MEDICAL POLICY

POLICY TITLE	NEGATIVE PRESSURE WOUND THERAPY IN THE OUTPATIENT SETTING
POLICY NUMBER	MP 4.004

CLINICAL BENEFIT	☐ MINIMIZE SAFETY RISK OR CONCERN. ☐ MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. ☐ ASSURE APPROPRIATE LEVEL OF CARE. ☐ ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. ☒ ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. ☐ ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	**11/1/2024**

I. POLICY

Powered negative pressure therapy systems should be used as part of a comprehensive wound care program that includes attention to other factors that impact wound healing such as diabetes control, nutritional status, relief of pressure, etc.

INITIATION OF A POWERED NEGATIVE PRESSURE WOUND THERAPY (NPWT):

An initial therapeutic trial of not less than 2 weeks using a powered negative pressure wound therapy (NPWT) system, as part of a comprehensive wound care program that includes controlling factors such as diabetes, nutrition, relief of pressure, etc., may be considered **medically necessary** in the following indications:

- Chronic (> 30 days) stage III or IV pressure ulcers that have failed to heal despite optimal wound care when there is high-volume drainage that interferes with healing and/or when standard dressings cannot be maintained due to anatomic factors, **or**
- Traumatic or surgical wounds where there has been a failure of immediate or delayed primary closure **and** there is exposed bone, cartilage, tendon, or foreign material within the wound **or**
- Wounds in individuals with underlying clinical conditions which are known to negatively impact wound healing, which are non-healing (at least 30 days), despite optimal wound care. Examples of underlying conditions include, but are not limited to diabetes, malnutrition, small vessel disease, and morbid obesity. Malnutrition, while a risk factor, must be addressed simultaneously with the negative pressure wound therapy.

It is not required that an individual be homebound to receive nursing services in the individual's home for wound care using NPWT.

NPWT will be denied at any time as **not reasonable and necessary** if one or more of the following are present:

- The presence in the wound of necrotic tissue with eschar, if debridement is not attempted;
- Osteomyelitis within the vicinity of the wound that is not concurrently being treated with intent to cure;
- Cancer present in the wound;
- The presence of an open fistula to an organ or body cavity within the vicinity of the wound.

Therapeutic trials of powered NPWT systems for the treatment of other acute or chronic wounds except as noted above are considered **not medically necessary**.

CONTINUATION OF POWERED NPWT:

Continuation of the powered NPWT system, as part of a comprehensive wound care program, may be considered **medically necessary** following an initial 2-week therapeutic trial if the treatment trial has resulted in documented objective improvements in the wound, and if there is ongoing objective improvement during subsequent treatment. Objective improvements in the wound should include the development and presence of healthy granulation tissue, progressive wound contracture and decreasing depth, and/or the commencement of epithelial spread from the wound margins.

NPWT may be considered **medically necessary** when continuation of treatment is ordered beyond discharge to the home setting.

Continuation of the powered NPWT system is considered **not medically necessary** when any of the following occurs:

- The therapeutic trial or subsequent treatment period has not resulted in documented objective improvement in the wound, **OR**
- The wound has developed evidence of wound complications contraindicating continued NPWT, **OR**
- The wound has healed to an extent that either grafting can be performed, or the wound can be anticipated to heal completely with other wound care treatments.

NOTE: Continuation of healing during use of the NPWT system should be monitored on a monthly basis.

NOTE: Complete healing of a wound would normally be anticipated if all bone, cartilage, tendons, and foreign material were completely covered, healthy granulation were present to within 5 mm of the surface, and the wound edges were reduced to 2 cm in width or diameter.

NON-POWERED NPWT

Use of non-powered NPWT systems for the treatment of acute or chronic wounds is considered **investigational**. There is insufficient evidence to support a conclusion concerning the health outcomes or benefits associated with this procedure.

Cross-references:

MP 1.158 Bio Engineered Skin, Soft Tissue Substitutes and Amniotic Membranes
MP 2.033 Recombinant and Autologous Platelet-Derived Growth Factors as a Treatment of Would Healing and Other Non–Orthopedic Conditions
MP 2.070 Hyperbaric Oxygen Pressurization
MP 4.028 Wound and Burn Management and Specialized Treatment Centers
MP 6.026 Durable Medical Equipment (DME) and Supplies

II. PRODUCT VARIATIONS

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This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations as discussed in Section VI below. Please see additional information below.

