2017 CMS Web Interface
HTN-2 (NQF 0018): Controlling High Blood Pressure
Measure Steward: NCQA
INTRODUCTION
There are a total of 15 individual measures (including one composite consisting of two measures) included in the 2017 CMS Web Interface targeting high-cost chronic conditions, preventive care, and patient safety. The measures documents are represented individually and contain measure specific information. The corresponding coding documents are posted separately in an Excel format.

The Measure Documents are being provided to allow group practices and Accountable Care Organizations (ACOs) an opportunity to better understand each of the 15 individual measures included in the 2017 CMS Web Interface data submission method. Each Measure Document contains information necessary to submit data through the CMS Web Interface.

Narrative specifications, supporting submission documentation, and calculation flows are provided within each document. Please review all of the measure documentation in its entirety to ensure complete understanding of these measures.
WEB INTERFACE SAMPLING INFORMATION

BENEFICIARY SAMPLING
For more information on the sampling process and methodology please refer to the 2017 Web Interface Sampling Document, available at CMS.gov.
NARRATIVE MEASURE SPECIFICATION

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

IMPROVEMENT NOTATION:
Higher score indicates better quality

INITIAL POPULATION:
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:
Equals Initial Population

DENOMINATOR EXCLUSIONS:
Patients with evidence of end stage renal disease (ESRD), dialysis or renal transplant before or during the measurement period. Also exclude patients with a diagnosis of pregnancy during the measurement period

DENOMINATOR EXCEPTIONS:
None

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 EXCLUSIONS:
Not Applicable

DEFINITIONS:
None

GUIDANCE:
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. 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.
SUBMISSION GUIDANCE

PATIENT CONFIRMATION

Establishing patient eligibility for reporting requires the following:

- Determine if the patient's medical record can be found
  - If you can locate the medical record select “Yes”
  - OR
  - If you cannot locate the medical record select “No - Medical Record Not Found”
  - OR
  - Determine if the patient is qualified for the sample
    - If the patient is deceased, in hospice, moved out of the country or was enrolled in HMO select “Not Qualified for Sample”, select the applicable reason from the provided drop-down menu, and enter the date the patient became ineligible

Guidance Patient Confirmation

If “No – Medical Record Not Found” or “Not Qualified for Sample” is selected, the patient is completed but not confirmed. The patient will be “skipped” and another patient must be reported in their place, if available. The Web Interface will automatically skip any patient for whom “No – Medical Record Not Found” or “Not Qualified for Sample” is selected in all other measures into which they have sampled.

If “Not Qualified for Sample” is selected and the date is unknown, you may enter the last date of the measurement period (i.e., 12/31/2017).

The Measurement Period is defined as January 1 – December 31, 2017.

NOTE:

- In Hospice: Select this option if the patient is not qualified for sample due to being in hospice care at any time during the measurement period (this includes non-hospice patients receiving palliative goals or comfort care)
- Moved out of Country: Select this option if the patient is not qualified for sample because they moved out of the country any time during the measurement period
- Deceased: Select this option if the patient died during the measurement period
- HMO Enrollment: Select this option if the patient was enrolled in an HMO at any time during the measurement period (i.e., Medicare Advantage, non-Medicare HMOs, etc.)
SUBMISSION GUIDANCE

DENOMINATOR CONFIRMATION

○ Determine if the patient has a documented diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period but does not end before the start of the measurement period

○ If the patient has a documented diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period but does not end before the start of the measurement period select “Yes”

OR

○ If you are unable to confirm a diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period but does not end before the start of the measurement period select “Not Confirmed - Diagnosis”

OR

○ If there is a denominator exclusion for patient disqualification from the measure select “Denominator Exclusion”

OR

○ If there is an “other” CMS approved reason for patient disqualification from the measure select “No - Other CMS Approved Reason”

Denominator and Denominator Exclusion codes can be found in the 2017 Web Interface HTN Coding Document. The Downloadable Resource Mapping Table can be located in Appendix II of this document.

