Optimizing Health by Advancing the Quality of Medication Use

Endorsement Consideration:

PQA Health Plan Performance Measure

The specifications for one new health plan performance measure recommended for PQA endorsement consideration are detailed on the pages that follow.

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Proportion of Days Covered Composite [Health Plan] (PDC-CMP)

Description

The composite percentage of individuals ≥18 years of age who met the Proportion of Days Covered (PDC) threshold of 80% for diabetes medications, RAS antagonists, and statins during the measurement year.

This is a composite health plan performance measure that combines rates from the following component measures:

- Component 1: Proportion of Days Covered: Diabetes All Class (PDC-DR)
- Component 2: Proportion of Days Covered: Renin Angiotensin System Antagonists (PDC-RASA)
- Component 3: Proportion of Days Covered: Statins (PDC-STA)

Intended Use

Intended Use	Performance measurement for health plans.

Composite Calculation

Step 1	Calculate each component rate separately for the PDC-DR, PDC-RASA, and PDC-STA measures using the PQA specifications and associated value sets. Note: Individuals are counted separately in the denominator and numerator of each component measure, even if they are included in the denominator and numerator of multiple component measures.
Step 2	Aggregate measure rates from each component measure by summing the denominators and numerators of each component measure. This is the composite denominator and numerator.
Step 3	Calculate the composite measure rate as the composite numerator divided by the composite denominator.

Component 1: Proportion of Days Covered: Diabetes All Class (PDC-DR)

Description

The percentage of individuals ≥18 years of age who met the Proportion of Days Covered (PDC) threshold of 80% for diabetes medications during the measurement year.

A higher rate indicates better performance.

PQA Endorsed 2008 (NQF-Endorsed #0541).

Intended Use

Intended Use

Performance measurement for health plans.

Related Measures

- *Statin Use in Persons with Diabetes* (SUPD) (PQA)
- *Use of Medications to Prevent Major Cardiovascular Events in Persons with Diabetes* (CVDM) (PQA)
- *Primary Medication Nonadherence [Pharmacy]* (PMN-PH) (PQA)
- *Proportion of Days Covered Composite [Pharmacy]* (PDC-CMP-PH) (PQA)

Definitions

Diabetes Medications

Diabetes or diabetes combination products. See the following Medication Tables:

- BG: Biguanides
- SFU: Sulfonylureas
- TZD: Thiazolidinediones
- DPP4: DPP-4 Inhibitors
- GLP1: GLP-1 Receptor Agonists
- MEG: Meglitinides
- SGLT2: SGLT2 Inhibitors

Proportion of Days Covered (PDC)

The proportion of days in the treatment period "covered" by prescription claims for the same medication or another in its therapeutic category.

PDC Threshold

The level of PDC above which the medication has a reasonable likelihood of achieving most of the potential clinical benefit (80% for diabetes and cardiovascular drugs, and many chronic conditions).

Index Prescription Start Date (IPSD)

The earliest date of service for a target medication during the measurement year.

Treatment Period

The individual's treatment period begins on the IPSD and extends through whichever comes first: the last day of enrollment during the measurement year, death, or the end of the measurement year.

Prescription Claims

Only paid, non-reversed prescription claims are included in the data set to calculate the measure.

Hospice Exclusion

Any individuals in hospice care at any time during the measurement year.

- Hospice indicator from the enrollment database, if available (e.g. Medicare); or

- ≥1 claim, encounter, or medical record during the measurement year. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).

End-Stage Renal Disease Diagnosis Exclusion

Any individuals with ESRD any time during the measurement year
- ≥1 claim with ESRD in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, ESRD.

Insulin Exclusion

Any individuals with ≥1 prescription claim for insulin in the treatment period. See Medication Table INSULINS: Insulin Exclusion.

Eligible Population

Ages

≥18 years of age as of the first day of the measurement year.

Continuous Enrollment

The treatment period.

Exclude individuals with more than one 1-day gap in enrollment during the treatment period.

Note:
- This allows for a 1-day gap to compensate for discrepancies in the enrollment data. For example, if an individual was eligible from 1/1-4/1 and 4/3-12/31, he/she would still be continuously enrolled despite the one-day gap in eligibility on 4/2.

