
*Adequate Compression at each visit for Patients with Venous Leg Ulcers (VLUs)
appropriate to arterial supply*

MEASURE ID: USWR 32

MEASURE DESCRIPTION:

Percentage of venous leg ulcer visits among patients aged 18 years and older in which adequate compression is provided at each visit within the 12-month reporting period. Arterial status must first be assessed at least one time in the reporting period with any non-invasive method (see: USWR 23: Arterial Screening Measure). Compression method should be appropriate to documented arterial supply.

DENOMINATOR:

All visits for patients aged 18 years or older in which a venous leg ulcer (VLU) is documented as treated within the 12-month reporting period.

NUMERATOR:

All visits for VLU treatment in which an adequate compression method is documented at each visit in the 12 months reporting period that is also appropriate to the arterial supply.

DENOMINATOR EXCLUSIONS:

Death, Palliative care patients, VLU patients seen for consultations only, VLU patients with less than 2 visits in 30 days

DENOMINATOR EXCEPTIONS:

Compression not provided for patient, system, or medical reasons

NUMERATOR EXCLUSIONS:

none

HIGH PRIORITY MEASURE:

No

MEASURE TYPE:

Process

NQS DOMAIN:

Effective Clinical Care

CARE SETTING:

Ambulatory, Ambulatory Care: Clinician Office/Clinic, Ambulatory Care: Hospital, Hospital Outpatient, Nursing Home, Office Based Surgery Center, Outpatient Services, Post-Acute Care

SPECIALTIES:

Emergency Medicine; Family Medicine; General Surgery; Internal Medicine; Physical Medicine & Rehabilitation; Physical Therapy/Occupational Therapy; Podiatry; Vascular Surgery; Wound Care

PREFERRED MEASURE PUBLISHED CLINICAL CATEGORY:

Wound care, Vascular

MEANINGFUL MEASURE AREA:

Preventable Healthcare Harm

MEANINGFUL MEASURE AREA RATIONALE:

Compression of venous leg ulcers is the standard of care for VLU and VLUs will not heal without compression. However, 25% of patients with a VLU have undiagnosed arterial disease and compression could cause limb ischemia in those patients. Compression can be adapted to the level of arterial status to prevent healthcare harm when the standard of care is implemented for active venous ulcers.

MEASURE CALCULATION TYPE:

Proportional Measure

NUMBER OF PERFORMANCE RATES:

4

PERFORMANCE RATE DESCRIPTION:

1. Normal arterial supply based on testing- No restrictions on type of compression 2. Compression bandaging with special considerations (e.g., short stretch bandaging, warnings to the patient to remove bandages if they feel too tight, etc.) 3. Compression bandaging not recommended 4. The average of the three risk stratified buckets which will be the performance rate in the JSON XML submitted.

INDICATE OVERALL PERFORMANCE RATE:

4th Performance Rate

RISK ADJUSTED STATUS:

No

CLINICIAN TESTED QCDR MEASURE:

Yes

CLINICAL RECOMMENDATION STATEMENT:

Venous ulcers heal more rapidly with compression than without, based on RCT data. The use of a Class 3 (most supportive) high-compression system (three-layer, four-layer, short stretch, paste-containing bandages, e.g., Unna's boot, Duke boot) is indicated in the treatment of venous ulcers. The degree of compression must be modified when mixed venous/arterial disease is confirmed during the diagnostic work-up (Level I evidence)". Compression for venous leg ulcers. O'Meara S, Cullum NA, Nelson EA. Department of Health Sciences, University of York, Area 3 Seebohm Rowntree Building, Heslington, York, UK, YO10 5DD. smo4@york.ac.uk Update in Cochrane Database Syst Rev. 2012;11:CD000265. Available at: <http://www3.interscience.wiley.com/cgi-bin/fulltext/118605278/HTMLSTART> Compression therapy heals more venous leg ulcers than no compression therapy as well as decreases the healing time. Level of evidence = A. High compression is more effective than low compression. Level of evidence = A. Wound, Ostomy, and Continence Nurses Society - Professional Association. 2005, Available at: <http://www.guideline.gov/search/searchresults.aspx?Type=3&txtSearch=venous+ulcers&num=20>

