



## **2020 CMS Web Interface**

**HTN-2 (NQF 0018): Controlling High Blood Pressure**

**Measure Steward: NCQA**

## Contents

<b>INTRODUCTION</b>	<b>3</b>
<b>CMS WEB INTERFACE SAMPLING INFORMATION</b>	<b>4</b>
BENEFICIARY SAMPLING	4
<b>NARRATIVE MEASURE SPECIFICATION</b>	<b>5</b>
DESCRIPTION:	5
IMPROVEMENT NOTATION:	5
INITIAL POPULATION:	5
DENOMINATOR:	5
DENOMINATOR EXCLUSIONS	5
DENOMINATOR EXCEPTIONS	5
NUMERATOR:	6
NUMERATOR EXCLUSIONS	6
DEFINITIONS	6
GUIDANCE	6
<b>SUBMISSION GUIDANCE</b>	<b>7</b>
PATIENT CONFIRMATION	7
<b>SUBMISSION GUIDANCE</b>	<b>8</b>
DENOMINATOR CONFIRMATION	8
<b>SUBMISSION GUIDANCE</b>	<b>10</b>
NUMERATOR SUBMISSION	10
<b>DOCUMENTATION REQUIREMENTS</b>	<b>11</b>
<b>APPENDIX I: PERFORMANCE CALCULATION FLOW</b>	<b>12</b>
<b>APPENDIX II: DOWNLOADABLE RESOURCE MAPPING TABLE</b>	<b>18</b>
<b>APPENDIX III: MEASURE RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS</b>	<b>21</b>
RATIONALE	21
CLINICAL RECOMMENDATION STATEMENTS	21
<b>APPENDIX IV: USE NOTICES, COPYRIGHTS, AND DISCLAIMERS</b>	<b>23</b>
COPYRIGHT	23

**INTRODUCTION**

There are a total of 10 individual measures included in the 2020 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 organizations an opportunity to better understand each of the 10 individual measures included in the 2020 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.

**CMS WEB INTERFACE SAMPLING INFORMATION****BENEFICIARY SAMPLING**

For more information on the sampling process and methodology please refer to the 2020 CMS Web Interface Sampling Document, which will be made available during the performance year at CMS.gov.

**NARRATIVE MEASURE SPECIFICATION****DESCRIPTION:**

Percentage of patients 18 - 85 years of age who had a diagnosis of hypertension overlapping the measurement period and whose most recent 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 visit and a diagnosis of essential hypertension overlapping 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

**OR**

Patients age 66 and older in Institutional Special Needs Plans (SNP) or Residing in Long-Term Care with a POS code 32, 33, 34, 54 or 56 for more than 90 days during the measurement period

**OR**

Patients 66 years of age and older with at least one claim/encounter for frailty during the measurement period AND a dispensed medication for dementia during the measurement period or the year prior to the measurement period

**OR**

Patients 66 years of age and older with at least one claim/encounter for frailty during the measurement period AND either one acute inpatient encounter with a diagnosis of advanced illness or two outpatient, observation, ED or nonacute inpatient encounters on different dates of service with an advanced illness diagnosis during the measurement period or the year prior to the measurement period

**Table: Dementia Exclusion Medications**

Description	Prescription
Cholinesterase inhibitors	Donepezil Galantamine Rivastigmine
Miscellaneous central nervous system agents	Memantine

**DENOMINATOR EXCEPTIONS:**

None

**NUMERATOR:**

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

**NUMERATOR EXCLUSIONS:**

Not Applicable

**DEFINITION:**

None

**GUIDANCE:**

In reference to the numerator element, only blood pressure readings performed by a clinician or a remote monitoring device are acceptable for numerator compliance with this measure.

