



MASSACHUSETTS

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Medical Policy

Negative Pressure Wound Therapy in the Outpatient Setting

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Policy Number: 543

BCBSA Reference Number: N/A

Related Policies 543

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Policy¹

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Documentation by a licensed medical professional in the individual's medical record of all wound evaluation and care (including wound measurements) is good clinical practice and is a prerequisite for the use of wound healing measures covered by this policy.

Initiation of an electrically powered negative pressure wound therapy (NPWT) system is considered **MEDICALLY NECESSARY** when the individual meets **ALL** of the criteria (1, 2, 3, 4 and 5) below:¹

1. If adequate wound healing is not occurring despite appropriate application of all the measures below:
 - Application of dressings to maintain a moist environment; **AND**
 - Debridement of necrotic tissue if present; **AND**
 - Evaluation of and provision for adequate nutritional status; **AND**
 - Underlying medical conditions (e.g., diabetes, venous insufficiency) are being appropriately managed;

AND

- An eligible condition is documented (individual must meet one or more of the following): Stage III or IV pressure ulcers (see key terms below) at initiation of vacuum assisted wound therapy, in individuals who meet **ALL** of the following:
 - The individual has been appropriately turned and positioned; **AND**

- If pressure ulcers are located on the posterior trunk or pelvis, the individual has used a group 2 or 3 support surface. (No special support surface is required for ulcers not located on the trunk or pelvis); **AND**
- The individual's moisture and incontinence have been appropriately managed

OR

- Diabetic neuropathic ulcers in individuals who meet BOTH of the following:
 - The individual has been on a comprehensive diabetic management program; **AND**
 - Reduction in pressure on a foot ulcer has been accomplished with appropriate modalities;

OR

- Ulcers related to venous or arterial insufficiency, in individuals who meet ALL of the following:
 - Compression bandages and/or garments have been consistently applied; **AND**
 - Reduction in pressure on a foot ulcer has been accomplished with appropriate modalities; **AND**
 - For initiation of therapy in the home setting, the ulcer must have been present for at least 30 days;

OR

- Dehisced wounds or wound with exposed hardware or bone;

OR

- Post sternotomy wound infection or mediastinitis;

OR

- Complications of a surgically created wound where accelerated granulation therapy is necessary and cannot be achieved by other available topical wound treatment;

OR

- Skin graft success is questionable and hospital admissions will be avoided (coverage is provided for 5 days);

OR

- Wounds with massive exudate/transudate where normal dressings fill up quickly and macerate the wound

AND

2. The wound to be treated is free from all of the following absolute contraindications to vacuum assisted wound therapy:
 - Exposed anastomotic site; **OR**
 - Exposed nerves; **OR**
 - Exposed organs; **OR**
 - Exposed vasculature; **OR**
 - Malignancy in the wound; **OR**
 - Necrotic tissue with eschar present; **OR**
 - Non-enteric, unexplored fistulas; **OR**
 - Untreated osteomyelitis, **OR**

- Macroscopic contamination.

AND

3. The powered negative pressure wound therapy (NPWT) system is being used as an adjunct therapy or as an alternative to surgery,

AND

4. The medical record documents that the patient is willing and able to comply with using continuous or intermittent V.A.C. application 22 of 24 hours per day.

Continued use of electrically powered negative pressure wound therapy is considered **MEDICALLY NECESSARY** when:

- Weekly assessment of the wound’s dimensions and characteristics by a licensed health care professional is documented; **AND**
- The initial trial has resulted in documented objective improvements in the wound, **AND**
- Documentation of continued progressive wound healing is demonstrated.

Continued use of electrically powered vacuum assisted wound therapy is considered **NOT MEDICALLY NECESSARY** when the continuation of treatment criteria above have not been met.

Electrically powered negative pressure wound therapy is considered **INVESTIGATIONAL** for all other applications not meeting the medical necessity criteria above, including when any absolute contraindications to negative pressure wound therapy are present.