Guidance

If “Not Confirmed – Diagnosis” or “Denominator Exclusion” or “No – Other CMS Approved Reason” is selected, the patient will be “skipped” and another patient must be reported in their place, if available. The patient will only be removed from the measure for which one of these options was selected, not all Web Interface measures.

CMS Approved Reason may only be selected when approved by CMS. To request a CMS Approved Reason, you would need to provide the patient rank, measure, and reason for request in a Quality Payment Program Service Desk inquiry. A CMS decision will be provided in the resolution of the inquiry. Patients for whom a CMS Approved Reason is selected will be “skipped” and another patient must be reported in their place, if available.

By selecting “No - Other CMS Approved Reason”, the patient is only removed from the measure for which the reason was requested, not all Web Interface measures.

NOTE:

- The following denominator exclusions cannot end before the start of the measurement period:
  ESRD, Pregnancy, CKD stage 5
- The following denominator exclusions can start before or during the measurement period:
  Patients undergoing dialysis, history of renal transplant
SUBMISSION GUIDANCE

NUMERATOR REPORTING

- Determine if the patient's most recent BP was documented during the measurement period
  - If the patient's BP measurement was not documented select “No”
  - OR
  - If the patient's BP was documented select “Yes”

IF YES

- Record the date the most recent BP in **MM/DD/YYYY** format
  - AND
  - Enter the systolic and diastolic BP documented in mmHg

Numerator codes can be found in the 2017 Web Interface HTN Coding Document. The Downloadable Resource Mapping Table can be located in Appendix II of this document.

**Guidance** **Numerator**

**NOTE:**

- The blood pressure value cannot be completed during a telehealth encounter
DOCUMENTATION REQUIREMENTS

When submitting data through the CMS Web Interface, the expectation is that medical record documentation is available that supports the action reported in the Web Interface i.e., medical record documentation is necessary to support the information that has been submitted.
Appendix I: Performance Calculation Flow

Patient Confirmation Flow

For 2017, confirmation of the "Medical Record Found", or indicating the patient is "Not Qualified for Sample" with a reason of "In Hospice", "Moved out of Country", "Deceased", or "HMO Enrollment", will only need to be done once per patient.

*See the Measure Reporting Document for further instructions on how to report this measure
**If date is unknown, enter 12/31/2017
Measure Confirmation Flow for HTN-2

For 2017, measure specific reasons a patient is "Not Confirmed" or excluded for "Denominator Exclusion" or "Other CMS Approved Reason" will need to be done for each measure where the patient appears.

Start*

Complete for consecutively ranked patients aged 18 to 85 at the beginning of the measurement period**

Patient has a Documented Diagnosis of Essential HTN Within the First Six Months of the Measurement Period OR Any Time Prior to the Measurement Period but Does Not End Before the Start of the Measurement Period

Yes

No

Mark appropriately for completion and STOP ABSTRACTION. Patient is removed from the performance calculations for this measure. The patient will be skipped and replaced.

Patient Qualified for the Measure. IF NOT, Select Denominator Exclusion for Patient Disqualification

Yes

No

Mark appropriately for completion and STOP ABSTRACTION. Patient is removed from the performance calculations for this measure. The patient will be skipped and replaced.

Patient Qualified for the Measure. IF NOT, Select: No - Other CMS Approved Reason for Patient Disqualification***

Yes

No

Continue to Measure Flow

*See the Measure Reporting Document for further instructions to report this measure.

**Further information regarding patient selection for specific disease and patient care measures can be found in the Web Interface Sampling Methodology Document. For patients who have the incorrect date of birth listed, a change of the patient date of birth by the abstractor may result in the patient no longer qualifying for the HTN-2 measure. If this is the case, the system will automatically remove the patient from the measure requirements.

***Other CMS Approved Reason” may only be selected if you have received an approval from CMS in the resolution of a requested Quality Payment Program Service Desk Inquiry at qpp@cms.hhs.gov
Measure Flow for HTN-2

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 as a substitution for the measure specification. For Downloadable Resource Mapping Table, go to Appendix II and use the Variable Names located in the appendix along with the applicable tabs within the HTN Coding Document.

