# NEGATIVE PRESSURE WOUND THERAPY POLICY

<table>
<thead>
<tr>
<th>Document Reference No:</th>
<th>1707</th>
<th>Version No:</th>
<th>1.0</th>
<th>Status:</th>
<th>Approved</th>
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<tr>
<td><strong>Type:</strong></td>
<td>Clinical policy</td>
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<tr>
<td><strong>Document applies to (staff group):</strong></td>
<td>All staff employed by the Suffolk Community Healthcare Consortium</td>
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</tbody>
</table>

Where the procedural documents refer to Suffolk Community Healthcare (SCH) this is referring to those staff employed by the Suffolk Community Healthcare Consortium; a service delivered by West Suffolk NHS Foundation Trust (WSHFT) with The Ipswich Hospital NHS Trust (IHT) and Norfolk Community Healthcare and Care Trust (NCH&C)

**Date adopted/ ratified:** December 2016

**Review date:** December 2019

**Signature of Director:**

![Signature Image]
NEGATIVE PRESSURE WOUND THERAPY POLICY

Policy Reference: SCH CP48    Version: 1.0    Status: Approved

Document applies to: All services within the Suffolk Community Healthcare Consortium; a service delivered by West Suffolk NHS Foundation Trust (WSHFT) with The Ipswich Hospital NHS Trust (IHT) and Norfolk Community Healthcare and Care Trust (NCH&C)

Required compliance: This policy must be complied with fully at all times by the appropriate staff. Where it is found that this policy cannot be complied with fully, this must be notified immediately to the owner through the waiver process

Document owner:    Director of Nursing, Therapies and Governance
Document author:    SCH Tissue Viability Nurses
Other contact:    Clinical Effectiveness Manager
Date this version adopted:    December 2016
Reviewer:    New policy
Last review date:    N/A
Next review date:    December 2019
Location of electronic master:    SCH “S” Drive
Location of staff accessible copy:    SCH Intranet

AGREED POLICY/GUIDELINE REVIEW / RATIFICATION / ADOPTION PATH:

<table>
<thead>
<tr>
<th>Level 1:</th>
<th>Level 2:</th>
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</thead>
<tbody>
<tr>
<td>Agreed by: Tissue Integrity &amp; Appliance Group</td>
<td>Agreed by: Clinical Policy &amp; Guidelines Group</td>
</tr>
<tr>
<td>Date: October 2016</td>
<td>Date: November 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 3:</th>
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</thead>
<tbody>
<tr>
<td>Agreed by: Clinical Quality &amp; Patient Safety Assurance Group</td>
</tr>
<tr>
<td>Date: December 2016</td>
</tr>
</tbody>
</table>

Name and Title of people who carried out the EQIA:
Jan Murton, TVN

Name of Director who signed EQIA:
Pamela Chappell

Date EQIA completed: December 2016

Signature of Director:

Date EQIA signed: December 2016
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1 Introduction

1.1. Negative Pressure Wound Therapy (NPWT) is an advanced wound healing therapy designed to apply below normal atmospheric pressure at a wound site to improve the wound care outcomes. It can be used on chronic or acute wounds and depends on the assessment.

1.2. These guidelines are intended for use by health care professionals within Suffolk Community Healthcare who manage patient’s wounds with NPWT.

1.3. All health care professionals are accountable for their own practice. Care provided to patients treated with NPWT should be both cost and clinically effective. Health care professionals should involve both patients and their carers when possible in clinical decision making.

1.4. It is important that all health care professionals have sufficient knowledge and understanding of the principles and application of NPWT. Training is available locally - please contact the Tissue Viability service for details.

1.5. For patients within the community where NPWT is to be initiated a referral should be made to the Tissue Viability team for assessment.

2 Purpose of Policy

2.1. The purpose of this document is to support the continual improvement of care by the implementation of consistent and recognised best practice in the use of NPWT.

