

Developed by the British Columbia Provincial Nursing Skin & Wound Committee in collaboration with NSWOCs & Wound Clinicians from:



Title	Procedure: NPWT Dressing Application – VACVia
Document Indications for Use	This Negative Pressure Wound Therapy (NPWT) dressing procedure is used with the disposable 3M/KCI VACVia machine/device and in conjunction with the Guideline: Negative Pressure Wound Therapy (Reusable/Disposable) for Adults & Children .
British Columbia Practice Level	<ul style="list-style-type: none"> • In order to carry out NPWT, Registered Nurses (RNs), Registered Psychiatric Nurses (RPNs), and Licenced Practical Nurses (LPNs), in accordance with the British Columbia College of Nurses and Midwives’ scope of practice for their specific designation, must: <ul style="list-style-type: none"> ○ Have Health Authority (HA) and/or agency policy in place to support their designation in providing NPWT. ○ Have a HA approved NPWT decision support guideline. ○ Successfully complete the additional education for monitoring/managing the NPWT system. ○ Successfully complete additional education for NPWT dressing application. ○ Have client specific NPWT orders from a Physician/NP/NSWOC/Wound Clinician. ○ For LPNs, follow an established NPWT wound treatment plan. • Clients undergoing NPWT require an interprofessional approach to provide comprehensive, evidence-based assessment and treatment.
Background	<p>VACVia is a single-use, 7-day disposable system used for open wounds and skin grafts (not closed incisions):</p> <ul style="list-style-type: none"> ○ Has a disposable 250 mL canister to be used for wounds with anticipated small to moderate exudate, for anticipated larger exudate amounts, choose an alternative NPWT machine. ○ The Pressure Therapy Is either 75 or 125 mmHg (unit of pressure) and the Therapy Setting is either continuous (C) or dynamic pressure control (DPC). ○ The dressing is changed a minimum of three (x 3) times weekly. ○ Uses NPWT foam and <u>woven</u> PHMB gauze or ribbon packing as wound fillers. Meshed non-adherent contact layers can be used as interfaces to protector fragile structures e.g., tendon. ○ For disposal, the machine and batteries should be recycled as electrical or electronic equipment. <p>General Safety Considerations for NPWT Medical Devices</p> <ul style="list-style-type: none"> • Defibrillation: when defibrillation is required in the area of the NPWT dressing, remove the dressing or place the paddles in an alternate position; ensure that the NPWT machine is at least 2 meters away from the paddles. • Electrodes or Conductive Gel: do not place EKG or other electrodes/conductive gels in contact with the NPWT dressing/machine. • Magnetic Resonance Imaging (MRI) environment: <ul style="list-style-type: none"> ○ The NPWT machine itself cannot go into the MRI environment. If a canister is present, disconnect it from the machine and ensure that all tubing clamps are open to allow any exudate to flow into the canister. ○ If the NPWT dressing (interface and/or foam) does not contain silver, then the dressing may remain in place. If the MRI is to be done in the area of the wound, consult Radiology Department regarding the need to remove the dressing. ○ If the NPWT dressing is comprised of a silver-based interface or Granufoam Silver foam or is a Prevena dressing, consult with the MRI Radiology Department; depending upon the MRI magnetic field environment, the silver-based dressing may need to be removed. • Diagnostic Imaging: Silver-based interfaces, Granufoam Silver foam or Prevena dressings may impair visualization with certain imaging modalities; consult with the Radiology Department regarding the need to remove the dressing. • Hyperbaric Oxygen Chamber environment: the NPWT dressing should be removed and a different type of dressing used for the duration of the HBO treatment period. • Cell phones or similar products could affect the NPWT machine; move the NPWT machine away 2 meters (6.5 feet) away from the machine if interference is suspected. • Do not connect NPWT dressings to wall suction.
Bookmarks	Equipment and Supplies

Bookmarks con't	Procedure: Applying / Reapplying NPWT VACVia Dressing Procedure: Removing the NPWT VACVia Dressing Procedure: Changing the Canister Managing VACVia Alerts / Alarms Client Showering Transition/Discharge Planning Client/Family Education and Resources Documentation Bibliography/References Document Creation
Related Documents	Guideline: Negative Pressure Wound Therapy (Reusable/Disposable) for Adults & Children Guideline: Wound Management for Adults & Children Procedure: Wound Cleansing Procedure: Wound Packing Additional Education Requirements/Competencies: NPWT Monitoring/Managing E-Learning Module: NPWT Monitoring/Managing Additional Education Requirements/Competencies: NPWT Dressing Application (under development) E-Learning Module: NPWT Dressing Application (under development) Documentation Tool: NPWT Safety/Monitor Check Flow Sheet Client Health Education Resource (CHER): NPWT VACVia

Equipment and Supplies

VACVia 7-Day Dressing Kit contains:

