

Management of Negative Pressure Wound Therapy (NPWT) Guideline

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Purpose

To define and document agreed clinical indications for the initiation, continuance and discontinuance of NPWT with the inpatient, outpatient and community populations under the care of the CSHB or designated authorities.

To ensure best practice in the management of patients undergoing NPWT.

To ensure efficient and effective utilisation of NPWT.

To identify and communicate the certification criteria and limitations of authority for Registered Nurse Approved Reviewers (RNAR) within the CDHB and designated service providers.

To describe the administrative SMO, RNAR and RN pathway and documentation responsibilities in the management of patients with NPWT.

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Scope/Audience

All CDHB medical and nursing staff and designated authorities undertaking the patient care and management of wounds utilising NPWT.

Associated documents

CDHB documents or other references directly applicable to this procedure, e.g.

- CDHB Manual, Volume 2 - Legal and Quality Informed Consent
- CDHB Management of Negative Pressure Wound Therapy Policy
- Burwood Hospital Manual, Volume C - Health and Safety Hazard Identification
- Related policy documents, if any
- Flow chart related to this procedure, if applicable, contact your quality facilitator or document controller for assistance
- Relevant external documents

Definitions

NPWT involves applying continuous or intermittent topical negative pressure to a special dressing positioned in the wound cavity or over a flap or graft. It is designed to help provide a closed, moist, sterile environment, help remove exudate from the wound, stimulate the growth of healthy granulation tissue and aids wound contraction.

Certificated registered nurses – Registered Nurse Approved Reviewer (RNAR) are those who have met the reviewer criteria as outlined in the CDHB certification section 3.5 and have been entered onto the Competency and Training Database. This provides these nurses with the authority and ability to initiate and discontinue NPWT.

1 Initiation

The decision to initiate NPWT is undertaken by Senior Medical Officer (SMO), Nurse Consultant Wound Care (NCWC), Wound Care Specialist or RNAR as part of a comprehensive wound care

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plan that takes into account co-morbidities and other factors that affect healing such as such as nutrition, diabetes, pressure relief measures, patient compliance and availability of resources.

NPWT may be considered medically necessary in the following indications:

- Chronic (> 90 days) stage III or IV pressure injuries that have failed to heal despite optimal wound care when there is high-volume drainage that interferes with healing and/or when standard dressings cannot be maintained due to anatomic factors,
- Traumatic or surgical wounds where delayed primary closure is necessary AND there is exposed bone, cartilage, tendon, or foreign material within the wound,
- Wounds in patients with underlying clinical conditions which are known to negatively impact wound healing and fail to progress through normal wound healing stages (at least 30 days), despite optimal wound care. (Examples of underlying conditions include, but are not limited to diabetes, malnutrition, small vessel disease, and morbid obesity. Malnutrition, while a risk factor, must be addressed simultaneously with the negative pressure wound therapy.) (REF: Idaho Blue Cross)

Limitations/ Exclusions include the following conditions:

- Poor nutritional status
- Fragile surrounding skin
- Presence of necrotic tissue with eschar
- Fistula with pathway to and organ or body cavity in the vicinity of the wound
- Untreated and or advanced osteomyelitis
- Untreated wound infections
- Exposed vasculature
- Exposed nerves
- Exposed anastomotic site
- Exposed organs
- Noncompliance with therapy related to wound healing.

2 Continuation

The decision to continue the use of a NPWT system is undertaken by the SMO, NCWC or RNAR and is part of a comprehensive wound care plan.

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Continuation of therapy may be justifiable if the initial 2-week therapeutic trial has resulted in documented objective improvements in the wound, and it is anticipated that there will be on going objective improvement during subsequent treatment.

Objective improvements in the wound include:

- the development and presence of healthy granulation tissue
- progressive wound contracture and decreasing depth
- and/or the commencement of epithelial spread from the wound margins.

Discontinuation of the NPWT should be considered when any of the following occurs:

- The therapeutic trial or subsequent treatment period has not resulted in documented objective improvement in the wound, OR
- The wound has developed evidence of wound complications contraindicating continued NPWT, OR
- The wound has healed to an extent where either reconstruction by flap, grafting or direct closure can be performed or the wound can be anticipated to heal completely with other wound care treatments.
- The patient is unable to manage/tolerate the therapy or where there are clearly non- concordance issues.

3 Discontinuation

3.1 Roles and Responsibilities

Only medical staff and certificated registered nursing staff may initiate the discontinuance of NPWT.

- **Senior Medical Officers** - document the patient wound review and state the reason for discontinuance, in conjunction with new orders for wound management as indicated by the wound condition and patient preference.
- **Nurse Consultant in Wound Care and Wound Care Specialist**- document the patient wound review and state the reason for discontinuance, in conjunction with new orders for wound management as indicated by the wound condition and patient preference
- **Certificated Registered Nurses (RNAR)** - document the patient wound review and state the reason for discontinuance, in conjunction with new orders for wound management as indicated by the wound condition and patient preference.