3 Definitions

3.1. NPWT: Negative Pressure Wound Therapy

3.2. TVN: Tissue Viability Nurse

4 Evidence Base

4.1. These guidelines have considered international and national best practice guidelines (EWMA, 2007, Birke-Sorensen et al, 2011, Vig et al, 2011)

4.2. The guidelines have been reviewed by the Provide Tissue Viability Link Practitioner Group and will be communicated to all relevant staff via local training and education and available on the Provide intranet.
5 Policy agreement path

See front sheet

6 Management of NPWT within SCH

6.1. This policy applies to the management of NPWT for patients receiving care from Suffolk Community Healthcare.

a) Inclusions: patients who meet the district nursing referral criteria and are receiving nursing care from SCH and patients referred from out of area hospitals.

b) Exclusions: Nursing Home patients and patients under the care of practice nurses

c) Initiation of NPWT in the community: All staff to refer patient to TVN for wound assessment for suitability for NPWT (see appendix 1)

d) Changeover of NPWT from acute to primary care: patient referral to be received from acute services to SCH and SCH staff to ensure funding and NPWT consumables are provided for 2 weeks following hospital discharge. SCH staff to follow SCH guidelines for continuation of treatment see appendix 2

6.2. Continuation of treatment: all patients receiving NPWT to be reviewed at each dressing change to ensure NPWT is suitable for wound management.

a) Wound assessment templates to be completed on patient record and if NPWT to continue a request to continue therapy to be submitted to TVN for approval (see appendix 1).

b) Measuring the wound depth, width and length considering continuing with the treatment if decrease in wound measurements using the wound assessment template on SystmOne.

c) Observing the granulation tissue and colour, this should appear beefy red as healthy granulation tissue.

d) Observing wound margins ensuring they remain healthy

e) Exudate levels should decrease as the treatment is effective

f) Monitoring the colour of the exudate is important. An increase in bright, red blood or unusual coloured exudate i.e. faecal in the tubing or canister requires investigation and treatment should be discontinued immediately and advice sought

6.3. Discontinuation of treatment: all patients receiving NPWT to be reviewed at each dressing change and wound assessment templates to be completed on SystmOne.

a) If there is no evidence of wound healing or NPWT no longer appropriate due to patient concordance or other contra-indication then NPWT to be stopped following SCH process. See appendix 1. Nurse stopping treatment to ensure company contacted and hire charge stopped and collection of device arranged. When to discontinue NPWT

b) If frank blood appears in the canister and inform the lead clinician

c) When the goal of the therapy has been met

d) If no progression is made in two consecutive weeks

e) the wound should be reassessed for possible cause

f) At the patient’s request and should be documented in patients clinical record

g) Reassess the wound using the TIME framework and formulate a new appropriate care plan observing local wound management guidelines and formulary.
7 Roles and Responsibilities

7.1. This policy applies to every employee of Suffolk Community Healthcare (SCH) involved in the care of patients who are receiving NPWT.

7.2. All clinical staff involved in the assessment and treatment of patients with a wound should consider the appropriate use of NPWT as outlined within this clinical guideline.

7.3. The Director of Nursing & Quality, on behalf of the Chief Executive, will ensure that a comprehensive policy for NPWT within SCH is developed, agreed and reviewed.

7.4. Local Area Managers:
   a) Will ensure that the policy is implemented within their area of responsibility
   b) Will ensure the provision of pressure reducing/relieving equipment within their areas taking clinical effectiveness, educational requirements of staff and financial factors into account

7.5. Team Leads:
   a) Will ensure all staff within their areas are aware of and understand the policy
   b) Will ensure compliance with the audit requirements of the policy
   c) Will investigate failure to comply with the policy
   d) Will take managerial action to prevent recurrence of reported incidents
   e) Will ensure that all staff are aware of the policy and adhere to it
   f) Will identify training needs and ensure staff are appropriately trained in NPWT management, and will record all training
   g) Will ensure the Local Area Manager is aware of all incidents/failures to comply with the policy

7.6. All Staff:
   a) Will adhere to the SCH policy
   b) Will use the information provided at clinical level to ensure correct and appropriate use of NPWT and use this in a safe manner assessing risk as part of patient care
   c) Will identify their training need and make their manager aware of training deficit
   d) Will maintain personal records of all training
   e) Will report all clinical incidents around NPWT

7.7. Tissue Viability Nurse
   a) Will be responsible for the assessment of wound suitability for NPWT
   b) Will be responsible for the assessment and authorisation of continuation of NPWT
   c) Will be responsible for co-ordinating the audit of TNPWT and the collation of data on behalf of the organisation
   d) Will ensure clinical practice is developed in line with evidence and best practice guidance

8 Monitoring

8.1. Effective use and adherence to the guidelines will be monitored on an on-going basis via the patient’s electronic records NPWT care plan on SystmOne.

