VENTURI™

NEGATIVE PRESSURE WOUND THERAPY

Clinical Guidelines Manual

TALLEY MEDICAL

...closer to the patient

TALLEY GROUP

TALLEY GROUP LIMITED
Premier Way, Abbey Park Industrial Estate,
Romsey, Hampshire SO51 9DQ England
Tel: (0)1794 503500 Fax: (0)1794 503555
e-mail: sales@talleygroup.com
www.talleygroup.com

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BHTA

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Annex B: Example Continuation Sheet

Venturi™ NPWT System - Continuation Sheet

Patient's Name: ……

Date dressing change								
Wound length (cm)								
Wound width (cm)								
Wound depth (cm)								
Tissue Type Black % Necrotic								
Tissue Type Red % Granulating								
Tissue Type Yellow % Sloughy								
Tissue Type Pink % Epithelialising								
Peri-Wound Area Oedematous								
Peri-Wound Wound Erythema								
Peri-Wound Area Macerated								
Peri-Wound Area Healthy / Intact								
Amount of drainage in mls								
Colour/Type of exudate								
Wound odour								
Infection suspected								
Antibiotics needed?								
Swab obtained								
Canister Changed (yes/no)								
Wound Contact layer used (if necessary)								
Consumables ordered; which?								
Comments, if any:								
Signature								

Annex A: Example Assessment Sheet

Venturi™ NPWT System - Assessment Sheet

Patient name: ..... **DOB:** ..... **Room:** .....

Hospital no. /MPI no.: ..... **Consultant:** .....

Type of wound: ..... **Location:** .....

Cause of wound: ..... **Duration of wound:** .....

Previous treatment / dressing regime: .....

.....

.....

Frequency of previous dressing regime: .....

Wound dimensions (widest points) prior to therapy:

Width: ..... cm Length: ..... cm Depth: ..... cm

Factors that could delay healing:

Anaemia ☐	Poor nutritional status ☐	Diabetes ☐
Dehydration ☐	Respiratory disorders ☐	Incontinence ☐
Infection ☐	Circulatory disorders ☐	Allergies ☐
Medication ☐	Immobility ☐	

Other, please state: .....

Size of Wound Care Set: Standard ☐ Large ☐ Abdominal ☐

Type of drain used: Flat ☐ Channel ☐

Pressure setting ..... mmHg continuously

Frequency of dressing change: .....

Type of non-adherent wound contact layer, if applicable: .....

Any special instructions: .....

.....

.....

Date Venturi NPWT commenced: .....

Date Venturi NPWT discontinued: .....

Contents

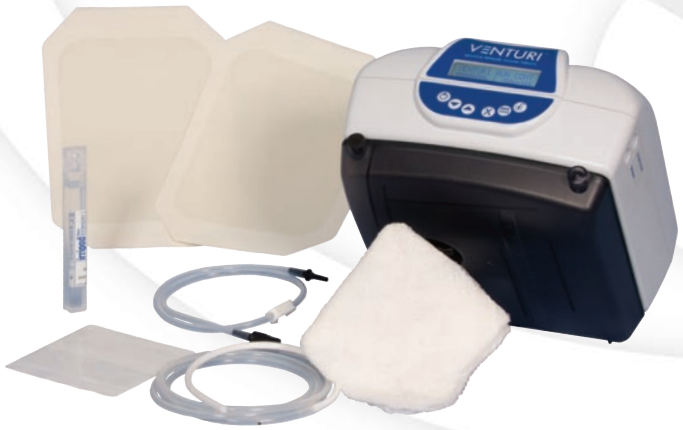
1. Introduction

These guidelines are recommendations to help clinicians establish patient-specific treatment protocols. As with any application, please consult the patient's treating physician about individual conditions and treatment, and follow all applicable instruction manuals and reference guides for product use and operation. Always consult sections of these Clinical Guidelines and the VENTURI™ Negative Pressure Wound Therapy System User Manual before commencing treatment.

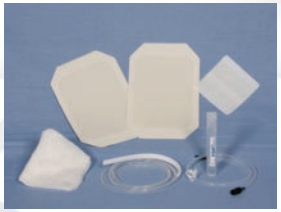
The VENTURI™ Negative Pressure Wound Therapy (NPWT) System features a lightweight, versatile powered suction pump which benefits from dual-power technology, offering a seamless choice of mains or battery operation. The integral battery is charge-optimised, and provides long-lasting power back-up when needed. The battery operation option allows the system to function away from a wall outlet, allowing the patient to be ambulatory for extended periods of time, if required. Negative Pressure Wound Therapy is applied with a Wound Sealing Kit utilising the Chariker and Jeter* dressing technique (see section 4 for instructions on the application technique).

Please contact your local Talley Group representative if you have any questions about operation or use.

