Controlling High Blood Pressure eCQM Title eCQM Identifier (Measure Authoring 13.0.000 165 eCQM Version Number **CBE Number** GUID Not Applicable abdc37cc-bac6-4156-9b91-d1be2c8b7268 **Measurement Period** January 1, 20XX through December 31, 20XX **Measure Steward** National Committee for Quality Assurance Measure Developer National Committee for Quality Assurance **Endorsed By** None Percentage of patients 18-85 years of age who had a diagnosis of essential hypertension starting before and continuing into, or starting Description during the first six months of the measurement period, and whose most recent blood pressure was adequately controlled (<140/90 mmHg) during the measurement period This Physician Performance Measure (Measure) and related data specifications are owned and were developed by the National Committee for Quality Assurance (NCQA). NCQA is not responsible for any use of the Measure. 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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 American Heart Association, between 2013-2016, approximately 121.5 million US adults >= 20 years of age had HBP and the prevalence of hypertension among US adults 65 and older was 77.0 percent (Virani et al., 2021). In an analysis of adults with hypertension in National Health and Nutrition Examination Survey (NHANES), the estimated age-adjusted proportion with controlled blood pressure (BP) increased from 31.8 percent in 1999 to 53.8 percent in 2014. However, that proportion declined to 43.7 percent in 2017 to 2018 (Tsao et al., 2022). HBP increases risks of heart disease and stroke which are two of the leading causes of death in the US (CDC, 2023). 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, 2021). The National Center for Health Statistics reported that in 2020 there were over 670,000 deaths with HBP as a primary or contributing cause (CDC, 2022). Between 2009 and 2019 the number of deaths due to HBP rose by 65.3 percent (Tsao et al., 2022). 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., Rationale 2015). Age-adjusted death rates attributable to HBP in 2019 were more than twice as high in non-Hispanic Black males (56.7 percent) when compared to rates for non-Hispanic White males (25.7 percent) (Tsao et al., 2022). HBP costs the U.S. approximately 131 billion dollars each year, averaged over 12 years from 2003 to 2014 (Kirkland et al., 2018). A study on cost-effectiveness on treating hypertension found that controlling HBP in patients with cardiovascular disease and systolic blood pressures (SBP) of >= 160 mmHg 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 mmHg compared to a SBP goal of <140 mmHg 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. U.S. Preventive Services Task Force (USPSTF) (2021): - The USPSTF recommends screening for hypertension in adults 18 years or older with office blood pressure measurement (OBPM). The USPSTF recommends obtaining blood pressure measurements outside of the clinical setting for diagnostic confirmation before starting treatment. This is a grade A recommendation. American College of Cardiology/American Heart Association (2017): - For adults with confirmed hypertension and known cardiovascular disease (CVD) or 10-year atherosclerotic cardiovascular disease (ASCVD) event risk of 10 percent or higher, a blood pressure target of less than 130/80 mmHg is recommended (Level of evidence: B-R (for systolic blood pressures), Level of evidence: C-EO (for diastolic blood pressure)) - 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) (Level of evidence: B-NR (for systolic blood pressure), Level of evidence: C-EO (for diastolic blood pressure)). American Academy of Family Physicians (2022): **Clinical Recommendation Statement** - Treat adults who have hypertension to a standard blood pressure target (less than 140/90 mm Hg) to reduce the risk of all-cause and cardiovascular mortality (strong recommendation; high-quality evidence). Treating to a lower blood pressure target (less than 135/85 mm Hg) does not provide additional benefit at preventing mortality; however, a lower blood pressure target