8.2. Periodic audits will be undertaken to further scrutinise clinical practice in relation to NPWT.
9 Dressing application (canister-based system)

9.1. For Clinical Guidelines for NPWT use, NPWT pressure setting and filler selection, Guidelines on dressing change (see appendices 4 - 7 )

9.2. Dressings and techniques may vary depending on the product. Always read manufacturers guidance.

9.3. Gauze and drain dressing technique:
   a) Thoroughly irrigate the wound with normal saline
   b) Dry the peri-wound area thoroughly
   c) Apply skin barrier preparation to peri-wound area
   d) For fragile or excoriated skin a thin protective layer dressing can be applied to peri-wound area for protection (e.g. thin hydrocolloid or vapour permeable adhesive film dressing)
   e) Use appropriate filler, dressing/drain according to assessment
   f) If appropriate trim the contact layer from pack to apply to the base of the wound
   g) Moisten the gauze filler (only) with saline and gently place some into wound cavity filling under mining areas and tunnels

9.4. If using soft port:
   a) Cut a small hole (no less than 2cm) in the centre of the film, over the gauze remove any loose transparent film and dispose.
   b) Remove the adhesive backing panel from the soft port dressing and apply directly over the hole in the film

9.5. If using a wound drain:
   a) Cut the appropriate drain to the required size to fit into the margins of the wound
   b) Sandwich drain in between filler ensuring drain does not touch the fragile tissue of the wound ( The channel drain is the only drain that can be applied directly into the wound bed)
   c) Secure the drain at the wound margin with paste supplied in pack
   d) Apply drape suitable cut to cover the wound with a 3-5cm border
   e) Cutting drape in strips and over lapping will aid in applying easily
   f) Seal around tubing with paste or tape as necessary
   g) Connect the tubing to the device via the canister tubing

9.6. Foam and soft port dressing technique:
   a) Thoroughly irrigate the wound with normal saline
   b) Dry the peri-wound area thoroughly
   c) Apply skin barrier preparation to peri-wound area
   d) For fragile or excoriated skin a thin protective layer dressing can be applied to peri-wound area for protection (e.g. thin hydrocolloid or vapour permeable adhesive film dressing)
   e) If appropriate trim the contact layer from pack to apply to the base of the wound
   f) Use appropriate size foam filler, cut to the shape and size of the wound
g) Cut a small hole (no less than 2cm) in the centre of the film, over the gauze remove any loose transparent film and dispose.

h) Remove the adhesive backing panel from the soft port dressing and apply directly over the hole in the film DO NOT stretch drape over skin.

9.7. Portable devices may be carried safely by the patient in a suitable carrier.

10 Dressing application (canister-free dressing-type system)

10.1. Thoroughly irrigate the wound with normal saline

10.2. Dry the peri-wound area thoroughly

10.3. Apply skin barrier preparation to peri-wound area

10.4. Use appropriate filler for wounds no deeper that 2cm

10.5. Moisten the filler with saline if using gauze and gently place some into wound cavity covering under mining areas and tunnels

10.6. Select an appropriate sized dressing ensuring the wound is no more that 25% of the pad area.

10.7. Ensure the device can be carried safely by the patient in a pocket or suitable carrier.

10.8. Once a seal is achieved turn on the device and check the appropriate pressure setting on canister based systems is selected or on non-canister based system check the indicator light is on demonstrating the device is working

11 Disconnecting the device

11.1. It is not recommended the device is disconnected for any length of time as this will affect the outcome of the treatment and exudate will pool in the wound.

11.2. If disconnection is required for canister based systems:
   a) Close the clamp on the dressing drain
   b) Separate canister drain and dressing by disconnecting them at the connector
   c) Allow the device to pull the exudate into the canister then close the cap on the canister tubing and switch off the device

11.3. NB for canister free devices the device can be switched off and the tubing disconnected from the battery unit for a short period of time e.g. for showering and then reconnected and switched back on.