NON-electrically powered negative pressure wound therapy (for example, the SNaP™ Wound Care Device) is considered **INVESTIGATIONAL**.

Portable, battery powered, single use (disposable) negative pressure wound therapy devices (for example, the PICO™ Single Use Negative Pressure Wound Therapy System or the V.A.C.Via™ Negative Pressure Wound Therapy System) are considered **INVESTIGATIONAL** for all conditions.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is <u>not required</u> .
Commercial PPO	Prior authorization is <u>not required</u> .

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above **medical necessity criteria MUST** be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity:

CPT Codes

CPT codes:	Code Description
97605	Negative pressure wound therapy (e.g., vacuum-assisted drainage collection), including topical application(s), wound assessment, and instruction(s) for ongoing care, per session; total wound(s) surface area less than or equal to 50 square centimeters
97606	Negative pressure wound therapy (e.g., vacuum-assisted drainage collection), including topical application(s), wound assessment, and instruction(s) for ongoing care, per session; total wound(s) surface area greater than 50 square centimeters

HCPCS Codes

HCPCS codes:	Code Description
A6550	Wound care set, for negative pressure wound therapy electrical pump, includes all supplies and accessories
E2402	Negative pressure wound therapy electrical pump, stationary or portable

ICD-10 Diagnosis Codes

ICD-10-CM Diagnosis codes:	Code Description
E08.621	Diabetes mellitus due to underlying condition with foot ulcer
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer
E10.621	Type 1 diabetes mellitus with foot ulcer
E11.621	Type 2 diabetes mellitus with foot ulcer
E13.621	Other specified diabetes mellitus with foot 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
I70.239	Atherosclerosis of native arteries of right leg with ulceration of unspecified site
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
I70.249	Atherosclerosis of native arteries of left leg with ulceration of unspecified site
I70.25	Atherosclerosis of native arteries of other extremities with ulceration
I83.001	Varicose veins of unspecified lower extremity with ulcer of thigh
I83.002	Varicose veins of unspecified lower extremity with ulcer of calf
I83.003	Varicose veins of unspecified lower extremity with ulcer of ankle
I83.004	Varicose veins of unspecified lower extremity with ulcer of heel and midfoot
I83.005	Varicose veins of unspecified lower extremity with ulcer other part of foot
I83.008	Varicose veins of unspecified lower extremity with ulcer other part of lower leg
I83.009	Varicose veins of unspecified lower extremity with ulcer of unspecified site
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
I83.019	Varicose veins of right lower extremity with ulcer of unspecified site
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
I83.029	Varicose veins of left lower extremity with ulcer of unspecified site
I83.201	Varicose veins of unspecified lower extremity with both ulcer of thigh and inflammation
I83.202	Varicose veins of unspecified lower extremity with both ulcer of calf and inflammation
I83.203	Varicose veins of unspecified lower extremity with both ulcer of ankle and inflammation
I83.204	Varicose veins of unspecified lower extremity with both ulcer of heel and midfoot and inflammation
I83.205	Varicose veins of unspecified lower extremity with both ulcer other part of foot and inflammation
I83.208	Varicose veins of unspecified lower extremity with both ulcer of other part of lower extremity and inflammation
I83.209	Varicose veins of unspecified lower extremity with both ulcer of unspecified site and inflammation
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 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
I83.219	Varicose veins of right lower extremity with both ulcer of unspecified site 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 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
I83.229	Varicose veins of left lower extremity with both ulcer of unspecified site 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
I87.319	Chronic venous hypertension (idiopathic) with ulcer of unspecified 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
I87.339	Chronic venous hypertension (idiopathic) with ulcer and inflammation of unspecified 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
L89.93	Pressure ulcer of unspecified site, stage 3
L89.94	Pressure ulcer of unspecified site, stage 4
T81.30XA	Disruption of wound, unspecified, initial encounter
T81.30XD	Disruption of wound, unspecified, subsequent encounter
T81.30XS	Disruption of wound, unspecified, 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
T81.31XS	Disruption of external operation (surgical) wound, not elsewhere classified, sequela
T81.32XA	Disruption of internal operation (surgical) wound, not elsewhere classified, initial encounter
T81.32XD	Disruption of internal operation (surgical) wound, not elsewhere classified, subsequent encounter
T81.32XS	Disruption of internal operation (surgical) wound, not elsewhere classified, sequela
T81.89XA	Other complications of procedures, not elsewhere classified, initial encounter
T81.89XD	Other complications of procedures, not elsewhere classified, subsequent encounter
T81.89XS	Other complications of procedures, not elsewhere classified, sequela
E08.621	Diabetes mellitus due to underlying condition with foot ulcer
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer
E10.621	Type 1 diabetes mellitus with foot ulcer
E11.621	Type 2 diabetes mellitus with foot ulcer
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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
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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
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I83.005	Varicose veins of unspecified lower extremity with ulcer other part of foot
I83.008	Varicose veins of unspecified lower extremity with ulcer other part of lower leg
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I83.201	Varicose veins of unspecified lower extremity with both ulcer of thigh and inflammation
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I83.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
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I83.215	Varicose veins of right lower extremity with both ulcer 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
I83.219	Varicose veins of right lower extremity with both ulcer of unspecified site 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
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I87.313	Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity
I87.319	Chronic venous hypertension (idiopathic) with ulcer of unspecified 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
I87.339	Chronic venous hypertension (idiopathic) with ulcer and inflammation of unspecified lower extremity
L89.003	Pressure ulcer of unspecified elbow, stage 3
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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
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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
L89.93	Pressure ulcer of unspecified site, stage 3
L89.94	Pressure ulcer of unspecified site, stage 4
T81.30XA	Disruption of wound, unspecified, initial encounter
T81.30XD	Disruption of wound, unspecified, subsequent encounter
T81.30XS	Disruption of wound, unspecified, 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
T81.31XS	Disruption of external operation (surgical) wound, not elsewhere classified, sequela
T81.32XA	Disruption of internal operation (surgical) wound, not elsewhere classified, initial encounter
T81.32XD	Disruption of internal operation (surgical) wound, not elsewhere classified, subsequent encounter
T81.32XS	Disruption of internal operation (surgical) wound, not elsewhere classified, sequela
T81.89XA	Other complications of procedures, not elsewhere classified, initial encounter
T81.89XD	Other complications of procedures, not elsewhere classified, subsequent encounter