Benefit

Medical and pharmacy.

Event/Diagnosis

Individuals with at least two prescription claims for any of the diabetes medications (Medication Tables BG, SFU, TZD, DPP4, GLP1, MEG, or SGLT2) on different dates of service in the treatment period.

Use the steps below to determine the eligible population.

Step 1 Identify individuals ≥18 years of age as of the first day of the measurement year.

Step 2 Identify individuals with ≥2 prescription claims on different dates of service for any diabetes medication (Medication Tables BG, SFU, TZD, DPP4, GLP1, MEG, or SGLT2) during the measurement year. The prescription claims can be for the same or different medications and can be from any of these seven tables.

Step 3 Determine each individual's treatment period. The treatment period is the time period (in days) from the IPSD to the end of the measurement year, death or last day of enrollment, whichever occurs first.

Step 4 Identify individuals with a treatment period that is ≥91 days during the measurement year.

Step 5 Identify individuals meeting the continuous enrollment requirement during the treatment period.

Step 6 Exclude individuals with one or more of the following:
- Hospice: Hospice care at any time during the measurement year.
- ESRD: An ESRD diagnosis at any time during the measurement year.
- Insulin: ≥1 prescription claims for insulin (Medication Table INSULINS) during

the treatment period.

Administrative Specification

Data Sources

Medical claims, prescription claims.

Denominator

The eligible population.

Numerator

The number of individuals who met the PDC threshold during the measurement year.

Follow the steps below for each individual to determine whether the individual meets the PDC threshold.

Measure Calculation

Step 1 Determine the individual's treatment period, defined as the IPSD to the end of the measurement year, disenrollment, or death.

Step 2 Within the treatment period, count the days the individual was covered by at least one diabetes medication (Medication Tables BG, SFU, TZD, DPP4, GLP1, MEG, or SGLT2) based on the date of service and days' supply on prescription claims. If the days' supply for prescription claims with the same target drug (generic ingredient) overlap, then adjust the prescription claim's start date to be the day after the last days' supply for the previous prescription claim.

Note:

- Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of a combination product to another combination product where at least one of the target drugs is common.

***Step* 3** Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual. Then, round the PDC to the nearest hundredth (e.g. 79.996% is rounded to 80.00%, 79.992% is rounded to 79.99%).

Step 4 Count the individuals who had a PDC of 80% or greater and then divide by the total number of eligible individuals.

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

Rate

Divide the numerator by the denominator and multiply by 100.

Stratification

Commercial, Medicaid, Medicare (report each product line separately).
For Medicare, see notes below.

Medication Tables

Table BG: Biguanides[a,b]

Biguanide Medications and Combinations
• metformin (+/- alogliptin, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, glipizide, glyburide, linagliptin, pioglitazone, repaglinide, rosiglitazone, saxagliptin, sitagliptin)

[a] Active ingredients are limited to oral formulations only.

[b] Excludes nutritional supplement/dietary management combination products.

Table SFU: Sulfonylureas[a]

Sulfonylurea Medications and Combinations		
• chlorpropamide • glimepiride (+/- pioglitazone, rosiglitazone)	• glipizide (+/- metformin) • glyburide (+/- metformin)	• tolazamide • tolbutamide

[a] Active ingredients are limited to oral formulations only.

Table TZD: Thiazolidinediones[a]

Thiazolidinedione Medications and Combinations		
• pioglitazone (+/- alogliptin, glimepiride, metformin)	• rosiglitazone (+/- glimepiride, metformin)	

[a] Active ingredients are limited to oral formulations only.

Table DPP4: DPP-4 Inhibitors[a]

DPP-4 Medications and Combinations		
• alogliptin (+/- metformin, pioglitazone) • linagliptin (+/- empagliflozin, metformin)	• saxagliptin (+/- metformin, dapagliflozin)	• sitagliptin (+/- metformin, ertugliflozin)

[a] Active ingredients are limited to oral formulations only.

Table GLP1: GLP-1 Receptor Agonists[a]

GLP-1 Receptor Agonists Medications		
• albiglutide • dulaglutide	• exenatide • liraglutide	• lixisenatide • semaglutide

[a] Excludes products indicated only for weight loss.