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- **Registered Nurses** – application and management of NPWT as per documented care plan and direction from SMO, NCWC and RNAR.

3.2 Indications for Discontinuation

In accordance with the NPWT policy statements the following indications for discontinuance of NPWT are to be considered when planning further wound treatment options:

1. Ongoing difficulty in maintaining the seal
2. Autonomic Dysreflexia SCI
3. Severe spasm
4. A sufficient decrease in wound surface area and volume to a level where a conventional modern dressing could manage the wound
5. Anti-platelet/ Anti- coagulant therapy leading to uncontrolled bleeding
6. Signs of complications: haemorrhage, severe infection and or peri-wound breakdown
7. Non- progression of the wound defined by timeframe and note exceptions such as chronic wounds where by the aim of therapy is to control exudate and improve a patients quality of life
8. Wound with eschar or slough greater than 30%
9. Not tolerated by patient eg: uncontrollable pain
10. Newly diagnosed and or untreated osteomyelitis
11. Unusual or suspected malignant change in an oncological wound bed or long standing wound (confirmation by biopsy)
12. Development of enterocutaneous fistula. NB: check surgeons instructions as may be surgical intent to manage the fistula with NPWT
13. Loose bone fragments
14. Migration or loss of filler – foam or gauze
15. Concordance issues where there are other options
16. Sudden large increase in exudate (peritoneal, faecal etc)

4 Registered Nurse Approved Reviewer (RNAR)

Certification criteria of an RN within CDHB and designated providers requires that the designated senior nurse:

Has completed 3 years relevant post registration nursing experience

Has completed at postgraduate nursing qualification which includes at least one wound management paper OR has completed a

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postgraduate nursing qualification and CPIT's Wound Management paper GCWM 700.

Actively promotes further knowledge and education around management of clients with wounds

OR

holds the designated title of Nurse Consultant- wound care or Clinical Nurse Specialist – Wound Care or Wound Care Educator, within an organisation

OR

Meets the requirements of the District Nurses Section (NZNO) Clinical Competencies for Wound Care(2005) at Expert Level and has been supervised and has undergone peer review in NPWT decision making.

Certification of the RNAR is a one off process with annual measurement and evaluation. The RNAR has the authority to initiate and discontinue NPWT. In addition the RNAR undertakes the supervision of Registered Nurses engaged in care of patients with NPWT.

5 Administrative Responsibilities

In the CDHB initiation, continuation and discontinuation will occur utilising the following NPWT pathway:

1. The ward area which initiates the placement or receives patients from OT with NPWT in place, is responsible for sending the unit requisition and notifying the NPWT coordination team of a new NPWT placement.
2. The first review of the NPWT occurs prior to discharge or at the 14 day point post placement; whichever comes first.
3. At discharge, the NPWT Placement and Review form (C240263) is completed and a copy forwarded to the coordination team, community care team and a copy given to the patient/ caregiver.
4. Discharge planning utilises the wall chart: ***“Flow Chart/ Process for placement of Negative Pressure Therapy (NPWT), hiring pumps and discharging patients with NPWT.”***
5. During continuing therapy, updates of data entry for the NPWT pathway are either forwarded to the coordination team or directly entered by the RNAR.
6. If the SMO is the reviewer for continuing NPWT, documentation may be entered directly into the clinical notes. The RN present the review is responsible for the forwarding of data to the coordination

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team, updating the C240263 and giving the patient a copy of the updated management plan.

7. The C240263 is kept up to date for the duration of the NPWT and discontinuation is also documented on this form.

8. Procurement of disposable supply requirements are charged to cost code 0112.

9. Device charges are made against the initiating/ discharging service provider.

At the time of discontinuation a copy of the completed C240263 is forwarded to the coordination team or data is directly entered by the RNAR.

11. Return of equipment to supplier and or equipment store is the responsibility of the RNAR discontinuing the NPWT. SMO may delegate this task to assisting RN.

12. Return of surplus supplies/ stock is the responsibility of the RN or RNAR undertaking the discontinuation of the NPWT.

13. An ongoing wound management plan is put in place and documented on the C240263.

Measurement/Evaluation

Practice standards of approved reviewers will be evaluated through an annual service audit/ peer review/ incident reporting.

Proof of attendance of an advanced education practicums with an independent evaluation on an alternate year rotation is a requirement to remain on the NPWT certification register.

Procedure Owner	Nurse Co-ordinator Projects
Procedure Authoriser	Executive Director of Nursing and Chief Medical Officer
Date of Authorisation	26 March 2014

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