T81.89XS	Other complications of procedures, not elsewhere classified, sequela
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The following CPT and HCPCS codes are considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity:

CPT Codes

CPT codes:	Code Description
97607	Negative pressure wound therapy, (eg, vacuum assisted drainage collection), utilizing disposable, non-durable medical equipment including provision of exudate management collection system, topical application(s), wound assessment, and instructions for ongoing care, per session; total wound(s) surface area less than or equal to 50 square centimeters
97608	Negative pressure wound therapy, (eg, vacuum assisted drainage collection), utilizing disposable, non-durable medical equipment including provision of exudate management collection system, topical application(s), wound assessment, and instructions for ongoing care, per session; total wound(s) surface area greater than 50 square centimeters

HCPCS Codes

HCPCS codes:	Code Description
A9272	Mechanical wound suction, disposable, includes dressing and all accessories and components, each

Description

Chronic Wound Management

The management and treatment of chronic wounds, including decubitus ulcers, is challenging. Most chronic wounds will heal only if the underlying cause (ie, venous stasis, pressure, infection) is addressed. Also, cleaning the wound to remove nonviable tissue, microorganisms, and foreign bodies is essential to create optimal conditions for either re-epithelialization (ie, healing by secondary intention) or preparation for wound closure with skin grafts or flaps (ie, 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) involves the use of a negative pressure 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 also 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.