Table MEG: Meglitinides[a]

Meglinitide Medications and Combinations		
• nateglinide	• repaglinide (+/- metformin)	

[a] Active ingredients are limited to oral formulations only.

Table SGLT2: SGLT2 Inhibitors[a]

SGLT2 Inhibitor Medications and Combinations		
• canagliflozin (+/- metformin) • dapagliflozin (+/- metformin, saxagliptin)	• empagliflozin (+/- metformin, linagliptin)	• ertugliflozin (+/- sitagliptin, metformin)

[a] Active ingredients are limited to oral formulations only.

Table INSULINS: Insulin Exclusion[a]

Insulin Medications and Combinations		
• insulin aspart (+/- insulin aspart protamine, niacinamide) • insulin degludec (+/- liraglutide) • insulin detemir • insulin glargine (+/- lixisenatide)	• insulin glargine-aglr • insulin glargine-yfgn • insulin glulisine	• insulin isophane (+/- regular insulin) • insulin lispro (+/- insulin lispro protamine) • insulin regular (including inhalation powder)

[a] Active ingredients are limited to inhaled and injectable formulations only.

Component 2: Proportion of Days Covered: Renin Angiotensin System Antagonists (PDC-RASA)

Description

The percentage of individuals ≥18 years of age who met the Proportion of Days Covered (PDC) threshold of 80% for RAS antagonists during the measurement year.

A higher rate indicates better performance.

PQA Endorsed 2008 (NQF-Endorsed #0541).

Intended Use

Intended Use	Performance measurement for health plans.
Related Measures	• *Primary Medication Nonadherence [Pharmacy]* (PMN-PH) (PQA) • *Proportion of Days Covered Composite [Pharmacy]* (PDC-CMP-PH) (PQA) • *Proportion of Days Covered: Renin Angiotensin System Antagonists [Pharmacy]* (PDC-RASA-PH) (PQA)

Definitions

RAS Antagonist Medications	ACEI/ARB/direct renin inhibitor or ACEI/ARB/direct renin inhibitor combination products. See Medication Table RASA: Renin Angiotensin System (RAS) Antagonists.
Proportion of Days Covered (PDC)	The proportion of days in the treatment period "covered" by prescription claims for the same medication or another in its therapeutic category.
PDC Threshold	The level of PDC above which the medication has a reasonable likelihood of achieving most of the potential clinical benefit (80% for diabetes and cardiovascular drugs, and many chronic conditions).
Index Prescription Start Date (IPSD)	The earliest date of service for a target medication during the measurement year.
Treatment Period	The individual's treatment period begins on the IPSD and extends through whichever comes first: the last day of enrollment during the measurement year, death, or the end of the measurement year.
Prescription Claims	Only paid, non-reversed prescription claims are included in the data set to calculate the measure.
Hospice Exclusion	Any individuals in hospice care at any time during the measurement year. • Hospice indicator from the enrollment database, if available (e.g. Medicare); or • ≥1 claim, encounter, or medical record during the measurement year. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).
End-Stage Renal Disease Diagnosis Exclusion	Any individuals with an ESRD diagnosis at any time during the measurement year • ≥1 claim with ESRD in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, ESRD.

Sacubitril/Valsartan Exclusion	Any individual with ≥1 prescription claim for sacubitril/valsartan during the treatment period. See Medication Table SAC-VAL: Sacubitril/Valsartan Exclusion.

