

# MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)
Policy Number	1.01.38
Category	Technology Assessment
Effective Date	09/19/02
Revised Date	07/17/03, 06/17/04, 06/16/05, 05/18/06, 06/21/07, 04/17/08, 05/28/09, 05/27/10, 08/18/11, 10/18/12, 10/17/13, 10/16/14, 10/15/15, 10/20/16, 10/19/17, 11/15/18
Archived Date	<MM/DD/YY>
Edited Date	<MM/DD/YY>
Product Disclaimer	<ul style="list-style-type: none"> <li>• If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.</li> <li>• If a commercial product (including an Essential Plan product) or a Medicaid product covers a specific service, medical policy criteria apply to the benefit.</li> <li>• If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.</li> </ul>

## POLICY STATEMENT

- I. Based upon our criteria and assessment of the peer-reviewed literature, negative pressure wound therapy (NPWT) using a powered NPWT device has been medically proven to be effective and therefore, is **medically appropriate** for the following indications:
- A. Skin ulcers refractory to a complete wound therapy program:
1. Chronic stage III or IV pressure ulcers (*refer to the description section for definitions of stages*);
  2. Neuropathic (e.g. diabetic) ulcers;
  3. Venous or arterial insufficiency ulcers; or
  4. Chronic ulcers (those present for at least 30 days) of mixed etiology.
- When there are recurrent requests for treatment of the same ulcer site, patient adherence with measures for pressure relief and skin care will be taken into consideration.
- B. Complications (e.g., infection, dehiscence) of *surgically created wounds*; which may include the use of skin grafts to assist in wound closure; and
- C. Traumatic wounds, wounds refractory to standard wound regimens, or burns where there is documentation of the medical necessity for improved formation of granulation tissue which cannot be achieved by other available topical wound treatments.
- II. Contraindications - According to the U. S. Food and Drug Administration (FDA) NPWT is contraindicated in patients with the following wound types/conditions:
- A. necrotic tissue with eschar present,
  - B. untreated osteomyelitis,
  - C. non-enteric and unexplored fistulas,
  - D. malignancy in the wound, or
  - E. exposed vasculature, nerves, anastomotic site, or organs.
- III. Based upon our criteria and the lack of peer-reviewed literature, negative pressure wound therapy (NPWT) following pilonidal cyst/sinus excision is considered **investigational**.

## Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)

Policy Number: 1.01.38

Page: 2 of 8

IV. Based upon our criteria and lack of peer-reviewed literature, negative pressure wound therapy (NPWT) using a non-powered NPWT system (e.g., SNaP® system) or a battery operated, disposable system (e.g., PICO™ system) has not been proven to be medically effective and is, therefore, considered to be **investigational** in the treatment of acute or chronic wounds.

### POLICY GUIDELINES

I. Medical documentation of **ALL** of the following is required for consideration of NPWT:

- A. A prescription or written order from the physician for the device;
- B. Documentation of the history, wound type, previous treatment regimens (where applicable), and current wound management for which the device is being ordered should be reflected in the medical record. Documentation must include an assessment of wound healing progress, the length of sessions in use, dressing types and frequency of change, changes in the wound condition including the precise wound length, width, and depth measurements, presence of granulation and necrotic tissue, and concurrent measures being addressed relative to wound therapy (e.g., debridement, nutritional concerns, use of support surfaces, positioning, incontinence control) and co-morbid conditions (e.g., diabetes);
- C. Weekly wound measurements are performed to document progress in wound healing. A steady decrease in wound volume must be noted from week to week;
- D. The average length of treatment is 4 to 6 weeks. For patients who are not surgical candidates, NPWT may be continued as long as satisfactory progress is documented; and
- E. The goal, or endpoint, of wound therapy is satisfactory healing. Satisfactory healing is defined as obliteration of the wound cavity sufficient to allow surface dressings, closure of the wound by suture, myocutaneous flap, or skin graft (delayed primary intention), or complete healing of the wound (delayed secondary closure).

