Blue Ridge HealthCare System
Patient Care
Wound Care Center

Vacuum Assisted Closure

Origination Date: 10/1997

Review/Revised Date: 12/14/15

APPLICABILITY:

Carolinas HealthCare System Blue Ridge

POLICY:

Vacuum Assisted Closure will be provided to patients based upon a provider order. Dressing changes will be provided as indicated or as directed by the physician. Follow KCI Guidelines (http://www.kci1.com/KCI1/educationtraining) to promote wound healing through Negative Pressure Therapy.

PURPOSE:

To promote wound healing through negative pressure therapy.

NOTE:
V.A.C. Equipment is ordered and obtained from Materials Management. When a V.A.C. is removed from Materials Management, KCI must be notified that therapy has been initiated. Charges will begin on that date. When a V.A.C. is discontinued, KCI must be notified to stop charges on that date.

EQUIPMENT:

A. V.A.C. Device
B. V.A.C. Canister, V.A.C. Dressing
C. Scissors
D. Y-Connector if treating multiple wounds simultaneously (Do not recommend more than 3 wounds to one V.A.C., wounds should be of same etiology for same V.A.C.)
E. Personal Protective Equipment (PPE) as indicated
F. Skin prep / skin barrier film
G. Label for dressing change
H. Wound cleanser, sterile saline or sterile water

PROCESS:

A. Consult Wound Ostomy Continence Nurse (WOCN) for all patients with Vacuum Assisted Closure system. Follow KCI V.A.C. therapy clinical guidelines. (http://www.kci1.com/KCI1/educationtraining)

B. Applying the dressing:
   a. Explain the procedure to the patient.
   b. Assess the patient for pain. If procedure is painful to patient, administer pain medication per orders.
   c. Hand Hygiene - utilize PPE as indicated.
   d. Assemble equipment and open appropriate packages for wound on clean, dry surface.
   e. Apply clean gloves and utilize PPE as indicated.
   f. Position patient.
   g. Gently remove old dressing if applicable.
   h. Irrigate wound with wound cleanser, sterile saline or sterile water as indicated.
   i. Clip hair around wound if indicated.
   j. Clean and dry periwound tissue and apply skin barrier film (skin prep).
   k. Assess and measure length, width and depth of wound cavity. Record at initial application and at each dressing change.
   l. Examine a wound for changes in appearance, odor and drainage.
   m. Apply contact layer if indicated. A contact layer may be indicated to prevent adherence of the V.A.C. dressing to the wound bed or underlying structures such as blood vessels or tendons. Count and record the number of non-adherent contact layer pieces used.
   n. Cut and shape the foam dressing to fill the wound cavity completely ensuring that if multiple pieces of foam are required that all edges are in direct contact with each other for even distribution of negative pressure. Ensure that the foam dressing is within the edges of the wound bed and NOT in contact with the periwound tissue. Count and record the number and type the foam pieces.
   o. Size and trim the drape to cover the foam dressing as well as an additional 3-5cm border of intact periwound tissue; save extra drape to be used to patch leaks as necessary.
   p. Cut a 2cm hole in the drape; it is not necessary to cut into the foam.
   q. Apply the TRAC pad opening directly over the hole in the drape.
   r. Attach dressing tubing to the suction canister tubing.
   s. Affix documentation / hand-off communication label to tubing that is attached to patient (proximal to patient) noting number of pieces and types of dressing materials used. Also document initials, date and time of dressing change.

C. Applying the V.A.C. Therapy Unit:
   a. Remove canister from sterile packaging and push it into the V.A.C. device until it clicks in place.
   b. Verify that the clamps on dressing tubing are open.
   c. Turn on the power button.

   d. Obtain provider order if V.A.C. settings need to be adjusted.
   e. Press therapy ON / OFF button to activate negative pressure therapy.
   f. Observe site for collapse and seal of dressing.
      i. If collapse and seal are not apparent, assess dressing for leak, which may create a whistling sound.
      ii. Often leaks are fixed by gently pressing around the drape near the edges of the foam to better seal the drape.
      iii. May also use skin barrier film (skin prep) and extra drape to patch leaks.
      iv. May use strip paste to assist with obtaining a seal.

