# Negative Pressure Wound Therapy Guidance

<table>
<thead>
<tr>
<th>Lead executive</th>
<th>Director of Nursing, Therapies Patient Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors details</td>
<td>Tissue Viability Specialist Nurse - Tissue Viability 01244 389 248</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of document</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target audience</td>
<td>All clinical staff within West Physical Health</td>
</tr>
<tr>
<td>Document purpose</td>
<td>Guidance for staff within CWP West Physical Health for the use of Negative Pressure Wound Therapy (NPWT).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approving meeting</th>
<th>Clinical Practice &amp; Standards Sub-Committee (Chair’s Action)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation date</td>
<td>30-Apr-20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CWP documents to be read in conjunction with</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR6</td>
</tr>
<tr>
<td>IC3</td>
</tr>
<tr>
<td>HS1</td>
</tr>
<tr>
<td>IC2</td>
</tr>
<tr>
<td>IC8</td>
</tr>
<tr>
<td>CP3</td>
</tr>
</tbody>
</table>

## Document change history

<table>
<thead>
<tr>
<th>What is different?</th>
<th>New document</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The guidance has been developed as the process for obtaining both equipment and consumables has changed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appendices / electronic forms</th>
<th>Have appendices been added, or changed since the last issue, if so explain the reasons why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the impact of change?</td>
<td>Easier access of obtaining equipment</td>
</tr>
</tbody>
</table>

## Training requirements

| No - Training requirements for this policy are in accordance with the CWP Training Needs Analysis (TNA) with Education CWP. |

## Document consultation

<table>
<thead>
<tr>
<th>Clinical Services</th>
<th>Who within this service have you spoken to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate services</td>
<td>Who within this service have you spoken to</td>
</tr>
<tr>
<td>External agencies</td>
<td>Who within this service have you spoken to</td>
</tr>
</tbody>
</table>

| Financial resource implications | None |

## External references

(pressure levels, wound filler and contact layer) – Steps towards an international consensus. Journal Of Plastic, Reconstructive & Aesthetic Surgery, 64, S1-S16.


<table>
<thead>
<tr>
<th>Equality Impact Assessment (EIA) - Initial assessment</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does this document 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>Is there any evidence that some groups are affected differently?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable?</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Is the impact of the document likely to be negative?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- If so can the impact be avoided?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- What alternatives are there to achieving the document without the impact?</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>- Can we reduce the impact by taking different action?</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Where an adverse or negative impact on equality group(s) has been identified during the initial screening process a full EIA assessment should be conducted.

If you have identified a potential discriminatory impact of this procedural document, please refer it to the human resource department together with any suggestions as to the action required to avoid / reduce this impact. For advice in respect of answering the above questions, please contact the human resource department.

| Was a full impact assessment required? | No |
| What is the level of impact? | Low |
Contents

Quick reference flowchart 1 – Negative Pressure Wound Therapy Procedure ............................................. 4
Quick reference flowchart 2 – Dressing Removal ....................................................................................... 5
Quick reference flowchart 3 – Procedure for dressing application ......................................................... 6
Quick reference flowchart 4 – Procedure when using foam as a filler ....................................................... 8
Quick reference flowchart 5 – Procedure for ongoing canister change ................................................... 9
Quick reference flowchart 6 – Return of devices once therapy has been discontinued ....................... 10

1. Introduction ............................................................................................................................................. 11
2. Negative Pressure Wound Therapy ..................................................................................................... 11
3. Duties, Roles and Responsibilities ......................................................................................................... 11
  3.1 Tissue Viability Team ....................................................................................................................... 11
  3.2 Clinical Staff ...................................................................................................................................... 11
4. Scope ..................................................................................................................................................... 11
5. Indications for use of the clinical guideline ......................................................................................... 11
6. Training .................................................................................................................................................. 11
7. Clinical benefits of Negative Pressure Wound Therapy ................................................................. 12
8. Clinical indications ............................................................................................................................... 12
  8.1 Clinical contraindications .................................................................................................................. 12
  8.2 Clinical Precautions .......................................................................................................................... 13
  8.4 Additional precautions ....................................................................................................................... 13
  8.5 Precautions specific to the Renasys Go device .................................................................................. 13
9. Assessment, patient information and informed consent .................................................................. 14
10. Equipment ............................................................................................................................................... 14
  10.1 Choosing a wound filler and interface .......................................................................................... 15
11. Collection of clinical waste for disposal of dressings and canisters .............................................. 15
12. Issues with dressing ............................................................................................................................. 15
  12.1 If dressing adheres to the wound base ............................................................................................ 16
  12.2 If the dressing does not collapse ...................................................................................................... 16
  12.3 If the patient experiences discomfort during dressing changes or NPWT .................................. 16
  12.4 Other considerations ....................................................................................................................... 16
13. Discontinuation of NPWT .................................................................................................................... 17
14. Obtaining Equipment ........................................................................................................................... 17
Quick reference flowchart 1 – Negative Pressure Wound Therapy Procedure
For quick reference the guide below is a summary of actions required.

