

**Table 1. Accountability measures recommended by the ASHP Pharmacy Accountability Measures (PAM) Work Group**

Measure Title (Measure Description)	Setting of Care / Level of Analysis*	Numerator	Denominator	Measure Developer / NQF Endorsement Status
<b>ANTITHROMBOTIC SAFETY</b>				
Anticoagulation Therapy for Atrial Fibrillation/Flutter	Inpatient / Facility	Ischemic stroke patients prescribed anticoagulation therapy at hospital discharge	Ischemic stroke patients with documented atrial fibrillation/flutter	The Joint Commission/NQF (National Quality Forum) Endorsed-Reserve+: 0436(e)
Intensive Care Unit Venous Thromboembolism (VTE) Prophylaxis	Inpatient / Facility	Patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given: <ul style="list-style-type: none"> <li>• the day of or the day after ICU admission (or transfer)</li> <li>• the day of or the day after surgery end date for surgeries that start the day of or the day after ICU admission (or transfer)</li> </ul>	Patients directly admitted or transferred to ICU	The Joint Commission/NQF Endorsement Removed: 0372(e)
Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy	Outpatient / Clinician: Individual	Patients who are prescribed warfarin OR another oral anticoagulant drug that is FDA approved for the prevention of thromboembolism	All patients aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation or atrial flutter whose assessment of the specified thromboembolic risk factors indicate one or more high-risk factors or more than one moderate risk factor, as determined by CHADS2 risk stratification	American College of Cardiology/ NQF Endorsed: 1525
INR Monitoring for Individuals on Warfarin	Outpatient / Clinician: Group Practice, Health Plan, Integrated Delivery System	The number of individuals in the denominator who receive at least one INR monitoring test during each 56-day interval with active warfarin therapy.	Continuously enrolled individuals, at least 18 years of age at of the end of the measurement period, with at least 56 days of warfarin therapy during the measurement period.	Centers for Medicare and Medicaid Services (CMS)/NQF Endorsed: 0555

INR Monitoring for Individuals on Warfarin after Hospital Discharge	Transition / Facility	Individuals in the denominator who had an INR test within 14 days of discharge	Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was $\leq 1.5$ or $\geq 4$	CMS/NQF Endorsed: 2732(e)
Discharged on Antithrombotic Therapy	Transition / Facility	Ischemic stroke patients prescribed antithrombotic therapy at hospital discharge	Ischemic stroke patients	The Joint Commission/NQF Endorsed-Reserve+: 0435(e)
<b>CARDIOVASCULAR CONTROL</b>				
Angiotensin Converting Enzyme Inhibitor (ACEI) or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction-Acute Myocardial Infarction (AMI) Patients.	Inpatient/Transition / Facility	AMI patients who are prescribed an ACEI or ARB at hospital discharge	AMI patients (International Classification of Diseases, 9th revision, Clinical Modification [ICD-9-CM] principal diagnosis code of AMI: 410.00, 410.01, 410.10, 410.11, 410.20, 410.21, 410.30, 410.31, 410.40, 410.41, 410.50, 410.51, 410.60, 410.61, 410.70, 410.71, 410.80, 410.81, 410.90, 410.91); with chart documentation of a left ventricular ejection fraction (LVEF) < 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction	CMS/NQF Endorsed-Reserve+: 0137
Preoperative Beta Blockade	Inpatient / Clinician: Group Practice, Facility	Number of patients undergoing isolated CABG who received beta blockers within 24 hours preceding surgery	Patients undergoing isolated CABG	The Society of Thoracic Surgeons/NQF Endorsed: 0127