FEP PPO - Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:
https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies

III. DESCRIPTION/BACKGROUND

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Management

The management and treatment of chronic wounds, including decubitus ulcers, is challenging. Furthermore, certain racial and ethnic groups, including African Americans, Hispanics, and Native Americans, experience higher diabetes prevalence, contributing to disparities in the risk for diabetic ulcers; these disparities are exacerbated when inequalities in access to health care result in delayed diagnosis and management.

Most chronic wounds will heal only if the underlying cause, i.e., venous stasis, pressure, infection, etc., is addressed. In addition, cleaning the wound to remove nonviable tissue, microorganisms, and foreign bodies is essential to create the optimal conditions for either re-epithelialization (i.e., healing by secondary intention) or preparation for wound closure with skin grafts or flaps (i.e., healing by primary intention). Therefore, debridement, irrigation, whirlpool treatments, and wet-to-dry dressings are common components of chronic wound care.

Negative pressure wound therapy (NPWT) consists of the use of a negative pressure therapy or suction device to aspirate and remove fluids, debris, and infectious materials from the wound bed to promote the formation of granulation tissue. The devices may be used as an adjunct to surgical therapy or as an alternative to surgery in a debilitated patient. Although the exact mechanism has not been elucidated, it is hypothesized that negative pressure contributes to wound healing by removing excess interstitial fluid, increasing the vascularity of the wound, reducing edema, and/or creating beneficial mechanical forces that lead to cell growth and expansion.

A non-powered (mechanical) NPWT system has also been developed; the Smart Negative Pressure (SNaP) Wound Care System is portable and lightweight (3 oz.) and can be worn

underneath clothing. This system consists of a cartridge, dressing, and strap; the cartridge acts as the negative pressure source. The system is reported to generate negative pressure levels similar to other NPWT systems. This system is fully disposable.

The focus of this document is on use of NPWT in the outpatient setting. It is recognized that patients may begin using the device in the inpatient setting as they transition to the outpatient setting.

Regulatory Status

Negative pressure therapy or suction devices cleared by the U.S. Food and Drug Administration (FDA) for treating chronic wounds include, but are not limited to: Vacuum-Assisted Closure® Therapy (V.A.C., also known as negative pressure wound therapy; 3M™/KCI); Versatile 1™ (V1) Wound Vacuum System (Blue Sky Medical), RENASYS™ EZ PLUS (Smith & Nephew), Foryou NPWT NP32 Device (Foryou Medical Electronics), SVED® (Cardinal Health), and PICO Single Use Negative Pressure Wound Therapy System (Smith & Nephew).

Portable systems include the RENASYS™ GO (Smith & Nephew), XLR8 PLUS (Genadyne Biotechnologies), extriCARE® 2400 NPWT System (Devon Medical), the V.A.C. Via™ (KCI), NPWT PRO to GO (Cardinal Health), and the PICO Single Use Negative Pressure Wound Therapy System (Smith & Nephew). The Prevena™ Incision Management System (KCI) is designed specifically for closed surgical incisions.

A nonpowered NPWT device, the SNaP® Wound Care System (now SNAP™ Therapy System) (3M™/ previously Spiracur, acquired by Acelity in 2015), is a class II device requiring notification to market but not having the FDA premarket approval. In 2009, it was cleared for marketing by the FDA through the 510(k) pathway (K081406) and is designed to remove small amounts of exudate from chronic, traumatic, dehisced, acute, or subacute wounds and diabetic and pressure ulcers.

Negative pressure wound therapy devices with instillation include the V.A.C. VERAFLO™ Therapy device (3M™/KCI/Acelity). It was cleared for marketing in 2011 by the FDA through the 510(k) pathway (K103156) and is designed to allow for controlled delivery and drainage of topical antiseptic and antimicrobial wound treatment solutions and suspensions. It is to be used with the V.A.C. Ulta unit, which is commercially marketed for use in the hospital setting. Instillation is also available with Simultaneous Irrigation™ Technology tubing sets (Cardinal Health) for use with Cardinal Health SVED® and PRO NPWT devices, however, its use is not indicated for use in a home care setting (K161418).

No NPWT device has been cleared for use in infants and children.

In November 2009, the FDA issued an alert concerning complications and deaths associated with NPWT systems. An updated alert was issued in February 2011.

FDA product code: OMP.