** See "Effective management of incisional and cutaneous fistulae with closed suction wound drainage" Mark E. Chariker, MD, Katherine F. Jeter, Ed.D ET, et al. Contemporary Surgery, Vol. 34, June 1989*



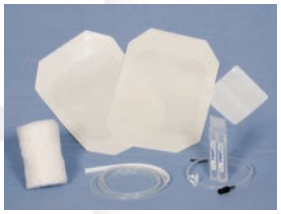
7. Re-Order Information (cont.)



VENTURI™ Wound Sealing Kit - Flat drain (standard)

Set includes: Kerlix™ AMD gauze (Covidien); 10mm flat silicone drain; 15cm x 20cm clear dressing (x 2); 20ml normal saline; Hydrogel adhesive patch (7.5cm x 7.5cm); Connection tubing with clamp; Instructions for Use

Order codes: 97-30-41-100 (x 1)
97-30-41-104 (Box of 10)



VENTURI™ Wound Sealing Kit - Flat drain (large)

Set includes: Kerlix™ AMD gauze (Covidien); 10mm flat silicone drain; 20cm x 28cm clear dressing (x 2); 20ml normal saline (x 2); Hydrogel adhesive patch (7.5cm x 7.5cm); Connection tubing with clamp; Instructions for Use

Order codes: 97-30-41-101 (x 1)
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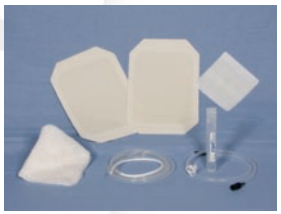


VENTURI™ Wound Sealing Kit - Channel drain

Set includes: Kerlix™ AMD gauze (Covidien); 15Fr channel silicone drain; 15cm x 20cm clear dressing (x 2); 20ml normal saline; Hydrogel adhesive patch (7.5cm x 7.5cm); Connection tubing with clamp; Instructions for Use

Order codes: 97-30-43-100 (x 1)
97-30-43-102 (Box of 10)

VENTURI™ Abdominal Wound Sealing Kit - Flat drain

Set includes: Kerlix™ AMD gauze (Covidien) (x 2); 10mm flat silicone drain (x 2); 20cm x 28cm clear dressing (x 4); 20ml normal saline (x 3); Hydrogel adhesive patch (7.5cm x 7.5cm) (x 3); Connection tubing with clamp; Instructions for Use

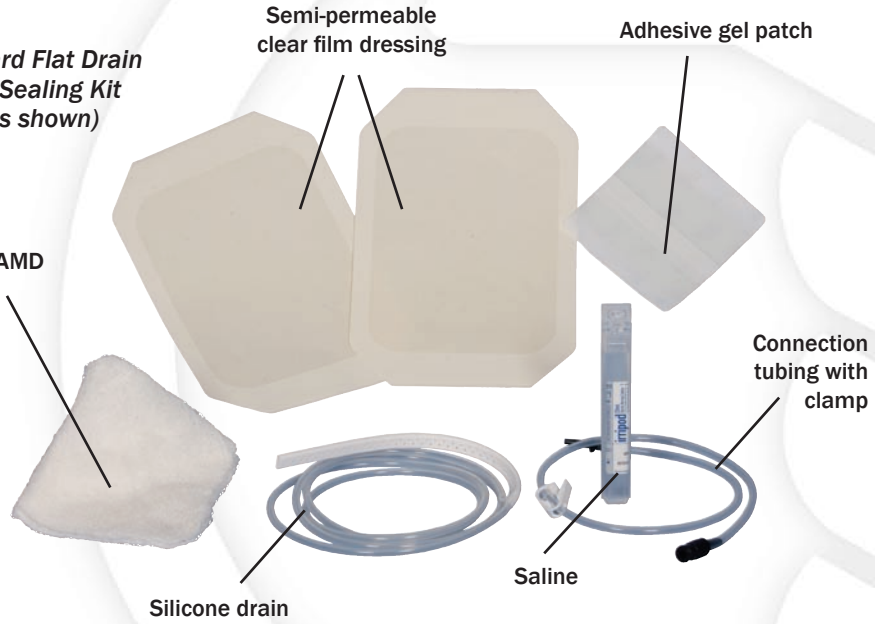
Order codes: 97-30-41-106 (x 1)
97-30-41-107 (Box of 10)

7. Re-Order Information (cont.)

VENTURI™ NPWT WOUND SEALING KITS

VENTURI™ NPWT Wound Sealing Kits are available in standard sizes which incorporate either the flat or channel drain. A large wound sealing kit incorporating the flat drain is also available for larger wounds, together with an abdominal wound sealing kit.

