription with the largest days' supply. If prescriptions for the same drug (generic name or GPI) overlap, then adjust the latest 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 date through the end of the measurement period, or death date, whichever comes first.

Optional Calculation Using More Than One Year of Data:

Optional PDC Numerator:

- For new users (individuals with no prescriptions for antipsychotics in the 180 days prior to the measurement period), the PDC numerator is the sum of the days covered by the days' supply of the antipsychotic prescriptions during the measurement period. The period covered by the PDC for new users 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 prescriptions 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 prescriptions for the same drug (generic name or GPI) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

- For continuous users (individuals with 1 or more prescriptions for antipsychotics in the 180 days prior to the measurement period), the PDC numerator is the sum of the days covered by the days' supply of the antipsychotic prescriptions during the measurement period. The period covered by the PDC for continuous users is the beginning of the measurement period through the end of the measurement period or death, whichever comes first. For prescriptions with a days' supply that extends beyond the beginning or end of the measurement period, count only the days for which the drug was available to the individual during the measurement period. If prescriptions for the same drug (generic name or GPI) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

Optional PDC Denominator:

- For new users, the PDC denominator is the number of days that 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 continuous users, the PDC denominator is the number of days from the beginning of the measurement period through the end of the measurement period, or death, whichever comes first.

Optional Calculation Adjusting for Hospitalizations (one year of data):

- If the individual is hospitalized between the index date and end date, each inpatient visit is treated as a prescription and as days covered for each antipsychotic that the individual was prescribed before the hospitalization. The admit date becomes the prescription service date, and the number of inpatient days becomes the days' supply.

Optional Calculation Adjusting for Hospitalizations (more than one year of data):

- If the individual is hospitalized between the index date and end date for new users, or if the individual is hospitalized during the measurement period for continuous users, each inpatient visit is treated as a prescription and as days covered for each antipsychotic that the individual was prescribed before the hospitalization. The admit date becomes the prescription service date, and the number of inpatient days becomes the days' supply.

Stratification or Risk Adjustment

Depending on the operational use of the measure, measure results will be stratified by:

- State
- Physician Group*
- Gender
- Age – Divided into 6 categories: 18-24, 25-44, 45-64, 65-74, 75-84, and 85+ years
- Race/ethnicity
- Dual Eligibility

*See algorithm section below for the physician group attribution methodology used for this measure.

No risk adjustment necessary

Sampling

Not applicable

Calculation Algorithm

Denominator: Individuals at least 18 years of age as of the beginning of the measurement period with schizophrenia with at least two claims for an antipsychotic during the measurement period

Create Denominator:

1. Pull individuals who are 18 or older as of January 1 of the measurement period.

2. Include individuals who were continuously enrolled in Part D coverage during the measurement year, with no more than a one-month gap in enrollment during the measurement year.

3. Include individuals who had no more than a 1-month gap in Part A enrollment, no more than a 1-month gap in Part B enrollment, and no more than 1 month of HMO enrollment during the current measurement year (FFS individuals only).

4. Of those individuals identified in Step 3, keep individuals who had at least 2 encounters with a diagnosis of schizophrenia with different dates of service in an outpatient setting, emergency department setting, or nonacute inpatient setting during the measurement period ;

   OR

   Had at least 1 encounter with a diagnosis of schizophrenia in an acute inpatient setting during the measurement period.

5. For the individuals identified in Step 4, extract Part D claims for an antipsychotic during the measurement period.

6. Of the individuals identified in Step 5, exclude those who did not have at least 2 claims for an antipsychotic on different dates of service (identified by having at least 2 Part D claims with the specific codes) during the measurement year.

7. Exclude those individuals with dementia.

Numerator: Individuals with schizophrenia who filled at least two prescriptions for an antipsychotic and had a PDC for antipsychotic medications at least 0.8

Of the individuals in the denominator, calculate the PDC for each individual according to the following methods:

1. Determine the individual's measurement period, defined as the number of days from the index prescription date through the end of the measurement period, or death, whichever comes first. Index date is the date of the first prescription in the measurement period.

2. Within the measurement period, count the days the individual was covered by at least one antipsychotic drug based on the prescription fill date and days of supply.
   a. Pull Part D antipsychotic claims for individuals in the denominator. Attach the drug ID and the generic name to the dataset.

b. Sort and de-duplicate claims by beneficiary ID, service date, generic name, and descending days' supply. If prescriptions for the same drug (generic name or 10-digit generic product identifier [GPI]) are dispensed on the same date of service for an individual, keep the dispensing with the largest days' supply.
c. Calculate the number of days covered by antipsychotic drug therapy per individual.
    i. For prescriptions 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 prescriptions for the same drug (generic name or GPI) overlap, then adjust the prescription start date to be the day after the previous fill has ended.
    iii. If prescriptions for different drugs (different generic names or GPIs) 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 measurement period found in Step 1.