could be considered based on patient preferences and values. (Grade: strong recommendation, Quality of evidence: high) - Consider treating adults who have hypertension to a lower blood pressure target (less than 135/85 mm Hg) to reduce risk of myocardial infarction (weak recommendation; moderate-quality evidence). Although treatment to a standard blood pressure target (less than 140/90 mm Hg) reduced the risk of myocardial infarction, there was a small additional benefit observed with a lower blood pressure target. There was no observed additional benefit in preventing stroke with the lower blood pressure target. (Grade: weak recommendation, Quality of evidence: low) American Diabetes Association (2022): - For individuals with diabetes and hypertension at higher cardiovascular risk (existing atherosclerotic cardiovascular disease or 10-year atherosclerotic cardiovascular disease risk >=15 percent), a blood pressure target of <130/80 mmHg may be appropriate, if it can be safely attained (Level of evidence: B) - For individuals with diabetes and hypertension at lower risk for cardiovascular disease (10-year atherosclerotic cardiovascular disease risk <15 percent), treat to a blood pressure target of <140/90 mmHg (Level of evidence: A) Improvement Notation Higher score indicates better quality Reference Type: CITATION Reference Reference Text: 'American Diabetes Association. (2022). 10. Cardiovascular disease and risk management: Standards of medical care in diabetes—2022. Diabetes Care 2022, 44(Suppl. 1), S144-S175. https://doi.org/10.2337/dc22-S010' Reference Type: CITATION Reference Reference Text: 'Centers for Disease Control and Prevention. (2021). Team-based care for high blood pressure. Retrieved from https://www.cdc.gov/policy/polaris/healthtopics/highbloodpressure/tbctool.html' Reference Type: CITATION Reference Reference Text: 'Centers for Disease Control and Prevention. (2023). Facts about hypertension. Retrieved from https://www.cdc.gov/bloodpressure/facts.htm' Reference Type: CITATION Reference Text: 'Centers for Disease Control and Prevention, National Center for Health Statistics. (2022). About Multiple Cause of Reference Death, 1999-2020. CDC WONDER Online Database website. Atlanta, GA: Centers for Disease Control and Prevention. Available from http://www.cdc.gov/nchs/data_access/Vitalstatsonline.htm#Mortality_Multiple' Reference Type: CITATION Reference Reference Text: 'James, P.A., Oparil, S., Carter, B.L., et al. (2014). 2014 Evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). JAMA. 2014;311(5):507-520. doi: 10.1001/jama.2013.284427' Reference Type: CITATION Reference Text: 'Kirkland, E. B., Heincelman, M., Bishu, K. G., Schumann, S. O., Schreiner, A., Axon, R. N.,...Moran, W. P. (2018). Reference Trends in Healthcare Expenditures Among US Adults With Hypertension: National Estimates, 2003–2014. Journal of the American Heart Association, 7(11), e008731. https://doi.org/10.1161/JAHA.118.008731 Reference Type: CITATION Reference Reference Text: 'Moran, A. E., Odden, M. C., Thanataveerat, A., et al. (2015). Cost-effectiveness of hypertension therapy according to 2014 guidelines. [published correction appears in N Engl J. Med. 2015;372:1677]. New England Journal of Medicine. 2015;372, 447-455. doi: 10.1056/NEJMsa1406751. [published correction appears on page 1677]' Reference Type: CITATION Reference Text: 'Patel, S. A., Winkel, M., Ali, M. K., et al. (2015). Cardiovascular mortality associated with 5 leading risk factors: Reference National and state preventable fractions estimated from survey data. Annals of Internal Medicine, 163(4), 245-253. doi: 10.7326/M14-Reference Type: CITATION Reference Text: 'Qaseem, A., Wilt, T. J., Rich, R., et al. (2017). Pharmacologic treatment of hypertension in adults aged 60 years or Reference older to higher versus lower blood pressure targets: A clinical practice guideline from the American College of Physicians and the American Academy of Family Physicians. Annals of Internal Medicine, 166(6), 430-437. Retrieved from https://annals.org/aim/fullarticle/2598413/pharmacologic-treatment-hypertension-adults-aged-60-years-older-higher-versus' Reference