(Standard Flat Drain Wound Sealing Kit contents shown)

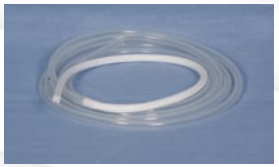


FLAT DRAIN

- Requires a layer of moistened gauze between the drain and the wound bed
- Suction may decrease when drain is twisted, crimped or occluded.

CHANNEL DRAIN

- Requires a layer of moistened gauze between the drain and the wound bed



2. Safety Information

SAFETY POINTS TO REMEMBER WHEN THE USING THE VENTURI™ NEGATIVE PRESSURE WOUND THERAPY SYSTEM:

- Ensure that the patient/wound is suitable for negative pressure wound therapy.
- Read and follow all user instructions and safety information that accompany Talley products.
- Ensure accuracy of diagnosis and address all underlying and associated co-morbidities.
- Ensure appropriate dressing methods are used.
- Ensure appropriate debridement prior to treatment.
- Do not tightly pack dressings into the wound; place dressings gently into the wound.
- Ensure a good dressing seal has been achieved.
- Accurately record the number of dressing pieces used in the patient's chart .
- Keep the VENTURI™ power unit switched on at all times during NPWT. At the end of NPWT treatment apply an alternative dressing at the direction of the treating clinician, if required
- Monitor continuously and check and respond to alarms.
- When dressing is removed, count the number of dressing pieces removed, correlate the count with the number of pieces previously placed in the wound and verify the complete removal of all dressing pieces.
- If no response or improvement in the wound is observed within two weeks, reassess the treatment plan.
- Seek advice/support from local Talley personnel as needed.
- The VENTURI™ canister and the components of the wound sealing kit are for single use only.

NOTE: IMPORTANT

As with any medical device, failure to consult a physician and carefully read and follow all therapy unit, dressing instructions and safety information prior to each use may lead to improper product performance. Do not adjust therapy

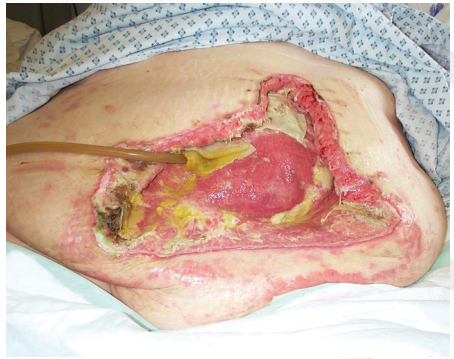
2. Safety Information (cont.)

unit settings or perform therapy application without directions from, or supervision by, the clinical caregiver.

INDICATIONS FOR USE

Use of the VENTURI™ NPWT System is indicated for use for patients with acute or chronic wounds. Wounds that may benefit from the application of negative pressure therapy include:-

- Partial/Full thickness Pressure Ulcers
- Dehisced surgical wounds
- Diabetic/Neuropathic ulcers
- Venous leg ulcers
- Post surgical wounds
- Sinus drainage and management
- Traumatic wounds
- Pre-op flap/graft
- Post op surgical flap/grafts
- Necrotising fasciitis
- Burns



An example of a wound suitable for NPWT using the VENTURI™ system (dehisced surgical wound)

CONTRAINDICATIONS

Do not place NPWT dressings directly in contact with exposed blood vessels, anastomotic sites, organs or nerves.

NOTE: Refer to Warnings and Precautions section for additional information concerning bleeding.

NPWT is contraindicated for patients with:

- Malignancy in the wound
- Untreated osteomyelitis
- Non-enteric and unexplored fistulas
- Wounds with difficult haemostasis
- Necrotic tissue with eschar present

NOTE: After debridement of necrotic tissue and complete removal of eschar, NPWT can be used.

7. Re-Order Information

VENTURI™ NPWT SYSTEM ACCESSORIES

Canister (sealed and fully assembled, complete with solidifier)

(600ml capacity - available singly or in boxes of 10)

Order codes: 97-30-40-100 (x 1)

97-30-40-103 (Box of 10)

Y-Connector (for treating multiple wound sites)

(Available in packages of 5)

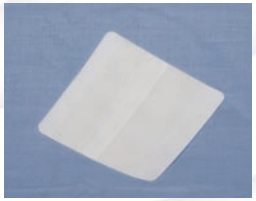
Order code: 97-30-44-102 (Pack of 5)

Carry Bag (to allow patient full mobility during therapy)

Order code: 99-01-12-101

Bedside Holder (for secure accommodation of the power unit during therapy)

Order code: 97-30-45-101



Adhesive Gel Patch (to ensure an airtight dressing seal)

(Available in packages of 5)

Order code: 97-30-44-103 (Pack of 5)

6. Optimising NPWT

Maximum benefit from negative pressure wound therapy depends on effective wound healing strategies and patient compliance. For example, the patient must:

