National Cardiovascular Data Registry (NCDR®)

PINNACLE Registry®

DIABETES COLLABORATIVE REGISTRY®

Qualified Clinical Data Registry

Measures Specifications

ACCPIN11: HEART FAILURE: PATIENT SELF CARE EDUCATION (ACC/Veradigm)	
NQS Domain: Community/Population Health **Meaningful Measure Area:** Management of Chronic Conditions	**Measure Type:** Process, Proportional, High Priority
Measure Description	Percentage of patients aged >=18 years with a diagnosis of heart failure who were provided with self-care education on >=3 elements of education during >=1 visit within a 12-month period.
Numerator	Patients who were provided with self-care education on three or more elements of education during one or more visits within a 12-month period. Elements include: 1. Weight monitoring, 2. Diet (Sodium Restriction), 3. Symptom Management, 4. Physical Activity, 5. Smoking Cessation, 6. Medication Instruction, 7. Prognosis/End of life issues, 8. Minimizing or avoiding use of NSAIDs or 9. Referral or visiting nurse of specific education or management programs
Denominator	All patients aged 18 years and older with a diagnosis of heart failure who were seen at least once for any visit within a 12-month period
Exceptions and exclusions of the measure (if applicable)	None
Proportion measure scoring	Yes
Data Source	EHR/Registry
Rationale	The self-care regimen for patients with HF is complex and multifaceted. Patients need to understand how to monitor their symptoms and weight fluctuations, restrict their sodium intake, take their medications as prescribed, and stay physically active. Education regarding these recommendations is necessary, albeit not always sufficient, to significantly improve outcomes. A systematic review of 35 educational intervention studies for patients with HF demonstrated that education improved knowledge, self-monitoring, and medication adherence, time to hospitalization, and days in the hospital. Patients who receive in-hospital education have higher knowledge scores at discharge and 1 year later when compared with those who did not receive in-hospital education. Dietary sodium restriction is commonly recommended to patients with HF and is endorsed by many guidelines. The data on which this recommendation is drawn upon, however, are modest, and variances in protocols, fluid intake, measurement of sodium intake and compliance, and other clinical and therapeutic characteristics among these studies make it challenging to compare data and draw definitive conclusions. 2013 ACCF/AHA Guideline for the Management of Heart Failure Patients with HF should receive specific education to facilitate HF self-care (Class I: Level of Evidence: B) Sodium restriction is reasonable for patients with symptomatic HF to reduce congestive symptoms. (Class I: Level of Evidence: C) Exercise training (or regular physical activity) is recommended as safe and effective for patients with HF who are able to participate to improve functional status. (Class I: Level of Evidence: A)

ACCPIN7: PERIPHERAL ARTERY DISEASE: TREATMENT OF BLOOD CHOLESTOROL TO REDUCE ATHEROSCLEROTIC CARDIOVASCULAR RISK (ACC/Veradigm)	
NQS Domain: Effective Clinical Care **Meaningful Measure Area:** Management of Chronic Conditions	**Measure Type:** Process, Proportional
Measure Description	Percentage of Patients 18-75 years of age with PAD who were offered moderate-to-high intensity statin.
Numerator	Patients with a diagnosis of Peripheral Artery Disease that received a moderate (Fluostatin, Pravastatin, or Simvastatin) or high statin therapy (Atorvastatin or Rosuvastatin)
Denominator	All patients aged 18 years and older with a history of Symptomatic Peripheral Artery Disease
Exceptions and exclusions of the measure (if applicable)	Exceptions: Documentation of medical reason(s) for not prescribing moderate or high intensity statin (eg, allergy, intolerant, postural hypotension, other medical reasons) Documentation of patient reason(s) for not prescribing moderate or high intensity statin (eg, patient declined, other patient reasons) Documentation of system reason(s) for not prescribing moderate or high intensity statin (eg, financial reasons, other reasons attributable to the health care delivery system)
Proportion measure scoring	Yes
Data Source	EHR/Registry
Rationale	2016 AHA/ACC Guideline on the Management of Patients With Lower Extremity Peripheral Artery Disease: A guideline-based program of pharmacotherapy to reduce cardiovascular ischemic events and limb-related events should be prescribed for each patient with PAD and is customized to individual risk factors, such as whether the patient also has diabetes mellitus. Treatment with a statin is recommended for all patients with PAD. Pharmacotherapy for the patient with PAD includes antiplatelet and statin agents and is customized to additional risk factors, such as whether the patient also has diabetes mellitus or hypertension. Statin therapy improves both cardiovascular and limb outcomes in patients with PAD. Several studies have shown that statin therapy is highly beneficial in reducing both morbidity and mortality in such patients. One such study, looked at the effect of statin use and improvement of limb salvage after intervention for peripheral artery disease. In this study, a total of 488 patients were identified who underwent surgical/endovascular procedures between 2009 and 2010. 41% patients received statins, 56% received antiplatelets, 26% received oral anticoagulants, 9% required a major amputation, and 11% died during follow-up of up to 88 months. Of the 3 medications (statins, antiplatelet, oral anticoagulants), statins use was associated with improved survival and improved limb salvage. Another study looked at the relative benefit of higher statin dosing in patients with PAD with comparison of patients with low-or moderate-intensity statin dose on clinical outcomes in patients with PAD. The results showed that high intensity therapy was associated with improved survival and decreased major adverse cardiovascular events. Source: https://www.ncbi.nlm.nih.gov/pubmed/30718113 https://www.ahajournals.org/doi/full/10.1161/JAHA.117.005699