Eligible Population

Ages	≥18 years of age as of the first day of the measurement year.
Continuous Enrollment	The treatment period. Exclude individuals with more than one 1-day gap in enrollment during the treatment period. **Note:** • This allows for a 1-day gap to compensate for discrepancies in the enrollment data. For example, if an individual was eligible from 1/1-4/1 and 4/3-12/31, he/she would still be continuously enrolled despite the one-day gap in eligibility on 4/2.
Benefit	Medical and pharmacy.
Event/Diagnosis	Individuals with at least two prescription claims for any RAS antagonist (Medication Table RASA) on different dates of service in the treatment period. Use the steps below to determine the eligible population.
Step 1	Identify individuals ≥18 years of age as of the first day of the measurement year.
Step 2	Identify individuals with ≥2 prescription claims on different dates of service for any RAS antagonist (Medication Table: RASA) during the measurement year. The prescription claims can be for the same or different medications.
Step 3	Determine each individual's treatment period. The treatment period is the time period (in days) from the IPSD to the end of the measurement year, death or last day of enrollment, whichever occurs first.
Step 4	Identify individuals with a treatment period that is ≥91 days during the measurement year.
Step 5	Identify individuals meeting the continuous enrollment requirement during the treatment period.
Step 6	Exclude individuals with one or more of the following: • Hospice: Hospice care at any time during the measurement year. • ESRD: An ESRD diagnosis at any time during the measurement year. • Sacubitril/Valsartan: A prescription claim for sacubitril/valsartan (Medication Table SAC-VAL) during the treatment period.

Administrative Specification

Data Sources	Medical claims, prescription claims.
Denominator	The eligible population.

Numerator

The number of individuals who met the PDC threshold during the measurement year.

Measure Calculation

Follow the steps below for each individual to determine whether the individual meets the PDC threshold.

Step 1 Determine the individual's treatment period, defined as the IPSD to the end of the measurement year, disenrollment, or death.

Step 2 Within the treatment period, count the days the individual was covered by at least one RAS antagonist (Medication Table RASA) based on the date of service and days' supply on prescription claims. If the days' supply for prescription claims with the same target drug (generic ingredient) overlap, then adjust the prescription claim's start date to be the day after the last days' supply for the previous prescription claim.

Note:

- Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of a combination product to another combination product where at least one of the target drugs is common.

***Step* 3** Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual. Then, round the PDC to the nearest hundredth (e.g. 79.996% is rounded to 80.00%, 79.992% is rounded to 79.99%).

Step 4 Count the number of individuals who had a PDC of 80% or greater and then divide by the total number of eligible individuals.

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

Rate

Divide the numerator by the denominator and multiply by 100.

Stratification

Commercial, Medicaid, Medicare (report each product line separately).
For Medicare, see notes below.

Medication Tables

Table RASA: Renin Angiotensin System (RAS) Antagonists[a,b]

Direct Renin Inhibitor Medications and Combinations		
• aliskiren (+/- hydrochlorothiazide)		
ARB Medications and Combinations		
• azilsartan (+/- chlorthalidone) • candesartan (+/- hydrochlorothiazide) • eprosartan (+/- hydrochlorothiazide)	• irbesartan (+/- hydrochlorothiazide) • losartan (+/- hydrochlorothiazide) • olmesartan (+/- amlodipine, hydrochlorothiazide)	• telmisartan (+/- amlodipine, hydrochlorothiazide) • valsartan (+/- amlodipine, hydrochlorothiazide, nebivolol)
ACE Inhibitor Medications and Combination Products		
• benazepril (+/- amlodipine, hydrochlorothiazide) • captopril (+/- hydrochlorothiazide) • enalapril (+/- hydrochlorothiazide) • fosinopril (+/- hydrochlorothiazide)	• lisinopril (+/- hydrochlorothiazide) • moexipril (+/- hydrochlorothiazide) • perindopril (+/- amlodipine)	• quinapril (+/- hydrochlorothiazide) • ramipril • trandolapril (+/- verapamil)

[a] Active ingredients are limited to oral formulations only.

[b] Excludes nutritional supplement/dietary management combination products.

Table SAC-VAL: Sacubitril/Valsartan Exclusion

ARB/Neprilysin Inhibitor Combination Medication
• sacubitril/valsartan

Component 3: Proportion of Days Covered: Statins (PDC-STA)

Description

The percentage of individuals ≥18 years of age who met the Proportion of Days Covered (PDC) threshold of 80% for statins during the measurement year.

A higher rate indicates better performance.

PQA Endorsed 2008 (NQF-Endorsed #0541).