Type: CITATION Reference Reference Text: 'SPRINT Research Group, Wright, J. T., Jr., Williamson, J. D., et al. (2015). A randomized trial of intensive versus standard blood-pressure control. New England Journal of Medicine, 373(22), 2103-2116. Reference Type: CITATION Reference Text: 'Tsao, C. W., Aday, A. W., Almarzooq, Z. I., Alonso, A., Beaton, A. Z., Bittencourt, M. S.,...Kissela, B. M. (2022). Heart Reference Disease and Stroke Statistics—2022 Update: A Report From the American Heart Association. Circulation, 145(8), e153-e639. https://doi.org/10.1161/CIR.000000000001052' Reference Type: CITATION Reference Text: 'U.S. Preventive Services Task Force. Screening for hypertension in adults: U.S. Preventive Services Task Force Reference reaffirmation recommendation statement. JAMA, 325(16), 1650. Retrieved from https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hypertension-in-adults-screening' Reference Type: CITATION Reference Text: 'Virani, S.S., Alonso, A., Aparicio, H.J., et al.; on behalf of the American Heart Association Council on Epidemiology and Reference Prevention Statistics Committee and Stroke Statistics Subcommittee. (2021). Heart disease and stroke statistics—2021 update: a report from the American Heart Association. Circulation. 2021;143:e254-e743. doi: 10.1161/CIR.00000000000000950' Reference Type: CITATION Reference Text: 'Whelton, P. K., Carey, R. M., Aronow, W. S., et al. (2017). 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the prevention, detection, evaluation, and management Reference of high blood pressure in adults: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Journal of the American College of Cardiology. Hypertension. 71(6). https://doi.org/10.1161/HYP.0000000000000065' Reference Type: CITATION Reference Reference Text: 'Coles, S., Fisher, L., Lin, K. W., Lyon, C., Vosooney, A. A., & Bird, M. D. (2022). Blood Pressure Targets in Adults With Hypertension: A Clinical Practice Guideline From the AAFP. American family physician, 106(6). Retrieved from https://www.aafp.org/pubs/afp/issues/2022/1200/practice-guidelines-aafp-hypertension-full-guideline.html' Definition None In reference to the numerator element, only blood pressure readings performed by a clinician or an automated blood pressure monitor or device are acceptable for numerator compliance with this measure. This includes blood pressures taken in person by a clinician and blood pressures measured remotely by electronic monitoring devices capable of transmitting the blood pressure data to the clinician. Blood pressure readings taken by an automated blood pressure monitor or device and conveyed by the patient to the clinician are also acceptable. It is the clinician's responsibility and discretion to confirm the automated blood pressure monitor or device used to obtain the blood pressure is considered acceptable and reliable and whether the blood pressure reading is considered accurate before documenting it in the patient's medical record. Do not include BP readings taken during an acute inpatient stay or an emergency department (ED) visit. Guidance 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. Ranges and thresholds do not meet criteria for this measure. A distinct numeric result for both the systolic and diastolic BP reading is required for numerator compliance. This eCQM is a patient-based measure. This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM. Transmission Format Patients 18-85 years of age by the end of the measurement period who had a visit during the measurement period and diagnosis of **Initial Population** essential hypertension starting before and continuing into, or starting during the first six months of the measurement period Denominator **Equals Initial Population** Exclude patients who are in hospice care for any part of the measurement period. 