



## THREE NEW PHARMACY PERFORMANCE MEASURES RECOMMENDED FOR ENDORSEMENT BY PQA

- *Proportion of Days Covered: Renin Angiotensin System Antagonists (Pharmacy) (PDC-RASA-PH)*
- *Proportion of Days Covered: Statins (Pharmacy) (PDC-STA-PH)*
- *Proportion of Days Covered: Antiretroviral Medications (Pharmacy) (PDC-ARV-PH)*

### BACKGROUND

The Pharmacy Quality Alliance (PQA) is working to develop measures that would be appropriate for a standard set of measures to assess pharmacy performance, including in accountability programs. The first phase of this work is the development of pharmacy measures adapted from existing PQA health plan measures, using administrative claims data to calculate measure rates. PQA took this approach to accommodate the market need for expedited development, thereby aiming to have pharmacy performance measures completed and endorsed by the end of January 2020. PQA completed this short-term development and presents three pharmacy performance measures for membership endorsement consideration.

The development of de novo pharmacy measures, a longer-term effort, will begin in early 2020 and will explore the use of pharmacy system data, lab values and other data.

The specifications for PQA pharmacy performance measures recommended for endorsement consideration are detailed in Appendix A.

Additional information regarding PQA's pharmacy measure development strategy is provided in Appendix B.

### NEW PHARMACY PERFORMANCE MEASURES

For each of the three pharmacy PDC measures, the following **Patient-Pharmacy Attribution Model** is applied:

Assign each individual to the pharmacy with  $\geq 51\%$  of the days' supply for all of the individual's prescription claims involving the target medication(s) (measure specific).

- Identify each pharmacy using the National Provider Identifier (NPI).
- If no pharmacy has  $\geq 51\%$  of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.

## 1. Proportion of Days Covered: Renin Angiotensin System Antagonists (Pharmacy) (PDC-RASA-PH)

**DESCRIPTION:** The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 80% for RAS Antagonists during the measurement year. A higher rate indicates better performance.

The denominator includes individuals attributed to the pharmacy who are 18 years and older with  $\geq 2$  prescription claims on different dates of service for any RAS antagonist, and a treatment period that is  $\geq 91$  days during the measurement year.

The numerator includes individuals from the denominator who met the PDC threshold of 80% during the measurement year.

Exclude individuals with one or more of the following:

- Hospice: Hospice care at any time during the measurement year.
- End Stage Renal Disease (ESRD): An ESRD diagnosis at any time during the measurement year.
- Sacubitril/Valsartan: A prescription claim for sacubitril/valsartan during the treatment period.

**INTENDED USE:** Performance measurement for pharmacies.

- This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.
- This measure requires a minimum denominator of 30 for reliability. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.
- Additional testing is needed for use of the measure for performance measurement in Medicaid and Commercial populations.

**DATA SOURCE:** Prescription claims.

**KEY POINTS:**

- Medication adherence for hypertension remains suboptimal,<sup>1-3</sup> and pharmacists can leverage a variety of interventions to improve adherence.<sup>4,5</sup>
- Recent evidence continues to demonstrate the relationship of medication adherence with improved clinical outcomes and decreased healthcare costs.<sup>1,6,7</sup>
- Additional rationale supporting the measure can be accessed [here](#).
- The measure was tested by PQA using Mississippi (MS) state Medicare (PDP and MA-PD) data from calendar year 2016.
- Of those that met the eligible population criteria, 97% of individuals were attributed to a pharmacy (see patient-pharmacy attribution model, above). Therefore, 3% of individuals were not attributed to any pharmacy and not included in the measure.

- After applying the minimum denominator requirement of 30 individuals per pharmacy, 98% of individuals and 30% of pharmacies remained in the measure.
- The measure rates ranged 37%-97%, with a mean rate of 75% and standard deviation of 7%.
- The rates by gender were similar (77% for males; 76% for females); and rates by LIS status differed, with LIS population at 71% and non-LIS population at 81%.
- Reliability testing conducted on the MS Medicare data as a ratio of signal-to-noise using the Adams beta binomial reliability methodology<sup>8</sup> showed the measure was reliable, with a mean reliability score of 0.70.
- The QMEP voted (16 [84.21%] yes; and 3 [15.79%] no) to recommend the performance measure to the PQA membership for endorsement consideration.
- If endorsed by PQA membership, this measure, when used as specified, would be appropriate for assessing pharmacy performance, including in accountability programs.