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

Optional Calculations Using More Than One Year of Data:

Optional PDC Numerator:

- For new users (individuals with no prescriptions for antipsychotic drugs during the 180 days prior to the measurement period), the PDC numerator is the sum of the days covered by the days' supply of the prescriptions during the measurement period. The period covered by the PDC for new users 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 prescriptions 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 prescriptions for the same drug (generic name or GPI) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

- For continuous users (individuals with 1 or more prescriptions for antipsychotic drugs during the 180 days prior to the measurement period), the PDC numerator is the sum of the days covered by the days' supply of the prescriptions during the measurement period. The period covered by the PDC for continuous users is the beginning of the measurement period through the end of the measurement period or death, whichever comes first. For prescriptions with a days' supply that extends beyond the beginning or end of the measurement period, count only the days for which the drug was available to the individual during the measurement period. If prescriptions for the same drug (generic name or GPI) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

Optional PDC Denominator:

- For new users, the PDC denominator is the number of days that 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 continuous users, the PDC denominator is the number of days from the beginning of the measurement period through the end of the measurement period, or death, whichever comes first.

Optional Calculation Adjusting for Hospitalizations (one year of data):

- If the individual is hospitalized between the index date and end date, each inpatient visit is treated as a prescription and as days covered for each antipsychotic that the individual was prescribed before the hospitalization. The admit date becomes the prescription service date, and the number of inpatient days becomes the days' supply.

Optional Calculation Adjusting for Hospitalizations (more than one year of data):

- If the individual is hospitalized between the index date and end date for new users, or if the individual is hospitalized during the measurement period for continuous users, each inpatient visit is treated as a prescription and as days covered for each antipsychotic that the individual was prescribed before the hospitalization. The admit date becomes the prescription service date, and the number of days becomes the days' supply.

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/GEM). 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 that died, even though the overall measure does not.

I. Identify Physician and Medical Groups

1. Identify all Tax Identification Numbers (TINs)/National Provider Identification (NPI)/UPIN combinations from all Part B claims in the measurement year and the prior year. The NPI for the performing provider is used.

   If no NPI is available on the claim, check other data sources, such as CMS provider tables or the National Plan and Provider Enumeration System (NPPES), for a current NPI, based on the physician UPIN. Keep records with valid NPI. Valid NPIs have 10 numeric characters (no alpha characters).

   Note: Due to NPI implementation, UPINs are not necessary for attribution using Part B data from 2008 and later.

2. For valid NPIs, pull credentials and specialty code(s). Credentials and specialty codes are pulled in the following order:
   a. From the CMS provider tables.
   b. If not found in A, then pull from NPPES

3. Create 1 record per NPI with all credentials and all specialties. A provider may have more than 1 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 #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 percent of Part B claims that match by TIN, npi_prfrmg, and provider state code for each TIN, keeping those TINs with percent greater than or equal to 50%.
   d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all 9 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 #4 for the measurement year and/or prior year. If the performing NPI is not on the claim, match to obtain NPI from the list created in #4 by UPIN.

b. Count unique NPIs per TIN.
c. Keep only those TINs having 2 or more providers.
d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all 9 digits or values of 012345678, 012345678, 123456789, 987654321, or 87654321.

7. Create final group of TINs from #5 and #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.

II. Identify Individual Sample and Claims

9. 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 payor. Remove individuals with BENE_PRMRY_PYR_CD not equal to one of the following:
        - A = working-age beneficiary/spouse with EGHP
        - B = ESRD in the 18-month coordination period with an employer group health plan
        - 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 that enter the Medicare hospice at any point during the measurement year.
    e. Exclude individuals that died during the measurement year.

10. For individuals identified in #9, pull office visit claims that occur during the measurement year and in the 6 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 physician_upin and no npi_prfrmg.

11. Attach medical group TIN to claims by NPI or UPIN if no performing NPI is available.

III. Patient Attribution

12. Pull all Part B office claims from #11 with specialties indicating primary care or psychiatry (see list of provider specialties and specialty codes). Attribute each individual to at most 1 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 ('50' or '97'), then check additional specialty codes

13. For each individual, count claims per medical group TIN. Keep only individuals with 2 or more E&M claims.

14. Attribute individual to the medical group TIN with the most claims. If a tie occurs between medical group TINs, attribute the TIN with most recent claim.

15. 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 physician, 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.