WOUND MANAGEMENT/VACUUM ASSISTED CLOSURE (VAC®) THERAPY

PURPOSE: To outline the nursing management of the patient with a wound, with or without vacuum-assisted closure device (VAC®).

SUPPORTIVE DATA (Non-VAC®)

Implement this standard if the patient has a surgical incision, traumatic wound or a burn.
For most wounds/incisions, providers are responsible for the initial dressing change. Nurses perform further dressing changes as ordered.

SUPPORTIVE DATA for VAC® SUCTION:

Wounds that benefit from VAC® include: acute, chronic, traumatic, or dehisced wounds, grafts, pressure injuries or diabetic ulcers. (Grafts need to be handled with caution and usually need additional white foam as part of the dressing). VAC® devices provide negative pressure and actively remove drainage under either continuous or intermittent suction. A specific dressing/sponge (e.g. ABTHERA™) may be used with VAC® for an open abdomen.

Contraindications for VAC® include those wounds with malignancy in the wound itself, fistulas to organs or body cavities, untreated osteomyelitis, or necrotic tissue with the presence of eschar. Dressings for VAC® should also not be placed over exposed blood vessels, or tendon.

VAC® dressing changes may be performed by providers at the bedside. Providers may also initiate or change VAC® dressings in treatment rooms or surgical suites.

ASSESSMENT:

1. Assess the following a minimum of every 8 hours (ICU: every 4 hours)
   - Dressing for drainage, noting color, quantity, and odor
   - Sensation and circulation distal to wound
   - Signs and symptoms of infection such as:
     - Vital signs changes
     - Increased tenderness
     - Change in character of drainage
     - Rising white blood count (WBC) value
     - Increased skin temperature
     - Increased swelling
     - Redness
2. Assess wound at each dressing change for the following:
   - Tissue color/ incision color
   - Drainage type/color, amount, and odor
   - Skin temperature
   - Induration
   - Wound size
   - Swelling/ Edema
   - Presence/absence of eschar
   - Surgical approximation
   - Progress toward healing
   - Patient’s response to wound care
   - Presence of sutures/staples/drains
3. Assess need for pain medication prior to dressing changes.

DRESSING CHANGE:

4. Perform dressing change as ordered

VAC® DRESSING CHANGE:

5. Reinforce existing dressing if the dressing develops an air leak or fold such that suction cannot be maintained by the system (evidenced by alarm and error statements on the machine panel).
6. Ensure wound is measured to utilize appropriate size dressing.

MANAGEMENT:

7. Position patient to maximize comfort and wound perfusion.
8. Obtain specimen as ordered.

VAC® MANAGEMENT:

9. Implement VAC® per provider order to include:
   - Amount of negative pressure
   - Intermittent or continuous mode
10. Avoid turning off VAC® unless necessary (e.g. transport for a procedure, ambulation). Dressings must be replaced if therapy is off for 2 hours or more.

NUTRITION:

11. Encourage nutrition and increase oral fluids unless contraindicated.
12. Draw labs (Albumin and Prealbumin) as ordered.

VAC® SAFETY:

13. Keep VAC® machine plugged into an electrical outlet unless patient is mobile (a fully charged battery may last up to 4 hours).
14. Attach vacuum pump machine to the footboard of the patient bed or clamp it securely onto an appropriate pole

PATIENT/ CAREGIVER EDUCATION:

15. Instruct on the following:
   - Handwashing/infection control measures
   - Signs/symptoms of infection
   - Pain relief/comfort measures
   - Importance of good nutrition for wound healing
   - Wound care

REPORTABLE CONDITIONS:

16. Notify provider for:
   - Spontaneously open wounds (dehiscence)
   - Signs of new or worsening infection
   - Developing or increasing pain
   - Delayed/deteriorating healing process
   - New or uncontrolled bleeding
   - Inability to troubleshoot alarm

COLLABORATION:

17. Collaborate with the following:
   - Dietitian regarding nutritional requirement, vitamin supplement, other dietary concerns
   - Wound Ostomy and Continence Nurse or Nurse Practitioner as needed
   - Occupational Therapy/Physical Therapy
   - Burn unit for burn care concerns

ADDITIONAL STANDARDS:

18. Refer to the following as indicated:
   - Pressure Injury Prevention & Management
   - Pain Management
   - Total Parenteral Nutrition

DOCUMENTATION:

19. Document in accordance with documentation standards.
    iView -> Systems Assessment -> Drains/Tubes (Dynamic group)

Initial date approved: 11/94	Reviewed and approved by: Professional Practice Committee Nurse Executive Committee Attending Staff Association Executive Committee	Revision Date: 11/00, 02/05. 02/08, 4/09,10/15, 9/20

References:

Caple, C., Schub, E., & Pravikoff, D. (2015). Wound therapy, performing: Applying negative pressure. Retrieved from CIHAHL Nursing Reference Center Plus.Consult: LAC+USC Medical Center, Wound, Ostomy, and Continence Nurse (WOCN).