12 Dressing changes for canister based systems

12.1. Follow the procedure above for disconnecting the NPWT:
   a) Wait 15-20 minutes to allow for the filler to decompress
   b) Stretch the drape horizontally and slowly from the skin. DO NOT peel
   c) Gently remove filler from the wound simultaneous irrigating with saline if necessary
   d) Discard dressings as per local guidelines

12.2. If the dressing is accidently removed apply a suitable appropriate dressing and notify a trained member of staff to replace NPWT as soon as possible
13 Cross-reference to other related policies

13.1. SCH Record Keeping Policy
13.2. SCH Pressure Ulcer Policy
13.3. SCH Consent Policy

14 References

### TVN Referral Form: Negative Pressure Wound Therapy Initiation or Continuation of Treatment (NPWT)

#### Patient details

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Address:</td>
</tr>
<tr>
<td>D.O.B:</td>
<td></td>
</tr>
<tr>
<td>Postcode:</td>
<td>Telephone:</td>
</tr>
<tr>
<td>NHS No:</td>
<td></td>
</tr>
<tr>
<td>Does this person live alone: Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is this person House Bound: Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Reason for referral

- [ ] Assessment for commencement of NPWT
- [ ] Complete all sections of form
- [ ] Continuation of NPWT

#### Complete wound assessment details and any relevant info

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site of wound</td>
<td>Aetiology of wound</td>
</tr>
<tr>
<td>Width</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td></td>
</tr>
<tr>
<td>Tissue Type</td>
<td></td>
</tr>
<tr>
<td>Rational for request for assessment</td>
<td></td>
</tr>
</tbody>
</table>

- [ ] Wound assessment; to be completed if this is continuation of NPWT request

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td></td>
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<tr>
<td>Depth</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td></td>
</tr>
<tr>
<td>Tissue type</td>
<td></td>
</tr>
<tr>
<td>Rationale for continuation of treatment</td>
<td></td>
</tr>
</tbody>
</table>

#### Date of referral:

- [ ] Referring Person:
- [ ] Contact number:

**Team Locality:**
<table>
<thead>
<tr>
<th>Condition</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension/CVA/M.I</td>
<td></td>
</tr>
<tr>
<td>Cellulitis present or infection</td>
<td></td>
</tr>
<tr>
<td>Major Surgery</td>
<td></td>
</tr>
<tr>
<td>Diabetes/Rheumatoid arthritis</td>
<td></td>
</tr>
<tr>
<td>Recurrent cellulitis</td>
<td></td>
</tr>
<tr>
<td>Vein Surgery / DVT</td>
<td></td>
</tr>
<tr>
<td>Other significant medical history</td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td>Has patient been patch tested? Yes / No</td>
</tr>
</tbody>
</table>

**Past nursing information: continue on other sheet if needed**

- Last Doppler results, date, where carried out by whom if a leg ulcer:
- Interventions to date, dressing used etc.:
- Medication:

**Other Information**

<table>
<thead>
<tr>
<th>Duration of Ulcer/wound:</th>
<th>Previous Ulceration/wound problems:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Last swab result</td>
<td></td>
</tr>
<tr>
<td>Action taken:</td>
<td></td>
</tr>
<tr>
<td>(not needed routinely)</td>
<td></td>
</tr>
<tr>
<td>Send/attach current wound assessment tool and or leg ulcer care pathway please</td>
<td></td>
</tr>
<tr>
<td>Has there been any hospital admission in the last 1 – 2 years relating to leg ulceration/ cellulitis/wound care related problems?</td>
<td></td>
</tr>
<tr>
<td>Have there been any problems with past treatments tried? E.g. Concordance, or issues</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Are there any other services involved with the patient? E.g. District</td>
<td>District Nurse, Practice Nurses, Community Matron.</td>
</tr>
<tr>
<td>Nurse, Practice Nurses, Community Matron.</td>
<td></td>
</tr>
<tr>
<td>Have you referred to any other service?</td>
<td></td>
</tr>
<tr>
<td>Type of appointment required: Home visit or Leg Clinic</td>
<td></td>
</tr>
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</table>

Please return this form either by post to Jan Murton / Anna Taylor Tissue Viability Nurse.
Stow Lodge, Chilton Way, Stowmarket, IP14 1SZ
Tel. 07984290083 or email tissueviability@suffolkch.nhs.uk
Appendix 2: Pathway for patients requiring NPWT in the Community

Community staff to email referral and wound assessment to the tissue viability nurse at tissueviability@suffolkch.nhs.uk.

Appendix 7 Tissue viability team will contact community nurse to arrange a clinical assessment by tissue viability nurse

TVN to assess wound for NPWT

Wound suitable for NPWT therapy

Yes

Tissue viability nurse will supply pump with appropriate dressings for the first dressing change. Patient and nurse to be given NPWT information and contact numbers.