1. Confirm identity of patient, asking for full name and D.O.B. Clarify identity with cares’ if the patient is not able to do so.

2. Explain the procedure to the patient, obtain valid consent and document in patients’ health record (NMC, 2018).

3. Assess the need for pain relief and administer prior to procedure, if required

4. Position the patient comfortable, to ensure safety and enable easy access to, and good visibility of the wound
Quick reference flowchart 2 – Dressing Removal

Press ON/OFF button on unit

Decontaminate hands prior to procedure

Apply single use disposable apron and single use disposable non-sterile gloves

Separate the canister and dressing tubing by pressing the orange quick clip adaptor. Use the bung at the each of the tubing to secure

Gently stretch and release drape to deactivate adhesive, and slowly remove from skin

Gently lift dressing from wound bed. NB: If it adheres to the wound bed, soak dressing off using warmed, sterile, normal saline and consider applying non-adherent contact layer to wound bed for the next dressing change

Remove and dispose of Personal Protective Equipment to comply with Waste Management policy (HS1)

Decontaminate hands following removal of Personal Protective Equipment
**Quick reference flowchart 3 – Procedure for dressing application**

1. Decontaminate hands prior to procedure
2. Prepare all equipment and open sterile dressing pack onto a clean field and place all sterile single use equipment required within the sterile field
3. Apply single use disposable apron. Apply non-sterile single use disposable gloves and follow procedure for dressing removal
4. Complete wound assessment and record wound dimensions on wound assessment chart, if possible, photograph wound. Remove gloves and decontaminate hands
5. Apply single use disposable sterile gloves in a manner which prevents the outer surface of the sterile glove being touched by a non-sterile item
6. Cleanse wound and peri-wound area, if required, by irrigating with warm sterile saline
7. Ensure surrounding skin is dry and apply non-sting skin barrier to peri wound skin. Allow the skin to dry prior to the placement of the transparent film.
8. If desired line the wound with a single layer of non-adherent wound contact material (document that liner has been used). A wound contract layer must be used in the following circumstances:
   - Foam is being used a filler for NPWT,
   - Wound contains exposed bone or tendon,
   - Dressing is next to exposed, anastomosed or irradiated blood vessels,
   - Dressing adheres to wound
   If using foam as a filler refer to flowchart 4
9. Remove the adhesive panel from the Renasys Soft Port dressing and alight the soft port opening directly over the transparent film. Use gentle pressure to anchor the Soft Port to the transparent film. Smooth the dressing down while removing the Renasys Soft Port's top stabilization frame.
10. Connect the Renasys Soft Port tubing to the canister tubing by pushing the quick click connections together. An audible click indicates that a connection is secure.
11. Activate the Renasys Go device to the prescribed level.
   - The recommended Therapeutic pressure range is 40 -120mmHg.
   - The decision must be based on an individual assessment of the patient and the wound.
   - **Pressure Settings:**
     - Gauze 80mmHg
     - Foam 120mmHg
   - A lower pressure of -40mmHg to -80mmHg may be used for skin grafts.
   - The pump should also be set to CONTINUOUS
12. Observe that there is no sign of air leakage when the dressing is in a collapsed state. If a leak is suspected, gently press around the tubing and drape to aid a better seal, and add drape patches if necessary
On completion of procedure remove and dispose of Personal Protective Equipment to comply with Waste Management policy (HS1)

Decontaminate hands following removal of Personal Protective Equipment

At each dressing change re-assess wound and healing rates, observe for any signs of complication and document progress towards healing in the patients notes as per the Health Records policy (CP3)

IF USING A CHANNEL OR FLAT DRAIN IN THE WOUND.

Ensure surrounding skin is dry and apply a non-sting skin barrier to peri wound skin. Allow the skin to dry prior to the placement of the transparent film.

Cut the drain approximately 2.5cm shorter than the base of the wound. Curl the drain.