- VACVia machine with a built-in 7 day-life rechargeable battery and AC power cord/ battery charger, 3 medium black spiral foam dressing kits (TRAC pad, transparent film drape, barrier wipe, ruler)
- 2 - 250 mL exudate canister (order replacement canisters as needed), carrying case and lanyard

Dressing Change Supplies

- Personal protective equipment (i.e., safety glasses, gloves, gown, and mask as required)
- Major dressing tray
- Sterile normal saline at least 100 mL, at least at room temperature
- Sterile scissors
- Sterile gloves - 1 pair
- Clean gloves - 2 pair
- Foam tip measuring probe or metal probe or cotton tipped applicator
- Alcohol swab(s)
- Procedure pad(s)
- Skin film barrier wipe
- Camera
- Pen or Marker

Pre-Soak Supplies (for wounds only)

- 50-60 mL syringe – syringe type is depended upon Pre-Soak Method #1 or #2 ([see pg. 8](#))
- Sterile normal saline at least at room temperature
- Clean gloves - 1 pair
- 1 sterile 4 x 4 dressing (to keep the NPWT canister tubing end sterile, if caps not available)
- Sterile scissors
- Alcohol swab(s)
- Procedure pad(s)
- Lidocaine 1% (without epinephrine), if ordered

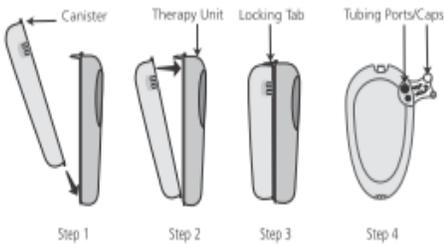
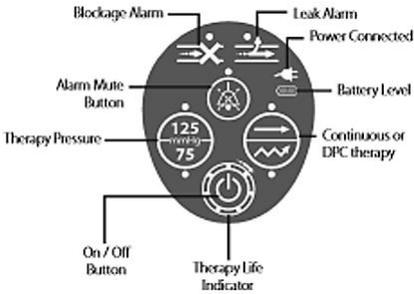
Additional Supplies as pre the Pre-Printed Order (PPO) or in the written care plan.

- Sterile PHMB woven gauze roll or ribbon packing
- Meshed non-adherent contact layer
- Sterile hydrocolloid or extra transparent film drape
- Adhesive remover
- Non-sterile ostomy strips, rings, paste, if needed for filling in folds and creases.

Procedure: Applying / Reapplying a NPWT VACVia Dressing	
Click here for Procedure: Removing a VACVia Dressing	
Steps	Key Points
1. Review the Orders: <ul style="list-style-type: none"> • Read the NPWT order and overall care plan. • Review allergies/sensitivities to acrylic adhesives/products. 	The transparent drape has an acrylic adhesive coating, which may present a risk of an adverse reaction in client who are allergic or hypersensitive.
<ul style="list-style-type: none"> • Prepare the client: • Assess client's pain/anxiety for appropriate medication(s) required and allow time for the medication(s) to take effect. • Position the client for the procedure. 	The client undergoing NPWT may experience pain and anxiety. Provide pain management strategies, medications, education, reassurance and position for comfort.
2. Set-up for the procedure: <ul style="list-style-type: none"> • Gather the supplies. • Perform hand hygiene; put on clean gloves. • Set up the sterile dressing tray; designate one side of the sterile field for cutting the wound fillers/interface layers. • Add the supplies needed for peri-skin protection and any additional wound fillers. • Ensure a permanent marker is available and place outside the sterile field. • Remove the current dressing. • Remove gloves; perform hand hygiene and don clean gloves. 	Perform hand hygiene to avoid contamination. Add all sterile supplies to sterile field. If using ostomy rings, please note these are not sterile and should added to the perimeter or edge of the sterile field.
3. Clip peri-wound/surrounding skin hair, if needed: <ul style="list-style-type: none"> • Using scissors or clippers, clip the hair in the area where the dressing is to be applied. Clip as close to the skin surface as possible. • Avoid shaving whenever possible. 	Hair can make it difficult to achieve an airtight seal and may cause pain during drape removal. Shaving is not recommended as this can cause skin irritation and may lead to folliculitis but, if needed, then shave in the direction of the hair follicles.
4. Cleanse and assess: <u>Wound:</u> <ul style="list-style-type: none"> • Use a 15 cm foam tipped applicator, metal probe or sterile cotton tip applicator to explore the depth & direction of undermining, sinus tracts/tunnels. • Cleanse the wound and peri-skin with at least 100 mL of NS. Use moistened gauze and forceps to remove loose slough/debris. • Complete a full wound assessment. • If taking photos for documentation, remove gloves, perform hand hygiene, take photos & then put on clean gloves. <u>Skin Graft:</u> <ul style="list-style-type: none"> • Cleanse the graft and peri-graft area with Normal Saline as per Surgeon orders. • Complete a full assessment. • If taking photos for documentation, remove gloves, perform hand hygiene, take photos & then put on clean gloves. If this is a dressing reapplication, determine the	If the undermining, sinus tract/tunnel end cannot be probed (is beyond 15cm), do not irrigate or pack these areas. Cleansing the wound/incision/skin graft aids in removal of exudate and promotes visualization of wound bed tissues. Cleansing the wound bed and peri-skin ensures all loose hairs is removed and not retained in the wound Measurements taken provide an objective assessment of wound healing. Measurements must be compared to previous measurements to ensure that wound healing is occurring, if this is the goal.