- Receive an accurate diagnosis and appropriate treatment of underlying causes, (e.g. the provision of adequate nutrition; pressure relief surfaces for pressure ulcers; maximisation of vascular supply for optimal perfusion; appropriate offloading in lower extremity wounds).
- Be compliant with therapy. Maintain active negative pressure therapy continuously at settings prescribed until therapy is complete and an alternative dressing may be applied as directed by clinician, if required. Patients with a history of non-compliance or inability to adhere to the treatment regime should be monitored closely throughout NPWT.
- Receive clinical evaluation and guidance on a regular basis. Overall outcomes may be improved when a wound care expert or Tissue Viability Nurse is involved in supporting clinicians using NPWT to evaluate, monitor and adjust the clinical care plan based on patient assessment.
- Be actively receiving treatment for osteomyelitis, if present, including appropriate debridement (bone if necessary) and antibiotic therapy.

To obtain maximum benefit from negative pressure therapy, the wound must:

- Be debrided of all eschar and hardened slough. Devitalised tissue should be removed thoroughly as possible, per physician instruction.
- Be supplied by adequate circulation to support the healing process.

2. Safety Information (cont.)

WARNINGS AND PRECAUTIONS

Bleeding: The following types of patients are at increased risk of bleeding, which, if uncontrolled, could be potentially fatal.

- Patients who have weakened or friable blood vessels or organs in or around the wound as a result of, but not limited to:
  - Suturing of the blood vessel (anastamosis or grafts)/organ
  - Infection
  - Trauma
  - Radiation
- Patients without adequate wound haemostasis
- Patients who have been administered anticoagulants or platelet aggregation inhibitors
- Patients who do not have adequate tissue coverage over vascular structures.

If NPWT is prescribed for patients who have an increased risk of bleeding complications, they should be treated and monitored closely by the treating physician.

If active bleeding develops suddenly or in large amounts during NPWT or if bright red blood is seen in the tubing or in the canister, immediately stop NPWT, leave dressing in place, take measures to stop the bleeding and seek immediate medical assistance. NPWT should not be used to prevent, minimise or stop vascular bleeding.

Protect Vessels and Organs: All exposed or superficial vessels and organs in or around the wound must be completely covered and protected prior to the administration of NPWT.

Always ensure that NPWT dressings do not come in direct contact with vessels or organs. Use of a thick layer of natural tissue should provide the most effective protection. If a thick layer of natural tissue is not available or is not surgically possible, multiple layers of fine-meshed, non-adherent material, or bioengineered tissue may be considered as an alternative, if deemed by the treating physician to provide a complete protective barrier. If using non-adherent materials, ensure that they are secured in a manner as to maintain their protective position throughout therapy.

2. Safety Information (cont.)

Consideration should also be given to the negative pressure setting and therapy mode used when initiating therapy.

Caution should be taken when treating large wounds that may contain hidden vessels, which may not be readily apparent. The patient should be closely monitored for bleeding by the treating physician.

Infected Blood Vessels: Infection may erode blood vessels and weaken the vascular wall which may increase susceptibility to vessel damage through abrasion or manipulation. Infected blood vessels are at risk of complications, including bleeding, which, if uncontrolled, could be potentially fatal. Extreme caution should be used when NPWT is applied in close proximity to infected or potentially infected blood vessels. (Refer to Protect Vessels and Organs section above.)

Haemostasis, Anticoagulants, and Platelet Aggregation Inhibitors: Patients without adequate wound haemostasis have an increased risk of bleeding, which, if uncontrolled, could be potentially fatal. These patients should be treated and monitored closely by the treating physician. Caution should be used in treating patients on doses of anticoagulants or platelet aggregation inhibitors. Consideration should be given to the negative pressure setting and therapy mode used when initiating therapy.

Haemostatic Agents Applied at the Wound Site: Non-sutured haemostatic agents (for example, bone wax, absorbable gelatine sponge, or spray wound sealant) may, if disrupted, increase the risk of bleeding, which, if uncontrolled, could be potentially fatal. Protect against dislodging such agents. Consideration should be given to the negative pressure setting and therapy mode used when initiating therapy.

Sharp Edges: Bone fragments or sharp edges could puncture protective barriers, vessels, or organs causing injury. Any injury could cause bleeding, which, if uncontrolled, could be potentially fatal. Beware of possible shifting in the relative position of tissues, vessels or organs within the wound that might increase the possibility of contact with sharp edges. Sharp edges or bone fragments must be eliminated from the wound area or covered to prevent them from puncturing blood vessels or organs before the application of NPWT. Where possible, completely smooth and cover any residual edges to decrease the risk of serious or fatal injury, should shifting of structures occur. Use caution when removing dressing components from the wound so that wound tissue is not damaged by unprotected sharp edges.