Do not include BP readings:

- Taken during an acute inpatient stay or an ED visit
- Taken on the same day as a diagnostic test or diagnostic or therapeutic procedure that requires a change in diet or change in medication on or one day before the day of the test or procedure, with the exception of fasting blood tests.
- Reported by or taken by the member

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 submission 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 did not have Fee-for-Service (FFS) Medicare as their primary payer 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 CMS 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 been 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., 12/31/2020).***

***The Measurement Period is defined as January 1 – December 31, 2020.***

#### **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
- ***Non-FFS Medicare:*** Select this option if the patient was enrolled in Non-FFS Medicare at any time during the measurement period (i.e., commercial payers, Medicare Advantage, Non-FFS Medicare, HMOs, etc.) This exclusion is intended to remove beneficiaries for whom Fee-for-Service Medicare is not the primary payer.

## 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 2020 CMS Web Interface HTN Coding Document. The Downloadable Resource Mapping Table can be located in Appendix II of this document.

### **Guidance Denominator**

***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 CMS Web Interface measures.***

***Other CMS Approved Reason*** is reserved for unique cases that are not covered by any of the above stated skip reasons. To gain CMS approval, submit a skip request by selecting Request Other CMS Approved Reason in the patient qualification question for the measure. Note that skip requests can only be submitted manually through the CMS Web Interface.

*To submit a skip request, follow these steps:*

- 1. After confirming the beneficiary for the sample, scroll to the measure you would like to skip.*
- 2. When confirming if the beneficiary is qualified for the measure, select Request Other CMS Approved Reason.*
- 3. In the skip request modal, review the organization you are reporting for and provide the submitter's email address. CMS uses this email to send status updates and/or reach out if further information is needed to resolve the skip request. You also need to provide specific information about the beneficiary's condition and why it disqualifies the beneficiary from this measure. Never include Personally Identifiable Information (PII) or Protected Health Information (PHI) in the case.*

*Beneficiaries remain incomplete until CMS resolves the skip request. The CMS Web Interface automatically updates the resolution of a skip request, either approved or denied. Beneficiaries for whom a CMS Approved Reason is approved are marked as Skipped and another beneficiary must be reported in their place, if available.*



*The intent of the exclusion for individuals age 66 and older residing in long-term care facilities, including nursing homes, is to exclude individuals who may have limited life expectancy and increased frailty where the benefit of the process may not exceed the risks. This exclusion is not intended as a clinical recommendation regarding whether the measures process is inappropriate for specific populations, instead the exclusions allows clinicians to engage in shared decision making with patients about the benefits and risks of screening when an individual has limited life expectancy.*

**NOTE:**

- **Essential hypertension** is high blood pressure that doesn't have a known secondary cause. It is also referred to as primary hypertension
- **The following denominator exclusions** cannot end before the start of the measurement period: Pregnancy, CKD stage 5
- **The following denominator exclusions** can start before or during the measurement period: Patients with evidence of ESRD, undergoing dialysis or history of renal transplant

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**SUBMISSION GUIDANCE****NUMERATOR SUBMISSION**

- Determine if the patient's most recent BP was documented during the measurement period
  - 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

**OR**

- If the patient's BP measurement was not documented select "No"

Numerator codes can be found in the 2020 CMS Web Interface HTN Coding Document. The Downloadable Resource Mapping Table can be located in Appendix II of this document.

**Guidance Numerator**

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**NOTE:**

- In reference to the numerator element, only blood pressure readings performed by a clinician or a remote monitoring device are acceptable for numerator compliance with this measure.
- Do not include BP readings:
  - -Taken during an acute inpatient stay or an ED visit
  - -Taken on the same day as a diagnostic test or diagnostic or therapeutic procedure that requires a change in diet or change in medication on or one day before the day of the test or procedure, with the exception of fasting blood tests.
  - -Reported by or taken by the member

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.

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**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 CMS Web Interface i.e., medical record documentation is necessary to support the information that has been submitted.

