

Ventricular Assist Device (VAD) Dressing Change (Ward)

Site Applicability

SPH Cardiac Wards

Practice Level

Basic Skill: Registered Nurses working on a cardiac ward

Need to Know

- Dressing changes using an aseptic technique should be done daily during the patient's stay in CSICU or at the direction of the most responsible physician. Once on the ward, the focus is using a clean technique in order to adapt to doing dressings at home.
- Upon transfer to the ward, when showering, the exit site should be covered with a waterproof barrier until cleared by the VAD Nurse/Patient Educator or the Clinical Nurse Specialist (CNS), at that time, the patient may shower with the VAD exit site exposed.
- The dressing must be changed immediately after the shower.
- Dressings should be continued daily and PRN until discharged from hospital, and if the exit site is clean and dry, the dressing may be performed 3 x per week or after each shower (whichever is more frequent).
- Patients will have a driveline stabilization "anchor" device in place to hold their percutaneous line still at the entry site. The driveline stabilization device should be changed PRN. To determine if it needs changing, gently pull the line to see if the device still holds the line firmly. Immobilization of the line is key for preventing infections as trauma to exit site increases chance for infection.
- Patients are to wear a breast binder for the first month post implant to further secure the driveline. The binder will be placed on the patient once they begin mobilizing. There will be one binder per patient (if necessary attach 2 binders together for large patient,) and only be replaced if it is exceedingly soiled. Binders will be supplied by the VAD Coordinator.
- Do not use acetone or acetone-based products near VAD line and equipment (i.e. nail polish remover or adhesive removers). Using alcohol swabs to clean the driveline is allowed.
- This dressing technique is designed for the patient or caregiver to do it at home. Please follow the exact steps so as not to confuse the patient or family in their learning process.


Equipment and Supplies



2 x pairs of non-sterile latex and powder free gloves
 1x 10 mL saline syringe (preloaded) or ampule
 Tube securement “anchor” device (if it needs changing) -
 Hollister Horizontal Drain/tube attachment device

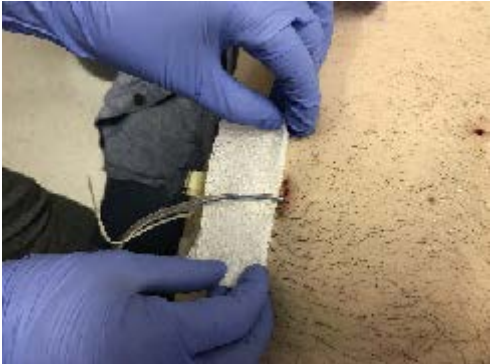


2 x 9 cm x 15 cm Mepore
 3 x 4x4 gauze squares
 Hand Sanitizer

Procedure

Steps

Steps	Rationale
1. Clean dressing table with alcohol or Caviwipes	
2. Ensure garbage can close by for disposal of used items	
3. Wash hands and put on first pair of gloves	
4. Open all packages out flat on table as shown. Leave items in packages	
5. Loosen tube from driveline stabilization device	If attachment device is not loosened the operator can't clean properly under the driveline

<p>6. Open saline syringe/ampules and moisten two of the 4x4 gauze packets that have been opened</p>	<p>Patients will be provided with saline ampules upon discharge, and can buy saline solution (e.g. saline eye rinse) from their local pharmacy thereafter.</p> 
<p>7. Place syringe/ampule to one side</p>	<p>In case you need to moisten another</p>
<p>8. Remove old dressing from patient and discard along with gloves. Check for signs of infection or irritation</p>	<p>Document any signs of infection. If new discharge that is purulent is seen, discuss with MRP regarding culture.</p>
<p>9. Clean hands again using hand sanitizer</p>	
<p>10. Put on second pair of gloves</p>	
<p>11. Gather the moisten gauze by the corners, then hold the driveline with one hand and wipe around the tube with moistened saline gauze.</p> <p>Clean the area around the entire driveline exit site in a circular motion (starting closest from the site then moving outwards). Repeat with remaining soaked gauze until site is clean</p>	

<p>12. Dry skin with dry gauze in the same manner outlined in step 11</p>	<p>Moisture could impede wound healing</p>
<p>13. Handling the gauze by its corners, fold dry 4x4 gauze in half and place it snugly against the skin at the exit site under the line,</p>	 <p>Prevents potential for friction ulcer from the driveline</p>
<p>14. Place final dry 4x4 on top of exit site, line up the corners</p>	
<p>15. Apply Mepore dressing to seal the area. Pinch dressing around the driveline</p>	 <p>Pinching the dressing around the driveline provides a seal of the dressing around the site and preventing risk of infection from contamination</p>

16. Re-secure the “anchor” driveline securement device. If necessary, apply a new anchor device after the skin has been properly cleaned and dried.



Immobilization of the line is key for preventing infections as trauma to exit site increases chance for infection

*Do not cut the “tail” of the anchor strap once secured, fold it over and tuck into the center piece of the anchor

Cutting the “tail” of the anchor strap makes it difficult to thread it back through when trying to release the anchor.

Documentation

24-Hour Patient Care Flow sheet—record assessment variations from baseline, nursing interventions and patient’s response.

Patient and Family Education

VAD Nurse/Patient Educator or CNS will provide the patient and caregiver with instructions that reflect the protocol above.

Related Documents

Medtronic HeartWare HVAD product information - <https://www.medtronic.com/us-en/healthcare-professionals/products/cardiac-rhythm/ventricular-assist-devices/heartware-hvad-system.html#>

HeartWare web site (Clinician and patient information) www.heartware.com

[B-00-12-10153](#) - Ventricular Assist Device (VAD): Dressing Change (CSICU)

References

Gordon RJ. Quagliarello B. Lowy FD. Ventricular assist device-related infections. The Lancet Infectious Diseases. 6(7):426-37, 2006 Jul.

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Kusne, et al. An ISHLT consensus document for prevention and management strategies for mechanical circulatory support infection. 36(10), 1137-53, 2017 Oct

Persons/Groups Consulted:

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