SAMPLE CALCULATION:

\[
\text{Performance Rate} = \frac{\text{Performance Met (a=190 Patients)}}{\text{Denominator (d=240 Patients)}} \times 100 \%
\]

\[
= \frac{190}{240} \times 100 = 79.17\%
\]

CALCULATION MAY CHANGE PENDING PERFORMANCE MET ABOVE

*See the Measure Reporting Document for further instructions on how to report this measure
**Patient Confirmation Flow**

For 2017, confirmation of the “Medical Record Found”, or indicating the patient is “Not Qualified for Sample” with a reason of “In Hospice”, “Moved out of Country”, “Deceased”, or “HMO Enrollment”, will only need to be done **once** per patient. Refer to the Measure Reporting Document for further instructions.


2. Check to determine if Medical Record can be found.
   a. If no, Medical Record not found, mark appropriately for completion and stop abstraction. This removes the patient from the beneficiary sample for all measures. The patient will be skipped and replaced. Stop processing.
   b. If yes, Medical Record found, continue processing.

3. Check to determine if Patient Qualified for the sample.
   a. If no, the patient does not qualify for the sample, select the reason why and enter the date (if date is unknown, enter 12/31/2017) the patient became ineligible for sample. For example; In Hospice, Moved out of Country, Deceased, HMO Enrollment. Mark appropriately for completion and stop abstraction. This removes the patient from the beneficiary sample for all measures. The patient will be skipped and replaced. Stop processing.
   b. If yes, the patient does qualify for the sample; continue to the Measure Confirmation Flow for HTN-2.
Measure Confirmation Flow for HTN-2

For 2017, measure specific reasons a patient is “Not Confirmed” or excluded for “Denominator Exclusion” or “Other CMS Approved Reason” will need to be done for each measure where the patient appears. Refer to the Measure Reporting Document for further instructions.

1. Start Measure Confirmation Flow for HTN-2. Complete for consecutively ranked patients aged 18 to 85 at the beginning of the measurement period. Further information regarding patient selection for specific disease and patient care measures can be found in the Web Interface Sampling Methodology Document. For patients who have the incorrect date of birth listed, a change of the patient date of birth by the abstractor may result in the patient no longer qualifying for the HTN-2 measure. If this is the case, the system will automatically remove the patient from the measure requirements.

2. Check to determine if the patient has a documented diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period but does not end before the start of the measurement period.
   a. If no, the patient does not have a documented diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period, mark appropriately for completion and stop abstraction. Patient is removed from the performance calculations for this measure. The patient will be skipped and replaced. Stop processing.
   b. If yes, the patient does have a documented diagnosis of essential HTN within the first six months of the measurement period OR any time prior to the measurement period but does not end before the start of the measurement period, continue processing.

3. Check to determine if the patient qualifies for the measure (Denominator Exclusion).
   a. If no, the patient does not qualify for the measure select: Denominator Exclusion for patient disqualification. Mark appropriately for completion and stop abstraction. Patient is removed from the performance calculations for this measure. The patient will be skipped and replaced. Stop processing.
   b. If yes, the patient does qualify for the measure, continue processing.

4. Check to determine if the patient qualifies for the measure (Other CMS Approved Reason).
   a. If no, the patient does not qualify for the measure select: No – Other CMS Approved Reason for patient disqualification. Mark appropriately for completion and stop abstraction. Patient is removed from the performance calculations for this measure. The patient will be skipped and replaced. Stop processing.
   b. If yes, the patient does qualify for the measure, continue to HTN-2 measure flow.

“Other CMS Approved Reason may only be selected if you have received an approval from CMS in the resolution of a requested Quality Payment Program Service Desk Inquiry at QPP Service Desk. Stop processing.
Measure Flow for HTN-2

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 as a substitution for the measure specifications. For Downloadable Resource Mapping Table, go to Appendix II and use the Variable Names located in the appendix along with the applicable tabs within the HTN Coding Document.