Intended Use

Intended Use	Performance measurement for health plans.
Related Measures	• *Statin Use in Persons with Diabetes* (SUPD) (PQA) • *Proportion of Days Covered Composite [Pharmacy]* (PDC-CMP-PH) (PQA) • *Primary Medication Nonadherence [Pharmacy]* (PMN-PH) (PQA) • *Proportion of Days Covered: Statins [Pharmacy]* (PDC-STA-PH) (PQA)

Definitions

Statin Medications	Statin or statin combination products. See Medication Table STATINS: Statins.
Proportion of Days Covered (PDC)	The proportion of days in the treatment period "covered" by prescription claims for the same medication or another in its therapeutic category.
PDC Threshold	The level of PDC above which the medication has a reasonable likelihood of achieving most of the potential clinical benefit (80% for diabetes and cardiovascular drugs, and many chronic conditions).
Index Prescription Start Date (IPSD)	The earliest date of service for a target medication during the measurement year.
Treatment Period	The individual's treatment period begins on the IPSD and extends through whichever comes first: the last day of enrollment during the measurement year, death, or the end of the measurement year.
Prescription Claims	Only paid, non-reversed prescription claims are included in the data set to calculate the measure.
Hospice Exclusion	Any individuals in hospice care at any time during the measurement year. • Hospice indicator from the enrollment database, if available (e.g. Medicare); or • ≥1 claim, encounter, or medical record during the measurement year. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).
End-Stage Renal Disease Diagnosis Exclusion	Any individuals with ESRD at any time during the measurement year • ≥1 claim with ESRD in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, ESRD.

Eligible Population

Ages

≥18 years of age as of the first day of the measurement year.

Continuous Enrollment

The treatment period.

Exclude individuals with more than one 1-day gap in enrollment during the treatment period.

Note:

- This allows for a 1-day gap to compensate for discrepancies in the enrollment data. For example, if an individual was eligible from 1/1-4/1 and 4/3-12/31, he/she would still be continuously enrolled despite the one-day gap in eligibility on 4/2.

Benefit

Medical and pharmacy.

Event/Diagnosis

Individuals with at least two prescription claims for any statin (Medication Table STATINS) on different dates of service in the treatment period.

Use the steps below to determine the eligible population.

Step 1 Identify individuals ≥18 years of age as of the first day of the measurement year.

Step 2 Identify individuals with ≥2 prescription claims on different dates of service for any statin (Medication Table STATINS) during the measurement year. The prescription claims can be for the same or different medications.

Step 3 Determine each individual's treatment period. The treatment period is the time period (in days) from the IPSD to the end of the measurement year, death or last day of enrollment, whichever occurs first.

Step 4 Identify individuals with a treatment period that is ≥91 days during the measurement year.

Step 5 Identify individuals meeting the continuous enrollment requirement during the treatment period.

Step 6 Exclude individuals with one or more of the following:

- Hospice: Hospice care at any time during the measurement year.
- ESRD: An ESRD diagnosis at any time during the measurement year.

Administrative Specification

Data Sources

Medical claims, prescription claims.

Denominator

The eligible population.

Numerator

The number of individuals who met the PDC threshold during the measurement year.

Follow the steps below for each individual to determine whether the individual meets the PDC threshold.

Measure Calculation

Step 1 Determine the individual's treatment period, defined as the IPSD to the end of the measurement year, disenrollment, or death.

Step 2 Within the treatment period, count the days the individual was covered by at least one drug in the class based on the date of service and days' supply on prescription claims. If the days' supply for prescription claims with the same target drug (generic ingredient) overlap, then adjust the prescription claim's start date to be the day after the last days' supply for the previous prescription claim.

Note:

- Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of a combination product to another combination product where at least one of the target drugs is common.

Step 3 Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual. Then, round the PDC to the nearest hundredth (e.g. 79.996% is rounded to 80.00%, 79.992% is rounded to 79.99%).

Step 4 Count the number of individuals who had a PDC of 80% or greater and then divide by the total number of eligible individuals.

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

Rate Divide the numerator by the denominator and multiply by 100.

Stratification Commercial, Medicaid, Medicare (report each product line separately). For Medicare, see notes below.

Medication Tables

Table STATINS: Statins[a]

Statin Medications and Combinations		
• atorvastatin (+/- amlodipine) • Fluvastatin • lovastatin (+/- niacin)	• pitavastatin • pravastatin	• rosuvastatin (+/- ezetimibe) • simvastatin (+/- ezetimibe, niacin)

[a] Active ingredients are limited to oral formulations only.