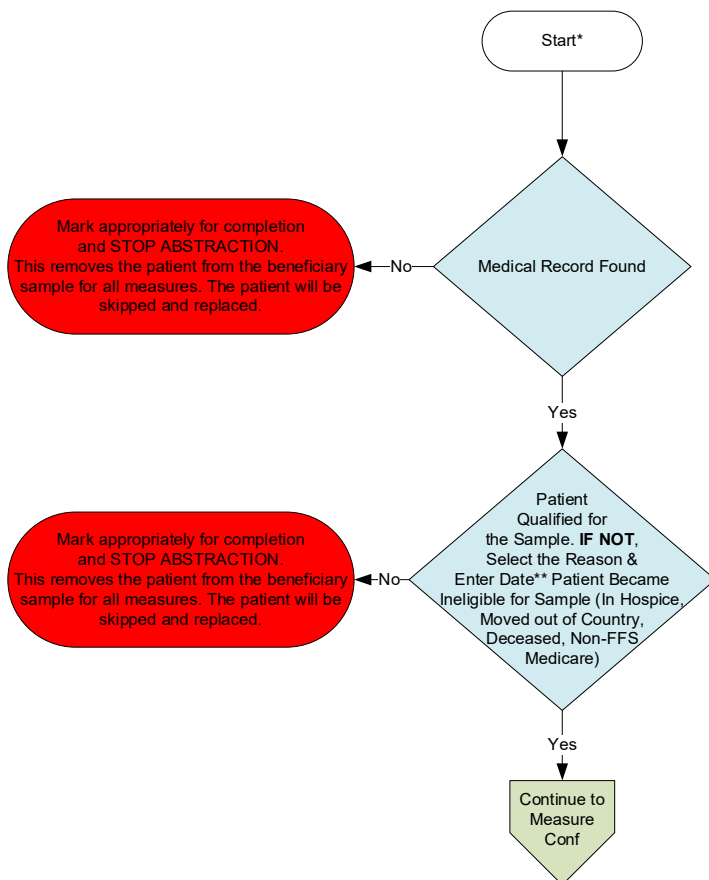
Claims data cannot be used to confirm a diagnosis (DM, HTN etc.,) used for sampling purposes as claims are the original source of the diagnosis sampling. Claims data can be used to prepare the CMS Web Interface Excel, but supporting medical record documentation will be required to substantiate what is reported in the event of an audit.

**Appendix I: Performance Calculation Flow**

**Disclaimer:** Refer to the measure submission document for specific coding and instructions to submit this measure.

## Patient Confirmation Flow

For 2020, 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 "Non-FFS Medicare", will only need to be done **once** per patient.