Apply a layer of saline-moistened antimicrobial gauze to the wound bed and position drain on top of gauze.

For channel drain, wrap a layer of gauze around drain. Apply a strip of ostomy paste to the wound edge to secure the drain in position; place the remainder over the top of the drain and pinch in place. NOTE: If placing channel drain directly into a sinus tract, no gauze is necessary on the portion of the drain in the tract.

WARNING: Drain channels must be contained within the wound bed to achieve a seal.

Loosen and fluff gauze material prior to placement in the wound cavity. Continue to fill until gauze loosely fills the entire cavity. Avoid over packing the wound.

While holding the transparent film, expose one side of the adhesive backing by removing a single panel, and apply over the wound.

Cover the wound filler with transparent film, removing the remaining adhesive panels to seal, and then the top stabilization panel ensures film covers the strip paste.

Create a seal by pinching the strip paste. Secure the drain tubing with waterproof tape.

Film should extend at least 5cm/1.97in beyond wound margin and be securely anchored to peri-wound area to maintain a good seal.

Overlap the edges of the transparent film by a minimum of 7.5cm/2.95in when using multiple pieces of transparent film.
Quick reference flowchart 4 – Procedure when using foam as a filler

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cut the foam to fit the size and shape of the wound and place the cut foam into the wound. Do not cut the foam directly over the wound bed. After cutting the foam brush the sides to dislodge any small fragments of foam.</td>
</tr>
<tr>
<td>2</td>
<td>Avoid over packing. Foam should completely fit the wound cavity. It may be necessary to stack multiple pieces of foam in deep wounds. Caution: if multiple pieces of wound filler are needed to fill the wound cavity, count and record how many pieces are present to ensure all wound filler pieces are removed at dressing change.</td>
</tr>
<tr>
<td>3</td>
<td>While holding the transparent film, expose one side of the adhesive backing by removing a single panel and apply over the wound. Cover the gauze with transparent film; removing adhesive panels to seal then the top stabilization panel (follow the number sequence). The film should extend at least 25cm beyond the wound margin and be securely anchored to the peri-wound to maintain a good seal.</td>
</tr>
<tr>
<td>4</td>
<td>Cut a circular opening (no less than 2cm in diameter) in the centre of the film, over the wound filler. Remove any loose transparent film and dispose of away from the wound.</td>
</tr>
</tbody>
</table>
Quick reference flowchart 5 – Procedure for ongoing canister change

1. Change the canister weekly, or when full
2. Press ON/OFF button on unit
3. Decontaminate hands prior to procedure, apply single use disposable apron and single use disposable non-sterile gloves
4. Disconnect the Renasys canister tubing from the dressing tubing by pressing the orange quick clip adaptor. Use the bungs if necessary
5. Remove canister from unit and dispose of according to trust policy
6. Replace canister and replaced any closed bungs
7. On completion of procedure remove and dispose of Personal Protective Equipment to comply with Waste Management policy (HS1)
8. Ensure unit settings are correct and recommence by pressing the ON/OFF button
9. Document each canister change and level of exudate in the patients notes / as per trust policy
Quick reference flowchart 6 – Return of devices once therapy has been discontinued

Decontaminate hands, apply single use disposable apron and single use disposable non sterile gloves to decontaminate the unit, in line with Infection Control Precautions policy (IC3)

↓

Clean and detergent wipe then 70% alcohol hard surface disinfectant wipe.

↓

Dry and assemble all equipment in transfer box. This must reflect manufacturers cleaning recommendations
1. **Introduction**

Negative Pressure Wound Therapy (NPWT) has become widely used in the management of complex wounds of different aetiologies and is seen as the gold standard in the treatment of surgical wounds (European Wound Management Association (EWMA), 2017). Studies have shown that NPWT helps to reduce tissue oedema, exudate levels, and wound volume and to increase wound bed stimulation, wound edge contraction, granulation tissue formation and blood perfusion (Birke-Sorensen H et al, 2011).

These guidelines have been produced to support practitioners in Cheshire and Wirral Partnership NHS Foundation Trust involved in managing patients being treated with NPWT and will define the principle and different techniques. The key to choosing an effective wound management strategy is to undertake an appropriate holistic and wound assessment.

2. **Negative Pressure Wound Therapy**

Negative Pressure Wound Therapy (NPWT) involves the application of controlled levels of sub-atmospheric (negative) pressure to a wound. Negative pressure is applied to the wound bed through a foam or gauze contact medium using an electrically, battery or mechanically powered pump; this involves achieving an airtight, vacuum, seal and provides a moist wound environment while removing any excess fluid from the wound bed (Guy, 2012).