D. Dressing Removal:
   a. Close clamps on the dressing tubing and canister tubing and disconnect.
   b. Press therapy ON / OFF button to deactivate the pump.
   c. Gently remove drape from skin.
   d. Gently remove foam from the wound bed and count all pieces. Record and verify count.
      i. If foam dressing adheres to wound bed, introduce 10-30 ml normal saline into foam. Let stand and then remove.
      ii. If foam dressing adheres to wound bed, may consider use of non-adherent contact layer such as Adaptic, non-adherent oil emulsion dressing or Mepitel to serve as a barrier between the wound bed and the foam dressing.
      iii. Discard disposables in accordance with regulations.

E. Maintaining the V.A.C. Device:
   a. The V.A.C. canister should be changed when full (unit will alarm) or on a weekly basis.
   b. Never leave a V.A.C. dressing in place without activating V.A.C. therapy for more than 2 hours. If therapy is off for 2 hours, notify the provider, remove the old dressing and irrigate the wound. Either apply a new dressing from an unopened sterile package and restart V.A.C. therapy; or apply an alternative dressing at the direction of the provider.
   c. To disconnect from the unit:
      i. Close clamps on tubing
      ii. Turn the unit OFF
      iii. Disconnect the dressing tubing from canister tubing
      iv. Cover ends with gauze, tubing cap or glove and secure to prevent drainage leak.
   d. To reconnect the unit:
      i. Remove the protective covering from the ends of tubing
      ii. Connect the tubing
      iii. Unclamp the clamps
      iv. Turn therapy ON to ensure previous settings have resumed

F. Troubleshooting the V.A.C.
   a. Visually check the dressing to make sure the foam is collapsed in the wound bed and that the foam is firm. If not:
      i. Be sure the screen reads THERAPY ON
      ii. Be sure all clamps are open and tubing is not kinked

iii. Identify air leaks and seal with drape

b. Adjusting the V.A.C. pressure settings:

i. If pressure settings need to be titrated, obtain provider order. Refer to KCI V.A.C. Guidelines. (http://www.kci1.com/KCI1/educationtraining)

G. Discharge Planning

a. Notify case manager if patient requires V.A.C. device therapy for discharge setting.

b. Case Management will initiate and complete needed forms and submit to KCI for approval of home V.A.C.

c. Case Management will obtain approval and set-up home health for discharge follow-up.

d. Case Management will arrange for discharge V.A.C. therapy.

e. Provide patient / family education prior to discharge. Provide home health contact information.

H. Discontinuation of V.A.C. Therapy

a. Therapy may be discontinued when the site is ready for flap or graft, the wound is healed or at the discretion of the provider.

b. Clamp all tubes prior to disconnecting.

c. Remove dressing, tubing and canister and discard in accordance with regulations.

d. After the V.A.C. has been cleaned by housekeeping, place it in a clean bag and mark "Return to KCI."

e. Return to Materials Management Department for return to KCI.

DOCUMENTATION:

A. Date / time and initials of dressing application / change / discontinuation

B. Pain medication if administered

C. Patient tolerance of dressing procedure and therapy

D. Patient education on ETR

E. Use of V.A.C. therapy on electronic documentation to include number and type of dressing materials removed and applied as indicated

F. Upon initial application and with each dressing change:

a. Wound type and location; if pressure ulcer note stage

b. Size and appearance of wound bed and periwound skin

c. Drainage – type and amount

G. For each shift, note the following:

a. V.A.C. pressure and setting

b. Occurrence of canister change(s)

c. Drainage amount on Intake and Output if indicated

REFERENCES:

V.A.C. Therapy Clinical Guidelines. KCI: http://www.kci1.com/KCI1/educationtraining.