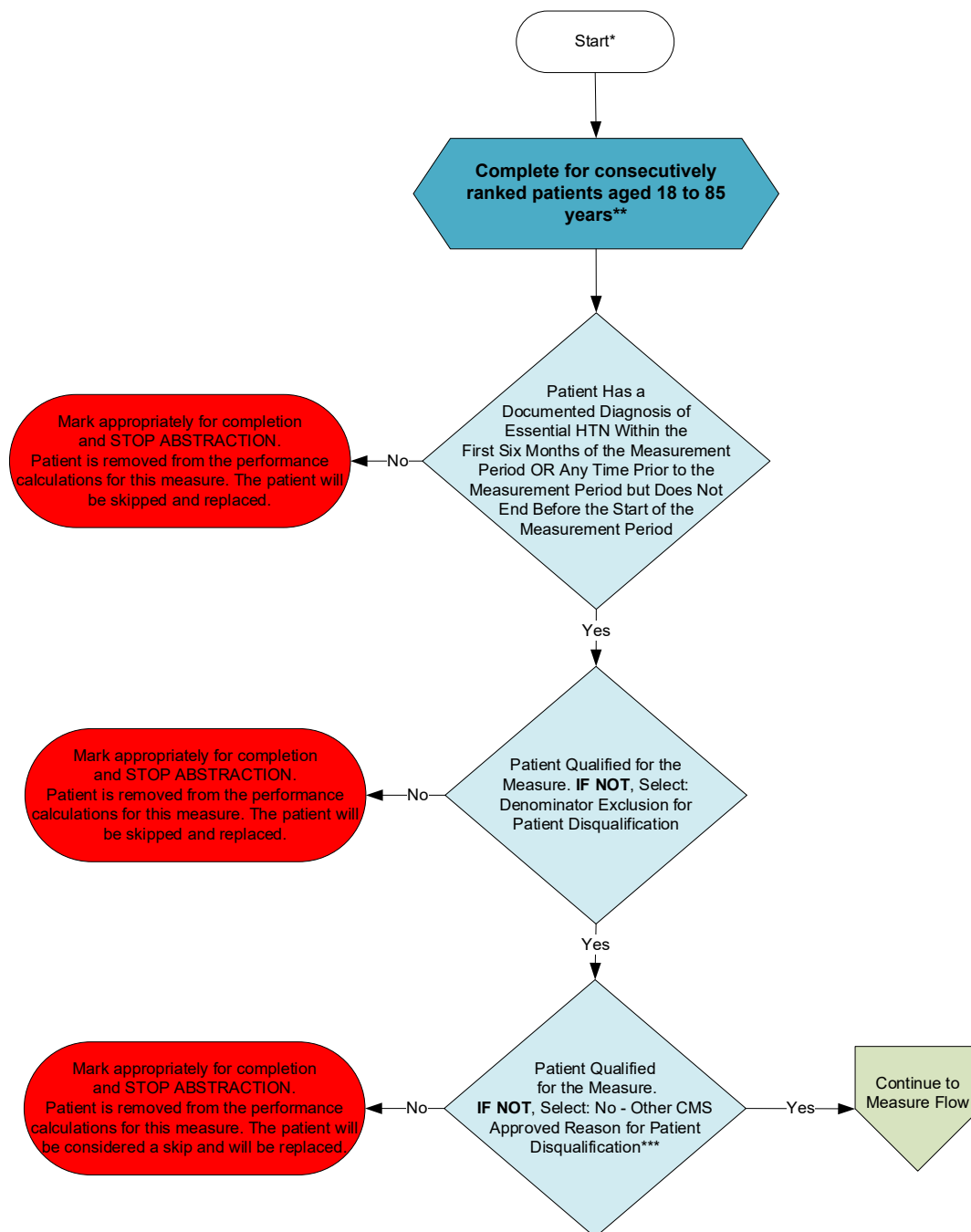


\*See the posted measure submission document for specific coding and instructions to submit this measure.

\*\*If date is unknown, enter 12/31/2020

## Measure Confirmation Flow for HTN-2

For 2020, 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.