#### **REFERENCES:**

1. Lloyd JT, Maresh S, Powers CA, Shrank WH, Alley DE. How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program? *Med Care*. 2019;57:218-24. PMID: [30676355](#).
2. Ritchey M, Chang A, Powers C, et al. Vital Signs: Disparities in Antihypertensive Medication Nonadherence Among Medicare Part D Beneficiaries - United States, 2014. *MMWR Morb Mortal Wkly Rep*. 2016;65:967-76. PMID: [27632693](#).
3. CMS. Part C and D Performance Data. Centers for Medicare & Medicaid Services. Accessed on: 02/08/2019. Available at: <https://www.cms.gov/medicare/prescription-drug-coverage/prescriptiondrugcovgenin/performance.html>.
4. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med*. 2012;157:785-95. PMID: [22964778](#).
5. Kini V, Ho PM. Interventions to Improve Medication Adherence: A Review. *JAMA*. 2018;320:2461-73. PMID: [30561486](#).
6. Axon D, Chinthammit C, Taylor A, et al. A retrospective database analysis reevaluating the relationship between Pharmacy Quality Alliance-defined adherence and healthcare costs and utilization for commercially insured patients on renin-angiotensin system antagonists. *J Manag Care Spec Pharm*. 2019;25:3-a Suppl, I1. PMID: [30854912](#).
7. Roebuck MC, Kaestner RJ, Dougherty JS. Impact of Medication Adherence on Health Services Utilization in Medicaid. *Med Care*. 2018; 56(3):266-273. PMID: [29309392](#).
8. Adams JL. The reliability of provider profiling: a tutorial. Santa Monica, CA: RAND Corporation. 2009. Available at: [http://www.rand.org/pubs/technical\\_reports/TR653](http://www.rand.org/pubs/technical_reports/TR653).

## **2. Proportion of Days Covered: Statins (Pharmacy) (PDC-STA-PH)**

**DESCRIPTION:** The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 80% for statins during the measurement year. A higher rate indicates better performance.

The denominator includes individuals attributed to the pharmacy who are 18 years and older with  $\geq 2$  prescription claims on different dates of service for any statin medication, and a treatment period that is  $\geq 91$  days during the measurement year.

The numerator includes individuals from the denominator who met the PDC threshold of 80% during the measurement year.

Exclude individuals with one or more of the following:

- Hospice: Hospice care at any time during the measurement year.
- End Stage Renal Disease (ESRD): An ESRD diagnosis at any time during the measurement year.

**INTENDED USE:** Performance measurement for pharmacies.

- This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.
- This measure requires a minimum denominator of 30 for reliability. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.
- Additional testing is needed for use of the measure for performance measurement in Medicaid and Commercial populations.

**DATA SOURCE:** Prescription claims.

**KEY POINTS:**

- Medication adherence for cholesterol remains suboptimal,<sup>1,2</sup> and pharmacists can leverage a variety of interventions to improve adherence.<sup>3,4</sup>
- Recent evidence continues to demonstrate the relationship of medication adherence with improved clinical outcomes and reduced healthcare costs.<sup>1,5,6</sup>
- Additional rationale supporting the measure can be accessed [here](#).
- The measure was tested by PQA using Mississippi (MS) state Medicare (PDP and MA-PD) data from calendar year 2016.
- Of those that met the eligible population criteria, 97% of individuals were attributed to a pharmacy (see patient-pharmacy attribution model, above). Therefore, 3% of individuals were not attributed to any pharmacy and not included in the measure.
- After applying the minimum denominator requirement of 30 individuals per pharmacy, 98% of individuals and 32% of pharmacies remained in the measure.
- The measure rates ranged 29%-100%, with a mean rate of 71% and standard deviation of 7%.
- The rates by gender differed (75% for males; 71% for females); and rates by LIS status differed, with LIS population at 68% and non-LIS population at 75%.
- Reliability testing conducted on the MS Medicare data as a ratio of signal-to-noise using the Adams beta binomial reliability methodology<sup>7</sup> showed the measure was reliable, with a mean reliability score of 0.69.
- The QMEP voted (16 [84.21%] yes; and 3 [15.79%] no) to recommend the performance measure to the PQA membership for endorsement consideration.

- If endorsed by PQA membership, this measure, when used as specified, would be appropriate for assessing pharmacy performance, including in accountability programs.

#### **REFERENCES:**

1. Lloyd JT, Maresh S, Powers CA, Shrank WH, Alley DE. How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program? *Med Care*. 2019;57:218-24. PMID: [30676355](#).
2. CMS. Part C and D Performance Data. Centers for Medicare & Medicaid Services. Accessed on: 02/08/2019. Available at: <https://www.cms.gov/medicare/prescription-drug-coverage/prescriptiondrugcovgenin/performancecedata.html>.
3. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med*. 2012;157:785-95. PMID: [22964778](#).
4. Kini V, Ho PM. Interventions to Improve Medication Adherence: A Review. *JAMA*. 2018;320:2461-73. PMID: [30561486](#).
5. Chinthammit C, Axon D, Anderson S, et al. A retrospective database analysis evaluating the association between Pharmacy Quality Alliance cholesterol medication adherence measure and economic outcomes for commercially insured patients. *J Manag Care Spec Pharm*. 2019;25:3-a Suppl, I17. PMID: [30854912](#).
6. Choudhry NK, Glynn RJ, Avorn J, et al. Untangling the relationship between medication adherence and post-myocardial infarction outcomes: medication adherence and clinical outcomes. *Am Heart J*. 2014;167:51-58.e5. PMID: [24332142](#).
7. Adams JL. The reliability of provider profiling: a tutorial. Santa Monica, CA: RAND Corporation. 2009. Available at: [http://www.rand.org/pubs/technical\\_reports/TR653](http://www.rand.org/pubs/technical_reports/TR653).