5. Wound Monitoring

PAIN MANAGEMENT

Patients receiving NPWT may experience a reduction in pain as the wound begins to heal. However, some patients experience discomfort during treatment or dressing changes. In line with institutional guidelines, a validated pain scoring tool should be used and pain scores should be documented where appropriate before, during and after dressing-related procedures. In addition, the following strategies should be considered:

- If the patient complains of discomfort throughout, review therapy
- Ensure the patient receives adequate analgesia prior to dressing changes and during treatment, if required.
- If the patient complains of discomfort during the dressing change, consider reviewing current analgesia.
- A sudden increase or change in the character of the pain requires investigation.

LENGTH OF TREATMENT

The length of treatment is dependent upon the treating physician’s or clinician's goal of therapy. Wound pathology, wound size and management of patient co-morbidities need to be considered when utilising NPWT. NPWT should be reassessed at frequent intervals and therapy may continue as long as satisfactory progress is observed.

WHEN TO DISCONTINUE NPWT

NPWT should be discontinued when:

- The goal of therapy has been met. In some cases this will be full closure of the wound, in others the wound may need to be closed surgically.
- The wound shows no signs of progression after one to two consecutive weeks and potential solutions to encourage wound healing have failed. Individual circumstances may vary.
- The patient is unable or unwilling to follow the medical plan of care; maximum benefits might not be achieved.

4. NPWT Wound Sealing Kits: Instructions for Use (cont.)

- Remove sealing plug from its location on top left hand corner of canister and use to cap tubing receptacle to seal in contents.
- Rotate locking knob 1/4 turn anticlockwise and remove canister.
- Document amount of exudate, colour and consistency. Dispose of used canister according to local clinical waste policy.
- If continuing NPWT, attach new canister.

Attaching New Canister

- Each canister has instructions for use within the pack.
- Ensure white polystyrene plug is removed from the canister sensors located on the back of the canister before attaching to pump unit.
- Attach canister to flat face of power unit by matching up the four location pegs and rotating locking knob 1/4 turn clockwise to secure.
- Ensure canister is correctly located and secured otherwise NO CANISTER alarm will appear and power unit will not operate.
- Attach connection tubing to the canister by lining up locator stud on tubing connector with notch on canister tubing receptacle located on top right hand corner of canister, twisting clockwise to lock.
- Turn on power unit to initiate suction (see 'OPERATING THE VENTURI™ VACUUM POWER UNIT' earlier in section 4).
- Ensure therapy mode and pressure setting is consistent with therapy required.

2. Safety Information (cont.)

Infected Wounds: Infected wounds should be monitored closely and may require more frequent dressing changes than non-infected wounds, dependent upon factors such as wound conditions and treatment goals. As with any wound treatment, clinicians and patients/caregivers should frequently monitor the patient's wound, periwound tissue and exudate for signs of infection, worsening infection, or other complications. If there are any signs of the onset of systemic infection or advancing infection at the wound site, contact a physician immediately to determine if NPWT should be discontinued. For wound infections relating to blood vessels, please also refer to the earlier section titled Infected Blood Vessels.

Osteomyelitis: NPWT should NOT be initiated on a wound with untreated osteomyelitis. Consideration should be given to thorough debridement of all necrotic, nonviable tissue, including infected bone (if necessary), and appropriate antibiotic therapy.

Protect Tendons, Ligaments and Nerves: Tendons, ligaments and nerves should be protected to avoid direct contact with NPWT dressings. These structures may be covered with natural tissue, meshed non-adherent material, or bioengineered tissue to help minimise risk of desiccation or injury.

Dressing Placement: Always use NPWT dressings from sterile packages that have not been opened or damaged. Do not place any dressing into blind/unexplored tunnels. Do not force dressings into any area of the wound, as this may damage tissue, alter the delivery of negative pressure, or hinder exudate and dressing removal. Always count the total number of pieces of dressing used in the wound and document that number on the patient's chart. Also document the dressing change date.

Dressing Removal: NPWT dressings are not bio-absorbable. Always count the total number of pieces removed from the wound and ensure the same number of pieces were removed as placed. Dressings left in the wound for longer than the recommended time period may be difficult to remove from the wound, or lead to infection or other adverse events. If significant bleeding develops, immediately discontinue the use of the NPWT system, take measures to stop the bleeding, and do not remove the dressing until the treating physician or surgeon is consulted. Do not resume the use of the NPWT system until adequate haemostasis has been achieved, and the patient is not at risk for continued bleeding.

2. Safety Information (cont.)

Keep NPWT Power Unit On: Keep the VENTURI™ power unit switched on at all times during NPWT. At the end of NPWT treatment apply an alternative dressing at the direction of the treating clinician, if required.

Defibrillation: Remove the NPWT dressing if defibrillation is required in the area of dressing placement. Failure to remove the dressing may inhibit transmission of electrical energy and/or patient resuscitation.

