

Diabetes: Blood Pressure Management (NQF 0061)

EMeasure Name	Diabetes: Blood Pressure Management	EMeasure Id	Pending
Version Number	1	Set Id	Pending
Available Date	No information	Measurement Period	January 1, 20xx through December 31, 20xx
Measure Steward	National Committee for Quality Assurance		
Endorsed by	National Quality Forum		
Description	The percentage of patients 18–75 years of age with diabetes (type 1 or type 2) who had BP <140/90 mmHg.		
Measure scoring	Proportion		
Measure type	Process		
Rationale	<p>This measure evaluates the percentage of patients in a specific age demographic who were diagnosed with type 1 or type 2 diabetes and who sustain adequate blood pressure control. Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body’s inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes of either type may cause life-threatening, life-ending or life-altering complications, including poor blood pressure control and subsequent cardiovascular disease of varying severity. Maintaining a healthy blood pressure has been shown to reduce complications due to diabetes, with a 10 mm Hg reduction in systolic blood pressure lowering the risk of complications by 12%. It also reduces the chance of cardiovascular disease among patients with diabetes by up to 50% and reduces the chance of other related complications (eye, kidney, nerve) by more than 25%. This measure facilitates long-term management of blood pressure levels for patients diagnosed with diabetes.</p>		
Clinical Recommendation Statement	<p>American Association of Clinical Endocrinologists and American College of Endocrinology (AAACE/ACE): Recommends that a blood pressure determination during the initial evaluation, including orthostatic evaluation, be included in the initial and every interim physical examination.</p> <p>American College of Physicians (ACP): Blood pressure control must be a priority in the management of persons with hypertension and type 2 diabetes.</p> <p>American Diabetes Association (ADA): Blood pressure should be measured at every routine diabetes visit. Patients found to have systolic blood pressure >130 mmHg or diastolic >80 mmHg should have blood pressure confirmed on a separate day. Orthostatic measurement of blood pressure should be performed to assess for the presence of autonomic neuropathy. (Level of Evidence: E)</p> <p>American Geriatrics Society (AGS): Older persons with diabetes are likely to benefit greatly from cardiovascular risk reduction, therefore monitor and treat hypertension and dyslipidemias.</p> <p>JNC VII: Recommends that measurement of blood pressure in the standing</p>		

	<p>position is indicated periodically, especially in those at risk for postural hypotension. At least two measurements should be made and the average recorded. After BP is at goal and stable, follow-up visits can usually be at 3- to 6-month intervals. Co-morbidities such as heart failure, associated diseases such as diabetes, and the need for laboratory tests influence the frequency of visits.</p> <p>National Kidney Foundation (NKF): Recommends that all individuals should be evaluated during health encounters to determine whether they are at increased risk of having or of developing chronic kidney disease. This evaluation of risk factors should include blood pressure measurement.</p>
References	<p>American Association of Clinical Endocrinologists and American College of Endocrinology. The American Association of Clinical Endocrinologists Medical Guidelines for the Management of Diabetes Mellitus: The AACE System of Intensive Diabetes Self-Management—2002</p> <p>California Healthcare Foundation/American Geriatrics Society (AGS) Improving Care of Elders with Diabetes. Guidelines for Improving the Care of the Older Person with Diabetes Mellitus. J Am Geriatr Soc 2003;51:S265-S280. Available at http://www.americangeriatrics.org/education/diabetes_executive_summary.shtml Accessed September 2004.</p> <p>The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII). NIH Publication No. 04-5230, August 2004.</p>
Definitions	

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Please refer to the spreadsheet for this measure for detail regarding data criteria and code lists.