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. Exclude patients 66-80 by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria: - Advanced illness diagnosis during the measurement period or the year prior **Denominator Exclusions** - OR taking dementia medications during the measurement period or the year prior Exclude patients 81 and older by the end of the measurement period with an indication of frailty for any part of the measurement period. Exclude patients 66 and older by the end of the measurement period who are living long term in a nursing home any time on or before the end of the measurement period. Exclude patients receiving palliative care for any part of the measurement period. Patients whose most recent blood pressure is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure **Numerator Exclusions** Not Applicable **Denominator Exceptions** None **Supplemental Data Elements** For every patient evaluated by this measure also identify payer, race, ethnicity and sex **Table of Contents Population Criteria Definitions** Terminology Data Criteria (QDM Data Elements) Supplemental Data Elements Risk Adjustment Variables **Population Criteria** ▲ Initial Population AgeInYearsAt(date from end of "Measurement Period") in Interval[18, 85] and exists "Essential Hypertension Diagnosis" and exists AdultOutpatientEncounters."Qualifying Encounters" **▲ Denominator** "Initial Population" ▲ Denominator Exclusions Hospice."Has Hospice Services" or exists ("Pregnancy or Renal Diagnosis") or exists ("End Stage Renal Disease Procedures") or exists ("End Stage Renal Disease Encounter")
or AlFrailLTCF."Is Age 66 to 80 with Advanced Illness and Frailty or Is Age 81 or Older with Frailty" or AlFrailLTCF."Is Age 66 or Older Living Long Term in a Nursing Home' or PalliativeCare."Has Palliative Care in the Measurement Period" ▲ Numerator "Has Systolic Blood Pressure Less Than 140" and "Has Diastolic Blood Pressure Less Than 90" ▲ Numerator Exclusions None ▲ Denominator Exceptions None ▲ Stratification None **Definitions** AdultOutpatientEncounters.Qualifying Encounters (["Encounter, Performed": "Office Visit"]
union ["Encounter, Performed": "Annual Wellness Visit"]
union ["Encounter, Performed": "Preventive Care Services Established Office Visit, 18 and Up"]
union ["Encounter, Performed": "Preventive Care Services Initial Office Visit, 18 and Up"]
union ["Encounter, Performed": "Home Healthcare Services"]
union ["Encounter, Performed": "Virtual Encounter"]
union ["Encounter, Performed": "Telephone Visits"]) ValidEncounter
where ValidEncounter.relevantPeriod during day of "Measurement Period" where ValidEncounter.relevantPeriod during day of "Measurement Period" ▲ AIFrailLTCF.Has Advanced Illness in Year Before or During Measurement Period exists (["Diagnosis": "Advanced Illness"] AdvancedIllnessDiagnosis where AdvancedIllnessDiagnosis.prevalencePeriod starts during day of Interval[start of "Measurement Period" - 1 year, end of "Measurement Period"] ▲ AIFrailLTCF.Has Criteria Indicating Frailty exists (["Device, Order": "Frailty Device"] FrailtyDeviceOrder where FrailtyDeviceOrder.authorDatetime during day of "Measurement Period" or exists (["Assessment, Performed": "Medical equipment used"] EquipmentUsed where EquipmentUsed.result in "Frailty Device" and Global."NormalizeInterval" (EquipmentUsed.relevantDatetime, EquipmentUsed.relevantPeriod) ends during day of "Measurement Period" or exists (["Diagnosis": "Frailty Diagnosis"] FrailtyDiagnosis where FrailtyDiagnosis.prevalencePeriod overlaps day of "Measurement Period" or exists (["Encounter, Performed": "Frailty Encounter"] FrailtyEncounter where FrailtyEncounter.relevantPeriod overlaps day of "Measurement Period" or exists (["Symptom": "Frailty Symptom"] FrailtySymptom where FrailtySymptom.prevalencePeriod overlaps day of "Measurement Period" ▲ AIFrailLTCF.Has Dementia Medications in Year Before or During Measurement Period exists (["Medication, Active": "Dementia Medications"] DementiaMedication where Global."NormalizeInterval" (DementiaMedication.relevantDatetime, DementiaMedication.relevantPeriod) overlaps day of Interval[start of "Measurement Period" - 1 year, end of "Measurement Period"]) ▲ AIFrailLTCF.Is Age 66 or Older Living Long Term in a Nursing Home (AgeInYearsAt(date from end of "Measurement Period")>= 66 and ((Last(["Assessment, Performed": "Housing status"] HousingStatus where Global."NormalizeInterval"(HousingStatus.relevantDatetime, HousingStatus.relevantPeriod) ends on or before day of end of "Measurement Period" end of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)asc)) LastHousingStatus where LastHousingStatus.result ~ "Lives in nursing home (finding)") is not null ▲ AIFrailLTCF.Is Age 66 to 80 with Advanced Illness and Frailty or Is Age 81 or Older with Frailty (AgeInYearsAt(date from end of "Measurement Period")in Interval[66, 80] and "Has Criteria Indicating Frailty" and ("Has Advanced Illness in Year Before or During Measurement Period" or "Has Dementia Medications in Year Before or During Measurement Period" or (AgeInYearsAt(date from end of "Measurement Period")>= 81 and "Has Criteria Indicating Frailty" **▲ Blood Pressure Days** ("Qualifying Diastolic Blood Pressure Reading" DBPExam return date from Global."LatestOf" (DBPExam.relevantDatetime, DBPExam.relevantPeriod) intersect ("Qualifying Systolic Blood Pressure Reading" SBPExam return date from Global."LatestOf" (SBPExam.relevantDatetime, SBPExam.relevantPeriod) Denominator "Initial Population" ▲ Denominator Exclusions Hospice."Has Hospice Services" or exists ("Pregnancy or Renal Diagnosis") or exists ("End Stage Renal Disease Procedures") or exists ("End Stage Renal Disease Encounter") or AlFrailLTCF."Is Age 66 to 80 with Advanced Illness and Frailty or Is Age 81 or Older with Frailty" or AlFrailLTCF."Is Age 66 or Older Living Long Term in a Nursing Home or PalliativeCare."Has Palliative Care in the Measurement Period **▲ End Stage Renal Disease Encounter** ["Encounter, Performed": "ESRD Monthly Outpatient Services"] ESRDEncounter where ESRDEncounter.relevantPeriod starts on or before end of "Measurement Period" ▲ End Stage Renal Disease Procedures (["Procedure, Performed": "Kidney Transplant"] union ["Procedure, Performed": "Dialysis Services"]) ESRDProcedure where end of Global."NormalizeInterval" (ESRDProcedure.relevantDatetime, ESRDProcedure.relevantPeriod) on or before end of "Measurement Period" **▲ Essential Hypertension Diagnosis** ["Diagnosis": "Essential Hypertension"] Hypertension where Hypertension prevalencePeriod overlaps Interval[start of "Measurement Period", start of "Measurement Period" + 6 months) ▲ Has Diastolic Blood Pressure Less Than 90 "Lowest Diastolic Reading on Most Recent Blood Pressure Day".result < 90 'mm[Hg]' ▲ Has Systolic Blood Pressure Less Than 140 "Lowest Systolic Reading on Most Recent Blood Pressure Day".result < 140 'mm[Hg]" ▲ Hospice.Has Hospice Services exists (["Encounter, Performed": "Encounter Inpatient"] InpatientEncounter where (InpatientEncounter.dischargeDisposition ~ "Discharge to home for hospice care (procedure)" or InpatientEncounter.dischargeDisposition ~ "Discharge to healthcare facility for hospice care (procedure)" and InpatientEncounter.relevantPeriod ends during day of "Measurement Period" or exists (["Encounter, Performed": "Hospice Encounter"] HospiceEncounter where HospiceEncounter.relevantPeriod overlaps day of "Measurement Period" or exists (["Assessment, Performed": "Hospice care [Minimum Data Set]"] HospiceAssessment where HospiceAssessment.result ~ "Yes (qualifier value)" and Global. "NormalizeInterval" (HospiceAssessment.relevantDatetime, HospiceAssessment.relevantPeriod) overlaps day of "Measurement Period" or exists (["Intervention, Order": "Hospice Care Ambulatory"] HospiceOrder where HospiceOrder.authorDatetime during day of "Measurement Period" or exists (["Intervention, Performed": "Hospice Care Ambulatory"] HospicePerformed where Global. "NormalizeInterval" (HospicePerformed.relevantDatetime, HospicePerformed.relevantPeriod) overlaps day of "Measurement Period" or exists (["Diagnosis": "Hospice Diagnosis"] HospiceCareDiagnosis where HospiceCareDiagnosis.prevalencePeriod overlaps day of "Measurement Period" ▲ Initial Population AgeInYearsAt(date from end of "Measurement Period") in Interval[18, 85] and exists "Essential Hypertension Diagnosis" and exists AdultOutpatientEncounters."Qualifying Encounters" ▲ Lowest Diastolic Reading on