NPWT consumables to be ordered via FP10 prescription

Care plan to be completed on SystmOne patient record throughout the duration of therapy to monitor effectiveness of treatment

Patient to be reviewed every 2 weeks by community nurse or sooner using Wound assessment template on SystmOne. Following wound assessment if clinically indicated to continue with NPWT a continuation of treatment request to be submitted to the tissue viability nurse (Appendix 1). The decision to stop therapy should be in agreement with tissue viability nurse and community nurse

Wound suitable for disposable NPWT

Yes

Consider onward referral or further investigation of delayed wound healing

No

Tissue viability to recommend appropriate wound management

Nurse to contact tissue viability nurse if further advice required tissueviability@suffolkch.nhs.uk

Following the discontinuation of NPWT nurse to contact company to cease hire and arrange collection of device by company. Pump and accessories to be returned in an acceptable and clean condition. Disposable units to be discarded in accordance with SCH Clinical Waste Policy
Appendix 3: Pathway for changeover of NPWT from hospital to home

1. Referral from acute hospital to SCH for patient to be discharged with NPWT. Community tissue viability nurse to be informed of proposed discharge.

2. Acute services TVN to contact community nursing team to establish if any training requirements for team, confirm patient discharge date, date of expiry of current funding arrangements and the pump serial number. The patient should be discharged with sufficient dressings and canisters for 14 days.

3. Community nurse to visit patient as arranged and complete a wound assessment to include photographs and wound measurements. All assessments to be included on electronic patient record.

4. Dressings and canisters to be requested via FP10 prescription.

5. Care plan to be completed on SystmOne patient record throughout the duration of therapy to monitor effectiveness of NPWT.

6. Patient to be reviewed at 2 weeks by Community Nurse or sooner if clinically indicated using the Wound assessment template on SystmOne and if continuation of NPWT is required a request to be submitted to tissue viability nurse for approval. (appendix 1)

7. Is treatment to continue?
   - Yes: Tissue viability nurse to inform company to transfer hire charges to SCH. Patient to be reviewed at 2 weeks or sooner if clinically indicated using wound assessment template on SystmOne. If continuation of treatment is indicated a request to be submitted to the tissue viability nurse for approval to continuation of treatment. Canisters and dressings to be requested via FP10.
   - No: Tissue viability to recommend appropriate wound management.

8. Following the discontinuation of treatment nurse to contact the company and cease hire charge and arrange collection of device by company. Pump and accessories to be returned in an acceptable and clean condition. Disposable units to be dispose of in accordance with SCH clinical waste policy.
Appendix 4: Clinical Guidelines for NPWT use

<table>
<thead>
<tr>
<th>Description</th>
<th>Mode of action</th>
<th>Indications</th>
<th>Precautions</th>
</tr>
</thead>
</table>
| • NPWT applies sub-atmospheric at a wound site and can improve the wound care outcomes in chronic or acute wounds. | NPWT optimises healing by:  
- Remove exudates and reduce localized oedema  
- Increased vascular perfusion  
- Increase angiogenesis  
- Promote granulation tissue  
- Reduce the size of the wound  
- Optimize wound bed preparation  
- Create a closed moist wound environment  
- Reduce bacterial bio burden  
- Encourages maturation of epithelial cells  
- Stimulates cell proliferation  
- Protects from external contaminants | NPWT can be used on chronic and acute wounds and is indicated in a number of different wounds:  
- Post-operative and dehisced surgical wounds  
- Pressure ulcers  
- Diabetic/neuropathy ulcers  
- Trauma wounds  
- Skin flaps and grafts  
- Venous leg ulcers  
- Explored fistulae  
- Cavity wounds with high levels exudates  
- Wounds failing to progress by traditional methods | • Precautions should be taken when applying NPWT in:-  
- Malnourished patients  
- Patients with neuropathic aetiologies or circulatory problems  
- Non-concordant patients  
- Infected wounds (see specific guidance on use of NPWT infection)  
- Wounds with exposed tendons and close to blood vessels or vital organs.  
- Extra precautions should be taken in patients  
- Receiving anticoagulation  
- Haemophilia  
- Sickle cell disease  
- Patients at risk of bleeding  
- Patients unable to tolerate high fluid loss. |