QCDR MEASURE RATIONALE:

Compression increases ulcer healing rates compared with no compression. Multi-component systems are more effective than single-component systems. Multi-component systems containing an elastic bandage appear more effective than those composed mainly of inelastic constituents. The Definition of Adequate Compression is a system which applies 30-40mmHg at the ankle; a multilayer high-compression device, which includes 3- or 4-layer short stretch bandages; and/or paste-containing bandages (e.g., Duke or Unna's boot). Compression stockings may be helpful in preventing ulcer

recurrence but are a less ideal option for pressure ulcer treatment. The level of compression (pressure applied) will need to be modified if the patient has arterial occlusive disease. Short stretch bandages can be highly effective and are advised for patients with reduced arterial flow. Involvement of a vascular specialist is the best approach among patients with mixed arterial and venous disease. While reduced arterial flow is a potentially serious complication of venous compression, the most common reason venous ulcers fail to heal is inadequate compression. Despite the fact that compression is the mainstay of therapy for VLU, a 2010 USWR study showed that patients with venous ulcers were provided adequate compression in fewer than 17% of visits, even at hospital-based outpatient wound centers. A PQRS measure focused on compression of venous ulcers (now retired) allowed clinicians to pass the measure by applying ANY type of compression (adequate not defined) one time in a 12-month period. When the USWR reviewed data on this measurer, all eligible providers passed the measure using these specifications, but only 10% would have passed it using the "at each visit" specification. Since 2014, providers reporting the venous compression measure through the USWR QCDR have improved their performance of this measure to more than 70% of visits. However, providers who do NOT report the measure still provide compression in only 25% of VLU visits, indicating that among non-reporters, a significant gap in practice still remains.

While reduced arterial flow is a potentially serious complication of venous compression, the most common reason venous ulcers fail to heal is inadequate compression. Thus, this measure attempts to improve venous ulcer care and outcome with compression, but without risking harm to the patient. Compression is the standard of care for VLU but arterial disease must be assessed prior to its implementation. It should be remembered that the threshold values for the arterial status groupings above are only a guide and are not intended to replace medical judgement. Due to variability in testing methods, machine calibration, anatomical differences and variations in compression bandaging techniques, these numbers should not be construed as reliable predictions of healing or the ability to tolerate compression. Patients with low values may be able to undergo compression safely. Patients whose non-invasive studies appear normal may have arterial disease and/or be unable to tolerate well-applied compression. Clinicians should use many different types of information in making patient care decisions, including and especially patient reported information. This is not a "documentation" measure. Arterial assessment must be performed by the practitioner and compression bandages appropriately selected and applied at the clinic visit, both of which are medical procedures.

STUDY CITATION:

A 2010 USWR study showed that patients with venous ulcers were provided adequate compression in fewer than 17% of visits, even at hospital-based outpatient wound centers. A PQRS measure focused on compression of venous ulcers (now retired) allowed clinicians to pass the measure by applying ANY type of compression (adequate not defined) one time in a 12 month period. When the USWR reviewed data on this measurer, all eligible providers passed the measure using these specifications, but only 10% would have passed it using the "at each visit" specification. Since 2014, providers reporting the venous compression measure through the USWR QCDR have improved their performance of this measure to more than 70% of visits. However, providers who do NOT report the measure still provide compression in only 25% of VLU visits, indicating that among non-reporters, a significant gap in practice remains. Although significant progress has been in the implementation of compression bandaging, less progress has been made in arterial screening. The average performance rate remains below 25%. If venous compression is implemented at a faster rate than arterial assessment, harm could occur. However, USWR data show that practitioners who report both the arterial screening measure and the venous compression measure to the USWR have a VLU healing rate at least 10% higher than their counterparts who do not perform arterial assessment, both of which are the standard of care in venous disease.

MEASURE PERFORMANCE DATA:

In 2020 the average performance rate was 67% (range from 0% to 100%).