1. Start processing 2017 HTN-2 (NQF 0018) Flow for the patients that qualified for sample in the Patient Confirmation Flow and the Measure Confirmation Flow for HTN-2. Note: Include remainder of patients listed in the Web Interface that were consecutively confirmed and completed for this measure in the denominator. For the sample calculation in the flow these patients would fall into the ‘d’ category (eligible denominator, i.e. 240 patients).

2. Check to determine if the patient’s most recent blood pressure was documented during the measurement period.
   a. If no, the patient’s most recent blood pressure was not documented during the measurement period, performance is not met and the patient should not be included in the numerator. Stop processing.
   b. If yes, the patient’s most recent blood pressure was documented during the measurement period, record the date of the most recent BP in MM/DD/YYYY format, enter the systolic BP documented in mmHg, and enter the diastolic BP documented in mmHg. Continue processing.

3. Check to determine if the patient’s most recent blood pressure during the measurement period was greater than zero but less than 140 over 90 mmHg.
   a. If no, the patient’s most recent blood pressure during the measurement period was not greater than zero or less than 140 over 90 mmHg, performance is not met and the patient should not be included in the numerator. Stop processing.
   b. If yes, the patient’s most recent blood pressure during the measurement period was greater than zero but less than 140 over 90 mmHg, performance is met and the patient will be included in the numerator. For the sample calculation in the flow these patients would fall into the ‘a’ category (numerator, i.e. 190 patients). Stop processing.

Sample Calculation
Performance Rate Equals
Performance Met is category ‘a’ in the measure flow (190 patients)
Denominator is category ‘d’ in measure flow (240 patients)
190 (Performance Met) divided by 240 (Denominator) equals a performance rate of 79.17 percent
Calculation May Change Pending Performance Met
Appendix II: Downloadable Resource Mapping Table

Each data element within this measure’s denominator or numerator is defined as a pre-determined set of clinical codes. These codes can be found in the 2017 Web Interface HTN Coding Document.

<table>
<thead>
<tr>
<th>Measure Component/Excel Tab</th>
<th>Data Element</th>
<th>Variable Name</th>
<th>Coding System(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator/Denominator Codes</td>
<td>Hypertension Diagnosis</td>
<td>HTN_DX_CODE</td>
<td>I9 I10 SNM</td>
</tr>
<tr>
<td>Denominator Exclusion/Denominator Exclusion Codes</td>
<td>CKD_CODE</td>
<td></td>
<td>I9 I10 SNM</td>
</tr>
<tr>
<td></td>
<td>DIALYSIS_CODE</td>
<td></td>
<td>C4 HCPCS SNM</td>
</tr>
<tr>
<td></td>
<td>ESRD_CODE</td>
<td></td>
<td>I9 I10 C4 SNM</td>
</tr>
<tr>
<td></td>
<td>KIDNEY_TRANS_CODE</td>
<td></td>
<td>C4 SNM</td>
</tr>
<tr>
<td></td>
<td>PREGNANCY_CODE</td>
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</tr>
<tr>
<td>Numerator/Numerator Codes</td>
<td>Blood Pressure</td>
<td>SYSTOLIC_CODE AND DIASTOLIC_CODE</td>
<td>LN WITH most recent blood pressure date and value</td>
</tr>
</tbody>
</table>

*For EHR mapping, the coding within HTN-2 is considered to be all inclusive*
Appendix III: Measure Rationale and Clinical Recommendation Statements

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).

Better control of blood pressure has been shown to significantly reduce the probability that undesirable and costly outcomes will occur. In clinical trials, antihypertensive therapy has been associated with reductions in stroke incidence (35-40%), myocardial infarction (20-25%) and heart failure (>50%) (Chobanian et al., 2003). Thus, the relationship between the measure (control of hypertension) and the long-term clinical outcomes listed is well established.

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.
Appendix IV: Use Notices, Copyrights, and Disclaimers

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