Summary of Evidence

The focus of this evidence review is the use of NPWT in the outpatient setting. It is recognized that patients may begin using the device in the inpatient setting and then transition to the outpatient setting.

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 a single-center RCT of combined in- and outpatient use after cesarean delivery in women with obesity. The evidence base for the Prevena System 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.

Policy History

Date	Action
11/2024	Annual policy review. Policy clarified and reformatted. Policy statements unchanged. Prior authorization is no longer required. Procedure-to-diagnoses edits implemented.
9/2023	Policy clarified to include prior authorization requests using Authorization Manager.
3/2023	Annual policy review. Not medically necessary language changed to Investigational; other minor editorial refinements to policy statements; intent unchanged.
6/2022	Prior authorization information clarified for PPO plans. Effective 6/1/2022.
6/2021	Clarified authorization statement
4/2021	Annual policy review. Description, summary and references updated. Policy statements unchanged.
1/2021	Medicare information removed. See MP #132 Medicare Advantage Management for local coverage determination and national coverage determination reference.
3/2020	Annual policy review. Description, summary and references updated. Policy statements unchanged.
3/2019	Annual policy review. Description, summary and references updated. Policy statements unchanged.
2/2018	Annual policy review. New references added.
2/2017	Annual policy review. New references added.
3/2016	Annual policy review. New references added.
3/2015	Annual policy review. New references added. Clarified coding information.
1/2015	Clarified coding information.
7/2014	Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.
4/2014	Annual policy review. New references added.
3/2014	Coding information clarified.
2/1/2013	Annual policy review. No change in medical policy statement.
2/1/2013	New policy describing ongoing coverage and non-coverage statements.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

1. U.S. Food and Drug Administration. UPDATE on Serious Complications Associated with Negative Pressure Wound Therapy Systems: FDA Safety Communication. 2011 Feb; <http://wayback.archive-it.org/7993/20170722215801/https://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm244211.htm>. Accessed November 11, 2022.

2. Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Vacuum-assisted closure in the treatment of chronic wounds. TEC Assessments. 2000;Volume 15:Tab 23.
3. Food and Drug Administration (FDA). Guidance for Industry. Chronic Cutaneous Ulcer and Burn Wounds - Developing Products for Treatment. June 2006; <https://www.fda.gov/media/71278/download>. Accessed November 15, 2022.
4. Rhee SM, Valle MF, Wilson LM, et al. Negative Pressure Wound Therapy Technologies For Chronic Wound Care in the Home Setting. Evidence Report/Technology Assessment (Contract No. 290-201-200007-1) Rockville, MD: Agency for Healthcare Research and Quality; 2014.
5. Rhee SM, Valle MF, Wilson LM, et al. Negative pressure wound therapy technologies for chronic wound care in the home setting: A systematic review. *Wound Repair Regen*. 2015; 23(4): 506-17. PMID 25845268
6. Sullivan N, Snyder DL, Tipton K, et al. Technology assessment: Negative pressure wound therapy devices (Contract No. 290-2007-10063). Rockville, MD: Agency for Healthcare Research and Quality; 2009.
7. Dumville JC, Hinchliffe RJ, Cullum N, et al. Negative pressure wound therapy for treating foot wounds in people with diabetes mellitus. *Cochrane Database Syst Rev*. Oct 17 2013; (10): CD010318. PMID 24132761
8. Liu Z, Dumville JC, Hinchliffe RJ, et al. Negative pressure wound therapy for treating foot wounds in people with diabetes mellitus. *Cochrane Database Syst Rev*. Oct 17 2018; 10(10): CD010318. PMID 30328611
9. Wynn M, Freeman S. The efficacy of negative pressure wound therapy for diabetic foot ulcers: A systematised review. *J Tissue Viability*. Aug 2019; 28(3): 152-160. PMID 31056407
10. Chen L, Zhang S, Da J, et al. A systematic review and meta-analysis of efficacy and safety of negative pressure wound therapy in the treatment of diabetic foot ulcer. *Ann Palliat Med*. Oct 2021; 10(10): 10830-10839. PMID 34763444
11. Kirsner R, Dove C, Reyzelman A, et al. A prospective, randomized, controlled clinical trial on the efficacy of a single-use negative pressure wound therapy system, compared to traditional negative pressure wound therapy in the treatment of chronic ulcers of the lower extremities. *Wound Repair Regen*. Sep 2019; 27(5): 519-529. PMID 31087729
12. Kirsner RS, Zimnitsky D, Robinson M. A prospective, randomized, controlled clinical study on the effectiveness of a single-use negative pressure wound therapy system, compared to traditional negative pressure wound therapy in the treatment of diabetic ulcers of the lower extremities. *Wound Repair Regen*. Nov 2021; 29(6): 908-911. PMID 34525239
13. Armstrong DG, Marston WA, Reyzelman AM, et al. Comparison of negative pressure wound therapy with an ultraportable mechanically powered device vs. traditional electrically powered device for the treatment of chronic lower extremity ulcers: a multicenter randomized-controlled trial. *Wound Repair Regen*. 2011; 19(2): 173-80. PMID 21362084
14. Armstrong DG, Marston WA, Reyzelman AM, et al. Comparative effectiveness of mechanically and electrically powered negative pressure wound therapy devices: a multicenter randomized controlled trial. *Wound Repair Regen*. 2012; 20(3): 332-41. PMID 22564228
15. Lerman B, Oldenbrook L, Eichstadt SL, et al. Evaluation of chronic wound treatment with the SNaP wound care system versus modern dressing protocols. *Plast Reconstr Surg*. Oct 2010; 126(4): 1253-1261. PMID 20885246
16. Wanner MB, Schwarzl F, Strub B, et al. Vacuum-assisted wound closure for cheaper and more comfortable healing of pressure sores: a prospective study. *Scand J Plast Reconstr Surg Hand Surg*. 2003; 37(1): 28-33. PMID 12625392
17. Dumville JC, Land L, Evans D, et al. Negative pressure wound therapy for treating leg ulcers. *Cochrane Database Syst Rev*. Jul 14 2015; 2015(7): CD011354. PMID 26171910
18. Vuerstaek JD, Vainas T, Wuite J, et al. State-of-the-art treatment of chronic leg ulcers: A randomized controlled trial comparing vacuum-assisted closure (V.A.C.) with modern wound dressings. *J Vasc Surg*. Nov 2006; 44(5): 1029-37; discussion 1038. PMID 17000077
19. Marston WA, Armstrong DG, Reyzelman AM, et al. A Multicenter Randomized Controlled Trial Comparing Treatment of Venous Leg Ulcers Using Mechanically Versus Electrically Powered Negative Pressure Wound Therapy. *Adv Wound Care (New Rochelle)*. Feb 01 2015; 4(2): 75-82. PMID 25713749
20. Dumville JC, Munson C, Christie J. Negative pressure wound therapy for partial-thickness burns. *Cochrane Database Syst Rev*. Dec 15 2014; 2014(12): CD006215. PMID 25500895