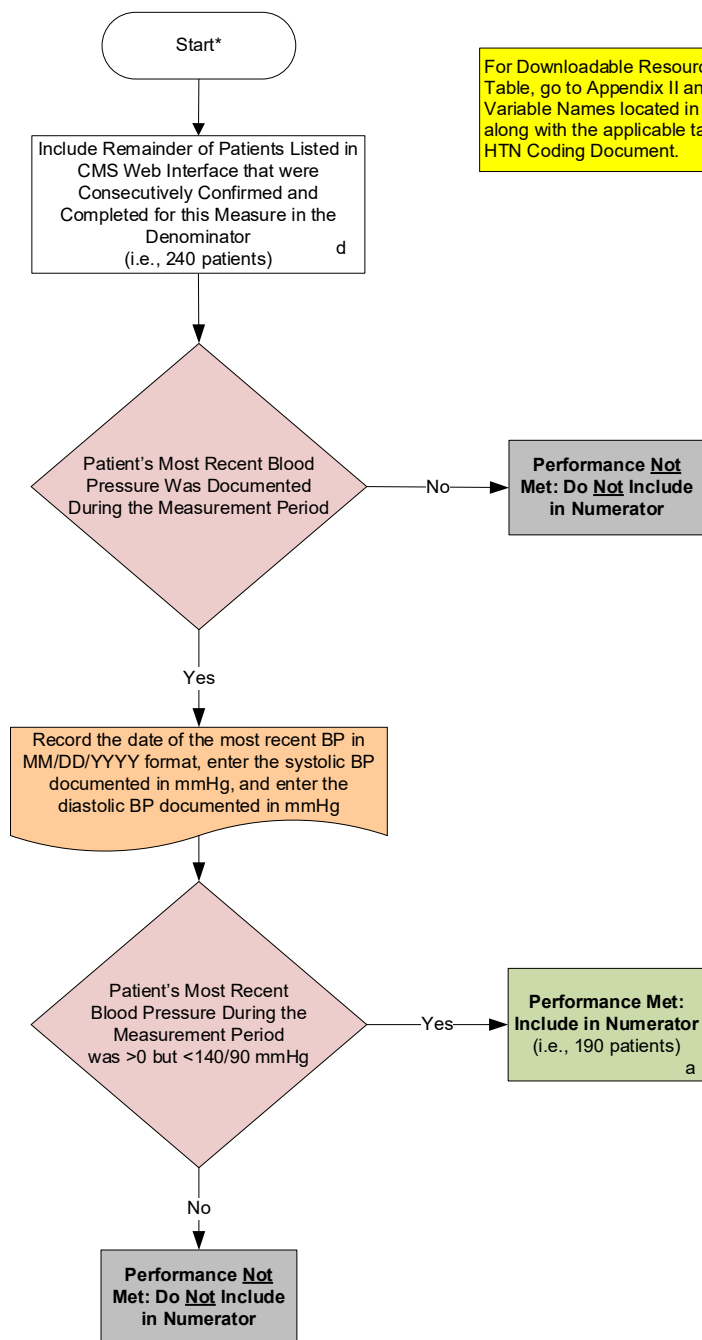


\*See the posted measure submission document for specific coding and instructions to submit this measure.

\*\*Further information regarding patient selection for specific disease and patient care measures can be found in the CMS 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 the CMS Web Interface updated the resolution of the skip request to be "Approved".

## Measure Flow for HTN-2



## SAMPLE CALCULATION:

**Performance Rate=**  
 Performance Met (a=190 patients) = 190 patients = 79.17%  
 Denominator (d=240 patients) = 240 patients

CALCULATION MAY CHANGE PENDING PERFORMANCE MET ABOVE

\*See the posted measure submission document for specific coding and instructions to submit this measure

### Patient Confirmation Flow

For 2020, 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 “Non-FFS Medicare”, will only need to be done **once** per patient. Refer to the Measure Submission Document for further instructions.

1. Start Patient Confirmation Flow.
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 12/31/2020) the patient became ineligible for sample. For example; In Hospice, Moved out of Country, Deceased, Non-FFS Medicare. 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 2020, 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 Submission Document for further instructions.

1. Start Measure Confirmation Flow for HTN-2. Complete for consecutively ranked patients aged 18 to 85 years. Further information regarding patient selection for specific disease and patient care measures can be found in the CMS 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.  
  
“Other CMS Approved Reason may only be selected if the CMS Web Interface updated the resolution of the skip request to be “Approved”. Stop processing.
  - b. If yes, the patient does qualify for the measure, continue to HTN-2 measure flow.



### Measure Flow for HTN-2

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 2020 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 CMS 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=

Performance Met (a=190 patients)	=	190 patients	=	79.17%
Denominator (d=240 patients)	=	240 patients		

CALCULATION MAY CHANGE PENDING PERFORMANCE MET ABOVE

**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 2020 CMS Web Interface HTN Coding Document.

**\*HTN-2: Controlling High Blood Pressure**

Measure Component/Excel Tab	Data Element	Variable Name	Coding System(s)
Denominator/Denominator Codes	Hypertension Diagnosis	HTN_DX_CODE	I9 I10 SNM
Denominator Exclusion/Denominator Exclusion Codes/Denominator Exclusion Drug Codes	Exclusion	CKD_CODE	I9 I10 SNM
		DIALYSIS_CODE	C4 HCPCS SNM
		ESRD_CODE	I9 I10 C4 SNM
		KIDNEY_TRANS_CODE	C4 I10 HCPCS SNM
		KIDNEY_TRANS_RECIP_CODE	I10 I9 SNM
		PREGNANCY_CODE	I10 SNM
		VASC_ACCESS_DIALYSIS_CODE	C4 SNM
	Exclusion/66 years and older residing longer than 90 days	CARE_SERVICES_LT_RES_CODE	C4 SNM <u>AND</u> residing longer than 90 days
		NURSING_FACILITY_VISIT_CODE	C4 SNM <u>AND</u> residing longer than 90 days