- It is commercially available in two common formats:  
  ➢ A canister-based systems  
  ➢ A canister-free dressing system
<table>
<thead>
<tr>
<th>Contra-indications</th>
<th>Infected Wounds</th>
<th>Patient Preparation</th>
<th>Consent</th>
</tr>
</thead>
<tbody>
<tr>
<td>• NPWT is contraindicated in the presence of:</td>
<td>• TNP can be used on infected, colonised or critically colonised wounds provided the infection is being managed</td>
<td>• Prior to commencing NPWT is important the patient is prepared and the procedure and the benefits of the therapy are clearly explained to involve the patient in the decision of commencing NPWT for their wound so they are able to give informed consent.</td>
<td></td>
</tr>
<tr>
<td>➢ Previously confirmed and untreated osteomyelitis</td>
<td>• Treatment for infection should be appropriate and as per local wound infection management pathway</td>
<td>• A holistic assessment of the patient and the wound must be undertaken using the local documentation prior to considering NPWT</td>
<td></td>
</tr>
<tr>
<td>➢ Patients with a malignancy in the wound bed or margins of the wound (except for</td>
<td>• Patients should be monitored for clinical signs and symptoms of wound infection and any changes should be documented within the system one template</td>
<td>• Consider the following: -</td>
<td>• To allow for the patient give their informed consent please ensure the following are discussed:</td>
</tr>
<tr>
<td>palliative care to enhance quality of life)</td>
<td>• If infection is present additional treatments may be required including both local and systemic measures and should be instigated as clinically necessary</td>
<td>➢ Is NPWT a suitable therapy for the patient being considered?</td>
<td>➢ How the NPWT works</td>
</tr>
<tr>
<td>➢ Non-enteric and unexplored fistulae</td>
<td>• Exudates levels may increase in the presence of infection and the dressing and/or canister may therefore require more frequent changing</td>
<td>➢ Is the patient likely to be concordant with the therapy?</td>
<td>➢ The objective of NPWT</td>
</tr>
<tr>
<td>➢ Necrotic tissue or eschar is present in the wound (appropriate debridement of</td>
<td></td>
<td>➢ Will the therapy adversely impact on patient safety? (e.g. trip hazard, pressure ulcer risk)</td>
<td>➢ The impact of NPWT on the progression of the wound</td>
</tr>
<tr>
<td>the tissue is necessary prior to commencing NPWT, small amounts of slough will</td>
<td></td>
<td>➢ Will the patient be likely to remove and/or interfere with the dressing/device? (e.g. mental health patient)</td>
<td>➢ The outcome if NPWT is not used</td>
</tr>
<tr>
<td>autolysed during treatment)</td>
<td></td>
<td>➢ Will NPWT be acceptable to the patient and compatible with their lifestyle and wellbeing?</td>
<td>➢ Alternative treatments</td>
</tr>
<tr>
<td>➢ Exposed arteries, veins, blood vessels, nerves or organs.</td>
<td></td>
<td>➢ Consider whether the patient would be most suited to a canister-based or canister-free system</td>
<td>➢ Any side effects</td>
</tr>
<tr>
<td>➢ Anastomotic sites.</td>
<td></td>
<td>➢ Is the wound location suitable for NPWT?</td>
<td>➢ The impact of NPWT on quality of life</td>
</tr>
</tbody>
</table>
take measures to stop bleeding. Do not resume therapy without consultation of the lead clinician.

- Minimum of twice weekly dressing changes required unless specified otherwise by the lead clinician
- Exudate levels to be closely monitored and documented
- If a canister-based system is used a small canister should be used at all times
- Progress must be reviewed within the first week

<table>
<thead>
<tr>
<th>Will it be possible to achieve a seal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure the port, tubing and device can be located in an area which will minimise the risk of pressure damage.</td>
</tr>
<tr>
<td>A pain assessment should be completed prior and during treatment and addressed accordingly stopping the treatment if necessary</td>
</tr>
</tbody>
</table>
Appendix 5: Commencement of NPWT

- The following should be established and documented in the clinical record at the start of NPWT:
- Clearly defined treatment goal
- Start date
- Clinical condition of the wound including anatomical position of the wound, condition of the wound bed, percentages of tissue types, and wound dimensions must be documented using the wound assessment template on SystmOne.
- Clinical photograph to be taken of wound and uploaded to electronic patient record with patient consent.
- Choice of NPWT system and wound interface
- NPWT pressure settings (see guidance below)
- Frequency of dressing change.
- Ensure the port, tubing and device can be located in an area which will minimise the risk of pressure damage.
- A pain assessment should be completed prior and during treatment and addressed accordingly stopping the treatment if necessary
- Review date should be set on care plan
- For NPWT pressure setting and filler selection see appendix 5
## Appendix 6: NPWT Pressure settings and filler selection