<p>Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)</p>	<p>Outpatient / Clinician: Group Practice, Individual</p>	<p>Patients who were prescribed* ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting or at hospital discharge</p> <p>*Prescribed may include:  Outpatient setting: prescription given to the patient for ACE inhibitor or ARB therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB therapy as documented in current medication list  Inpatient setting: prescription given to the patient for ACE inhibitor or ARB therapy at discharge OR ACE inhibitor or ARB therapy to be continued after discharge as documented in the discharge medication list</p>	<p>All patients aged 18 years and older with a diagnosis of heart failure with a current or prior Left Ventricular Ejection Fraction (LVEF) &lt; 40%</p>	<p>American Medical Association-Physician Consortium for Performance Improvement/NQF Endorsed: 0081(e)</p>
<p>HF: Beta-Blocker Therapy for LVSD</p>	<p>Outpatient / Clinician: Group Practice, Individual</p>	<p>Patients who were prescribed<sup>1</sup> beta-blocker therapy<sup>2</sup> either within a 12 month period when seen in the outpatient setting or at hospital discharge</p> <p><sup>1</sup>Prescribed may include:  Outpatient setting: prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-</p>	<p>All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF &lt; 40%</p> <p>LVEF &lt; 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction</p>	<p>AMA-PCPI/ NQF Endorsed: 0083(e)</p>

		<p>blocker therapy as documented in current medication list</p> <p>Inpatient setting: prescription given to the patient for beta-blocker therapy at discharge OR beta-blocker therapy to be continued after discharge as documented in the discharge medication list</p> <p><sup>2</sup>Beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate. (see technical specifications for additional information on medications)</p>		
Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate) for LVSD Prescribed at Discharge	Transition / Facility	Patients who are prescribed bisoprolol, carvedilol, or sustained-release metoprolol succinate for LVSD at hospital discharge	Heart failure patients with current or prior documentation of LVEF < 40%	The Joint Commission/ NQF Endorsed: 2438
Discharged on Statin Medication	Transition / Facility	Ischemic stroke patients prescribed statin medication at hospital discharge	Ischemic stroke patients	The Joint Commission/ NQF Endorsed-Reserve+: 0439(e)
<b>GLUCOSE CONTROL</b>				
Statin Use in Persons with Diabetes	Outpatient / Health Plan	The number of patients in the denominator who received a prescription fill for a statin or statin combination during the measurement year	The denominator includes subjects aged 41 years – 75 years as of the last day of the measurement year who are continuously enrolled during the measurement period. Subjects include patients who were dispensed two or more prescription fills for a	Pharmacy Quality Alliance/ NQF Endorsed: 2712

			hypoglycemic agent during the measurement year	
Glycemic Control - Hypoglycemia	Inpatient / Facility	<p>Total number of hypoglycemic events (&lt;40 mg/dL) that were preceded by administration of rapid/short-acting insulin within 12 hours or an anti-diabetic agent other than short-acting insulin within 24 hours, were not followed by another glucose value greater than 80 mg/dL within five minutes, and were at least 20 hours apart</p> <p>Optional numerator: Total number of hypoglycemic events (&lt;70 mg/dL) that were preceded by administration of rapid/short-acting insulin within 12 hours or an anti-diabetic agent other than short-acting insulin within 24 hours, were not followed by another glucose value greater than 80 mg/dL within five minutes, and were at least 20 hours apart</p>	Total number of hospital days with at least one anti-diabetic agent administered	CMS/ NQF Endorsed: 2363e
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)	Outpatient / Health Plan, Integrated Delivery System	Patients whose most recent HbA1c level is greater than 9.0% or is missing a result, or for whom an HbA1c test was not done during the measurement year. The outcome is an out of range result of an HbA1c test, indicating poor control of diabetes. Poor control puts the individual at risk for complications including renal	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year	National Committee for Quality Assurance/ NQF Endorsed: 0059

		failure, blindness, and neurologic damage. There is no need for risk adjustment for this intermediate outcome measure		
Glycemic Control - Hyperglycemia	Inpatient / Facility	Sum of the percentage of hospital days in hyperglycemia for each admission in the denominator	Total number of admissions with a diagnosis of diabetes mellitus, at least one administration of insulin or any anti-diabetic medication except metformin, or at least one elevated blood glucose value (>200 mg/dL [11.1 mmol/L]) at any time during the entire hospital stay	Centers for Medicare and Medicaid Services/ NQF Endorsed: 2362e
<b>PAIN MANAGEMENT</b>				
Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer	Outpatient / Health Plan	Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies.  *MED calculation is included in S.6 Numerator Details	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15	Pharmacy Quality Alliance/ NQF Endorsed: 2951
Use of Opioids at High Dosage in Persons Without Cancer	Outpatient / Health Plan	Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer*  *MED calculation is included in S.6 Numerator Details	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15	Pharmacy Quality Alliance/ NQF Endorsed: 2940