3. **Duties, Roles and Responsibilities**

3.1 **Tissue Viability Team**

The Tissue Viability Team is responsible for undertaking any review of the document.

3.2 **Clinical Staff**

Clinical staff are responsible for:

- Ensuring that the guidance contained herein is adhered to and followed.
- Attending relevant training sessions associated with the implementation of the guideline.
- Reporting any incidents in relation to this guideline using the Datix incident reporting system.

4. **Scope**

This guideline is used by all clinical staff employed by Cheshire and Wirral Partnership NHS Foundation Trust for the use of Negative Pressure Wound Therapy.

5. **Indications for use of the clinical guideline**

It is anticipated that through implementing this guideline it will provide consistency in practice across Cheshire and Wirral Partnership NHS Foundation Trust.

6. **Training**

This procedure must only be performed by health professionals who have received specific training in the use of negative pressure wound therapy. Tissue Viability Link Nurses will be trained as a resource in each community care team; they will have regular ongoing updates via the link nurse meetings. The Tissue Viability Link Nurses will train colleagues in their teams, as and when they have a patient requiring this clinical intervention. Training will be provided by a Smith & Nephew representative on an ad hoc basis.
7. **Clinical benefits of Negative Pressure Wound Therapy**

There are many benefits associated with the use of NPWT. These include:

- Increased local blood flow to the wound by the dilation of arterials
- Reduced tissue oedema for the removal of excess fluid
- Stimulation of granulation tissue resulting in progressive wound closure
- Stimulation of self-proliferation
- Removal of free radicals from the wound
- Removal of slough
- Reduction in wound volume
- Protection from outside contaminants
- Decrease in wound bioburden
- Maintenance of a moist wound healing environment
- Remove exudate
- Assist in wound contraction
- Increase vascular perfusion
- Remodel connective tissue matrix
- Encourage maturation of epithelial cells

Special attention to the risks of bleeding or loss of NPWT should be considered when prescribing for use in the Home Environment.

8. **Clinical indications**

NPWT may be used for the treatment of:

- 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 grafts
- Post-op surgical flap grafts
- Necrotising fasciitis
- Burns

AS WITH ALL WOUND MANAGEMENT NEGATIVE PRESSURE WOUND THERAPY SHOULD ONLY BE USED ON WOUNDS THAT HAVE BEEN THOROUGHLY AND ACCURATELY ASSESSED

8.1 **Clinical contraindications**

The use of NPWT is contraindicated if:

- Tissue eschar is present
- Untreated osteomyelitis is noted
- Exposed vital structures (i.e. blood vessels, anastomotic sites (organs and/or nerves)
- Non enterocutaneous or unexplored fistula are present
- There is malignancy in the wound (unless indicated by a consultant)
- The patient is being treated with systemic steroids
The patient is unable to understand what the therapy entails or is not concordant with the treatment
Sensitivity to silver when using silver impregnated dressings

8.2 Clinical Precautions
Precautions should be taken when using NPWT in the following cases:

- Patients receiving anticoagulant therapy or platelet aggregation inhibitors, or those who are actively bleeding or have weakened irradiated blood vessels or organs
- Malnourished patients who have not received adequate nutrition / nutritional supplements
- Infected blood vessels
- Non-compliant /combative patients
- Patients with abnormal wound hemostasis
- Patients with wounds in close proximity to blood vessels or friable fascia
- Children
- Non-concordant or combative patients
- Patients with infected wounds, as they may require more frequent dressing changes
- Patients with burns
- Patients with wounds in close proximity to blood vessels, delicate fascia, vital organs or exposed tendons (ensure adequate protection with overlying fascia, tissue or other protective barriers)
- In the presence of bone fragments, as these could puncture protective barriers, vessels or organs
- With enteric fistula that require special precautions to optimise therapy.

8.4 Additional precautions
Although not contraindicated with NPWT, extra care should be taken in patients with bleeding problems, including:

- Patients receiving long-term anticoagulant therapy
- Patients with hemophilia
- Patients with haemoglobinopathies, such as sickle cell disease
- Dressings, unless using protective lining precaution, are placed directly over exposed vital structures (i.e., tendons, ligaments, blood vessels, anastomotic site (organs and/or nerves).