<table>
<thead>
<tr>
<th>Wound Type</th>
<th>Suggested filler</th>
<th>Pressure setting (mmHg)</th>
<th>Wound contact layer</th>
<th>Special considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute/traumatic</td>
<td>Gauze or foam</td>
<td>80 to 120</td>
<td>If tendon, bone, and/or other fragile structures are exposed</td>
<td>Infected wounds and fragile structures should be protected and care taken to avoid desiccation of tendon if exposed</td>
</tr>
<tr>
<td>Partial thickness abdominal (muscle intact)</td>
<td>Foam</td>
<td>80 to 120</td>
<td>Not required unless adhesion occurs</td>
<td>Layer the filler into the wound to ensure it fits the cavity from the bottom up to ensure contact with the wound margins</td>
</tr>
<tr>
<td>Full thickness abdominal (muscle intact)</td>
<td>Decompression</td>
<td>Abdominal dressing with OPL 60 to 120</td>
<td>OPL large enough to cover all fragile structures should be used</td>
<td>The lead clinician must take full responsibility for treatment choices and materials/method of NPWT and pressure setting used</td>
</tr>
<tr>
<td>Healing by secondary intention</td>
<td>Gauze</td>
<td>60 to 120</td>
<td>Essential to protect exposed fragile structures</td>
<td>Use a single layer of wound contact layer to ensure any fragile structures are protected and to ensure it is removed and replaced at each dressing change. Extra care should be taken when patients have inflammatory bowel disorders/infected/inflamed bowel. Lead clinician must be consulted prior to commencement of therapy</td>
</tr>
<tr>
<td>Pressure ulcers</td>
<td>Gauze</td>
<td>60 to 80</td>
<td>Yes if tendon/bone exposed</td>
<td>Always address underlying aetiology and factors affecting healing – if slough or necrosis present debride prior to commencement of NPWT or consider using foam</td>
</tr>
<tr>
<td>Diabetic foot ulcers post-surgery</td>
<td>Gauze</td>
<td>60 to 80</td>
<td>Yes if tendon/bone exposed</td>
<td>Dressing should be placed as soon after surgery as is practical once haemostasis is achieved</td>
</tr>
<tr>
<td>Diabetic foot ulcers</td>
<td>Gauze or foam</td>
<td>60 to 80</td>
<td>Yes if tendon/bone exposed</td>
<td>Sharp debridement of any devitalized tissue should occur prior to placement of NPWT</td>
</tr>
<tr>
<td>Meshed grafts/bioengineered tissue</td>
<td>Gauze</td>
<td>50 to 80</td>
<td>Yes to avoid adherence of filler to the graft</td>
<td>Dressings are typically removed after 5 days or as per clinician instructions</td>
</tr>
<tr>
<td>Situation</td>
<td>Dressing</td>
<td>Pressure Range</td>
<td>Considerations</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Flaps</td>
<td>Gauze</td>
<td>50 to 80</td>
<td>Yes to avoid adherence of filler to the graft. Dressings are typically removed after 5 days or as per clinician instructions</td>
<td></td>
</tr>
<tr>
<td>Dehisced surgical wounds</td>
<td>Foam</td>
<td>80 to 120</td>
<td>If tendon, bone, and/or other fragile structures are exposed. Consideration should be taken to debride any devitalized tissue prior to commencement of NPWT.</td>
<td></td>
</tr>
<tr>
<td>Chronic wounds</td>
<td>Gauze</td>
<td>80</td>
<td>Yes if tendon/bone exposed. Always address underlying aetiology and factors affecting healing.</td>
<td></td>
</tr>
<tr>
<td>Enteric fistula explored</td>
<td>Gauze or foam</td>
<td>80</td>
<td>Yes to protect exposed fragile structures. Contact tissue viability service.</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Smith & Nephew Negative Pressure wound Therapy Clinical Guidelines 2013

The guidelines on the therapy settings are general recommended as 80mmHg to 120mmHg with the devices used locally. The settings may need to be varied depending on the patients need and the advice of the lead clinician.