Use of Opioids from Multiple Providers in Persons Without Cancer	Outpatient / Health Plan	Any member in the denominator who received opioid prescription claims from 4 or more prescribers AND 4 or more pharmacies.	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15	Pharmacy Quality Alliance / NQF Endorsed: 2950
Patients Treated with an Opioid who are Given a Bowel Regimen	Inpatient & Outpatient / Clinician: Group Practice, Individual, Facility, Health Plan	Patients from the denominator that are given a bowel regimen or there is documentation as to why this was not needed	Vulnerable adults who are given a prescription for an opioid	RAND Corporation/ NQF Endorsed: 1617
Continuity of Pharmacotherapy for Opioid Use Disorder	Outpatient / Health Plan	Individuals in the denominator who have at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD without a gap of more than seven days	Individuals 18-64 years of age who had a diagnosis of OUD and at least one claim for an OUD medication	University of Southern California / NQF Endorsed: 3175
<b>BEHAVIORAL HEALTH</b>				
Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD)	Inpatient & Outpatient / Health Plan, Integrated Delivery System	Among patients 18-64 years old with schizophrenia or bipolar disorder, those who were dispensed an antipsychotic medication and had a diabetes screening testing during the measurement year	Patients ages 18 to 64 years of age as of the end of the measurement year (e.g., December 31) with a schizophrenia or bipolar disorder diagnosis and who were prescribed an antipsychotic medication	National Committee for Quality Assurance/NQF Endorsed: 1932
Patients taking lithium with no recent monitoring	Inpatient & Outpatient / Facility	Percent of patients prescribed lithium without lithium level in past 6 months or serum creatinine in past 12 months	Patients with an active prescription for lithium without required laboratory test results	Department of Veteran's Affairs/ Not Endorsed

HBIPS-5 Patients discharged on multiple antipsychotic medications with appropriate justification	Transition / Facility	Psychiatric inpatients discharged on two or more routinely scheduled antipsychotic medications with appropriate justification	Psychiatric inpatients discharged on two or more routinely scheduled antipsychotic medications	The Joint Commission/NQF Endorsed: 0560
<b>ANTIMICROBIAL STEWARDSHIP</b>				
Preventive Care and Screening: Influenza Immunization	Transition / Clinician: Group Practice, Individual	Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization	All patients aged 6 months and older seen for a visit between October 1 and March 31	PCPI/NQF Endorsed: 0041(e)
Core Elements of Antibiotic Stewardship	Inpatient, Outpatient, and Nursing Homes / Facility	Implementation of Individual Core Element	Total Core Elements	Centers for Disease Control and Prevention/Not endorsed
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis (AAB)	Outpatient / Health Plan, Integrated Delivery System	Patients who were dispensed antibiotic medication on or three days after the index episode start date (a higher rate is better). The measure is reported as an inverted rate (i.e. 1-numerator/denominator) to reflect the number of people that were not dispensed an antibiotic	All patients 18 years of age as of January 1 of the year prior to the measurement year to 64 years as of December 31 of the measurement year with an outpatient or ED visit with any diagnosis of acute bronchitis during the Intake Period (January 1–December 24 of the measurement year)	National Committee for Quality Assurance /NQF Endorsed: 0058
National Healthcare Safety Network (NHSN) Antimicrobial Use Measure	Inpatient / Facility	Days of antimicrobial therapy for antibacterial agents administered to adult and pediatric patients in medical, medical/surgical, and surgical wards and medical, medical/surgical, and surgical intensive care units	Days present for each patient care location—adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units—is defined as the number of patients who were present for any portion of each day of a	Center for Disease Control and Prevention/ NQF Endorsed: 2720



			calendar month for each location. The day of admission, discharge, and transfer to and from locations are included in days present. All days present are summed for each location and month, and the aggregate sums for each location-month combination comprise the denominator data for the measure	
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\*Level of analysis pertains to the level(s) at which a measure evaluated for performance. +NQF Endorsed-Reserved is an indication for measures that are valid and reliable and have high levels of performance (i.e., measures that are topped out) but where continued performance monitoring is warranted to prevent decreases in performance. The PAM workgroup believes NQF Endorsed-Reserved measures still represent an opportunity for pharmacists to be held accountable and demonstrate value.