Measure Component/Excel Tab	Data Element	Variable Name	Coding System(s)
Denominator Exclusion/Denominator Exclusion Codes/Denominator Exclusion Drug Codes	Exclusion/66 years and older with at least one claim/encounter for frailty AND dispensed dementia medication	FRAILTY_DEVICE_CODE	HCPCS
		OR FRAILTY_DIAGNOSIS_CODE	<u>OR</u> I10 SNM
		OR FRAILTY_ENCOUNTER_CODE	<u>OR</u> C4 HCPCS SNM
		OR FRAILTY_SYMPTOM_CODE	<u>OR</u> I10 SNM
		AND DEMENTIA_DRUG_CODE	<u>AND</u> RxNorm(Drug EX=Y)
	Exclusion/66 years and older with at least one claim/encounter for frailty AND EITHER one acute inpatient encounter with advanced illness OR two outpatient, observation, ED or nonacute inpatient encounters on different dates with advanced illness	FRAILTY_DEVICE_CODE	HCPCS
		OR FRAILTY_DIAGNOSIS_CODE	<u>OR</u> I10 SNM
		OR FRAILTY_ENCOUNTER_CODE	<u>OR</u> C4 HCPCS SNM
		OR FRAILTY_SYMPTOM_CODE	<u>OR</u> I10 SNM
		AND EITHER ACUTE_INPATIENT_CODE	<u>AND EITHER</u> C4 SNM
		WITH ADVANCED_ILLNESS_CODE	<u>WITH</u> I10 SNM
		OR OUTPATIENT_CODE	<u>OR</u> C4 HCPCS

Measure Component/Excel Tab	Data Element	Variable Name	Coding System(s)
Denominator Exclusion/Denominator Exclusion Codes/Denominator Exclusion Drug Codes	Exclusion/66 years and older with at least one claim/encounter for frailty AND EITHER one acute inpatient encounter with advanced illness OR two outpatient, observation, ED or nonacute inpatient encounters on different dates with advanced illness	OR OBSERVATION_CODE  OR ED_CODE  OR NONACUTE_INPATIENT_CODE  WITH ADVANCED_ILLNESS_CODE	<u>OR</u> C4  <u>OR</u> C4 SNM  <u>OR</u> C4 SNM  <u>WITH</u> I10 SNM
Numerator/Numerator Codes	Blood Pressure	SYSTOLIC_CODE AND DIASTOLIC_CODE	LN <u>WITH</u> most recent blood pressure date and systolic and diastolic value**

\*For EHR mapping, the coding within HTN-2 is considered to be all inclusive

\*\*These codes can be found in the eCQM Direct Reference Codes List within the Value Set Authority Center (VSAC) website

**APPENDIX III: MEASURE RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS****RATIONALE:**

High blood pressure (HBP), also known as hypertension, is when the pressure in blood vessels is higher than normal (Centers for Disease Control and Prevention [CDC], 2016). The causes of hypertension are multiple and multifaceted and can be based on genetic predisposition, environmental risk factors, being overweight and obese, sodium intake, potassium intake, physical activity, and alcohol use. High Blood Pressure is common, according to the National Health and Nutrition Examination Survey (NHANES), approximately 85.7 million adults  $\geq 20$  years of age had HBP (140/90 mm Hg) between 2011 to 2014 (Crim, 2012). Between 2011-2014 the prevalence of hypertension ( $\geq 140/90$  mm Hg) among US adults 60 and older was approximately 67.2 percent (Benjamin et al., 2017).