### **3. Proportion of Days Covered: Antiretroviral Medications (Pharmacy) (PDC-ARV-PH)**

**DESCRIPTION:** The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 90% for  $\geq 3$  antiretroviral medications during the measurement year. A lower rate indicates better performance.

The denominator includes individuals attributed to the pharmacy who are 18 years and older with prescription claims for  $\geq 3$  distinct ARVs (as a single agent or as a combination) each with 2 different dates of service, and a treatment period that is  $\geq 91$  days during the measurement year.

The numerator includes individuals from the denominator who met the PDC threshold of 90% during the measurement year.

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

**INTENDED USE:** Performance measurement for pharmacies.

- This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.
- This measure requires a minimum denominator of 30 for reliability. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.
- Additional testing is needed for use of the measure for performance measurement in Medicaid and Commercial populations.

**DATA SOURCE:** Prescription claims.

**KEY POINTS:**

- The 2017 updates to the Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV emphasize the importance of patient adherence to antiretroviral therapy to sustain viral load suppression, to reduce the risk of drug resistance, and to improve patients' overall health, quality of life, and survival.<sup>1</sup>
- Drug resistance develops rapidly, with a greater risk for disease progression, below the 90% adherence threshold.<sup>2</sup>
- Adherence to antiretroviral therapy decreases transmission rates, thereby reducing the incidence of HIV and the public health impact of the disease.<sup>1</sup>
- Medication adherence for antiretroviral therapy remains suboptimal,<sup>2,3</sup> and pharmacists can leverage a variety of interventions to improve adherence.<sup>4-6</sup>
- The measure was tested by PQA using Mississippi (MS) state Medicare (PDP and MA-PD) data from calendar year 2016.
- Of those that met the eligible population criteria, 98% of individuals were attributed to a pharmacy (see patient-pharmacy attribution model, above). Therefore, 2% of individuals were not attributed to any pharmacy and not included in the measure.
- After applying the minimum denominator requirement of 30 individuals per pharmacy, 28% of individuals and 2% of pharmacies remained in the measure.
- The measure rates ranged 44%-82%, with a mean rate of 71% and standard deviation of 15%.
- The rates by gender were similar (75% for males; 75% for females); and rates by LIS status differed, with LIS population at 73% and non-LIS population at 79%.
- Reliability testing conducted on the MS Medicare data as a ratio of signal-to-noise using the Adams beta binomial reliability methodology<sup>7</sup> showed the measure was reliable, with a mean reliability score of 0.74.
- The QMEP voted (16 [84.21%] yes; and 3 [15.79%] no) to recommend the performance measure to the PQA membership for endorsement consideration.
- If endorsed by PQA membership, this measure, when used as specified, would be appropriate for assessing pharmacy performance, including in accountability programs.

**REFERENCES:**

1. Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV [Internet]. Department of Health and Human Services. [cited 2017 Oct 17]. Available from: <https://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-arv/0>.
2. Langness J, Cook PF, Gill J, Boggs R, Netsanet N. Comparison of adherence rates for antiretroviral, blood pressure, or mental health medications for HIV-positive patients at an academic medical center outpatient pharmacy. *J Manag Care Spec Pharm*. 2014; 20(8):809-14. PMID: [25062074](https://pubmed.ncbi.nlm.nih.gov/25062074/).
3. Ortego C, Huedo-Medina TB, Llorca J, et al. Adherence to highly active antiretroviral therapy (HAART): a meta-analysis. *AIDS Behav*. 2011 Oct;15(7):1381-96. PMID: [21468660](https://pubmed.ncbi.nlm.nih.gov/21468660/).

4. Thompson M, Mugavero M, Amico KR, et al. Guidelines for Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons With HIV: Evidence-Based Recommendations From an International Association of Physicians in AIDS Care Panel. *Ann Intern Med.* 2012;156:817-833. PMID: [22393036](#).
5. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med.* 2012;157:785-95. PMID: [22964778](#).
6. Kini V, Ho PM. Interventions to Improve Medication Adherence: A Review. *JAMA.* 2018;320:2461-73. PMID: [30561486](#).
7. Adams JL. The reliability of provider profiling: a tutorial. Santa Monica, CA: RAND Corporation. 2009. Available at: [http://www.rand.org/pubs/technical\\_reports/TR653](http://www.rand.org/pubs/technical_reports/TR653).

APPENDIX A

# PQA PDC Pharmacy Measures

## *Measure Specifications*

The specifications for PQA pharmacy performance measures recommended for endorsement consideration are detailed on the pages that follow.

### Contents

<i>Proportion of Days Covered: Renin Angiotensin System Antagonists (Pharmacy) (PDC-RASA-PH)</i> .....	2
<i>Proportion of Days Covered: Statins (Pharmacy) (PDC-STA-PH)</i> .....	6
<i>Proportion of Days Covered: Antiretroviral Medications (Pharmacy) (PDC-ARV-PH)</i> .....	9



## Proportion of Days Covered: Renin Angiotensin System Antagonists (Pharmacy) (PDC-RASA-PH)

### Description

The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 80% for RAS Antagonists during the measurement year.

A higher rate indicates better performance.