Steps	Key Points
<p>appropriateness of ongoing NPWT; if there are any concerns, e.g. wound/graft deterioration, notify the Physician/NP/NSWOC/Wound Clinician.</p>	
<p>5. Prepare the peri-skin and surrounding skin:</p> <ul style="list-style-type: none"> • Use sterile forceps to apply skin barrier wipe to the peri-skin and surrounding skin, let dry. • Use non sterile ostomy strips, rings, paste to fill in any skin folds and creases. <p>If needed, the following may be done now, wearing clean gloves, or later, once the transition to sterile gloves is complete:</p> <ul style="list-style-type: none"> • Window-pane the wound or graft with a hydro-colloid barrier (up to 5cm) 	<p>Skin barrier film wipe protects the skin from adhesives, helps to maintain an airtight seal and may extend the wear time of the dressing. Ostomy rings, paste, or strips aid in levelling the peri-skin and supports an airtight seal.</p> <p>If the client/wound situation requires sterile technique for all aspects of the dressing then prepare the peri-skin once sterile gloves are donned; otherwise can be done with clean gloves once the wound and surrounding area is cleansed.</p>
<p>6. Transition to sterile technique:</p> <ul style="list-style-type: none"> • Remove clean gloves; perform hand hygiene. • Open the NPWT VACVia dressing kit and place the kit contents on the sterile field. • Perform hand hygiene. Apply sterile gloves for the remainder of the procedure. 	<p>Instruments used to clean the wound are no longer sterile and therefore not used to aid in the activities used to fill the wound bed.</p>
<p>7. Prepare the peri-skin and surrounding skin if not already prepared (Step 6).</p>	
<p>8. Prepare the interface layer(s), if being used:</p> <ul style="list-style-type: none"> • Wound: cut the layer to fit into the area requiring protection. • Skin Graft: cut the layer slightly larger than the graft size area needing protection. 	<p>The interface layer must be meshed and can be either a non-antimicrobial (i.e., silicone) or antimicrobial (i.e., silver). White foam may also be used to protect areas of concern (i.e., tendon).</p>
<p>9. Prepare the necessary wound filler(s):</p> <ul style="list-style-type: none"> • Black foam: cut to fit the wound depth. For smaller wounds, ensure that the black foam piece is cut greater than the TRAC pad size. • White foam: cut the foam piece(s) to fit the undermining/sinus tract/tunnel ensuring that the foam piece is narrower at one end and/or cut to fit the wound depth. • PHMB gauze roll or ribbon: cut to length. 	<p>When cutting the wound filler(s) cut over the sterile field and ensure loose particles of foam/gauze are not retained in the wound bed.</p>
<p>10. Fill/pack wound dead space or cover graft area: <u>Wound:</u></p> <ul style="list-style-type: none"> • Start with the undermining/sinus/tunnel and use one the following: <ul style="list-style-type: none"> ○ PHMB gauze/ribbon: lightly fill/pack the area, ensure to leave a 1 - 2 cm tail of packing visible. If using PHMB gauze roll, fold in the gauze edges in to keep the raw edges off the wound bed. ○ White foam: Lightly pack the narrow end of the foam in the space until it reaches the end of the sinus/tunnel. Pull back by 1 to 2 cm to ensure that the foam end is visible in the wound cavity. 	<p>Fill/pack the undermined or sinus/tunnel to support granulation but do not over-pack gauze or foam. Filling/packing the space too tightly will cause pressure on the new tissue.</p> <p>White foam is recommended for use in undermining/sinus/tunnel as it is denser and will not break when removed. White foam is always cut wider at the end that rests in the wound cavity, and is cut narrower at the end that is placed in the undermining or sinus/tunnel.</p>