The settings may be titrated up by 10mmHg when:-
Where the patient is a child and the starting pressure is 50mmHg
High levels of exudates
Large wound volume
Positioning difficulties with maintaining a seal.

High Pressures may cause tissue necrosis and an increase in pain. Careful consideration and consultation is to be sought by the lead clinician if the setting is to exceed 120mmHg.

The settings may be titrated down by 10mmHg when:-
Pain or discomfort is experienced by the patient.
The patient is elderly or nutritionally compromised
Risk of excessive bleeding (patient on anticoagulation)
The circulation is compromised
There is excessive granulation tissue growth.
Appendix 7: General Guidance on dressing change of NPWT

- Only dressings that are from a sterile pack are to be applied that are within the expiry date, have not been damaged or open.
- Do not force dressings into wounds as this may cause damage to tissue or hinder the removal of exudate.
- Do not over pack the wound filler into the cavity and ensure the filler does not overlap onto the peri-wound or intact skin.
- It is not advisable to put pieces of dressings into wounds as these may be left in situ longer than the recommended time and may foster tissue growth or lead to infection. If this is unavoidable it is paramount the number of pieces of dressing placed in the wound should be documented on patients notes and counted on removal.
- Do not place over exposed organs or blood vessels. If necessary use the wound contact layer prior to filler.
- Monitor patient and ensure patient/carers is able to manage device if the alarm sounds.
- The pump should remain on whilst dressings in place.
- Ensure the patient is not lying on the tube and the skin is protected if across the skin.
- When showering or bathing the pump is disconnected and the clips closed on the drain for a short period only.
- Due to the exposure of body fluids refer to the local guidelines on the use of aseptic non touch technique and infection prevention policy and procedures.
- Some patients may have a known allergy to the acrylic adhesive used in the drape therefore do not use. If the patient develops redness or a rash or significant pruritus discontinue NPWT and consult GP.
Appendix 8: Useful Tips and Troubleshooting

- To prevent adherence to wound use a contact layer
- If the dressing is difficult to remove introduce sterile saline into the dressing or down the drain and leave in situ for 5-10 minutes
- Give analgesia if appropriate prior to dressing change
- Ensure peri-wound area is dry before applying drape
- Maintain a seal using drape and adjunctive products including gel strips and silicone filler if necessary
- Attempt to have the drain flat and observe for bony prominences
- If necessary secure drain/soft port with tape or drape to ensure it does not pull away from the wound and break the seal
- Devices can be cleaned with appropriate wipes (clini-wipes) as per local guidelines to decontaminate canister based devices between patient use
- Safety alarms
  - All devices are equipped with audible and visual alarms which make it easier to problem solve.
  - Low vacuum – The pressure may be low due to a leak in the dressing, tubing, or canister. This can be resolved checking the seal on the dressing and making sure the canister is connected to the device correctly.
  - High vacuum - if the device exceeds the safe levels of pressure the device will stop acting automatically and will power off; contact the product supplier for advice and seek an alternative device.
  - Canister full alarm will require the canister to be changed.
  - Line blocked alarm will alert that there is a blockage in the line, flush with saline if this does not resolve consider changing canister and lastly the dressing
  - Low battery alarm, will indicate the battery is low and requires plugging into the mains to charge the device.
  - Canister free NPWT will be audible if the seal is broken. The light on the device will continue to flash when working appropriately. Should the device stop working check the battery compartment. The pump device will expire after 7 days use state date on pump initiation.
  - Batteries to be recycled where possible or disposed of safely.
  - Canister free device pump to be disposed of after expiration following 7 days use.
Appendix 9: Equality Impact Assessment Tool

Any identified potential discriminatory impact must be identified with a mitigating action plan to address avoidance/reduction of this impact. This tool must be completed and attached to any SCH approved document when submitted to the appropriate committee for consideration and approval.

Name of Policy:

<table>
<thead>
<tr>
<th>Equality Impact Assessment Tool</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the policy affect one group less or more favourably than another on the basis of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Ethnic origins (including gypsies and travellers)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Religion or belief</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sexual orientation including lesbian, gay and bisexual people</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Disability - learning disabilities, physical disability, sensory impairment and mental health problems</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2. Is there any evidence that some groups are affected differently?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3. If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>4. Is the impact of the policy/guidance likely to be negative?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>5. If so can the impact be avoided?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>6. What alternatives are there to achieving the policy/guidance without the impact?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>7. Can we reduce the impact by taking different action?</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>