Most Recent Blood Pressure Day First("Qualifying Diastolic Blood Pressure Reading" DBPReading where Global."LatestOf"(DBPReading.relevantDatetime, DBPReading.relevantPeriod) same day as "Most Recent Blood Pressure Day" sort by(result as Quantity) ▲ Lowest Systolic Reading on Most Recent Blood Pressure Day First("Qualifying Systolic Blood Pressure Reading" SBPReading where Global. "LatestOf" (SBPReading.relevantDatetime, SBPReading.relevantPeriod) same day as "Most Recent Blood Pressure Day" sort by(result as Quantity) ▲ Most Recent Blood Pressure Day Last("Blood Pressure Days" BPDays sort asc Numerator "Has Systolic Blood Pressure Less Than 140" and "Has Diastolic Blood Pressure Less Than 90" ▲ PalliativeCare.Has Palliative Care in the Measurement Period exists (["Assessment, Performed": "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)"] PalliativeAssessment where Global."NormalizeInterval" (PalliativeAssessment.relevantDatetime, PalliativeAssessment.relevantPeriod) overlaps day of "Measurement Period" or exists (["Diagnosis": "Palliative Care Diagnosis"] PalliativeDiagnosis where PalliativeDiagnosis.prevalencePeriod overlaps day of "Measurement Period" or exists (["Encounter, Performed": "Palliative Care Encounter"] PalliativeEncounter where PalliativeEncounter.relevantPeriod overlaps day of "Measurement Period" or exists (["Intervention, Performed": "Palliative Care Intervention"] PalliativeIntervention where Global. "NormalizeInterval" (PalliativeIntervention.relevantDatetime, PalliativeIntervention.relevantPeriod) overlaps day of "Measurement Period" ▲ Pregnancy or Renal Diagnosis (["Diagnosis": "Pregnancy"] union ["Diagnosis": "End Stage Renal Disease"] union ["Diagnosis": "Kidney Transplant Recipient"] union ["Diagnosis": "Chronic Kidney Disease, Stage 5"]) PregnancyESRDDiagnosis where PregnancyESRDDiagnosis.prevalencePeriod overlaps "Measurement Period" ■ Qualifying Diastolic Blood Pressure Reading ["Physical Exam, Performed": "Diastolic blood pressure"] DiastolicBP without (["Encounter, Performed": "Encounter Inpatient"] union ["Encounter, Performed": "Emergency Department Evaluation and Management Visit"]) DisqualifyingEncounter such that Global."LatestOf" (DiastolicBP.relevantDatetime, DiastolicBP.relevantPeriod) during day of DisqualifyingEncounter.relevantPeriod where DiastolicBP.result.unit = 'mm[Hg]' and Global."LatestOf" (DiastolicBP.relevantDatetime, DiastolicBP.relevantPeriod) during day of "Measurement Period" Qualifying Systolic Blood Pressure Reading ["Physical Exam, Performed": "Systolic blood pressure"] SystolicBP without (["Encounter, Performed": "Encounter Inpatient"] union ["Encounter, Performed": "Emergency Department Evaluation and Management Visit"]) DisqualifyingEncounter such that Global."LatestOf" (SystolicBP.relevantDatetime, SystolicBP.relevantPeriod) during day of DisqualifyingEncounter.relevantPeriod where SystolicBP.result.unit = 'mm[Hg]' and Global."LatestOf" (SystolicBP.relevantDatetime, SystolicBP.relevantPeriod) during day of "Measurement Period" ▲ SDE Ethnicity ["Patient Characteristic Ethnicity": "Ethnicity"] **▲ SDE Payer** ["Patient Characteristic Payer": "Payer Type"] ▲ SDE Race ["Patient Characteristic Race": "Race"] ▲ SDE Sex ["Patient Characteristic Sex": "ONC Administrative Sex"] **Functions** ▲ Global.HasEnd(period Interval<DateTime>) end of period is null end of period = maximum DateTime ▲ Global.Latest(period Interval<DateTime>) if (HasEnd(period)) then end of period else start of period ▲ Global.LatestOf(pointInTime DateTime, period Interval<DateTime>) Latest(NormalizeInterval(pointInTime, period)) ▲ Global.NormalizeInterval(pointInTime DateTime, period Interval<DateTime>) if pointInTime is not null then Interval[pointInTime, pointInTime] else if period is not null then period else null as Interval<DateTime> **Terminology** code "Diastolic blood pressure" ("LOINC Code (8462-4)") code "Discharge to healthcare facility for hospice care (procedure)" ("SNOMEDCT Code (428371000124100)") code "Discharge to home for hospice care (procedure)" ("SNOMEDCT Code (428361000124107)") code "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)" ("LOINC Code (71007-9)") code "Hospice care [Minimum Data Set]" ("LOINC Code (45755-6)") code "Housing status" ("LOINC Code (71802-3)")