### Intended Use

#### Intended Use

Performance measurement for pharmacies.

This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.

This measure requires a **minimum denominator of 30 for reliability**. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.

### Definitions

#### RAS Antagonist Medications

ACEI/ARB/direct renin inhibitor or ACEI/ARB/direct renin inhibitor combination products. See Table PDC-RASA-A: 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).

#### Pharmacy

Refers to individual outpatient pharmacies, inclusive of community (independent and chain), specialty, mail order and long-term care pharmacies. Pharmacies are identified by their National Provider Identifier (NPI).

#### Index Prescription Start Date (IPSD)

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

The IPSD must occur at least 91 days before the end of the measurement year (i.e., January 1 – October 2).

#### 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)
- ≥1 claim with place of service code 34 during the measurement year, if hospice indicator is not available (e.g. Commercial, Medicaid).

#### 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 PQA ICD Code Value Sets, ESRD.
- Pharmacy hierarchical condition category (RxHCC) 261 from the Medicare Part D risk adjustment model for payment year 2019 which indicates dialysis

status, if ICD codes are not available.<sup>1</sup>

**Sacubitril/Valsartan Exclusion** Any individuals with  $\geq 1$  prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion).

### Eligible Population

<b>Patient-Pharmacy Attribution</b>	Assign each individual to the pharmacy with $\geq 51\%$ of the days' supply for all of the individual's prescription claims involving a target medication. <ul style="list-style-type: none"> <li>• Identify each pharmacy using the National Provider Identifier (NPI).</li> <li>• If no pharmacy has <math>\geq 51\%</math> of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.</li> </ul>
<b>Ages</b>	18 years and older as of the first day of the measurement year.
<b>Treatment Period</b>	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. The IPSD should occur at least 91 days before the end of the enrollment period.
<b>Continuous Enrollment</b>	The treatment period. <p>Exclude individuals with <math>&gt; 1</math> day gap in enrollment during the treatment period.</p> <ul style="list-style-type: none"> <li>• Note: This allows for a one-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.</li> </ul>
<b>Benefit</b>	Pharmacy.
<b>Event/Diagnosis</b>	Individuals who filled at least two prescriptions for any RAS antagonist (Table PDC-RASA-A) on different dates of service in the treatment period. The prescriptions can be for the same or different medications.
	Use the steps below to determine the eligible population.
<b>Step 1</b>	Identify individuals aged 18 years and older as of the first day of the measurement year.
<b>Step 2</b>	Identify individuals with $\geq 2$ prescription claims on different dates of service for any RAS antagonist (Table PDC-RASA-A) during the measurement year.
<b>Step 3</b>	Identify individuals with an IPSD from January 1 – October 2 of the measurement year.
<b>Step 4</b>	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
<b>Step 5</b>	Identify individuals with a treatment period that is $\geq 91$ days during the measurement year.
<b>Step 6</b>	Identify individuals meeting the continuous enrollment requirement during the treatment period.
<b>Step 7</b>	Exclude individuals with one or more of the following:

<sup>1</sup> Available at: <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors.html>

- 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 during the treatment period (Table PDC-RASA-B).

- Step 8** Assign each individual to the pharmacy with ≥51% of the days' supply for all of the individual's prescription claims involving a target medication.
- Identify each pharmacy using the National Provider Identifier (NPI).
  - If no pharmacy has ≥51% of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.

### Administrative Specification

**Data Sources** 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, last day of enrollment, 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 prescription fill date and days' supply. If prescriptions for the same target drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

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.

**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** Report the pharmacy's measure rate for the entire Medicare line of business, without stratification.

### Medication Tables

Table PDC-RASA-A: Renin Angiotensin System (RAS) Antagonists <sup>a,b</sup>

Direct Renin Inhibitor Medications and Combinations		
• aliskiren (+/- hydrochlorothiazide)		
ARB Medications and Combinations		
• azilsartan (+/-	• irbesartan (+/-	• telmisartan (+/-

<ul style="list-style-type: none"> <li>chlorthalidone)</li> <li>• candesartan (+/- hydrochlorothiazide)</li> <li>• eprosartan (+/- hydrochlorothiazide)</li> </ul>	<ul style="list-style-type: none"> <li>hydrochlorothiazide)</li> <li>• losartan (+/- hydrochlorothiazide)</li> <li>• olmesartan (+/- amlodipine, hydrochlorothiazide)</li> </ul>	<ul style="list-style-type: none"> <li>amlodipine, hydrochlorothiazide)</li> <li>• valsartan (+/- amlodipine, hydrochlorothiazide nebulol)</li> </ul>
<b>ACE Inhibitor Medications and Combination Products</b>		
<ul style="list-style-type: none"> <li>• benazepril (+/- amlodipine, hydrochlorothiazide)</li> <li>• captopril (+/- hydrochlorothiazide)</li> <li>• enalapril (+/- hydrochlorothiazide)</li> <li>• fosinopril (+/- hydrochlorothiazide)</li> </ul>	<ul style="list-style-type: none"> <li>• lisinopril (+/- hydrochlorothiazide)</li> <li>• moexipril (+/- hydrochlorothiazide)</li> <li>• perindopril (+/- amlodipine)</li> </ul>	<ul style="list-style-type: none"> <li>• quinapril (+/- hydrochlorothiazide)</li> <li>• ramipril</li> <li>• trandolapril (+/- verapamil)</li> </ul>

<sup>a</sup> Active ingredients are limited to oral formulations only.