21. Bloemen MC, van der Wal MB, Verhaegen PD, et al. Clinical effectiveness of dermal substitution in burns by topical negative pressure: a multicenter randomized controlled trial. *Wound Repair Regen.* 2012; 20(6): 797-805. PMID 23110478
22. Krug E, Berg L, Lee C, et al. Evidence-based recommendations for the use of Negative Pressure Wound Therapy in traumatic wounds and reconstructive surgery: steps towards an international consensus. *Injury.* Feb 2011; 42 Suppl 1: S1-12. PMID 21316515
23. Ehrl D, Heidekrueger PI, Broer PN, et al. Topical Negative Pressure Wound Therapy of Burned Hands: Functional Outcomes. *J Burn Care Res.* Jan 01 2018; 39(1): 121-128. PMID 28368916
24. Norman G, Shi C, Goh EL, et al. Negative pressure wound therapy for surgical wounds healing by primary closure. *Cochrane Database Syst Rev.* Apr 26 2022; 4(4): CD009261. PMID 35471497
25. Li HZ, Xu XH, Wang DW, et al. Negative pressure wound therapy for surgical site infections: a systematic review and meta-analysis of randomized controlled trials. *Clin Microbiol Infect.* Nov 2019; 25(11): 1328-1338. PMID 31220604
26. De Vries FEE, Wallert ED, Solomkin JS, et al. A systematic review and meta-analysis including GRADE qualification of the risk of surgical site infections after prophylactic negative pressure wound therapy compared with conventional dressings in clean and contaminated surgery. *Medicine (Baltimore).* Sep 2016; 95(36): e4673. PMID 27603360
27. Ihezor-Ejiofor Z, Newton K, Dumville JC, et al. Negative pressure wound therapy for open traumatic wounds. *Cochrane Database Syst Rev.* Jul 03 2018; 7(7): CD012522. PMID 29969521
28. Stannard JP, Volgas DA, McGwin G, et al. Incisional negative pressure wound therapy after high-risk lower extremity fractures. *J Orthop Trauma.* Jan 2012; 26(1): 37-42. PMID 21804414
29. Costa ML, Achten J, Bruce J, et al. Effect of Negative Pressure Wound Therapy vs Standard Wound Management on 12-Month Disability Among Adults With Severe Open Fracture of the Lower Limb: The WOLFF Randomized Clinical Trial. *JAMA.* Jun 12 2018; 319(22): 2280-2288. PMID 29896626
30. Seidel D, Diedrich S, Herrle F, et al. Negative Pressure Wound Therapy vs Conventional Wound Treatment in Subcutaneous Abdominal Wound Healing Impairment: The SAWHI Randomized Clinical Trial. *JAMA Surg.* Jun 01 2020; 155(6): 469-478. PMID 32293657
31. Stannard JP, Robinson JT, Anderson ER, et al. Negative pressure wound therapy to treat hematomas and surgical incisions following high-energy trauma. *J Trauma.* Jun 2006; 60(6): 1301-6. PMID 16766975
32. Monsen C, Acosta S, Mani K, et al. A randomised study of NPWT closure versus alginate dressings in peri-vascular groin infections: quality of life, pain and cost. *J Wound Care.* Jun 2015; 24(6): 252, 254-6, 258-0. PMID 26075373
33. Costa ML, Achten J, Parsons NR. Five-year outcomes for patients sustaining severe fractures of the lower limb : mid-term results from the Wound management for Open Lower Limb Fracture (WOLFF) trial. *Bone Joint J.* May 2022; 104-B(5): 633-639. PMID 35491582
34. Seidel D, Lefering R. NPWT Resource Use Compared With Conventional Wound Treatment in Subcutaneous Abdominal Wounds With Healing Impairment After Surgery: SAWHI Randomized Clinical Trial Results. *Ann Surg.* Feb 01 2022; 275(2): e290-e298. PMID 34117147
35. Karlakki SL, Hamad AK, Whittall C, et al. Incisional negative pressure wound therapy dressings (iNPWTd) in routine primary hip and knee arthroplasties: A randomised controlled trial. *Bone Joint Res.* Aug 2016; 5(8): 328-37. PMID 27496913
36. Peterson AT, Bakaysa SL, Driscoll JM, et al. Randomized controlled trial of single-use negative-pressure wound therapy dressings in morbidly obese patients undergoing cesarean delivery. *Am J Obstet Gynecol MFM.* Sep 2021; 3(5): 100410. PMID 34058423
37. Pauser J, Nordmeyer M, Biber R, et al. Incisional negative pressure wound therapy after hemiarthroplasty for femoral neck fractures - reduction of wound complications. *Int Wound J.* Oct 2016; 13(5): 663-7. PMID 25125244
38. Murphy PB, Knowles S, Chadi SA, et al. Negative Pressure Wound Therapy Use to Decrease Surgical Nosocomial Events in Colorectal Resections (NEPTUNE): A Randomized Controlled Trial. *Ann Surg.* Jul 2019; 270(1): 38-42. PMID 30499799
39. Hussamy DJ, Wortman AC, McIntire DD, et al. Closed Incision Negative Pressure Therapy in Morbidly Obese Women Undergoing Cesarean Delivery: A Randomized Controlled Trial. *Obstet Gynecol.* Oct 2019; 134(4): 781-789. PMID 31503147
40. Tuuli MG, Liu J, Tita ATN, et al. Effect of Prophylactic Negative Pressure Wound Therapy vs Standard Wound Dressing on Surgical-Site Infection in Obese Women After Cesarean Delivery: A Randomized Clinical Trial. *JAMA.* Sep 22 2020; 324(12): 1180-1189. PMID 32960242