II. Durable Medical Equipment rider/coverage is required.

### DESCRIPTION

Negative pressure wound therapy (NPWT), or vacuum assisted wound therapy, is the controlled application of subatmospheric pressure to a wound. Powered NPWT systems include a vacuum pump, drainage tubing, and a dressing set. The pump may be stationary or portable, relies on AC or battery power, allows for regulation of the suction strength, has alarms to indicate loss of suction, and has a replaceable collection canister. The dressing sets contain either foam or gauze dressing to be placed in the wound and an adhesive film drape for sealing the wound. The drainage tubes come in a variety of configurations depending on the dressings used or wound being treated.

There are several powered NPWT systems currently available in the U.S. Devices that have U.S. Food and Drug Administration (FDA) 510(k) clearance for marketing in the U.S. include, but may not be limited to, the:

- I. ActiV.A.C.® Therapy Unit,
- II. Engenex® Advanced NPWT System,
- III. Exusdex® wound drainage pump,
- IV. EZCARE Negative Pressure Wound Therapy,
- V. Genadyne A4 Wound Vacuum System,
- VI. InfoV.A.C.® Therapy Unit,
- VII. Invia® Liberty™ Wound Therapy,
- VIII. Invia® Vario 18 c/i Wound Therapy,
- IX. Mini V.A.C.®,
- X. MobIVac®,
- XI. NPD 1000™ Negative Pressure Wound Therapy System,
- XII. Prodigy™ NPWT System (PMS-800 and PMS-800V),
- XIII. PRO-I™, PRO-II™, PRO-III™,
- XIV. RENASYS™ EZ Negative Pressure Wound Therapy,

## Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)

Policy Number: 1.01.38

Page: 3 of 8

- XV. SVEDMAN™ and SVED™ Wound Treatment Systems,
- XVI. V.A.C.® (Vacuum Assisted Closure™), V.A.C.® ATS™, V.A.C.® Freedom™, V.A.C.® Instill®, V.A.C.® Therapy Unit, V.A.C.® Ultra™, V.A.C.® Via™ NPWT System,
- XVII. Venturi™ Negative Pressure Wound Therapy, and
- XVIII. V1STA Negative Pressure Wound Therapy.

The electric pump applies intermittent or continuous negative pressure to an open cell foam or gauze wound dressing. The dressing evenly distributes pressure to the wound surface. In early stages of healing, fluid is withdrawn by the device, reportedly removing inhibitory factors and reducing bacterial counts. In later stages, tensile forces applied to surrounding tissues by the dressing are thought to stimulate cellular proliferation and protein synthesis.

A non-powered, portable, disposable NPWT system, the Smart Negative Pressure (SNaP®) Wound Care System, received 510(k) clearance from the FDA in 2009 and is designed to remove small amounts of exudate from chronic, traumatic, dehisced, acute, or subacute wounds and diabetic and pressure ulcers. The device consists of a cartridge that acts as the negative pressure source, a dressing, and a strap and can be worn under clothing. The cartridge utilizes specialized springs that generate continuous negative pressure and is preset at negative 75, 100, or 125 mmHg, weighs less than 3 ounces, and has a 60 cc capacity. The dressing is a hydrocolloid dressing with an antimicrobial gauze wound interface layer. (Powered NPWT systems usually have a foam-based interface layer.)

A single use, disposable NPWT device, the PICO™ system, received 510(k) clearance from the FDA in 2012 and is designed to remove low to moderate amounts of exudate. The system uses batteries instead of electrical power and instead of using a canister, the exudate is absorbed into the dressing. The pump is programmed to stop working after 168 hours (7 days) of use and will not restart after that time, even with new batteries.

NPWT has been used for chronic non-healing diabetic skin ulcers, venous/vasculitis ulcers, decubitus ulcers, burns, degloving injuries, acute wounds, post-sternotomy mediastinitis, and dehisced or open surgical wounds.