8.5 Precautions specific to the Renasys Go device

- In the event of heavy or viscous drainage with sediment or when blood is present, regular monitoring and more frequent dressing changes may be required to reduce the risk of interruption of therapy, maceration, infection and ensure proper exudate removal.
- For patients with high risk of bleeding, use 300ml canister. Ensure the 300ml canister viewing window is checked frequently for signs of bleeding.
- Device is only to be used with Smith & Nephew authorized components. Use of any other products that have not been proven to be safe and effective with RENASYS GO device.
- Ensure canister tubing and RENASYS Soft Port are installed completely and without any kinks to avoid leaks or blockages in vacuum circuit. Position the device and tubing appropriately to avoid risk of a trip hazard. Device and system tubing should be positioned no more than 19 inches or 50cm higher than the wound to ensure optimization of therapy and prevent therapy interruption.
- Canisters should be changed at least once a week, whenever there is a change in patient or in the event that canister contents reach maximum volume indication (300ml or 750ml fill line).
WARNINGS:

NOTE: Full device operation is found in the User Manual for each RENASYS device

- Carefully monitor patients for signs of bleeding, which may lead to interruption in therapy and hemodynamic instability. If such symptoms are observed, immediately discontinue therapy, take appropriate measures to control bleeding and contact treating clinician.
- Patients suffering from difficult hemostasis or who are receiving anticoagulant therapy have an increased risk of bleeding. During therapy, avoid using hemostatic products that, if disrupted, may increase the risk of bleeding.
- Do not use directly on exposed blood vessels or organs. Sharp edges such as bone fragments must be covered or removed prior to initiating therapy, due to risk of puncturing organs or blood vessels drawn closer under the action of negative pressure.
- NPWT has not been studied on pediatric patients. Patient size and weight should be considered when prescribing the device.
- Foam or gauze must not be tightly packed or forced into any wound area. Over-packing may interfere with distribution of NPWT evenly across the wound. This may decrease the ability of the wound to properly contract and permit exudate to remain in the wound. Do not place foam into blind or unexplored tunnels.
- In the event defibrillation is required, disconnect device from wound dressing prior to defibrillation. Remove wound dressing only if its location will interfere with defibrillation.
- Device is not MRI compatible. Do not bring device into MRI suite. Prior to entering MRI suite, disconnect device from dressing. Dressing can remain intact on patient.
- Device is unsuitable for use in areas where there is danger of explosion (e.g., hyperbaric oxygen unit).
- When operating, transporting or disposing of device and accessories, there is a risk of infectious liquids being aspirated or contamination of device assembly through incorrect use. Universal precautions should be observed whenever working with potentially contaminated components or equipment.
- Device and canister kits are provided non-sterile and should not be placed within a sterile field.

9. **Assessment, patient information and informed consent**

In addition to considering the use of NPWT to benefit the patient and the wound, the clinician must first undertake a holistic assessment of the patient and consider the following points:

- Is the therapy appropriate for the wound, and also for the patient?
- The practitioner should consider the patient’s general wellbeing and state of health, as well as product indication and precautions, and concomitant therapies/medication
- What type of wound is to be treated, where is the wound located, and what type of tissue is present?
- The patient may be at risk of falls if they are unable to safely carry the pump console.

10. **Equipment**

- Single use sterile dressing pack
- Single use disposable non-sterile gloves
- Non-sting skin barrier applicator
- Sterile normal saline
- Single use disposable sterile scissors
10.1 Choosing a wound filler and interface
The factors to consider when choosing a dressing kit are based on the patient, the wound characteristics and clinical judgement of the healthcare professional (HCP). Clinical studies have demonstrated that the overall healing rates, defined as percent reduction in wound volume/surface area per week, are similar with both gauze and foam. This validates that the HCP can expect similar efficacy from either type of filler, all things being equal.

Smith & Nephew offers the clinician flexibility with a choice of dressing kits for use with Negative Pressure Wound Therapy (NPWT).

- The following dressing kits are available: RENASYS™ Foam with Soft Port, RENASYS Gauze with Soft Port, a selection of drain kits and RENASYS Foam Abdominal kit with Organ Protection Layer (OPL).

The following guidelines have been developed based on feedback and insights from HCPs who have used all RENASYS dressing kit options.

FACTORS TO CONSIDER INCLUDE:
- Wound size and volume
- Contour of wound bed
- Appearance of wound bed/tissue type
- Amount and type of exudate
- Anatomical location of wound e.g. weight bearing area
- Patient comfort and preference
- Caregiver skills

NOTE: It is important that a holistic assessment is made of the patient and wound characteristics and that a decision is not just made on only one factor alone. The above list is not exhaustive and local clinical judgement must always be used. Always consult the IFU and safety information.