<sup>b</sup> Excludes nutritional supplement/dietary management combination products.

**Table PDC-RASA-B Exclusion: Sacubitril/Valsartan**

<b>ARB/Nepriylsin Inhibitor Combination Medication</b>
<ul style="list-style-type: none"> <li>• sacubitril/valsartan</li> </ul>

## Proportion of Days Covered: Statins (Pharmacy) (PDC-STA-PH)

### Description

The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 80% for statins during the measurement year.

A higher rate indicates better performance.

### Intended Use

#### Intended Use

Performance measurement for pharmacies.

This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.

This measure requires a **minimum denominator of 30 for reliability**. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.

### Definitions

#### Statin Medications

Statin or statin combination products. See Table PDC-STA-A: 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).

#### Pharmacy

Refers to individual outpatient pharmacies, inclusive of community (independent and chain), specialty, mail order and long-term care pharmacies. Pharmacies are identified by their National Provider Identifier (NPI).

#### Index Prescription Start Date (IPSD)

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

The IPSD must occur at least 91 days before the end of the measurement year (i.e. January 1 – October 2).

#### 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
- $\geq 1$  claim with place of service code 34 during the measurement year, if hospice indicator is not available (e.g. Commercial, Medicaid).

#### End-Stage Renal Disease Diagnosis Exclusion

Any individuals with ESRD at any time during the measurement year.

- $\geq 1$  claim with ESRD in the primary diagnosis or any other diagnosis fields during the measurement year. See PQA ICD Code Value Sets, ESRD.
- Pharmacy hierarchical condition category (RxHCC) 261 from the Medicare Part D risk adjustment model for payment year 2019 which indicates dialysis status, if ICD codes are not available.<sup>2</sup>

<sup>2</sup> Available at: <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors.html>

## Eligible Population

<b>Patient-Pharmacy Attribution</b>	<p>Assign each individual to the pharmacy with <math>\geq 51\%</math> of the days' supply for all of the individual's prescription claims involving a target medication.</p> <ul style="list-style-type: none"> <li>Identify each pharmacy using the National Provider Identifier (NPI).</li> <li>If no pharmacy has <math>\geq 51\%</math> of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.</li> </ul>
<b>Ages</b>	18 years and older as of the first day of the measurement year.
<b>Treatment Period</b>	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. The IPSD should occur at least 91 days before the end of the enrollment period.
<b>Continuous Enrollment</b>	<p>The treatment period.</p> <p>Exclude individuals with <math>&gt;1</math> day gap in enrollment during the treatment period. Note: This allows for a one-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.</p>
<b>Benefit</b>	Pharmacy.
<b>Event/Diagnosis</b>	<p>Individuals who filled at least two prescriptions for any statin (Table PDC-STA-A) on different dates of service in the treatment period. The prescriptions can be for the same or different medications.</p> <p>Use the steps below to determine the eligible population.</p> <p><b>Step 1</b> Identify individuals aged 18 years and older as of the first day of the measurement year.</p> <p><b>Step 2</b> Identify individuals with <math>\geq 2</math> prescription claims on different dates of service for any statin (Table PDC-STA-A) during the measurement year.</p> <p><b>Step 3</b> Identify individuals with an IPSD from January 1 – October 2 of the measurement year.</p> <p><b>Step 4</b> 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</p> <p><b>Step 5</b> Identify individuals with a treatment period that is <math>\geq 91</math> days during the measurement year.</p> <p><b>Step 6</b> Identify individuals meeting the continuous enrollment requirement during the treatment period.</p> <p><b>Step 7</b> Exclude individuals with one or more of the following:</p> <ul style="list-style-type: none"> <li>Hospice: Hospice care at any time during the measurement year.</li> <li>ESRD: An ESRD diagnosis at any time during the measurement year.</li> </ul> <p><b>Step 8</b> Assign each individual to the pharmacy with <math>\geq 51\%</math> of the days' supply for all of the individual's prescription claims involving a target medication.</p> <ul style="list-style-type: none"> <li>Identify each pharmacy using the National Provider Identifier (NPI).</li> </ul>

- If no pharmacy has  $\geq 51\%$  of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.

**Administrative Specification**

<b>Data Sources</b>	Prescription claims.
<b>Denominator</b>	The eligible population.
<b>Numerator</b>	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.
<b>Measure Calculation</b>	<p><b>Step 1</b> Determine the individual's treatment period, defined as the IPSD to the end of the measurement year, disenrollment, or death.</p> <p><b>Step 2</b> Within the treatment period, count the days the individual was covered by at least one drug in the class based on the prescription fill date and days' supply. If prescriptions for the same target drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.</p> <p>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.</p> <p><b>Step 3</b> 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.</p> <p><b>Step 4</b> Count the number of individuals who had a PDC of 80% or greater and then divide by the total number of eligible individuals.</p> <p>An example of SAS code for steps 1-3 is available from PQA upon request, and is also available at the URL: <a href="http://www2.sas.com/proceedings/forum2007/043-2007.pdf">http://www2.sas.com/proceedings/forum2007/043-2007.pdf</a></p>
<b>Rate</b>	Divide the numerator by the denominator and multiply by 100.
<b>Stratification</b>	Report the pharmacy's measure rate for the entire Medicare line of business, without stratification.

