

**Measure #236 (NQF 0018): Controlling High Blood Pressure – National Quality Strategy Domain: Effective Clinical Care**

**2017 OPTIONS FOR INDIVIDUAL MEASURES:**  
**REGISTRY ONLY**

**MEASURE TYPE:**  
Intermediate Outcome

**DESCRIPTION:**  
Percentage of patients 18 - 85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement period

**INSTRUCTIONS:**  
This measure is to be reported a minimum of **once per performance period** for patients with hypertension seen during the performance period. The performance period for this measure is 12 months. The most recent quality code submitted will be used for performance calculation. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**NOTE:** *In reference to the numerator element, only blood pressure readings performed by a clinician in the provider office are acceptable for numerator compliance with this measure. Do not include blood pressure readings that meet the following criteria:*

- *Blood pressure readings from the patient's home (including readings directly from monitoring devices).*
- *Taken during an outpatient visit which was for the sole purpose of having a diagnostic test or surgical procedure performed (e.g., sigmoidoscopy, removal of a mole).*
- *Obtained the same day as a major diagnostic or surgical procedure (e.g., stress test, administration of IV contrast for a radiology procedure, endoscopy).*

*If no blood pressure is recorded during the measurement period, the patient's blood pressure is assumed "not controlled".*

**Measure Reporting:**  
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

**DENOMINATOR:**  
Patients 18-85 years of age who had a diagnosis of essential hypertension within the first six months of the measurement period or any time prior to the measurement period

**Denominator Criteria (Eligible Cases):**  
Patients 18 to 85 years of age on date of encounter

**AND**

**Diagnosis for hypertension (ICD-10-CM): I10**

**AND**

**Patient encounter during performance period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439**

**AND NOT**

**DENOMINATOR EXCLUSIONS:**

Hospice services given to patient any time during the measurement period: G9740

OR

Documentation of end stage renal disease (ESRD), dialysis, renal transplant before or during the measurement period or pregnancy during the measurement period: G9231

**NUMERATOR:**

Patients whose blood pressure at the most recent visit is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg) during the measurement period

**Numerator Instructions:** To describe both systolic and diastolic blood pressure values, each must be reported separately. If there are multiple blood pressures on the same date of service, use the lowest systolic and lowest diastolic blood pressure on that date as the representative blood pressure.

**NUMERATOR NOTE:** *In reference to the numerator element, only blood pressure readings performed by an eligible clinician in the provider office are acceptable for numerator compliance with this measure. Blood pressure readings from the patient's home (including readings directly from monitoring devices) are not acceptable.*

*If no blood pressure is recorded during the measurement period, the patient's blood pressure is assumed "not controlled."*

*If there are multiple blood pressure readings on the same day, use the lowest systolic and the lowest diastolic reading as the most recent blood pressure reading.*

**Numerator Options:**

OR

**Performance Met:** Most recent systolic blood pressure < 140 mmHg (G8752)

**Performance Not Met:** Most recent systolic blood pressure ≥ 140 mmHg (G8753)

**AND**

OR

**Performance Met:** Most recent diastolic blood pressure < 90 mmHg (G8754)

**Performance Not Met:** Most recent diastolic blood pressure ≥ 90 mmHg (G8755)

OR

**Performance Not Met:** No documentation of blood pressure measurement, reason not given (G8756)

**RATIONALE:**

Hypertension, or high blood pressure, is a very common and dangerous condition that increases risk for heart disease and stroke, two of the leading causes of death for Americans (Farley et al., 2010). Compared with other dietary, lifestyle, and metabolic risk factors, high blood pressure is the leading cause of death in women and the second-leading cause of death in men, behind smoking (Danaei et al., 2011). Approximately 1 in 3 U.S. adults, or about 70 million people, have high blood pressure but only about half (52%) of these people have their high blood pressure under control. Additionally, data from NHANES 2011 to 2012 found that 17.2% of U.S. adults are not aware they have hypertension (Nwankwo et al., 2013). Projections show that by 2030, approximately 41.4% of US adults will have hypertension, an increase of 8.4% from 2012 estimates (Heidenreich et al., 2011).

The estimated direct and indirect cost of high blood pressure for 2011 is \$46.4 billion. This total includes direct costs such as the cost of physicians and other health professionals, hospital services, prescribed medications and home health care, as well as indirect costs due to loss of productivity from premature mortality (Mozaffarian et al., 2015). Projections show that by 2030, the total cost of high blood pressure could increase to an estimated \$274 billion (Heidenreich et al., 2011).

**CLINICAL RECOMMENDATION STATEMENTS:**

The United States Preventive Services Task Force (2007) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.

Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (2003):

Treating systolic blood pressure and diastolic blood pressure to targets that are < 140/90 mmHg is associated with a decrease in cardiovascular disease complications.

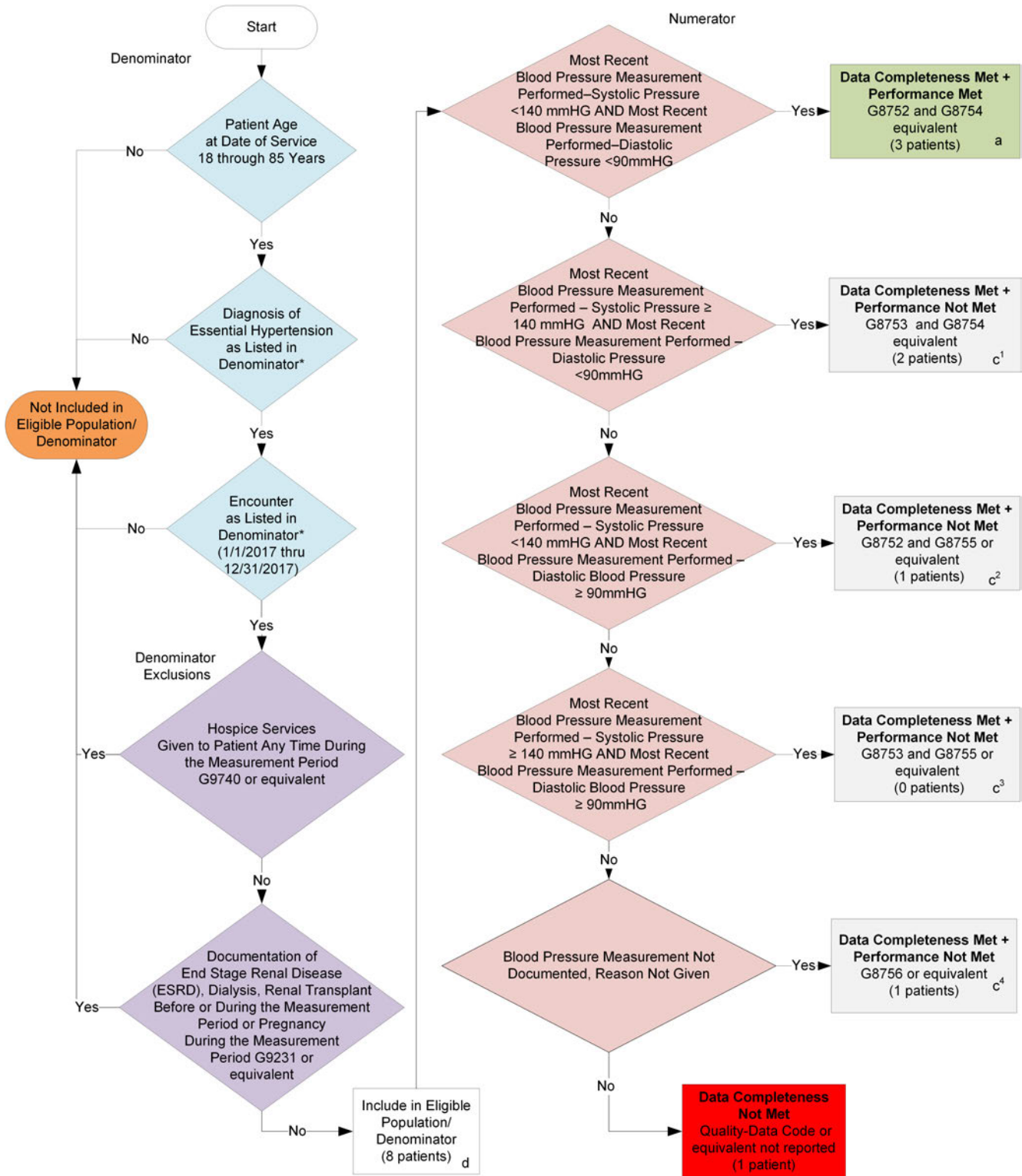
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## 2017 Registry Individual Measure Flow #236 NQF #0018: Controlling High Blood Pressure



\*See the posted Measure Specifications for specific coding and instructions to report this measure.  
NOTE: Reporting Frequency: Patient-Intermediate