COMBINATION THERAPY:
Gauze/foam combination therapy:
RENASYS™ Foam and Gauze filler may be combined within the same wound when tunneling or undermining is present. Gauze may be used in the areas of undermining or tunneling, with foam placed in the remainder of the wound cavity.

11. Collection of clinical waste for disposal of dressings and canisters
Please refer to and follow the Waste Management policy (HS1).

12. Issues with dressing
12.1 If dressing adheres to the wound base
- Turn the Renasys Go pump off and allow several minutes for the foam or gauze dressing to relax prior to dressing removal
- Moisten points of adhesion with warmed sterile saline, and remove gently after 3–5 minutes
- Ensure the dressing is sealed, and check regularly between dressing changes for leaks
- To help prevent adherence, consider imposing a single layer of non-adhesive material supplied in the pack between the dressing and the wound, or consider lowering the target pressure.

*Note: pressures below ~40mmHg are suboptimal, and discontinuation of the therapy should be considered.*

12.2 If the dressing does not collapse
Air leaks can be identified by a whistling sound and may be caused by the following:
- Wrinkles in the drape
- An incomplete seal where the drain exists the wound

These can be identified and corrected using the following approach:
- Check to ensure that all tubing clamps are open
- Ensure the pump is properly switched on
- Moving your hand around the dressing and border, and applying light pressure may help identify the leak
- If the set pressure is achieved when applying pressure at a certain point and drops when this is removed, use excess drape to patch the leak.

12.3 If the patient experiences discomfort during dressing changes or NPWT
- If due to adherence, see section 12.1
- For wounds on extremities, or near the anus, ensure the dressing fits the wound, so there is not a large step between the tissue and the top of the dressing
- For fragile peri wound skin, use skin preparation wipes prior to drape application, or frame the wound with a layer of Duoderm (cut the drape to a size large enough to cover the dressing and Duoderm layer only).

12.4 Other considerations
- Inspect the wound area frequently between dressing changes, watching for signs of infection and/or other complications
- The level of negative pressure should be the same throughout the enclosed system, if the dressing is in contact with the whole of the wound surface
- If adipose tissue is present, it may necrose during the course of the treatment. Contact the Tissue Viability Team (01244 389243 or 01244 389248)
- More than one wound may be treated simultaneously by either bridging wounds that are in close proximity, or using sterile ‘Y’ connectors for wounds which are further apart (please refer to clinical guidelines or quick reference dressing guide for further details and application technique)
- In extremely debilitated patients with multiple wounds, only one wound may respond at a time – once one wound is healed, the next may show signs of improvement
• For wounds around the anus, use a skin preparation wipe with strip paste, and / or Duoderm to frame the wound and ensure a good seal
• If maceration occurs around the wound side, consider the use of a skin preparation/Duoderm as a framed dressing around the wound

NEGATIVE PRESSURE WOUND THERAPY IS INTENDED TO BE ON FOR 24 HOURS A DAY – IF IT HAS TO BE DISCONTINUED FOR MORE THAN TWO HOURS PER DAY, AN ALTERNATIVE WOUND DRESSING SHOULD BE USED.

13. Discontinuation of NPWT
Clinicians should consider discontinuation of NPWT when:

• A uniformly-granulating tissue is achieved in the wound bed
• Granulation tissue is level with the surrounding skin
• Patient’s overall condition / wound is improving
• Patient is not physically or psychologically tolerant of Negative Pressure Wound Therapy
• No progression of the wound is observed after 2 weeks of consecutive dressing changes (consider discontinuation discuss with the Tissue Viability Team)
• Two consecutive dressing changes (consider discontinuation discuss with the Tissue Viability Team)
• Patient complains of excessive pain
• Patient withdraws their consent to treatment
• Exudate levels are less than 20-30mls per day
• Wound bed is ready to take a skin graft/flap
• Frank pus is evident under the dressing
• An alternative treatment option is more suitable, and/or
• The initial goals defined at the outset of Negative Pressure Wound Therapy have been met

14. Obtaining Equipment
Pumps should be ordered directly from Tissue Viability. Consumables and canisters can be ordered on ONPOS.

Please inform Tissue Viability on discontinuation of the negative pressure therapy. Pumps will need to be returned to Tissue Viability, once cleaned by the health care professional with disinfectant wipes.