IV. RATIONALE

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SUMMARY OF EVIDENCE

For individuals who have diabetic lower-extremity ulcers or amputation wounds who receive outpatient negative pressure wound therapy (NPWT), the evidence includes systematic reviews of randomized controlled trials (RCTs). Relevant outcomes are symptoms, change in disease status, morbid events, quality of life (QOL), and treatment-related morbidity. There was a higher rate of wound healing and fewer amputations with NPWT, although the studies were at risk of bias due to lack of blinding. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have diabetic lower-extremity ulcers or amputation wounds who receive portable, single-use outpatient NPWT, the evidence includes RCTs. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. A 2019 RCT compared the PICO device with standard NPWT. In this study, the PICO device demonstrated noninferiority for wound area reduction. A statistically significant benefit in complete wound closure was noted for patients with diabetic foot ulcers but was not duplicated in the per protocol population due to a high number of exclusions. One study of the SNaP System showed noninferiority to a V.A.C. device for wound size reduction. No significant difference in complete wound closure was reported. Interpretation of this study is limited by a high loss to follow-up. Well-designed comparative studies with larger numbers of patients powered to detect differences in complete wound closure are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have chronic pressure ulcers who receive outpatient NPWT, the evidence includes RCTs and systematic reviews. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. All trials are of low quality and at high risk of bias. Also, most study populations were treated in inpatient settings. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have lower-extremity ulcers due to venous insufficiency who receive outpatient NPWT, the evidence includes an RCT and a systematic review. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. A single RCT in patients with nonhealing leg ulcers who were treated with skin grafts found a faster rate of healing with NPWT when used in the inpatient setting. No studies were identified on the effectiveness of NPWT as a primary treatment for leg ulcers or for the use of NPWT in the outpatient setting. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have lower-extremity ulcers due to venous insufficiency who receive portable, single-use outpatient NPWT, the evidence includes RCTs. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. A 2019 RCT compared the PICO device with standard NPWT. In this study, the PICO device demonstrated noninferiority for wound area reduction. No significant benefit in complete wound

closure was found in patients with venous ulcers. One study of the SNaP System showed noninferiority to a V.A.C. device for wound size reduction. A subgroup analysis of this study found a significant difference in complete wound closure for patients with venous ulcers. However, interpretation of this study is limited by a high loss to follow-up and lack of a control group treated with standard dressings. Well-designed comparative studies with larger numbers of patients powered to detect differences in complete wound closure are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have burn wounds who receive outpatient NPWT, the evidence includes RCTs, systematic reviews, and case series. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. An interim report of an RCT evaluating NPWT in partial-thickness burns, summarized in a Cochrane review, did not permit conclusions on the efficacy of NPWT for this indication. A separate RCT comparing NPWT with split-skin grafts in patients with full-thickness burns did not show differences in graft take and wound epithelialization. A retrospective case series reported good functional outcomes for most patients who were treated with NPWT at a single center. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have traumatic or surgical wounds who receive NPWT, the evidence includes RCTs and systematic reviews. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. Systematic reviews of RCTs in patients with surgical wounds have generally found lower risk of SSI; however, many studies are limited to short-term use of NPWT limiting applicability to the outpatient setting. For patients with traumatic wounds, a Cochrane review failed to find significant improvement in patients treated with NPWT. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have traumatic or surgical wounds who receive portable, single-use outpatient NPWT, the evidence includes RCTs. Relevant outcomes are symptoms, change in disease status, morbid events, QOL, and treatment-related morbidity. The PICO device was studied in an adequately powered but unblinded RCT of combined in- and outpatient use after total joint arthroplasty and 2 single-center RCTs of combined in- and outpatient use after cesarean delivery in women with obesity or other risk factors for poor wound healing. The evidence base for the Prevena System in the outpatient setting is not sufficiently robust for conclusions on efficacy to be drawn. Well-designed comparative studies with larger numbers of patients treated in an outpatient setting are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Additional Information

Overall, the evidence from comparative clinical trials has demonstrated there is a subset of problematic wounds for which the use of NPWT may provide a significant clinical benefit. However, due to clinical variability and limited data, it is not possible to determine prospectively which wounds are most likely to respond favorably to NPWT. In addition, clinical input supports a therapeutic trial of NPWT for chronic pressure ulcers that have failed to heal, for traumatic or surgical wounds that have failed to close when there is exposed

bone, cartilage, tendon, or foreign material within the wound, and for nonhealing wounds in patients with underlying clinical conditions known to negatively impact wound healing. Therefore, a therapeutic trial of NPWT of not less than 14 days may be considered medically necessary for chronic wounds that have failed to heal, despite intense conventional wound therapy for at least 30 days, or for wounds of at least 30 days that have a high probability of failure to heal due to compounding factors involving the wound and the patient. For continued use of NPWT beyond 14 days to meet criteria for medical necessity, there must be objective evidence of wound healing, such as the development of healthy granulation tissue and progressive wound contracture.

