

Negative Pressure Wound Therapy (for Kentucky Only)

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[Instructions for Use](#)

Table of Contents	Page
Application	1
Coverage Rationale	1
Applicable Codes	1
Description of Services	2
Clinical Evidence	2
U.S. Food and Drug Administration	4
References	4
Policy History/Revision Information	5
Instructions for Use	5

Related Policies
<ul style="list-style-type: none"> Durable Medical Equipment, Orthotics, Medical Supplies, and Repairs/Replacements (for Kentucky Only) Skin and Soft Tissue Substitutes (for Kentucky Only)

Application

This Medical Policy only applies to the state of Kentucky.

Coverage Rationale

Notes:

- The proven and medically necessary coverage statements in this policy apply to the use of negative pressure wound therapy (NPWT) in the outpatient setting.
- The unproven and not medically necessary coverage statements in this policy apply to all settings.

NPWT in an outpatient setting or upon discharge from an inpatient setting is proven and medically necessary in certain circumstances. For medical necessity clinical coverage criteria, refer to the InterQual® CP: Durable Medical Equipment, Negative Pressure Wound Therapy (NPWT) Devices.

[Click here to view the InterQual® criteria.](#)

The following indications and devices are unproven and not medically necessary due to insufficient evidence of efficacy:

- NPWT for treating all other indications, including but not limited to pilonidal disease
- Disposable/single-use NPWT systems
- NPWT systems with instillation of wound solutions

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

Coding Clarification: Suction pumps and dressing codes (HCPCS codes K0743–K0746) apply to devices other than negative pressure wound therapy.

CPT Code	Description
97605	Negative pressure wound therapy (e.g., vacuum assisted drainage collection), utilizing durable medical equipment (DME), 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), utilizing durable medical equipment (DME), including topical application(s), wound assessment, and instruction(s) for ongoing care, per session; total wound(s) surface area greater than 50 square centimeters
97607	Negative pressure wound therapy, (e.g., 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, (e.g., 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

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HCPCS Code	Description
A6550	Wound care set, for negative pressure wound therapy electrical pump, includes all supplies and accessories
A9272	Wound suction, disposable, includes dressing, all accessories and components, any type, each
E2402	Negative pressure wound therapy electrical pump, stationary or portable

Description of Services

Negative pressure wound therapy (NPWT), also referred to as vacuum-assisted wound closure, is a therapeutic dressing system in which negative pressure is continuously or intermittently applied to the surface of a wound. The system includes dressings, a suction pump, tubing, and a collection chamber. The wound and porous dressing are sealed with an occlusive dressing and connected to the drainage tubing connected to a suction pump that delivers subatmospheric pressure. NPWT is intended to assist wound healing by the removal of exudate or debris, reduction of bacterial contamination, increase in local blood flow, reduction of local edema, approximation of the wound edges, and the production of granulation tissue. NPWT is intended as an adjunct treatment for wounds that do not respond to conventional treatment such as debridement, pressure relief and infection control.

Clinical Evidence

Pilonidal Disease

There is insufficient clinical evidence demonstrating the safety and/or efficacy of NPWT systems, including disposable systems, for treating pilonidal disease. Further results from prospective high-quality studies are needed to determine which patient population would benefit from the use of these devices.

Ensor et al. (2024) conducted an RCT to investigate whether NPWT would reduce rates of surgical wound dehiscence (SWD) compared to conventional passive (CP) dressings for pilonidal sinus disease (PSD) excisions with off-midline primary closure. Secondary outcomes included patient quality of life and return time to normal activities. Fifty participants from four tertiary hospitals were randomized, 25 to NPWT and 25 to CP. The results demonstrated overall dehiscence rate was 42% (21/50); 12/25 (48%) for NPWT and 9/25 (36%) for CP, $p = 0.6$. Five deep (≥ 5 mm) SWDs occurred in each group, $p > 0.9$. SWD was associated with increased excision dimensions in the NPWT group only, $p = 0.03$. Median duration to wound healing was equivalent in non-dehisced wounds, (CP 21.0 [14.0-29.5] versus NPWT 21.0 [16.0-24.0] days, $p = 0.7$). There were no differences in mean time to the following: return to school/work (NPWT 26.1 \pm 18.2 versus CP 29.3 \pm 14.7 d, $p = 0.6$), sit normally (NPWT 22.3 \pm 16.2 versus CP 20.1 \pm 9.4 d, $p = 0.7$), or return to physical activity (NPWT 21.6 \pm 17.2 versus CP 40.3 \pm 2.4 d, $p = 0.2$). The authors concluded no difference in the rates of SWD. In addition, NPWT was not found to improve post-operative analgesia utilization, time to wound healing, patient satisfaction, or return to normal activities. Therefore, NPWT is not recommended to prevent SWD. Limitations of the study include small sample size, nonblinded design and potential attrition and performance bias.