Standard Precautions: To reduce the risk of transmission of blood borne pathogens, apply standard precautions for infection control with all patients, per institutional protocol, regardless of their diagnosis or presumed infection status. In addition to gloves, use gown and goggles if exposure to body fluid is likely.

Patient Size and Weight: The size and weight of the patient should be considered when prescribing NPWT. Infants, children, certain small adults and elderly patients should be closely monitored for fluid loss and dehydration. Also, patients with highly exuding wounds or large wounds in relation to the patient size and weight should be closely monitored, as they may have a risk of excessive fluid loss and dehydration. When monitoring fluid output, consider the volume of fluid in both the tubing and canister.

Spinal Cord Injury: In the event a patient experiences autonomic hyperreflexia (sudden elevation in blood pressure or heart rate in response to stimulation of the sympathetic nervous system), discontinue NPWT to help minimise sensory stimulation and seek immediate medical assistance.

Bradycardia: To minimise the risk of bradycardia, the NPWT dressing must not be placed in proximity to the vagus nerve.

Protect Periwound Skin: Consider use of a skin preparation product to protect periwound skin. To prevent maceration, do not allow moistened AMD gauze to overlap onto intact skin. Protect fragile/friable periwound skin with additional NPWT adhesive dressing, hydrocolloid or other transparent film.

- Multiple layers of transparent film may decrease the moisture vapour transmission rate, which may increase the risk of maceration.

4. NPWT Wound Sealing Kits: Instructions for Use (cont.)

- Stop the power unit, by pressing and holding the UNLOCK button until power unit beeps and 'L' clears from display screen. Then press and hold the RUN/STOP button until power unit beeps three times and is deactivated; the screen should display 'stopping' and then go into stand-by mode. This releases some of the pressure at the wound.
- Close the clamp on tubing to prevent any exudate spillage.
- Gently remove transparent film.
- Gently remove gauze from wound (the gauze should be removed easily like a plug).

  Should the gauze have adhered, moistened with normal saline and remove. Consult records to insure accurate count of gauze pieces are removed from wound.
- Observe and assess the wound and peri-wound area.
- Document progress.

NOTE: If dressing adheres to wound, consider introducing sterile water or normal saline into the dressing, then gently remove it from the wound. Consider placing a single layer, wide-meshed, non-adherent material prior to placement of the dressing. Refer to pain management for specific recommendations.

CHANGING THE CANISTER

Canisters should be changed when full or at a minimum of weekly.

Removing Canister

- Before removing canister, make sure power unit is in stand-by mode (if still running, press and hold the UNLOCK button, followed by the RUN/STOP button to return to stand-by mode).
- Clamp connection tubing to prevent any exudate spillage and remove by turning anticlockwise and lifting out of tubing receptacle (this can be reconnected to new canister and unclamped to continue with NPWT if wound dressing is not being changed).

4. NPWT Wound Sealing Kits: Instructions for Use (cont.)

MAINTAINING A SEAL

Maintaining a seal around the dressing is key to successful NPWT. Recommendations to maintain the integrity of the seal:

- Dry the periwound area thoroughly after cleansing. You may use a protective skin barrier preparation to prepare the skin for application, (e.g. a liquid barrier film or surgical adhesive).
- For delicate periwound tissue in areas that are difficult to dress, apply protective skin barrier wipe and frame the wound with transparent film or a hydrocolloid dressing.
- Ensure the dressing is appropriate for the depth of the wound by either cutting or beveling it.
- Position the dressing tubing on flat surfaces and away from the perineal area, bony prominences or pressure areas.
- Secure or anchor the tubing with an additional piece of adhesive dressing or tape, positioning the anchor several centimeters away from the dressing or wound. This prevents tension on the tubing from pulling on the dressing. If secured directly to the dressing, tension on the tubing may interrupt the dressing seal.

CHANGING THE DRESSING

Wounds being treated with NPWT should be monitored on a regular basis. In a monitored, non-infected wound, NPWT dressings should be changed every 48 to 72 hours, but no less than 3 times per week, with frequency adjusted by the clinician as appropriate. Infected wounds must be monitored often and very closely. For these wounds, dressings may need to be changed more often than 48 - 72 hours (every 12 to 24 hours); the dressing change intervals should be based on a continuing evaluation of wound condition and the patient's clinical presentation, rather than a fixed schedule.

- Raise the tubing connectors above the level of the therapy unit, to ensure draining of exudate and prevent spillage.

2. Safety Information (cont.)

- If any signs of irritation or sensitivity to the dressing or tubing assembly appear, discontinue use and consult a physician.
- To avoid trauma to the periwound skin, do not pull or stretch the transparent film over the gauze during application.
- Extra caution should be used for patients with neuropathic aetiologies or circulatory compromise.