code "Lives in nursing home (finding)" ("SNOMEDCT Code (160734000)")
code "Medical equipment used" ("LOINC Code (98181-1)")
code "Systolic blood pressure" ("LOINC Code (8480-6)") code "Yes (qualifier value)" ("SNOMEDCT Code (373066001)") valueset "Advanced Illness" (2.16.840.1.113883.3.464.1003.110.12.1082) valueset "Annual Wellness Visit" (2.16.840.1.113883.3.526.3.1240) valueset "Chronic Kidney Disease, Stage 5" (2.16.840.1.113883.3.526.3.1002) valueset "Dementia Medications" (2.16.840.1.113883.3.464.1003.196.12.1510) valueset "Dialysis Services" (2.16.840.1.113883.3.464.1003.109.12.1013) valueset "Emergency Department Evaluation and Management Visit" (2.16.840.1.113883.3.464.1003.101.12.1010) valueset "Encounter Inpatient" (2.16.840.1.113883.3.666.5.307) valueset "End Stage Renal Disease" (2.16.840.1.113883.3.526.3.353) valueset "ESRD Monthly Outpatient Services" (2.16.840.1.113883.3.464.1003.109.12.1014) valueset "Essential Hypertension" (2.16.840.1.113883.3.464.1003.104.12.1011) valueset "Ethnicity" (2.16.840.1.114222.4.11.837) valueset "Frailty Device" (2.16.840.1.113883.3.464.1003.118.12.1300) valueset "Frailty Diagnosis" (2.16.840.1.113883.3.464.1003.113.12.1074) valueset "Frailty Encounter" (2.16.840.1.113883.3.464.1003.101.12.1088) valueset "Frailty Symptom" (2.16.840.1.113883.3.464.1003.113.12.1075) valueset "Home Healthcare Services" (2.16.840.1.113883.3.464.1003.101.12.1016) valueset "Hospice Care Ambulatory" (2.16.840.1.113883.3.526.3.1584) valueset "Hospice Diagnosis" (2.16.840.1.113883.3.464.1003.1165) valueset "Hospice Encounter" (2.16.840.1.113883.3.464.1003.1003) valueset "Kidney Transplant" (2.16.840.1.113883.3.464.1003.109.12.1012) valueset "Kidney Transplant Recipient" (2.16.840.1.113883.3.464.1003.109.12.1029) valueset "Office Visit" (2.16.840.1.113883.3.464.1003.101.12.1001) valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1) valueset "Palliative Care Diagnosis" (2.16.840.1.113883.3.464.1003.1167) valueset "Palliative Care Encounter" (2.16.840.1.113883.3.464.1003.101.12.1090) valueset "Palliative Care Intervention" (2.16.840.1.113883.3.464.1003.198.12.1135) valueset "Payer Type" (2.16.840.1.114222.4.11.3591) valueset "Pregnancy" (2.16.840.1.113883.3.526.3.378) valueset "Preventive Care Services Established Office Visit, 18 and Up" (2.16.840.1.113883.3.464.1003.101.12.1025) valueset "Preventive Care Services Initial Office Visit, 18 and Up" (2.16.840.1.113883.3.464.1003.101.12.1023) valueset "Race" (2.16.840.1.114222.4.11.836) valueset "Telephone Visits" (2.16.840.1.113883.3.464.1003.101.12.1080) valueset "Virtual Encounter" (2.16.840.1.113883.3.464.1003.101.12.1089) <u>Data Criteria (QDM Data Elements)</u> "Assessment, Performed: Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pa)" using "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pa)" using "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pa)" using "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (Hospital Chronic Hospital Chronic Chronic Illness (LoiNC Code 1811-17)"
"Assessment, Performed: Medical equipment used" using "Medical equipment used (LOINC Code 98181-17)"
Device, Order: Frailip Device' using "Fatip Verget (2.16.840.1.113883.3464.1003.110.1.2.1082)"
"Diagnosis: Advanced Illness" using "Advanced Illness (2.16.840.1.113883.3464.1003.110.1.2.1082)"
"Diagnosis: Advanced Illness" using "Advanced Illness (2.16.840.1.113883.3.464.1003.110.1.2.1082)"
"Diagnosis: Chronic Kulder, Disease, Stage Stag "Assessment, Performed: Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)" using "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal) (LOINC Code 71007-9)"

Supplemental Data Elements

["Patient Characteristic Ethnicity": "Ethnicity"]

["Patient Characteristic Payer": "Payer Type"]

["Patient Characteristic Sex": "ONC Administrative Sex"]

None

["Patient Characteristic Race": "Race"]

▲ SDE Ethnicity

▲ SDE Payer

▲ SDE Race

▲ SDE Sex

None

Measure Set

Risk Adjustment Variables