**Medication Table**

**Table PDC-STA-A: Statins<sup>a</sup>**

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

<sup>a</sup> Active ingredients are limited to oral formulations only.

## Proportion of Days Covered: Antiretroviral Medications (Pharmacy) (PDC-ARV-PH)

### Description

The percentage of individuals attributed to the pharmacy who are 18 years and older and met the Proportion of Days Covered (PDC) threshold of 90% for  $\geq 3$  antiretroviral medications during the measurement year.

A higher rate indicates better performance.

### Intended Use

#### Intended Use

Performance measurement for pharmacies.

This measure is intended to assess pharmacy performance for the Medicare line of business, with the pharmacy's rate inclusive of the entire line of business, without stratification.

This measure requires a **minimum denominator of 30 for reliability**. If the minimum denominator size is not met, the measure should not be used for performance measurement, including in accountability programs.

### Definitions

#### Antiretroviral (ARV) Medications

See Medication Table PDC-ARV-A: Antiretroviral medications.

#### Measurement Year

The calendar year (January 1 through December 31) when the measure is assessed.

#### Proportion of Days Covered (PDC)

The proportion of days during 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 (90% for this measure).

#### Pharmacy

Refers to individual outpatient pharmacies, inclusive of community (independent and chain), specialty, mail order and long-term care pharmacies. Pharmacies are identified by their National Provider Identifier (NPI).

#### Index Prescription Start Date (IPSD)

The earliest date of service with an overlap of  $\geq 3$  distinct ARV medications (as a single agent or as a combination) during the measurement year.

The IPSD must occur at least 91 days before the end of the measurement year (i.e. January 1 – October 2).

#### 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)
- $\geq 1$  claim with place of service code 34 during the measurement year, if hospice indicator is not available (e.g. Commercial, Medicaid).

### Eligible Population



<b>Patient-Pharmacy Attribution</b>	<p>Assign each individual to the pharmacy with ≥51% of the days' supply for all of the individual's prescription claims involving a target medication.</p> <ul style="list-style-type: none"> <li>• Identify each pharmacy using the National Provider Identifier (NPI).</li> <li>• If no pharmacy has ≥51% of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.</li> </ul>
<b>Ages</b>	18 years and older as of the first day of the measurement year.
<b>Treatment Period</b>	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. The IPSD should occur at least 91 days before the end of the enrollment period.
<b>Continuous Enrollment</b>	<p>The treatment period.</p> <p>Exclude individuals with &gt;1 day gap in enrollment during the treatment period. Note: This allows for a one-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.</p>
<b>Benefit</b>	Pharmacy.
<b>Event/Diagnosis</b>	<p>Individuals who filled a prescription for ≥3 distinct ARVs (as a single agent or as a combination) each with 2 different dates of service during the measurement year.</p> <p>Use the steps below to determine the eligible population.</p> <p><b>Step 1</b> Identify individuals aged 18 years and older as of the first day of the measurement year.</p> <p><b>Step 2</b> Identify individuals who filled a prescription for ≥3 distinct ARVs (as a single agent or as a combination) each with 2 different dates of service during the measurement year.</p> <p><b>Step 3</b> Identify individuals with an IPSD from January 1 – October 2 of the measurement year.</p> <p><b>Step 4</b> 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.</p> <p><b>Step 5</b> Identify individuals with a treatment period that is ≥91 days during the measurement year.</p> <p><b>Step 6</b> Identify individuals meeting the continuous enrollment requirement during the treatment period.</p> <p><b>Step 7</b> Exclude individuals in hospice care at any time during the measurement year.</p> <p><b>Step 8</b> Assign each individual to the pharmacy with ≥51% of the days' supply for all of the individual's prescription claims involving a target medication.</p> <ul style="list-style-type: none"> <li>• Identify each pharmacy using the National Provider Identifier (NPI).</li> <li>• If no pharmacy has ≥51% of the days' supply, the individual is not attributed, as no pharmacy can be fairly held accountable for their care.</li> </ul>

**Administrative Specification**

**Data Sources** Prescription claims.

<b>Denominator</b>	The eligible population.
<b>Numerator</b>	<p>The number of individuals in the denominator who met the PDC threshold during the measurement year.</p> <p>Follow the steps below for each individual to determine whether the individual meets the PDC threshold.</p> <p><b>Step 1</b> For each individual from the denominator, within the treatment period, count the days the individual was covered by <math>\geq 3</math> distinct ARVs based on the prescription fill date and days' supply. If prescriptions for the same drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.*</p> <p><b>Step 2</b> Divide the number of covered days found in Step 1 by the treatment period. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual.</p> <p><b>Step 3</b> Count the individuals who had a PDC of 90% or greater.</p> <p>*Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the target drug or when there is an overlap of a combination product to another combination product where there is overlap of at least the target drug. <i>An example of SAS code for steps 1-3 is available from PQA upon request, and is also available at the URL: <a href="http://www2.sas.com/proceedings/forum2007/043-2007.pdf">http://www2.sas.com/proceedings/forum2007/043-2007.pdf</a></i></p>
<b>Rate</b>	Divide the numerator by the denominator and multiply by 100.
<b>Stratification</b>	Report the pharmacy's measure rate for the entire Medicare line of business, without stratification.