A Hayes report on the use of NPWT after surgery for pilonidal disease concluded that the current body of overall very-low quality evidence does not allow for conclusions to be drawn regarding the benefits and potential associated risks of NPWT

as a treatment adjunct over standard wound care methods alone. There is a need for additional, larger well-designed studies to evaluate this therapy more thoroughly and to determine which patients may benefit from NPWT after surgery for pilonidal disease (Hayes, 2020; updated 2023).

Danne et al. (2017) conducted a retrospective chart analysis of pilonidal sinus healing using NPWT versus alginate or gauze dressings. Thirty-two patients received NPWT and 30 received daily dressings. The median time to healing in the group receiving daily dressings was ten weeks compared to eight weeks in the group receiving NPWT. Among patients who healed, the difference in average time to healing was 5.2 weeks. However, the differences were not statistically significant. Study limitations include retrospective design and small patient numbers. Larger prospective, RCTs are needed to evaluate the efficacy of NPWT for treating pilonidal disease.

NPWT With Instillation of Wound Solutions

De Pellegrin et al. (2023) conducted a systematic review and meta-analysis to compare negative pressure wound therapy with solution instillation and dwell time (NPWTi-d) with NPWT and standard of care for wound management in orthoplastic surgery. A comprehensive literature search using PubMed, Web of Science, and Cochrane databases was performed, including studies describing the outcomes of NPWTi-d for traumatic/Orthopedic injuries. A meta-analysis on the number of surgical debridements, as well as the rate of complete wound closure and complications was carried out, although for other outcomes, a descriptive statistic was applied. Risk of bias and quality of evidence were assessed using the Downs & Black's Checklist for Measuring Quality. Thirteen studies with a total number of 871 patients were included, in which NPWTi-d demonstrated higher primary wound closure and lower complication rates ($p < .05$). No difference in the number of surgical procedures required for final wound healing was observed. Moreover, five out of six studies showed better results for NPWTi-d when the change of the bioburden and bacterial count of the wound were analyzed. A singular study investigating the length of the hospital stay of patients treated with NPWTi-d showed a reduction in the latter. The authors concluded that the present meta-analysis shows that NPWTi-d is superior to NPTW or conventional dressings in orthoplastic wound care management, in terms of complete wound closure rate and the reduced number of complications. Still, the limited quality of the studies analyzed shows that future randomized studies are needed to confirm the benefits and to identify the most appropriate recommendations for using NPWTi-d in orthoplastic surgery, as well as to investigate the cost-effectiveness of this wound-dressing system. This systematic review and meta-analysis have several limitations. Firstly, the studies using NPWTi-d applied the latter to different anatomical regions of the body, treating wounds of variable size and comparing different wound closure techniques. Secondly, many different wound care products were used throughout the studies with regard to the control group, which may also have had an influence on the results. Several studies with a shorter follow-up time that did not report on the duration of treatment may have biased the results by underreporting the complication rate in the long run. Finally, the overall heterogeneity of the available studies and their limited quality made it difficult to properly investigate all outcomes related to these kinds of treatments. In view of this, a meta-analysis could only be performed on several of the outcomes. Future studies are needed to confirm the study findings, as well as to better document and quantify the potential benefits of NPWTi-d for wound care in the orthoplastic field.

Diehm et al. (2021) conducted a systematic review evaluating the use of NPWT with instillation and dwell time (NPWTi-d) for the treatment of acute and traumatic wounds. Ten articles ($n = 109$ acute and traumatic wounds) met inclusion criteria. No high-quality RCTs were identified. The majority of studies were retrospective cohort studies, followed by lesser-quality RCTs, comparative studies or prospective cohorts, and two retrospective comparative studies. While NPWTi-d showed promise to be effective in facilitating wound closure and reducing the time for wound closure, the authors found a relatively low level of evidence to support this effect. Large prospective, RCTs are necessary to determine the role of NPWTi-d in the clinical routine for this wound category.