41. Bertges DJ, Smith L, Scully RE, et al. A multicenter, prospective randomized trial of negative pressure wound therapy for infrainguinal revascularization with a groin incision. *J Vasc Surg.* Jul 2021; 74(1): 257-267.e1. PMID 33548422
42. American Academy of Orthopaedic Surgeons. Prevention of Surgical Site Infections After Major Extremity Trauma Evidence-Based Clinical Practice Guideline. www.aaos.org/SSItraumacpg. Published 03/21/22. Accessed November 15, 2022.
43. Willy C, Agarwal A, Andersen CA, et al. Closed incision negative pressure therapy: international multidisciplinary consensus recommendations. *Int Wound J.* Apr 2017; 14(2): 385-398. PMID 27170231
44. Lipsky BA, Berendt AR, Cornia PB, et al. 2012 infectious diseases society of america clinical practice guideline for the diagnosis and treatment of diabetic foot infections. *J Am Podiatr Med Assoc.* 2013; 103(1): 2-7. PMID 23328846
45. Qaseem A, Humphrey LL, Forcica MA, et al. Treatment of pressure ulcers: a clinical practice guideline from the American College of Physicians. *Ann Intern Med.* Mar 03 2015; 162(5): 370-9. PMID 25732279
46. Association for the Advancement of Wound Care (AAWC). International Consolidated Venous Ulcer Guideline (ICVUG). Update of AAWC Venous Ulcer Guideline, 2005 and 2010. 2015; <https://aawconline.memberclicks.net/assets/appendix%20c%20guideline%20icvug-textformatrecommendations-final%20v42%20changessaved18aug17.pdf>. Accessed November 16, 2022.
47. National Institute for Health and Care Excellence (NICE). Negative Pressure Wound Therapy for the Open Abdomen [IPG467]. 2013; <https://www.nice.org.uk/guidance/ipg467>. Accessed November 11, 2022.
48. National Institute for Health and Care Excellence (NICE). Diabetic Foot Problems: Prevention and Management [NG19]. 2019; <https://www.nice.org.uk/guidance/ng19/evidence>. Accessed November 14, 2022.
49. National Institute for Health and Care Excellence (NICE). Pressure ulcers: prevention and management [CG179]. 2014; <https://www.nice.org.uk/guidance/cg179>. Accessed November 10, 2022.
50. National Institute for Health and Care Excellence (NICE). PICO negative pressure wound dressings for closed surgical incisions [MTG43]. 2019; <https://www.nice.org.uk/guidance/mtg43>. Accessed November 16, 2022.
51. National Institute for Health and Care Excellence (NICE). Cesarean birth [NG192]. 2021; <https://www.nice.org.uk/guidance/ng192>. Accessed November 15, 2022.
52. National Institute for Health and Care Excellence (NICE). The VAC Veraflo Therapy system for acute infected or chronic wounds that are failing to heal [MTG54]. 2021; <https://www.nice.org.uk/guidance/mtg54>. Accessed November 9, 2022.

Endnotes

¹ Based on expert opinion