

UCQM Title	Diabetic Foot Assessment and Follow-Up		
eCQM Identifier (Measure Authoring Tool)	TBD	eCQM Version Number	TBD
NQF Number	Not applicable	GUID	
Measurement Period	January 1, 20XX, through December 31, 20XX		
Measure Steward	American Podiatric Medical Association		
Measure Developer	Mathematica		
Endorsed by	None		
Description	Percentage of patients 18 years of age and older with diabetes who had a lower-extremity neurological examination, vascular examination, and visual inspection of both feet; who received foot care education at least once in the past 12 months; and who received a follow-up plan of care if the results of the neurological, vascular, or visual inspection were abnormal.		
Copyright	TBD		
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Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	<p>Diabetes is the seventh leading cause of death in the United States. In 2019, diabetes affected about 37 million Americans (11.3 percent of the U.S. population) and killed roughly 88,000 people (Centers for Disease Control and Prevention [CDC] 2022). People with diabetes are at increased risk of serious health complications, including amputation of the feet or legs (CDC 2021). In 2018, there were 154,000 hospitalizations for a lower-extremity amputation, amounting to 6.1 per 1,000 adults with diabetes (CDC 2022). Lower-extremity amputation is a devastating complication of diabetes, with an estimated mortality rate of 50 percent in the 5 years following the amputation (Armstrong et al. 2020).</p> <p>In 2017, diabetes cost the U.S. an estimated \$237 billion in direct medical costs, a third of which was attributed to diabetic foot disease (Armstrong et al. 2020).</p> <p>Comprehensive foot care, including regular diabetic foot assessments and management of ulcer risk, can reduce the risk of lower-extremity amputation.</p>		

<p>Clinical Recommendation Statement</p>	<p>American Diabetes Association</p> <ul style="list-style-type: none"> - 12.21. Perform a comprehensive foot evaluation at least annually to identify risk factors for ulcers and amputations. B - 12.24. The examination should include inspection of the skin, assessment of foot deformities, neurological assessment (10 g monofilament testing with at least one other assessment: pinprick, temperature, or vibration), and vascular assessment, including pulses in the legs and feet. B - 12.28. Provide general preventive education on foot self-care to all patients with diabetes. B <p>American Podiatric Medical Association</p> <ul style="list-style-type: none"> - Recommendation 1: We recommend that patients with diabetes undergo annual interval foot inspections by physicians (M.D., D.O., D.P.M.) or advanced practice providers with training in foot care. (Grade 1C) - Recommendation 2: We recommend that foot examination include testing for peripheral neuropathy using the Semmes-Weinstein test. (Grade 1B) - Recommendation 3: We recommend education of the patients and their families about preventive foot care. (Grade 1C) <p>International Working Group on the Diabetic Foot (IWGDF):</p> <ul style="list-style-type: none"> - Examine a person with diabetes at very low risk of foot ulceration (IWGDF risk 0) annually for signs or symptoms of loss of protective sensation and peripheral artery disease to determine if they are at increased risk for foot ulceration. (Grade recommendation: Strong; Quality of evidence: High) - Provide structured education to a person with diabetes who is at risk of foot ulceration (IWGDF risk 1–3) about appropriate foot self-care for preventing a foot ulcer. (Strong; Low) - Screen a person with diabetes at risk of foot ulceration (IWGDF risk 1–3) for a history of foot ulceration or lower-extremity amputation, diagnosis of end-stage renal disease, presence or progression of foot deformity, limited joint mobility, abundant callus, and any pre-ulcerative sign on the foot. Repeat this screening once every 6–12 months for those classified as IWGDF risk 1, once every 3–6 months for IWGDF risk 2, and once every 1–3 months for IWGDF risk 3. (Strong; High) - Examine the feet of all patients with diabetes annually for the presence of peripheral artery disease, even in the absence of foot ulceration. At a minimum, this should include taking a relevant history and palpating foot pulses. (Strong; Low)
	<p>Improvement Notation</p>