**Medication Tables**

**PDC-ARV-A: Antiretroviral Medications<sup>a,b</sup>**

<b>Single Agents</b>		
<ul style="list-style-type: none"> <li>• abacavir</li> <li>• atazanavir</li> <li>• darunavir</li> <li>• delavirdine</li> <li>• didanosine</li> <li>• dolutegravir</li> <li>• doravirine</li> <li>• efavirenz</li> <li>• emtricitabine</li> </ul>	<ul style="list-style-type: none"> <li>• enfuvirtide</li> <li>• etravirine</li> <li>• fosamprenavir</li> <li>• indinavir</li> <li>• lamivudine</li> <li>• maraviroc</li> <li>• nelfinavir</li> <li>• nevirapine</li> </ul>	<ul style="list-style-type: none"> <li>• raltegravir</li> <li>• rilpivirine</li> <li>• ritonavir</li> <li>• saquinavir</li> <li>• stavudine</li> <li>• tenofovir</li> <li>• tipranavir</li> <li>• zidovudine</li> </ul>
<b>Combination Agents:</b>		
<ul style="list-style-type: none"> <li>• abacavir &amp; dolutegravir &amp; lamivudine</li> <li>• abacavir &amp; lamivudine</li> <li>• abacavir &amp; lamivudine &amp; zidovudine</li> <li>• atazanavir &amp; cobicistat</li> <li>• bictegravir &amp; emtricitabine &amp; tenofovir</li> <li>• darunavir &amp; cobicistat</li> </ul>	<ul style="list-style-type: none"> <li>• darunavir &amp; cobicistat &amp; emtricitabine &amp; tenofovir</li> <li>• dolutegravir &amp; lamivudine</li> <li>• dolutegravir &amp; rilpivirine</li> <li>• doravirine &amp; lamivudine &amp; tenofovir</li> <li>• efavirenz &amp; emtricitabine &amp; tenofovir</li> <li>• elvitegravir &amp; cobicistat &amp; emtricitabine &amp; tenofovir</li> </ul>	<ul style="list-style-type: none"> <li>• emtricitabine &amp; rilpivirine &amp; tenofovir</li> <li>• emtricitabine &amp; tenofovir</li> <li>• lamivudine &amp; tenofovir</li> <li>• lamivudine &amp; zidovudine</li> <li>• lopinavir &amp; ritonavir</li> </ul>

<sup>a</sup> Active ingredients are limited to oral and subcutaneous formulations only.

<sup>b</sup> Excludes zidovudine IV and products indicated for chronic hepatitis B (e.g., lamivudine 100mg [Epivir HBV 100mg]).

## PQA's Measure Development Process

The Pharmacy Quality Alliance (PQA) uses a transparent, consensus-driven process to draft, test, refine, and endorse measures. That process was used in the development of the three draft pharmacy performance measures for which PQA now seeks comment.

PQA's measure development process has six steps. Those steps are explained below along with information on how the process was applied in the development of the three draft pharmacy measures that will be considered for endorsement in January by PQA members following a public comment period. Please visit PQA's website to learn more about our measure development process: [Developing Measures That Matter](#).

### Step 1: Measure Conceptualization

*Measure concepts for new development are identified through environmental scans and then prioritized by PQA staff with input from members. Concepts selected for development align with national priorities, represent areas where there are clinical and measurement gaps, and have the greatest potential for adoption in existing measure sets and performance systems.*

- In response to broad calls for the development of a new standard set of measures that can be used in pharmacy-plan and pharmacy-PBM agreements, PQA:
  - Hosted webinars to seek community and specialty pharmacy stakeholder input (March 2019);
  - Conducted outreach calls to gain payer perspectives (April-June 2019);
  - Convened an in-person workshop on "Building Consensus on Measures for Plan-Pharmacy Agreements" (July 31-August 1, 2019) and
  - Conducted a public comment period on "Proposed Standard Measure Set for Pharmacy Accountability in Value-Based Models" (August 22-September 6, 2019).  
The comment period sought input on a total of 28 measure concepts, which could be developed over the short- mid- and long-term, depending on various data requirements for measure development.

Additional information on this measure conceptualization process is provided on PQA's website: [PQA Pharmacy Performance Measures in Development](#).

### Step 2: Measure Specification

*Measure specifications are determined by small, technically proficient groups composed of individuals with expertise and experience aligned with the concept under development.*

- PQA appointed a 15-member Pharmacy Measures Technical Expert Panel (TEP) to provide input on pharmacy-patient attribution models and draft measure concept specifications. The TEP met between September and December 2019. PQA's Quality Metrics Expert Panel (QMEP) reviewed the draft measure specifications and testing plans. The QMEP recommended that six (6) draft pharmacy measures (listed in Table 1) be tested to determine their validity, reliability and usability. Five (5) other draft pharmacy measures (listed in Table 2) were deferred and will be tested in the future along an elongated timeline.