Population criteria

- **Initial Patient Population =**
 - AND: “Patient characteristic: birth date” (age) ≥ 17 years and ≤ 74 years to capture all patients who will reach the ages between 18 and 75 years during the “measurement period”;
- **Denominator =**
 - AND: All patients in the initial patient population;

- AND:
 - OR: “Medication dispensed: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Medication order: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Medication active: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR:
 - AND: “Diagnosis active: diabetes” <=2 years before or simultaneously to “measurement end date”;
 - AND:
 - OR: >=1 count(s) of “Encounter: encounter acute inpatient or ED”;
 - OR: >=2 count(s) of “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” occurring on 2 different dates;
- **Numerator =**
 - AND:
 - OR: “Physical exam finding: diastolic blood pressure”, MINIMUM value < 90 mmHg during MOST RECENT “Encounter: encounter non-acute inpt, outpatient, or ophthalmology”;
 - OR: “Physical exam finding: diastolic blood pressure”, MINIMUM value < 90 mmHg during MOST RECENT “Encounter: Encounter acute inpatient or ED”;
 - AND:
 - OR: “Physical exam finding: systolic blood pressure”, MINIMUM value < 140 mmHg during MOST RECENT “Encounter: encounter non-acute inpt, outpatient, or ophthalmology”;
 - OR: “Physical exam finding: systolic blood pressure”, MINIMUM value < 140 mmHg during MOST RECENT “Encounter: Encounter acute inpatient or ED”;
- **Exclusions =**
 - OR:
 - AND: “Diagnosis active: polycystic ovaries”;
 - AND NOT:
 - AND: “Diagnosis active: diabetes” <= 2 years before or simultaneously to “measurement end date”;
 - AND:
 - OR: “Encounter: encounter acute inpatient or ED” <=2 years before or simultaneously to “measurement end date”;

- OR: “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” <=2 years before or simultaneously to “measurement end date”;
 - OR:
 - AND:
 - OR: “Diagnosis active: gestational diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Diagnosis active: steroid induced diabetes” <=2 years before or simultaneously to “measurement end date”;
 - AND:
 - OR: “Medication order: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Medication dispensed: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Medication active: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
 - AND NOT:
 - AND: “Diagnosis active: diabetes” <=2 years before or simultaneously to “measurement end date”;
 - AND:
 - OR: “Encounter: Encounter acute inpatient or ED” <=2 years before or simultaneously to “measurement end date”;
 - OR: “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” <=2 years before or simultaneously to “measurement end date”;

Data criteria (QDS Data Elements)

- **Initial Patient Population =**
 - “Patient characteristic: birth date” using “birth date code list” before the “measurement period”;
- **Denominator =**
 - “Diagnosis active: diabetes” using “diabetes code list grouping” before or simultaneously to the “measurement end date”;
 - “Encounter: encounter acute inpatient or ED” using “encounter acute inpatient or ED code list grouping” during the “measurement period”;

- “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” using “encounter non-acute inpt, outpatient, or ophthalmology code list grouping” during the “measurement period”;
 - “Medication order: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;
 - “Medication dispensed: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;
 - “Medication active: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;
- **Numerator =**
 - “Physical exam finding: diastolic blood pressure” using “diastolic blood pressure code list” during the “measurement period”;
 - “Physical exam finding: systolic blood pressure” using “systolic blood pressure code list” during the “measurement period”;
- **Exclusions =**
 - “Diagnosis active: polycystic ovaries” using “polycystic ovaries code list grouping” before or simultaneously to the “measurement end date”;
 - “Diagnosis active: gestational diabetes” using “gestational diabetes code list grouping” before or simultaneously to the “measurement end date”;
 - “Diagnosis active: steroid induced diabetes” using “steroid induced diabetes code list grouping” before or simultaneously to the “measurement end date”;

Summary calculation

Calculation is generic to all measures:

- Calculate the final denominator by adding all that meet denominator criteria.
- Subtract from the final denominator all that do not meet numerator criteria yet also meet exclusion criteria. Note some measures do not have exclusion criteria.
- The performance calculation is the number meeting numerator criteria divided by the final denominator.
- For measures with multiple patient populations, repeat this process for each patient population and report each result separately.
- For measures with multiple numerators, calculate each numerator separately within each population using the paired exclusion.

Measure set	CLINICAL QUALITY MEASURE SET 2011-2012
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