Circumferential Dressing Application: Avoid use of circumferential dressings except in the presence of anasarca or excessively weeping extremities, where a circumferential technique may be necessary to establish and maintain a seal. Consider using multiple small pieces of transparent film rather than one continuous piece to minimise the risk of decreased distal circulation. When using circumferential techniques, it is crucial to systematically and recurrently palpate distal pulses and assess distal circulatory status. If circulatory compromise is suspected, discontinue therapy, remove dressing and contact a physician.

Use in electromagnetic interference environments: Avoid use of VENTURI™ pump in areas of electromagnetic interference such as MRI or Xray departments.

Use in hyperbaric oxygen therapy environments: Avoid use of VENTURI™ pump inside a hyperbaric oxygen therapy environment.

3. Preparations Prior to Using NPWT

Always consult a physician and review and follow NPWT Safety Information, VENTURI™ power unit instructions, and appropriate sections of these guidelines prior to use.

USER REQUIREMENTS

- Must be a competent practitioner who has received full training in the use of NPWT from an experienced clinician.
- Gain informed consent from the patient.
- The user is responsible to ensure that all consumables are compatible with the unit, are sterile prior to use, and are suitable for the individual patient needs.
- The user is responsible for ensuring all necessary documentation is completed.

PREPARATION PRIOR TO THERAPY

- Ensure pre-treatment investigations have been completed and all necessary results obtained.
- Explain the procedure and potential complications to the patient.
- Ensure all equipment, consumables, and other dressings are available for procedure.
- Check no contra-indications are evident.

WOUND PREPARATION

- Remove and discard previous dressing as per institution protocol. Thoroughly inspect wound to ensure all pieces of dressing components have been removed.
- Debride all necrotic, non-viable tissue, including bone, eschar, or hardened slough, as prescribed by physician.
- Perform thorough wound and periwound area cleaning as per physician order or institution protocol prior to each dressing application.
- Ensure adequate haemostasis has been achieved (refer to Warnings and Precautions section: Bleeding; Haemostasis, Anticoagulants and Platelet Aggregation Inhibitors).
- Protect vessels and organs (refer to Warnings and Precautions section: Bleeding; Protect Vessels and Organs).

4. NPWT Wound Sealing Kits: Instructions for Use (cont.)

The NPWT pressure setting may be decreased by 5mmHg increments for the following situations:

- Extremes of age
- Compromised nutrition
- Risk of excessive bleeding (e.g., patients on anticoagulation therapy)
- Circulatory compromise (e.g., peripheral vascular disease)
- Excessive granulation tissue growth
- Pain or discomfort not relieved by appropriate analgesia
- Periwound or wound bed ecchymosis

ENSURING DRESSING INTEGRITY

It is recommended that a clinician visually check the dressing every two hours to ensure that it is firm and collapsed in the wound bed while therapy is active, if not:

- Make sure the display screen reads ‘VENTURI RUN’, chosen therapy mode (‘CONT’ or ‘INTM’) and prescribed pressure setting. If not, press the RUN/STOP button.
- Confirm the clamps are open and the tubing is not kinked.
- Identify air leaks by listening with a stethoscope or moving your hand around the edges of the dressing while applying light pressure.

If you find that the seal is broken and the NPWT dressing has become loose, re-apply the dressing.

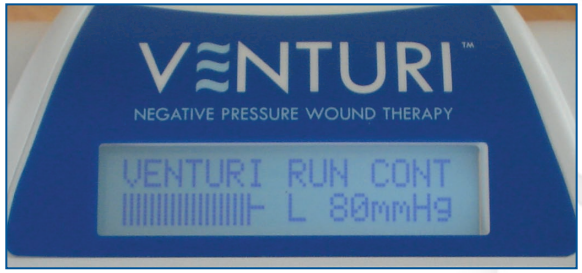
NOTE: If a leak source is identified, patch with additional adhesive dressing to ensure seal integrity.

CAUTION: Multiple layers of the transparent film may decrease the moisture vapour transmission rate, which may increase the risk of maceration, especially in small wounds, lower extremities, or load-bearing areas.

NOTE: If the wound is over a bony prominence or in an area where weight bearing may exert additional pressure or stress to the underlying tissues, a pressure-relief surface or device should be used to optimise patient offloading.

4. NPWT Wound Sealing Kits: Instructions for Use (cont.)

- Press RUN/STOP button to invoke stand-by mode (the power unit will beep and therapy mode, operating pressure and battery charge status will be displayed).
- Power unit will default to continuous therapy mode at 80mmHg. To switch between continuous and intermittent therapy, press and hold the THERAPY MODE button until power units beeps to confirm change of mode. Adjust vacuum level if required using the UP and DOWN arrow buttons.
- Press RUN/STOP button again to initialise and run the power unit.