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

v1

**2017 Registry Individual Measure Flow  
#236 NQF #0018: Controlling High Blood Pressure**

**SAMPLE CALCULATIONS:**

**Data Completeness=**

$$\frac{\text{Performance Met (a=3 patients)} + \text{Performance Not Met (c}^1\text{+c}^2\text{+c}^3\text{+c}^4\text{=4 patients)}}{\text{Eligible Population / Denominator (d=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**Performance Rate=**

$$\frac{\text{Performance Met (a=3 patients)}}{\text{Data Completeness Numerator (7 patients)}} = \frac{3 \text{ patients}}{7 \text{ patients}} = 42.86\%$$

\*See the posted Measure Specifications for specific coding and instructions to report this measure.  
NOTE: Reporting Frequency: Patient-Intermediate

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v1

**2017 Registry Individual Measure Flow**  
**#236 NQF #0018: Controlling High Blood Pressure**

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start with Denominator
2. Check Patient Age:
  - a. If the Age is equal to 18 to 85 years of age on Date of Service equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
  - b. If the Age is equal to 18 to 85 years of age on Date of Service equals Yes during the measurement period, proceed to Check Patient Diagnosis.
3. Check Patient Diagnosis:
  - a. If Diagnosis of Essential Hypertension as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Diagnosis of Essential Hypertension as Listed in the Denominator equals Yes, proceed to Check Encounter Performed.
4. Check Encounter Performed:
  - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Encounter as Listed in the Denominator equals Yes, proceed to Check Hospice Services Given to Patient Any Time During the Measurement Period.
5. Check Hospice Services Given to Patient Any Time During the Measurement Period:
  - a. If Hospice Services Given to Patient Any Time During the Measurement Period equals No, proceed to Check Documentation of End Stage Renal Disease (ESRD), Dialysis, Renal Transplant Before or During the Measurement Period or Pregnancy During the Measurement Period
  - b. If Hospice Services Given to Patient Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
6. Check Documentation of End Stage Renal Disease (ESRD), Dialysis, Renal Transplant Before or During the Measurement Period or Pregnancy During the Measurement Period:
  - a. If Documentation of End Stage Renal Disease (ESRD), Dialysis, Renal Transplant Before or During the Measurement Period or Pregnancy During the Measurement Period equals No, include in the Eligible population.
  - b. If Patients Who Begin Using Hospice Services Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
7. Denominator Population:

- a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 patients in the sample calculation.
8. Start Numerator
  9. Check Most Recent Blood Pressure Measurement Performed - Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed -Diastolic Pressure <90 mmHG:
    - a. If Most Recent Blood Pressure Measurement Performed - Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed -Diastolic Pressure <90 mmHG equals Yes, include in Data Completeness Met and Performance Met.
    - b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 2 patients in Sample Calculation.
    - c. If Most Recent Blood Pressure Measurement Performed - Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed -Diastolic Pressure <90 mmHG equals No, proceed to Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure <90 mmHG.
  10. Check Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure <90 mmHG:
    - a. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure <90 mmHG equals Yes, include in Data Completeness Met and Performance Not Met.
    - b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c1 equals 2 patients in the Sample Calculation.
    - c. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure <90 mmHG equals No, proceed to Most Recent Blood Pressure Measurement Performed- Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG.
  11. Check Most Recent Blood Pressure Measurement Performed- Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG:
    - a. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG equals Yes, include in Data Completeness Met and Performance Not Met.
    - b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c2 equals 1 patient in the Sample Calculation.
    - c. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure <140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG equals No, proceed to Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG.
  12. Check Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq$ 140 mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq$ 90 mmHG:

- a. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq 140$  mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq 90$  mmHG equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Reporting Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c3 equals 0 patient in the Sample Calculation.
  - c. If Most Recent Blood Pressure Measurement Performed- Systolic Pressure  $\geq 140$  mmHG AND Most Recent Blood Pressure Measurement Performed- Diastolic Pressure  $\geq 90$  mmHG equals No, proceed to Blood Pressure Measurement Not Documented, Reason Not Given.
13. Check Blood Pressure Measurement Not Documented, Reason Not Given:
- a. If Blood Pressure Measurement Not Documented, Reason Not Given equals Yes, include in the Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c4 equals 1 patient in the Sample Calculation.
  - c. If Blood Pressure Measurement Not Documented, Reason Not Given equals No, proceed to Data Completeness Not Met.
14. Check Data Completeness Not Met
- a. If Data Completeness Not Met equals No, Quality Data Code or equivalent was not reported. 1 patient has been subtracted from the Data Completeness numerator in the sample calculation.

**SAMPLE CALCULATIONS:**

**Data Completeness=**  

$$\frac{\text{Performance Met (a =3 patients) + Performance Not Met (c}^1\text{+c}^2\text{+c}^3\text{+c}^4\text{=4 patients)}}{\text{Eligible Population / Denominator (d=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**Performance Rate=**  

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