HACKETTSTOWN REGIONAL MEDICAL CENTER
NURSING POLICY MANUAL

NEGATIVE PRESSURE WOUND THERAPY/VACUUM ASSISTED CLOSURE WOUND THERARY (V.A.C.)

Effective Date: 5/14/2003	**Policy No: 8620.203a**
Cross Referenced:	**Origin: Division of Nursing**
Reviewed Date: 8/2007	**Authority: Chief Nursing Officer**
Revised Date: 2/14	**Page: 1 of 5**

SCOPE
All RNs in Inpatient and Outpatient Areas

PURPOSE
To provide guideline for utilization of Negative Pressure Wound Therapy.

DEFINITIONS

Negative pressure wound therapy (NPWT), also known as vacuum assisted closure (VAC), applies continuous or intermittent sub atmospheric pressure, or suction, to the wound bed via a computerized vacuum pump attached to an open-cell foam sponge or other interface such as antimicrobial gauze that is placed in the wound and secured with an adhesive semi-occlusive dressing. With NPWT, wound fluids are evacuated via a tubing system placed on the foam or other interface at one end and connected to a disposable canister housed in the therapy unit on the opposite end.

Controlled negative pressure assists in wound healing by providing a moist wound environment, removing excess interstitial fluid from the wound periphery, stimulating circulation to the wound bed, and decreasing bacterial colonization. NPWT also increases the rate of granulation tissue formation and epithelialization, and increases the rate of wound contraction.

POLICY
- A physician's order is required. Physician order must specify location of wound, type and size of foam, frequency of dressing changes and therapy settings.
- Indications include Stage 3 or Stage 4 pressure ulcers, chronic open wounds (stasis ulcers, diabetic ulcers), meshed grafts, flaps and full-thickness surgical or traumatic wounds.
- Contraindications include non-enteric, unexplored fistulas, presence of necrotic tissue with eschar present, untreated osteomyelitis, malignancy within the wound bed. Exposed blood vessels, anastomotic sites, organs, or nerves
- Precautions should be taken with patients with active bleeding, difficult wound homeostasis, or who are on anticoagulants. When placing the dressing in proximity to blood vessels, care should be taken to ensure that all vessels are adequately protected with respect to weakened, irradiated, or sutured blood vessels.
- Negative pressure should be applied to the wound at least 22 hours per day. Negative pressure will be set at 125mm Hg. unless otherwise specified by the physician.
- If therapy is interrupted for more than 2 hours at a time, the dressing should be changed and therapy initiated according to MD order. When Negative Pressure therapy is placed over a split thickness skin graft (STSG) there should be no interruption in therapy.

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PROCEDURE

A. Equipment Set up

1. Negative Pressure Wound Therapy unit
2. Canister kit
3. Dressing kit
4. Y-Connector (if treating multiple wounds)
5. Non-sting skin protectant swab
6. Normal Saline
7. Hydrocolloid 4 x 4 dressing as needed to protect peri-wound area

B. Procedure Steps

1. Check Negative Pressure Wound Therapy Physician's Order

2. Call supply room for the unit, canister and desired type and size of sponge or other interface. Sponges come in Black, Silver and White

3. Enter order for Negative Pressure Wound Therapy into computer.

4. Explain the procedure to the patient. Patient compliance will enhance the probability of positive outcomes.

5. Wash hands

7. Put on gloves

8. Position patient to allow maximum exposure of the wound

9. Gently irrigate the wound with Normal Saline using a bulb syringe.

10. Dry the skin around the wound. Apply Protective Barrier to the peri-wound skin. The barrier will protect the skin around the wound.

11. Cut hydrocolloid into strips and apply around edges of wound as needed for protection from peri-wound skin breakdown or excoriation.

12. Cut the foam to fit the size and shape of the wound.

    - Avoid cutting the foam directly over the wound to prevent particles from entering the wound bed. Dead space, including undermined or tunneled areas should be filled with foam dressing or other interface to prevent formation of abscess.

- If wound is larger than largest foam dressing more than one dressing may be used. If bridging out from wound make sure that foam or other interface is touching each other and that skin is protected under bridge with either hydrocolloid or transparent drape.

- If using the black foam, exposed tendon should be covered by one layer of non-adherent dressing (Kendall's non-adhering dressing) to delicate tendons. Do not place the foam dressing over exposed blood vessels. Cover the vessels with multiple layers of non-adherent dressing.