Gabriel et al. (2021) performed a systematic review and meta-analysis of comparative studies evaluating the effects of NPWTi-d versus standard wound care in the treatment of multiple wound types. Thirteen studies ($n = 720$) were included in the analysis. NPWTi-d, when used in conjunction with good clinical practice (e.g., debridement, appropriate antibiotics), was found to be more beneficial than the comparator with respect to number of surgical debridements during therapy, time to readiness for final wound closure, number of patients with reduced bacterial bioburden, duration of therapy, and number of wounds closed, but similar with respect to hospital length of stay. However, author-noted study limitations, including low-level evidence and high patient and wound population heterogeneity across studies, suggested cautious interpretation of the results. Large prospective, RCTs are needed to confirm these results.

Kanapathy et al. (2020) conducted a systematic review and meta-analysis of studies evaluating the efficacy of NPWTi-d. Thirteen studies were included with a total of 624 wounds in 542 patients involving wounds of various etiology. These included surgical wounds ($n = 186$), trauma ($n = 112$), pressure ulcers ($n = 73$), neuropathic ($n = 56$), infection ($n = 28$), diabetic ulcers ($n = 20$), necrotizing fasciitis ($n = 19$), burns ($n = 15$), venous ($n = 10$) and vasculitis ($n = 2$). Normal saline was the most commonly used instillation solution. The pooled proportion of wounds that achieved complete healing was

93.65%. The authors concluded that although NPWTi-d has versatility to improve wound healing in a broad range of wounds, these conclusions are limited by the lack of high-quality level 1 evidence. The included studies were mostly small retrospective case series where NPWTi-d was performed on wounds of various etiologies and sizes along with different wound closure techniques. RCTs evaluating the efficacy of NPWTi-d against NPWT or standard dressings are needed.

Clinical Practice Guidelines

American Society of Colon and Rectal Surgeons (ASCRS)

ASCRS practice parameters for the management of pilonidal disease do not specifically address NPWT as a treatment option (Johnson et al., 2019).

National Institute for Health and Care Excellence (NICE)

A NICE guideline concluded that the VAC Veraflo Therapy system (wound instillation with negative pressure therapy) shows promise for treating acute infected or chronic wounds that are not healing. However, there is not enough good-quality evidence to support the case for routine adoption. Further research is recommended to show clinically meaningful benefits for the device compared with NPWT alone (NICE, 2021).

An amended NICE guideline suggests considering NPWT after cesarean birth for women with a body mass index (BMI) of 35 or more to reduce the risk of wound infections. The “consider” recommendation reflects that the evidence of benefit is less certain (NICE, 2021b).

A NICE guideline concluded that PICO negative pressure wound dressings should be considered as an option for closed surgical incisions in people who are at high risk of developing SSIs. They are associated with fewer SSIs and seromas compared with standard wound dressings. The report called out the clinical and statistical heterogeneity of the studies as a limitation. It also noted a wide variation in the risk characteristics of the populations, the definition of SSIs, how long the dressing was in place and the length and frequency of follow up (NICE, 2019).

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

For information on NPWT systems, refer to the following website (use product code OMP):
<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmnmn.cfm>. (Accessed January 2, 2025)

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Policy History/Revision Information

Date	Summary of Changes
07/01/2025	Supporting Information <ul style="list-style-type: none">Updated <i>Clinical Evidence</i> and <i>References</i> sections to reflect the most current informationArchived previous policy version CS157KY.09

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state, or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state, or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state, or contractual requirements for benefit plan coverage govern. Before using this policy, please check the federal, state, or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare uses InterQual[®] for the primary medical/surgical criteria, and the American Society of Addiction Medicine (ASAM) for substance use, in administering health benefits. If InterQual[®] does not have applicable criteria, UnitedHealthcare may also use UnitedHealthcare Medical Policies, Coverage Determination Guidelines, and/or Utilization Review Guidelines that have been approved by the Kentucky Department for Medicaid Services. The UnitedHealthcare Medical Policies, Coverage Determination Guidelines, and Utilization Review Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.