NB. Vacuum level and therapy mode can be adjusted when in stand-by mode and for up to 1 minute after power unit is running. Power unit will automatically lock 1 minute after last button operation when running to prevent inadvertent operation of button functions (except MUTE), as indicated by 'L' on the display screen. Press and hold the UNLOCK button until power unit beeps if further button operation is needed. Display screen is only illuminated for a short period after button operation in battery mode.

NPWT PRESSURE SETTINGS

The default setting for NPWT is 80mmHg, but these settings may be individualized to the patient's needs.

Consider increasing the NPWT pressure setting by 5mmHg increments for the following conditions:

- Excessive drainage
- Large wound volume
- A tenuous seal (see later section titled Maintaining a Seal)

3. Preparations Prior to Using NPWT (cont.)

- Sharp edges or bone fragments must be eliminated from wound area or covered (refer to Warnings, Bleeding section, Sharp Edges).
- Clean and dry periwound tissue. Consider use of a skin preparation product to protect periwound skin. To prevent maceration, do not allow moistened gauze to overlap onto intact skin. Protect fragile/friable periwound skin with additional transparent film.

4. VENTURI™ NPWT Wound Sealing Kits: Instructions for Use

CAUTION! The medical professional is responsible for using his/her best medical judgement when using NPWT Wound Sealing Kits. Prior to use, the medical professional(s) treating the wound must assess how to best use the kit for an individual wound.

WOUND SEALING KIT APPLICATION TECHNIQUE

- If required, irrigate the wound bed thoroughly with approximately 20ml of normal saline (Fig. 1). Ensure surrounding wound edges are dry.
- Place the drain in the wound bed / sinus to calculate length required. Remove and trim as necessary to fit.
- If a non-adherent wound contact layer is used, cut a single layer to the approximate size and shape of the wound. Lay the wound contact layer across the wound bed.
- Lay a single layer of saline-moistened gauze in the wound bed (Fig. 2) and place the drain on top of the gauze, ensuring the drain is approximately 1cm from the wound edge / bottom of the sinus to allow for wound contraction (Fig. 3). Alternatively the saline-moistened gauze can be wrapped around the drain, if more suited to the wound. The drain is never placed directly on the wound bed, unless managing a sinus, when the drain can be placed directly down the sinus tract.
- With the remaining saline-moistened gauze, fill the wound bed and fluff to completely cover the drain and fill the defect to skin level (Fig. 4). CAUTION! It is critical that the gauze is moistened rather than saturated with normal saline prior to filling the wound.

Fig. 1

Fig. 2

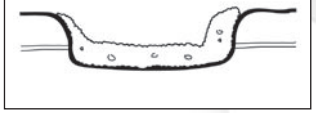


Fig. 3

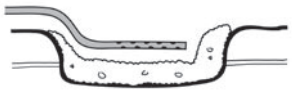
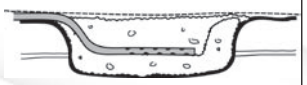


Fig. 4



4. VENTURI™ NPWT Wound Sealing Kits: Instructions for Use (cont.)

- Place the transparent dressing over the filled wound, ensuring contact with at least 2.5cm of intact skin beyond the wound edges. Crimp or pinch the edges of the transparent dressing around the drain tubing to secure a proper seal. Lift the drain slightly and pinch the dressing underneath the drain to create a seal.
- At the tubing exit site you can apply a small amount of sealant gel where the dressing meets the tube to seal and ensure an airtight closure.
- Connect drain tubing to canister connection tubing. Attach connection tubing to the VENTURI™ power unit canister by lining up locator stud on tubing connector with notch on canister tubing receptacle located on top right hand corner of canister, twisting clockwise to lock (Fig. 5)
- Turn on power unit to initiate suction (see 'Operating the VENTURI™ Power Unit' below for details). Once power unit is running, observe the wound site; the dressing should contract noticeably, become firm to the touch and 'raisin-like'. If the dressing fails to contract, the dressing has not been completely sealed. Reinforce the dressing seal and/or adjust the drain and initiate suction again.
- Check for dressing integrity every 2-3 hours and at every shift change.
- Depending on patient status and clinical judgment, the initial dressing change should take place after 48 hours and then 48-72 hours thereafter. For infected wounds the dressing may need to be changed initially every 12-24 hours.
- After use, dispose of wound sealing kit according to local clinical waste policy.

OPERATING THE VENTURI™ VACUUM POWER UNIT

- The VENTURI™ power unit operates using either mains or battery operation; if using mains power, plug the smaller end of the power cable into the side of the VENTURI™ power unit, and the other end into mains outlet in wall.

  NB. The battery will charge when the unit is connected to mains power (indicated by battery charge status icon on display screen scrolling from left to right) and provides automatic power back-up if mains power fails. It is recommended to use mains power when convenient to do so as this will ensure the battery is fully charged when needed.