13. Size the transparent dressing to cover the foam or other interface and 3-5 cm of surrounding intact skin. Trim dressing if necessary. Foam or other interface should not lay over wound edge. Apply occlusive dressing as directed. If drape is numbered, #1 always goes on patient skin.

14. Choose a location on the transparent film dressing to apply the tubing. At this location, cut a hole through the dressing, approximately the size of a quarter. It is important to cut a complete hole, not a slit in the transparent film dressing, as a slit may not allow fluid passage through the dressing, resulting in a blockage alarm.

15. Apply suction device (such as TRACpad, port, or other) over the quarter size opening. Gently pat around the suction device to ensure complete adhesion.

16. Date the canister and slide it into the canister port until an audible click is heard ensuring that it is fully inserted. Connect the tubing to the negative pressure pump. Verify that clamps are open on the tubing

18. Place the negative pressure unit on a level surface or place the therapy unit on the footboard of the bed using the self-adjusting hanger.

19. Attach the power cord to the unit and connect to power supply. The device will automatically revert to battery operation if power is disconnected. Therapy unit will operate at previous setting. Once the machine is plugged back into the wall, power is restored and the battery will automatically recharge while therapy unit remains plugged in.

20. Turn on power to the device.

21. Select level of negative pressure. Use arrow keys to increase or decrease therapy levels between 50 and 200 mm Hg. If using KCI brand the therapy unit is set at a default negative pressure of 125mmHG.

23. Select continuous or intermittent therapy as ordered by physician.

24. Press ON/OFF buttons to activate therapy. The foam should resemble a "raisin appearance" and should be hard and wrinkled on palpation if suction has been established. The same is true for other interfaces.

25. Check for air leaks. Air leaks may be identified by a whistling noise. Moving the hand around the dressing border and applying light pressure may help identify the leak. Excess transparent film dressing can be used to patch the dressing if there are air leaks.

26. Change dressing every Monday, Wednesday and Friday, unless ordered otherwise. Tighten clamps on the dressing tube and the canister tube. Press ON/OFF button on the device to deactivate the therapy.

27. When removing the transparent film dressing, stretch it horizontally (parallel to the skin) and slowly pull up from the skin. Do not peel. If removing foam from the wound apply normal saline to loosen from the newly granulated tissue.

28. To discontinue Negative Pressure therapy, remove dressing and equipment. Call MD for alternate dressing instructions. Place device in dirty utility room. For inhouse patients Call KCI at 1-888-275-4524 to arrange for pickup of equipment. Make note of reference number and person with whom you spoke.

C. Canister Change

1. The canister will contain the wound drainage. It should be discarded when full or changed weekly.

2. To remove the canister, turn therapy off. Close any clamps on the canister and dressing tubing. Then pull out canister. Dispose of canister in red bag container in dirty utility room.

D. Documentation

1. Document assessment of wound upon initiating therapy, at each dressing change, and upon terminating therapy in Nurses' Notes.

2. Document measurement of the wound upon initiating therapy, weekly and upon terminating therapy.

3. Document character and amount of drainage in canister at each canister change and upon

terminating therapy in nurses' notes.

4. Document patient's response to therapy in nurses' notes.

REFERENCES

KCL Medical Products-Wound VAC Therapy Clinical Guidelines. July 2012

Appendix A: Obtaining KCI Wound VAC Machine

As of June 20, 2013

Please note the following procedure for obtaining and disposing of a KCI - WOUND VAC:

- A Physician's order must be left in the stockroom to obtain a KCI WOUND VAC.
- If a floor/OR calls the stockroom to bring a VAC, they will *ONLY RECIEVE THE VAC* if given a physician's order.
- Mary Sedlock x 6782 to be called; upon receipt of the MD's order. She will call the order in for KCI to start the billing process. (This is also for notification to KCI to deliver a new VAC) –If KCI is NOT notified they assume we have clean VACS on the shelf, and do not deliver).
- As soon as the VAC reaches the unit, a ***Patient Label*** must be placed on the '**luggage tag*," by the RN assigned* to that *patient, where ever the patient has VAC initially placed;* i.e. *(same day surgery, OR, ER, Inpatient units),*** that is attached to the VAC handle.
- ***Immediately upon removal of the VAC: The tag should be removed (with patient label) & the VAC removal to be called in by the Unit Secretary or Charge RN (that day)* to KCI with the number on tag**, (this notification signals KCI to come to pick up/clean VAC, & to discontinue billing of the patient/hospital.
- VAC should then be placed (only after it has been called in) into the DIRTY UTILITY ROOM for pick up by KCI.