For individuals who receive non-powered NPWT systems, the evidence includes an RCT of the non-powered Smart Negative Pressure (SNaP) Wound Care System. One study with the SNaP non-powered Wound Care System showed noninferiority to a vacuum-assisted closure device. However, interpretation of this trial is limited by a high loss to follow-up and lack of a control group treated with dressings. These studies are insufficient to draw conclusions about its efficacy. Well-designed comparative studies with larger numbers of patients are needed to determine the effects of the technology with greater certainty. The evidence is insufficient to determine the effects of the technology on health outcomes.

V. DEFINITIONS

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ATMOSPHERIC PRESSURE is the pressure exerted by the weight of the atmosphere, also known as barometric pressure.

COMPREHENSIVE WOUND CARE PROGRAM includes a minimum of all the following general measures:

- Documentation in the patient's medical record of evaluation, care, and wound measurements by a licensed medical professional; and
- Application of dressings to maintain a moist wound environment; and
- Debridement of necrotic tissue when present; and
- Evaluation of and provision for adequate nutritional and vascular status

GRANULATING TISSUE refers to formation of granule-like projections on the internal surface of the wound that represents the outgrowth of new capillaries, bringing a rich blood supply to the wound, promoting healing.

PRESSURE (DECUBITUS) ULCER is a type of wound that forms as a result of prolonged pressure against areas of the skin. This is commonly seen over the bony prominences, such as sacrum and heels, in bedridden and/or wheelchair confined individuals. Pressure ulcers are classified into four stages (and an unstageable category), to signify the degree of skin damage:

Stage I- Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area.

Stage II- Partial thickness loss of dermis presenting as a shallow open ulcer with a red, pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.

Stage III- Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon, or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.

Stage IV- Full thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunneling.

Unstageable- Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green, or brown) and/or eschar (tan, brown or black) in the wound bed. (Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore stage, cannot be determined.)

VASCULARITY is the state of blood vessel development and functioning in an organ or tissue.

VI. BENEFIT VARIATIONS

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The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits, and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member's health benefit plan for information or contact Capital Blue Cross for benefit information.

VII. DISCLAIMER

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Capital Blue Cross' medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services. Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

VIII. CODING INFORMATION

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Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational; therefore, not covered:

Procedure Codes							
A9272							

Covered when medically necessary:

Procedure Codes							
A6550	A7000	A7001	E2402	K0743	K0744	K0745	K0746
97605	97606	97607	97608				

ICD-10-CM Diagnosis Code	Description
E08.621	Diabetes mellitus due to underlying condition with foot ulcer
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
I70.231	Atherosclerosis of native arteries of right leg with ulceration of thigh
I70.232	Atherosclerosis of native arteries of right leg with ulceration of calf
I70.233	Atherosclerosis of native arteries of right leg with ulceration of ankle
I70.234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot
I70.235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot
I70.238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower leg
I70.241	Atherosclerosis of native arteries of left leg with ulceration of thigh
I70.242	Atherosclerosis of native arteries of left leg with ulceration of calf

I70.243	Atherosclerosis of native arteries of left leg with ulceration of ankle
I70.244	Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot
I70.245	Atherosclerosis of native arteries of left leg with ulceration of other part of foot
I70.248	Atherosclerosis of native arteries of left leg with ulceration of other part of lower leg
I70.25	Atherosclerosis of native arteries of other extremities with ulceration
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.35	Atherosclerosis of unspecified type of bypass graft(s) of other extremity with ulceration
I70.431	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh
I70.432	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf
I70.433	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle
I70.434	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.435	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot

I70.438	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.441	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh
I70.442	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf
I70.443	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle
I70.444	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.445	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot
I70.448	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.45	Atherosclerosis of autologous vein bypass graft(s) of other extremity with ulceration
I70.531	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh
I70.532	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf
I70.533	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle
I70.534	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.535	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot
I70.538	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.541	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh
I70.542	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf
I70.543	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle
I70.544	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.545	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot
I70.548	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.55	Atherosclerosis of nonautologous biological bypass graft(s) of other extremity with ulceration

I70.631	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh
I70.632	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf
I70.633	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle
I70.634	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.635	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot
I70.638	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.641	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh
I70.642	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf
I70.643	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle
I70.644	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.645	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot
I70.648	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.65	Atherosclerosis of nonbiological bypass graft(s) of other extremity with ulceration
I70.731	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh
I70.732	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf
I70.733	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle
I70.734	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.735	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot
I70.738	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.741	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh
I70.742	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf
I70.743	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle

I70.744	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.745	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot
I70.748	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.75	Atherosclerosis of other type of bypass graft(s) of other extremity with ulceration
I83.011	Varicose veins of right lower extremity with ulcer of thigh
I83.012	Varicose veins of right lower extremity with ulcer of calf
I83.013	Varicose veins of right lower extremity with ulcer of ankle
I83.014	Varicose veins of right lower extremity with ulcer of heel and midfoot
I83.015	Varicose veins of right lower extremity with ulcer other part of foot
I83.018	Varicose veins of right lower extremity with ulcer other part of lower leg
I83.021	Varicose veins of left lower extremity with ulcer of thigh
I83.022	Varicose veins of left lower extremity with ulcer of calf
I83.023	Varicose veins of left lower extremity with ulcer of ankle
I83.024	Varicose veins of left lower extremity with ulcer of heel and midfoot
I83.025	Varicose veins of left lower extremity with ulcer other part of foot
I83.028	Varicose veins of left lower extremity with ulcer other part of lower leg
I83.211	Varicose veins of right lower extremity with both ulcer of thigh and inflammation
I83.212	Varicose veins of right lower extremity with both ulcer of calf and inflammation
I83.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
I83.214	Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
I83.215	Varicose veins of right lower extremity with both ulcer of other part of foot and inflammation
I83.218	Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
I83.221	Varicose veins of left lower extremity with both ulcer of thigh and inflammation
I83.222	Varicose veins of left lower extremity with both ulcer of calf and inflammation
I83.223	Varicose veins of left lower extremity with both ulcer of ankle and inflammation
I83.224	Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation
I83.225	Varicose veins of left lower extremity with both ulcer of other part of foot and inflammation
I83.228	Varicose veins of left lower extremity with both ulcer of other part of lower extremity and inflammation
I87.311	Chronic venous hypertension (idiopathic) with ulcer of right lower extremity
I87.312	Chronic venous hypertension (idiopathic) with ulcer of left lower extremity
I87.313	Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity

I87.331	Chronic venous hypertension (idiopathic) with ulcer and inflammation of right lower extremity
I87.332	Chronic venous hypertension (idiopathic) with ulcer and inflammation of left lower extremity
I87.333	Chronic venous hypertension (idiopathic) with ulcer and inflammation of bilateral lower extremity
L89.003	Pressure ulcer of unspecified elbow, stage 3
L89.004	Pressure ulcer of unspecified elbow, stage 4
L89.013	Pressure ulcer of right elbow, stage 3
L89.014	Pressure ulcer of right elbow, stage 4
L89.023	Pressure ulcer of left elbow, stage 3
L89.024	Pressure ulcer of left elbow, stage 4
L89.103	Pressure ulcer of unspecified part of back, stage 3
L89.104	Pressure ulcer of unspecified part of back, stage 4
L89.113	Pressure ulcer of right upper back, stage 3
L89.114	Pressure ulcer of right upper back, stage 4
L89.123	Pressure ulcer of left upper back, stage 3
L89.124	Pressure ulcer of left upper back, stage 4
L89.133	Pressure ulcer of right lower back, stage 3
L89.134	Pressure ulcer of right lower back, stage 4
L89.143	Pressure ulcer of left lower back, stage 3
L89.144	Pressure ulcer of left lower back, stage 4
L89.153	Pressure ulcer of sacral region, stage 3
L89.154	Pressure ulcer of sacral region, stage 4
L89.203	Pressure ulcer of unspecified hip, stage 3
L89.204	Pressure ulcer of unspecified hip, stage 4
L89.213	Pressure ulcer of right hip, stage 3
L89.214	Pressure ulcer of right hip, stage 4
L89.223	Pressure ulcer of left hip, stage 3
L89.224	Pressure ulcer of left hip, stage 4
L89.303	Pressure ulcer of unspecified buttock, stage 3
L89.304	Pressure ulcer of unspecified buttock, stage 4
L89.313	Pressure ulcer of right buttock, stage 3
L89.314	Pressure ulcer of right buttock, stage 4
L89.323	Pressure ulcer of left buttock, stage 3
L89.324	Pressure ulcer of left buttock, stage 4
L89.43	Pressure ulcer of contiguous site of back, buttock, and hip, stage 3
L89.44	Pressure ulcer of contiguous site of back, buttock, and hip, stage 4