Table 1.

Tested
1. Proportion of Days Covered: Diabetes All-Class Rate (PDC-DR)
2. Proportion of Days Covered: Renin Angiotensin System Antagonists (PDC-RASA)
3. Proportion of Days Covered: Statins (PDC-STA)
4. Proportion of Days Covered: Antiretroviral Medications (PDC-ARV)
5. Adherence to Non-Infused Biologic Medications Used to Treat Rheumatoid Arthritis (PDC-RA)
6. Adherence to Non-Infused Disease-Modifying Agents Used to Treat Multiple Sclerosis (PDC-MS)

Table 2.

Deferred
1. Statin Use in Persons with Diabetes (SUPD)
2. Polypharmacy: Use of Multiple Anticholinergic Medications in Older Adults (POLY-ACH)
3. Concurrent Use of Opioids and Benzodiazepines (COB)
4. Completion Rate for Comprehensive Medication Review (CMR)
5. Treatment of Chronic Hepatitis C: Completion of Therapy (HCV)

- PQA published two updates during this process, which provide more information on the TEP and QMEP process: [Update 1 \(September 26, 2019\)](#) and [Update 2 \(October 15, 2019\)](#). Of note, the measures recommended for testing pertain only to those measures that could be developed in the short-term, by December 2020. PQA is continuing work to develop additional new measures. PQA seeks nominations from its membership to participate on the following groups, which will launch in early 2020, to support longer-term measure development efforts:
  - Pharmacy Measures Advisory Group.** This group will provide input to assist PQA in further refining and prioritizing measure concepts for longer-term development.
  - Data and Interoperability Advisory Group.** Parallel to and aligned with measure development, PQA will initiate work to support the data standardization, data sources, and interoperability needed for meaningful, patient-centric, and outcome-focused measures.
  - MTM Pharmacy Measures Technical Expert Panel.** This group will provide input on MTM-related pharmacy measures, prioritizing adaptation of the Completion Rate for Comprehensive Medication Review (CMR) measure concept.

Please contact your organization’s PQA Key Member Contact for nomination information or Lynn Pezzullo at [LPezzullo@PQAalliance.org](mailto:LPezzullo@PQAalliance.org) with any questions.

### Step 3: Stakeholder Engagement

*Technical expert groups benefit from having their development work reviewed by larger groups of stakeholders, including patients and those that would be measured.*

- PQA has sought stakeholder input throughout its work to develop pharmacy performance measures. In addition to an inclusive measure conceptualization process that included a public comment period, the Pharmacy Measures Technical Expert Panel (TEP) includes patient representatives and representatives of entities that would be measured. A second public comment period is taking place December 18-January 7 to receive additional input on the draft measures.
- Two updates published during this process detail the broad themes provided during the first comment period and PQA’s responses:

- [Update 1 \(September 26, 2019\)](#) – covers Public Comments Received on PQA’s Short-Term Pharmacy Measure Development.
- [Update 2 \(October 15, 2019\)](#) – covers Public Comments Received on PQA’s Medium- and Long-Term Pharmacy Measure Development.

#### **Step 4: Draft Measure Testing**

*PQA engages testing partners with expertise in quality and performance measure testing, who also have access to data sources needed to calculate the measure rates. Priority is given to PQA member organizations interested in engaging in testing.*

- PQA staff conducted draft measure testing October-November 2019. Testing was completed on six (6) draft pharmacy measures (in Table 1 above) and three (3) of those measures were determined to be feasible, valid and reliable. The testing results were reviewed by QMEP and QMEP voted to approve those concepts for endorsement consideration by PQA’s membership.
- Because of the expedited development, PQA used internal staff resources to complete testing for the six (6) draft pharmacy adherence measures rather than partnering with member or external resources. Aggressive timelines to complete the testing by the end of November otherwise would not have been met.

#### **Step 5: Measure Endorsement**

*Once a measure is complete, PQA member organizations vote on endorsement of the performance measure. Each member organization has one vote per measure under consideration. Due to PQA’s transparent, consensus-based process, PQA measures are available for use upon endorsement.*

- PQA will conduct a public comment period (December 18-January 7) and hold an all-member webinar (January 16) prior to a PQA member endorsement vote (January 16-30, 2020).

#### **Step 6: Measure Use and Maintenance**

*The true value of PQA-endorsed measures is based on their use and impact. To ensure ongoing viability for use, PQA-endorsed measures are evaluated on a regular basis and updated as needed to reflect current evidence, guidelines and standards.*

- If the draft pharmacy performance measures are endorsed via the PQA member vote, PQA will support the measure’s use and maintenance through implementation and ongoing evaluation.

*For additional information on PQA’s pharmacy measure development efforts, please contact Lynn Pezzullo at [L.Pezzullo@PQAalliance.org](mailto:L.Pezzullo@PQAalliance.org)*