A pressure ulcer is localized injury to the skin and/or underlying tissue, usually over a bony prominence, as a result of pressure or pressure in combination with shear and/or friction. Pressure ulcers are defined by stages:

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

### **RATIONALE**

The available studies published in peer-reviewed literature have demonstrated that use of NPWT has resulted in improvement in wound size sufficient to allow for secondary closure with skin grafting in patients with chronic ulcers, surgically created wounds, and traumatic wounds.

A literature search specifically addressing NPWT and pilonidal disease identified 11 articles; all published between 2003 and 2011. A review of this literature identified 5 case studies totaling 14 patients and one literature review addressing the use of NPWT following surgical excision of complex pilonidal disease. No literature was identified that addresses the use of NPWT following standard disease excision. Literature generally concludes that randomized controlled studies are needed before conclusions can be drawn regarding the efficacy of NPWT in pilonidal disease.

Published studies are insufficient to draw conclusions regarding the impact on net health outcomes of the non-powered wound care system (SNaP® device) itself and in comparison with current care standards. Well-designed comparative studies are needed to answer questions that remain regarding its efficacy and tolerability.

**Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)****Policy Number: 1.01.38****Page: 4 of 8**

Published studies addressing the PICO™ system have generally contained small patient populations and mainly consist of retrospective reviews and case series. Further well-designed, comparative studies are needed before conclusions can be reached regarding the efficacy of the PICO™ system.

**CODES**

- *Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.*
- ***CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.***
- *Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.*

**CPT Codes**

<b>Code</b>	<b>Description</b>
97605	Negative pressure wound therapy (eg, 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	total wound(s) surface area greater than 50 square centimeters
97607 (E/I)	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 (E/I)	total wound(s) surface area greater than 50 square centimeters

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**HCPCS Codes**

<b>Code</b>	<b>Description</b>
A6550	Wound care set, for negative pressure wound therapy electrical pump, includes all supplies and accessories
A9272 (E/I)	Wound suction, disposable, includes dressing, all accessories and components, any type, each
E2402	Negative pressure wound therapy electrical pump, stationary or portable
K0743	Suction pump, home model, portable, for use on wounds
K0744	Absorptive wound dressing for use with suction pump, home model, portable, pad size 16 square inches or less
K0745	Absorptive wound dressing for use with suction pump, home model, portable, pad size more than 16 square inches but less than or equal to 48 square inches
K0746	Absorptive wound dressing for use with suction pump, home model, portable, pad size greater than 48 square inches

**ICD10 Codes**

<b>Code</b>	<b>Description</b>
Various	

## Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)

Policy Number: 1.01.38

Page: 5 of 8

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**Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)**

**Policy Number: 1.01.38**

**Page: 6 of 8**

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**Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)**

**Policy Number: 1.01.38**

**Page: 7 of 8**

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\*Key Article

**KEY WORDS**

Negative pressure wound therapy, PICO™ system, SNaP® system, Topical negative pressure therapy, Vacuum Assisted Closure therapy

**CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS**

There is currently a Local Coverage Determination (LCD) and a Local Coverage Article (LCA) addressing Negative Pressure Wound Therapy Pumps. Please refer to the following website for Medicare Members:

**LCD:**

<https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=33821&ver=12&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York+-+Entire+State&KeyWord=NEGATIVE+PRESSURE+WOUND+THERAPY&KeyWordLookUp=Title&KeyWordSearchType=And&bc=gAAAACAIAAAAA%3d%3d&>

**LCA:**

<https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=52511&ver=12&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York+-+Entire+State&KeyWord=NEGATIVE+PRESSURE+WOUND+THERAPY&KeyWordLookUp=Title&KeyWordSearchType=And&LCDId=33821&ContrId=137&ContrVer=1&bc=gAAAACAIEAAAA%3d%3d&>

**Medical Policy: NEGATIVE PRESSURE WOUND THERAPY (VACUUM ASSISTED CLOSURE)**

**Policy Number: 1.01.38**

**Page: 8 of 8**