L89.503	Pressure ulcer of unspecified ankle, stage 3
L89.504	Pressure ulcer of unspecified ankle, stage 4
L89.513	Pressure ulcer of right ankle, stage 3
L89.514	Pressure ulcer of right ankle, stage 4
L89.523	Pressure ulcer of left ankle, stage 3
L89.524	Pressure ulcer of left ankle, stage 4
L89.603	Pressure ulcer of unspecified heel, stage 3
L89.604	Pressure ulcer of unspecified heel, stage 4
L89.613	Pressure ulcer of right heel, stage 3
L89.614	Pressure ulcer of right heel, stage 4
L89.623	Pressure ulcer of left heel, stage 3
L89.624	Pressure ulcer of left heel, stage 4
L89.813	Pressure ulcer of head, stage 3
L89.814	Pressure ulcer of head, stage 4
L89.893	Pressure ulcer of other site, stage 3
L89.894	Pressure ulcer of other site, stage 4
L97.111	Non-pressure chronic ulcer of right thigh limited to breakdown of skin
L97.112	Non-pressure chronic ulcer of right thigh with fat layer exposed
L97.113	Non-pressure chronic ulcer of right thigh with necrosis of muscle
L97.114	Non-pressure chronic ulcer of right thigh with necrosis of bone
L97.115	Non-pressure chronic ulcer of right thigh with muscle involvement without evidence of necrosis
L97.116	Non-pressure chronic ulcer of right thigh with bone involvement without evidence of necrosis
L97.118	Non-pressure chronic ulcer of right thigh with other specified severity
L97.121	Non-pressure chronic ulcer of left thigh limited to breakdown of skin
L97.122	Non-pressure chronic ulcer of left thigh with fat layer exposed
L97.123	Non-pressure chronic ulcer of left thigh with necrosis of muscle
L97.124	Non-pressure chronic ulcer of left thigh with necrosis of bone
L97.125	Non-pressure chronic ulcer of left thigh with muscle involvement without evidence of necrosis
L97.126	Non-pressure chronic ulcer of left thigh with bone involvement without evidence of necrosis
L97.128	Non-pressure chronic ulcer of left thigh with other specified severity
L97.211	Non-pressure chronic ulcer of right calf limited to breakdown of skin
L97.212	Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213	Non-pressure chronic ulcer of right calf with necrosis of muscle
L97.214	Non-pressure chronic ulcer of right calf with necrosis of bone

L97.215	Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis
L97.216	Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis
L97.218	Non-pressure chronic ulcer of right calf with other specified severity
L97.221	Non-pressure chronic ulcer of left calf limited to breakdown of skin
L97.222	Non-pressure chronic ulcer of left calf with fat layer exposed
L97.223	Non-pressure chronic ulcer of left calf with necrosis of muscle
L97.224	Non-pressure chronic ulcer of left calf with necrosis of bone
L97.225	Non-pressure chronic ulcer of left calf with muscle involvement without evidence of necrosis
L97.226	Non-pressure chronic ulcer of left calf with bone involvement without evidence of necrosis
L97.228	Non-pressure chronic ulcer of left calf with other specified severity
L97.311	Non-pressure chronic ulcer of right ankle limited to breakdown of skin
L97.312	Non-pressure chronic ulcer of right ankle with fat layer exposed
L97.313	Non-pressure chronic ulcer of right ankle with necrosis of muscle
L97.314	Non-pressure chronic ulcer of right ankle with necrosis of bone
L97.315	Non-pressure chronic ulcer of right ankle with muscle involvement without evidence of necrosis
L97.316	Non-pressure chronic ulcer of right ankle with bone involvement without evidence of necrosis
L97.318	Non-pressure chronic ulcer of right ankle with other specified severity
L97.321	Non-pressure chronic ulcer of left ankle limited to breakdown of skin
L97.322	Non-pressure chronic ulcer of left ankle with fat layer exposed
L97.323	Non-pressure chronic ulcer of left ankle with necrosis of muscle
L97.324	Non-pressure chronic ulcer of left ankle with necrosis of bone
L97.325	Non-pressure chronic ulcer of left ankle with muscle involvement without evidence of necrosis
L97.326	Non-pressure chronic ulcer of left ankle with bone involvement without evidence of necrosis
L97.328	Non-pressure chronic ulcer of left ankle with other specified severity
L97.411	Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
L97.412	Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
L97.413	Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle
L97.414	Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
L97.415	Non-pressure chronic ulcer of right heel and midfoot with muscle involvement without evidence of necrosis
L97.416	Non-pressure chronic ulcer of right heel and midfoot with bone involvement without evidence of necrosis