HBP, known as the “silent killer,” increases risks of heart disease and stroke which are two of the leading causes of death in the U.S. (Yoon, Fryar, & Carroll, 2015). A person who has HBP is four times more likely to die from a stroke and three times more likely to die from heart disease (CDC, 2012). The National Vital Statistics Systems Center for Disease Control and Prevention reported that in 2014 there were approximately 73,300 deaths directly due to HBP and 410,624 deaths with any mention of HBP (CDC, 2014). Between 2004 and 2014 the number of deaths due to HBP rose by 34.1 percent (Benjamin et al., 2017). Managing and treating HBP would reduce cardiovascular disease mortality for males and females by 30.4 percent and 38.0 percent, respectively (Patel et al., 2015).

The estimated annual average direct and indirect cost of HBP from 2012 to 2013 was \$51.2 billion (Benjamin et al., 2017). Total direct costs of HBP is projected to increase to \$200 billion by 2030 (Benjamin et al., 2017). A study on cost-effectiveness on treating hypertension found that controlling HBP in patients with cardiovascular disease and systolic blood pressures of  $\geq 160$  mm Hg could be effective and cost-saving (Moran et al., 2015).

Many studies have shown that controlling high blood pressure reduces cardiovascular events and mortality. The Systolic Blood Pressure Intervention Trial (SPRINT) investigated the impact of obtaining a SBP goal of  $<120$  mm Hg compared to a SBP goal of  $<140$  mm Hg among patients 50 and older with established cardiovascular disease and found that the patients with the former goal had reduced cardiovascular events and mortality (SPRINT Research Group et al., 2015).

Controlling HBP will significantly reduce the risks of cardiovascular disease mortality and lead to better health outcomes like reduction of heart attacks, stroke, and kidney disease (James et al., 2014). Thus, the relationship between the measure (control of hypertension) and the long-term clinical outcomes listed is well established.

**CLINICAL RECOMMENDATION STATEMENTS:**

The U.S. Preventive Services Task Force (2015) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.

American College of Cardiology/American Heart Association (2017)

-For adults with confirmed hypertension and known CVD or 10-year ASCVD event risk of 10% or higher, a blood pressure target of less than 130/80 mmHg is recommended

-For adults with confirmed hypertension, without additional markers of increased CVD risk, a blood pressure target of less than 130/80 mmHg may be reasonable (Note: clinical trial evidence is strongest for a target blood pressure of 140/90 mmHg in this population. However observational studies suggest that these individuals often have a high lifetime risk and would benefit from blood pressure control earlier in life)

American College of Physicians and the American Academy of Family Physicians (2017):

-Initiate intensifying pharmacologic treatment in adults aged 60 and older at high cardiovascular risk, based on individualized assessment, to achieve a target systolic blood pressure of less than 140 mmHg (Grade: weak recommendation, quality of evidence: low)

-Initiate intensifying pharmacologic treatment in adults aged 60 and older with a history of stroke or transient ischemic attack to achieve a target systolic blood pressure of less than 140 mmHg to reduce the risk of recurrent stroke (Grade: weak recommendation, quality of evidence: moderate)

American Diabetes Association (2018):

Most patients with diabetes and hypertension should be treated to a systolic blood pressure goal of <140 mmHg and a diastolic blood pressure goal of <90 mmHg (Level of evidence: A)

Report from the Eighth Joint National Committee (2014)

-In the general population younger than 60 years, initiate pharmacologic treatment to lower blood pressure at diastolic blood pressure (DBP) of 90 mmHg or higher and treat to a goal of DBP of lower than 90 mmHg (Grade: A (for ages 30-59), Grade: E (for ages 18-29))

-In the general population younger than 60 years, initiate pharmacologic treatment to lower blood pressure at systolic blood pressure (SBP) to 140 mmHg or higher and treat to a goal of SBP of lower than 140 mmHg (Grade: E)

-In the general population aged 60 years and older, initiate pharmacologic treatment to lower blood pressure at SBP of 150 mmHg or higher or a DBP of 90 mmHg or higher and treat to a goal of SBP lower than 150 mmHg and goal of DBP lower than 90 mmHg

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