Reference	American Diabetes Association Professional Practice Committee. "12. Retinopathy, Neuropathy, and Foot Care: <i>Standards of Medical Care in Diabetes—2022</i> ." <i>Diabetes Care</i> , vol. 45, supplement 1, 2021, pp. S185–S194. https://doi.org/10.2337/dc22-S012
Reference	Armstrong, D.G., M.A. Swerdlow, A.A. Armstrong, M.S. Conte, W.V. Padula, and S.A. Bus. "Five-Year Mortality and Direct Costs of Care for People with Diabetic Foot Complications Are Comparable to Cancer." <i>Journal of Foot and Ankle Research</i> , vol. 13, no. 16, 2020. https://doi.org/10.1186/s13047-020-00383-2
Reference	Bus, S.A., L.A. Lavery, M. Monteiro-Soares, A. Rasmussen, A. Raspovic, I.C.N. Sacco, and J.J. Netten on behalf of the International Working Group on the Diabetic Foot. "Guidelines on the Prevention of Foot Ulcers in Persons with Diabetes (IWGDF 2019 Update)." <i>Diabetes/Metabolism Research and Reviews</i> , vol. 36, no. S1, 2020. https://doi.org/10.1002/dmrr.3269
Reference	CDC. "Diabetes Report Card 2021." Atlanta, GA: CDC, U.S. Department of Health and Human Services, 2021. https://www.cdc.gov/diabetes/library/reports/reportcard.html
Reference	CDC. "National Diabetes Statistics Report, 2022." Atlanta, GA: CDC, U.S. Department of Health and Human Services, 2022. https://www.cdc.gov/diabetes/data/statistics-report/index.html
Reference	Hingorani, A., G.M. LaMuraglia, P. Henke, M.H. Meissner, L. Loretz, K.M. Zinszer, V.R. Driver, et al. "The Management of Diabetic Foot: A Clinical Practice Guideline by the Society for Vascular Surgery in Collaboration with the American Podiatric Medical Association and the Society for Vascular Medicine." <i>Journal of Vascular Surgery</i> , vol. 63, no. 2, 2016, pp. 3S–21S. https://doi.org/10.1016/j.jvs.2015.10.003

<p>Definition</p>	<p>Lower-extremity neurological exam: A documented evaluation of motor and sensory abilities, including 10 g monofilament plus testing any one of the following: vibration using 128-Hz tuning fork, pinprick sensation, ankle reflexes, or vibration-perception threshold.</p> <p>Lower-extremity neurological exam—abnormal findings: Sensation diminished, absent, or abnormal in one or both feet or a diagnosis of peripheral neuropathy.</p> <p>Lower-extremity vascular exam: A documented evaluation of vascular status, including a pulse exam of both feet.</p> <p>Lower-extremity vascular exam—abnormal findings: Pulses diminished, absent, or abnormal in one or both feet or a diagnosis of peripheral arterial disease.</p> <p>Lower-extremity visual inspection: A documented evaluation of dermatological and musculoskeletal status to assess for skin integrity, presence of deformity, or ulcer.</p> <p>Lower-extremity visual inspection—abnormal findings: Presence of callus, ulcer, or deformity.</p> <p>Foot care education: Structured, culturally appropriate foot care education that is aligned with a patient’s health literacy and personal circumstances and that includes, at a minimum, instructions for foot self-inspection, proper footwear, and foot hygiene practices.</p> <p>Follow-up plan of care: Proposed outline of treatment to be conducted due to abnormal results from a diabetic foot exam. A follow-up plan includes any of the following:</p> <ul style="list-style-type: none"> • Referral (for example, to a podiatrist, vascular specialist, or wound care specialist) • Therapeutic footwear • Offloading interventions • Pharmacological interventions • Plan for repeat visit with clinician within three months
<p>Guidance</p>	<p>This version of the eCQM uses Quality Data Model (QDM) Version X.X. Please refer to the eCQI Resource Center (https://ecqi.healthit.gov/qdm) for more information on the QDM.</p>
<p>Transmission Format</p>	<p>TBD</p>
<p>Initial Population</p>	<p>All patients ages 18 years and older at the beginning of the measurement period who have diabetes and at least one eligible encounter during the measurement period</p>
<p>Denominator</p>	<p>Denominator 1: Equals initial population</p> <p>Denominator 2: Patients in Denominator 1 with abnormal results from a lower-extremity neurological, vascular, or visual inspection during the encounter or during the previous 12 months of the current encounter.</p>

<p>Denominator Exclusions</p>	<p>Exclude patients who have had either a bilateral amputation above or below the knee, or both a left and right amputation above or below the knee, before or during the measurement period.</p> <p>Exclude patients who are in hospice care for any part of the measurement period.</p> <p>Exclude patients ages 66 and older who are living long term in an institution for more than 90 consecutive days during the measurement period.</p> <p>Exclude patients ages 66 and older who have an indication of frailty for any part of the measurement period and who meet any of the following criteria: -Advanced illness with two outpatient encounters during the measurement period or the year prior -OR advanced illness with one inpatient encounter during the measurement period or the year prior -OR taking dementia medications during the measurement period or the year prior</p> <p>Exclude patients receiving palliative care during the measurement period.</p>
<p>Numerator</p>	<p>Numerator 1. Patients who received a lower-extremity neurological examination, a vascular examination, and a visual inspection of both feet AND who received foot care education during the encounter or during the previous 12 months of the current encounter.</p> <p>Numerator 2. Patients with a follow-up plan documented during the encounter or during the previous 12 months of the current encounter.</p>
<p>Numerator Exclusions</p>	<p>Not applicable</p>
<p>Denominator Exceptions</p>	<p>None</p>
<p>Supplemental Data Elements</p>	<p>For every patient evaluated by this measure, also identify payer, race, ethnicity, and sex</p>