*The measures listed above are calculated based on the 1st performance rate, traditional (unless indicated differently under *Measure Type*) and are NOT risk adjusted.

ACCPIN8: HYPERTENSION CONTROL (STAGE 1 OR STAGE 2) (ACC/Veradigm)	
NQS Domain: Effective Clinical Care **Meaningful Measure Area**: Management of Chronic Conditions	**Measure Type:** Intermediate Outcome, High Priority, Proportional
Measure Description	Proportion of patients with hypertension who had adequately controlled blood pressure
Numerator	Number of patients with blood pressure of < 130/80 mmHg during the most recent office visit
Denominator	Number of patients ≥ 18 years of age with hypertension in the past 24 months
Exceptions and exclusions of the measure (if applicable)	Exclusions: • Pregnancy related hypertension
Proportion measure scoring	Yes
Data Source	EHR/Registry
Rationale	The most recent ACC/AHA Evidence Based November 2017 guidelines have suggested new blood pressure values for blood pressure stages. Patients who have been diagnosed with Stage 1 Hypertension who don't have multiple comorbidities are recommended nonpharmacologic therapy with reassessment in 3-6 months. However, patients who do have multiple comorbidities such as ASCVD or have an estimated 10-year CVD risk are recommended nonpharmacologic therapy and BP-lower medications. Patients who have been diagnosed with Stage 2 Hypertension BP>=140/90 are recommended nonpharmacologic therapy along with 2 BP-lower medications of different classes is recommended. A Literature search has shown how prevalent BP was in the United States, with implications of recommendations for antihypertensive medication and prevalence of BP above the treatment goal among U.S. adults using criteria from the 2017 ACC/AHA guideline and the JNC7. In this study, authors analyzed data from the 2011-2014 National Health and Nutrition Examination Survey (N=9623), with BP being measured 3 times following a standardized protocol and averaged. Based on the 2017 guidelines with this analyzed data from 2011-2014-the prevalence of hypertension among US adults was 45.6 (95% confidence interval [CI]: 43.6% to 47.6%) per the ACC/AHA guidelines and 31.9% (95% CI: 30.1% to 33.7%) per the JNC7 guidelines, respectively, and antihypertensive medication was recommended for 36.2% (95% CI: 34.2% to 38.2%) per ACC/AHA guidelines and 34.3% (95% CI: 32.5% to 36.2%) of US adults per JNC7 guidelines, respectively. This suggests that with the new guidelines in place-there is a substantial increase in the prevalence of hypertension, a small increase in the percentage of US adults recommended for antihypertensive medication and more intensive BP lowering for many adults taking antihypertensive medication. According to the most recent Pinnacle data 30% of patients who have blood pressure readings greater than or equal to 140 mm Hg systolic and/or 90 mmHg diastolic are currently being treated on medications. Stage 1 hypertension now defined as an SBP of 130–139 or a DBP of 80–89 mm Hg, and with stage 2 hypertension in the present document corresponding to stages 1 and 2 in the JNC 7 report (S3.1-21)The rationale for this categorization is based on observational data related to the association between SBP/DBP and CVD risk, RCTs of lifestyle modification to lower BP, and RCTs of treatment with antihypertensive medication to prevent CVD. The increased risk of CVD among adults with stage 2 hypertension is well established. An increasing number of individual studies and meta-analyses of observational data have reported a gradient of progressively higher CVD risk going from normal BP to elevated BP and stage 1 hypertension. Source:https://www.ahajournals.org/doi/abs/10.1161/circulationaha.117.032582 Source:https://www.acc.org/~/media/Non-Clinical/Files-PDFs-Excel-MS-Word-etc/Guidelines/2017/Guidelines_Made_Simple_2017_HBP.pdf

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