L97.418	Non-pressure chronic ulcer of right heel and midfoot with other specified severity
L97.421	Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
L97.422	Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423	Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424	Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
L97.425	Non-pressure chronic ulcer of left heel and midfoot with muscle involvement without evidence of necrosis
L97.426	Non-pressure chronic ulcer of left heel and midfoot with bone involvement without evidence of necrosis
L97.428	Non-pressure chronic ulcer of left heel and midfoot with other specified severity
L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
L97.512	Non-pressure chronic ulcer of other part of right foot with fat layer exposed
L97.513	Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
L97.514	Non-pressure chronic ulcer of other part of right foot with necrosis of bone
L97.515	Non-pressure chronic ulcer of other part of right foot with muscle involvement without evidence of necrosis
L97.516	Non-pressure chronic ulcer of other part of right foot with bone involvement without evidence of necrosis
L97.518	Non-pressure chronic ulcer of other part of right foot with other specified severity
L97.521	Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
L97.522	Non-pressure chronic ulcer of other part of left foot with fat layer exposed
L97.523	Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.524	Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.525	Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.526	Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.528	Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.811	Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
L97.812	Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
L97.813	Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.814	Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.815	Non-pressure chronic ulcer of other part of right lower leg with muscle involvement without evidence of necrosis
L97.816	Non-pressure chronic ulcer of other part of right lower leg with bone involvement without evidence of necrosis
L97.818	Non-pressure chronic ulcer of other part of right lower leg with other specified severity

L97.821	Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
L97.822	Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823	Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824	Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L97.825	Non-pressure chronic ulcer of other part of left lower leg with muscle involvement without evidence of necrosis
L97.826	Non-pressure chronic ulcer of other part of left lower leg with bone involvement without evidence of necrosis
L97.828	Non-pressure chronic ulcer of other part of left lower leg with other specified severity
L97.911	Non-pressure chronic ulcer of unspecified part of right lower leg limited to breakdown of skin
L97.912	Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed
L97.913	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle
L97.914	Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone
L97.915	Non-pressure chronic ulcer of unspecified part of right lower leg with muscle involvement without evidence of necrosis
L97.916	Non-pressure chronic ulcer of unspecified part of right lower leg with bone involvement without evidence of necrosis
L97.918	Non-pressure chronic ulcer of unspecified part of right lower leg with other specified severity
L97.921	Non-pressure chronic ulcer of unspecified part of left lower leg limited to breakdown of skin
L97.922	Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed
L97.923	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle
L97.924	Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone
L97.925	Non-pressure chronic ulcer of unspecified part of left lower leg with muscle involvement without evidence of necrosis
L97.926	Non-pressure chronic ulcer of unspecified part of left lower leg with bone involvement without evidence of necrosis
L97.928	Non-pressure chronic ulcer of unspecified part of left lower leg with other specified severity
L98.411	Non-pressure chronic ulcer of buttock limited to breakdown of skin
L98.412	Non-pressure chronic ulcer of buttock with fat layer exposed
L98.413	Non-pressure chronic ulcer of buttock with necrosis of muscle

L98.414	Non-pressure chronic ulcer of buttock with necrosis of bone
L98.415	Non-pressure chronic ulcer of buttock with muscle involvement without evidence of necrosis
L98.416	Non-pressure chronic ulcer of buttock with bone involvement without evidence of necrosis
L98.418	Non-pressure chronic ulcer of buttock with other specified severity
L98.421	Non-pressure chronic ulcer of back limited to breakdown of skin
L98.422	Non-pressure chronic ulcer of back with fat layer exposed
L98.423	Non-pressure chronic ulcer of back with necrosis of muscle
L98.424	Non-pressure chronic ulcer of back with necrosis of bone
L98.425	Non-pressure chronic ulcer of back with muscle involvement without evidence of necrosis
L98.426	Non-pressure chronic ulcer of back with bone involvement without evidence of necrosis
L98.428	Non-pressure chronic ulcer of back with other specified severity
L98.491	Non-pressure chronic ulcer of skin of other sites limited to breakdown of skin
L98.492	Non-pressure chronic ulcer of skin of other sites with fat layer exposed
L98.493	Non-pressure chronic ulcer of skin of other sites with necrosis of muscle
L98.494	Non-pressure chronic ulcer of skin of other sites with necrosis of bone
L98.495	Non-pressure chronic ulcer of skin of other sites with muscle involvement without evidence of necrosis
L98.496	Non-pressure chronic ulcer of skin of other sites with bone involvement without evidence of necrosis
L98.498	Non-pressure chronic ulcer of skin of other sites with other specified severity
S31.100D	Unspecified open wound of abdominal wall, right upper quadrant without penetration into peritoneal cavity, subsequent encounter
S31.100S	Unspecified open wound of abdominal wall, right upper quadrant without penetration into peritoneal cavity, sequela
S31.101D	Unspecified open wound of abdominal wall, left upper quadrant without penetration into peritoneal cavity, subsequent encounter
S31.101S	Unspecified open wound of abdominal wall, left upper quadrant without penetration into peritoneal cavity, sequela
S31.102D	Unspecified open wound of abdominal wall, epigastric region without penetration into peritoneal cavity, subsequent encounter
S31.102S	Unspecified open wound of abdominal wall, epigastric region without penetration into peritoneal cavity, sequela
S31.103D	Unspecified open wound of abdominal wall, right lower quadrant without penetration into peritoneal cavity, subsequent encounter
S31.103S	Unspecified open wound of abdominal wall, right lower quadrant without penetration into peritoneal cavity, sequela
S31.104D	Unspecified open wound of abdominal wall, left lower quadrant without penetration into peritoneal cavity, subsequent encounter

S31.104S	Unspecified open wound of abdominal wall, left lower quadrant without penetration into peritoneal cavity, sequela
S31.105D	Unspecified open wound of abdominal wall, periumbilic region without penetration into peritoneal cavity, subsequent encounter
S31.105S	Unspecified open wound of abdominal wall, periumbilic region without penetration into peritoneal cavity, sequela
T81.31XA	Disruption of external operation (surgical) wound, not elsewhere classified, initial encounter
T81.31XD	Disruption of external operation (surgical) wound, not elsewhere classified, subsequent encounter
T81.320A	Disruption or dehiscence of gastrointestinal tract anastomosis, repair, or closure, initial encounter
T81.320D	Disruption or dehiscence of gastrointestinal tract anastomosis, repair, or closure, subsequent encounter
T81.320S	Disruption or dehiscence of gastrointestinal tract anastomosis, repair, or closure, sequela
T81.321A	Disruption or dehiscence of closure of internal operation (surgical) wound of abdominal wall muscle or fascia, initial encounter
T81.321D	Disruption or dehiscence of closure of internal operation (surgical) wound of abdominal wall muscle or fascia, subsequent encounter
T81.321S	Disruption or dehiscence of closure of internal operation (surgical) wound of abdominal wall muscle or fascia, sequela
T81.328A	Disruption or dehiscence of closure of other specified internal operation (surgical) wound, initial encounter
T81.328D	Disruption or dehiscence of closure of other specified internal operation (surgical) wound, subsequent encounter
T81.328S	Disruption or dehiscence of closure of other specified internal operation (surgical) wound, sequela
T81.329A	Deep disruption or dehiscence of operation wound, unspecified, initial encounter
T81.329D	Deep disruption or dehiscence of operation wound, unspecified, subsequent encounter
T81.329S	Deep disruption or dehiscence of operation wound, unspecified, sequela
T81.33XA	Disruption of traumatic injury wound repair, initial encounter
T81.33XD	Disruption of traumatic injury wound repair, subsequent encounter
T81.42XA	Infection following a procedure, deep incisional surgical site, initial encounter
T81.42XD	Infection following a procedure, deep incisional surgical site, subsequent encounter
T81.49XA	Infection following a procedure, other surgical site, initial encounter
T81.49XD	Infection following a procedure, other surgical site, subsequent encounter

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X. POLICY HISTORY

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	04/23/2020 Consensus Review. Policy statements remain unchanged.

POLICY TITLE	NEGATIVE PRESSURE WOUND THERAPY IN THE OUTPATIENT SETTING
POLICY NUMBER	MP 4.004

MP 4.004	**02/12/2021 Minor Review.** Changed frequency of monitoring from every 14 days to monthly. Took out Length of Coverage Section. Deleted Policy Guidelines. Updated cross-references. No changes to coding. Updated references.
	03/07/2022 Consensus Review. Summary of Evidence updated, FEP and references updated. No changes to policy statement.
	02/15/2023 Consensus Review. Updated description/background, coding table, and references.
	03/27/2024 Consensus Review. Updated cross references, background, rationale, and references. No changes to coding.
	08/15/2024 Administrative Update. Added/deleted ICD-10 codes from New Code Process. Eff date 10/1/2024

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