Steps	Key Points
<ul style="list-style-type: none"> • If using, line the wound bed with an interface layer: <ul style="list-style-type: none"> ○ Lay down a non-adherent contact (meshed) layer or white foam. • Then fill/pack the wound cavity using one or a combination of the following: <ul style="list-style-type: none"> ○ White foam ○ Black/silver foam: Ensure the foam size is cut larger than the TRAC pad. <p><u>Skin Graft</u></p> <ul style="list-style-type: none"> • Lay the interface layer down ensuring all sutures/staples are covered. • Then lay down the foam piece(s). 	<p>The white foam/gauze must be visible in the wound bed and to ensure it is removed when the dressing is changed.</p> <p>Where possible, place the manufactured edge of the foam face-down on the wound bed.</p> <p>White foam must always be covered with black foam to support proper removal of exudate.</p> <p>Ensure the top layer black/silver foam is cut larger than the TRAC pad to prevent Medical Machine-Related Pressure Injuries.</p>
<p>11. Ensure the fill/pack is complete:</p> <ul style="list-style-type: none"> • If more than one piece of foam/gauze is used ensure that all foam and gauze edges are in contact with each other. Wound fillers may need to be overlapped. • Ensure that the black foam is the final (top) layer placed in the wound as the TRAC pad must sit on the black foam: <ul style="list-style-type: none"> ○ If, the wound is smaller than the TRAC pad, ensure that the top layer is black foam is cut larger than the TRAC pad and the peri-skin protected. ○ Ensure that the black foam is 2.5 cm higher than the peri- skin level. 	<p>The entire wound surface must be covered with wound filler(s) and all pieces must be in contact with each other to maintain suction and the flow of exudate.</p> <p>Foam touching the peri- skin will cause skin irritation, maceration or ulceration.</p> <p>The TRAC pad must sit on the black foam to ensure proper removal of exudate.</p> <p>Filling to this height ensures the TRAC pad is resting at skin level when vacuum is applied and not below the skin surface.</p>
<p>Apply the NPWT transparent film drape:</p> <ul style="list-style-type: none"> • The transparent drape may be cut into strips to make it easier to handle; cut the drape before removing the backing layer. • Remove the back Layer #1 and lay (do not stretch) the drape over the foam and 3 to 5 cm of prepped or window-paned peri-skin. • Gently press the transparent drape onto the skin to ensure an airtight seal. • Remove the top Layer #2 from the transparent drape. Remove the blue strip/tabs • Repeat these steps as needed. • If using more than one piece of NPWT transparent film drape, ensure that the edges overlap to prevent air leakage. 	<p>Ensure transparent drape does not cover body orifices, stomas, or drain openings.</p> <p>Applying stretched film drape can lead to blistering over the peri-skin.</p> <p>Adding a small border of additional drape may extend the dressing wear time.</p> <p>Remaining transparent film drape pieces may be used to patch any air leaks, if necessary.</p>
<p>13. Apply the TRAC pad:</p> <ul style="list-style-type: none"> • With sterile gloves, determine the best position of the TRAC pad and drainage tubing; do this in consultation with the client, if possible. • Cut at least a 2.5 cm round opening in the transparent film drape over the foam. • Remove TRAC pad layers #1 and #2 and center it over the opening in the drape 	<p>The TRAC pad and draining tube positioning must avoid boney prominences and skin folds; positioning should allow for client comfort and ease of performing ADLs.</p> <p>Wound exudate passes from the wound through the foam into the TRAC pad/tubing. If the drape opening is cut is too small (i.e., with an 'X' or a 'slit') the drape opening will close causing a blockage alarm.</p>

Steps	Key Points
<ul style="list-style-type: none"> Apply gentle pressure to ensure the TRAC pad rests fully on the foam. Ensure that it is not touching any of the peri- skin. Then gently pull gently on blue stabilization tab to remove the top layer of the TRAC pad. Secure the TRAC pad tubing to the dressing with an additional strip of transparent drape. 	
<p>14. Prepare the NPWT machine:</p> <ul style="list-style-type: none"> Remove sterile gloves. Install the rechargeable battery. Install the canister: <ul style="list-style-type: none"> Hold machine and canister in each hand. Slide the canister into the slot on bottom of the machine. The upper locking tab will 'click' when canister is secured. Open the canister port cover and connect the dressing tubing to the canister. Open the tubing clamp. 	<p>When needed, connect the machine to a power source using the cord provided.</p> 
<p>15. Start the therapy:</p> <ul style="list-style-type: none"> Turn the machine ON by holding the ON/OFF button for 3 seconds. 7 green 'Therapy Life Indicator Lights' will be lit up. Hold the Pressure Therapy button (75 mmHg or 125 mmHg) for 3 second to set the prescribed setting. A green light will indicate the Pressure Therapy chosen. Hold the Therapy Setting button (Continuous or Dynamic Pressure Control) for 3 seconds to choose the ordered Therapy. A green light will indicate the Therapy Setting chosen. 	<p>The therapy life indicators provide a visual indication of the 7-day therapy life cycle. After each 24-hour period, one of the indicators will turn off.</p>  <p>If needed, see Managing VACVia Alerts/Alarms</p>
<p>16. Assess for an airtight seal:</p> <ul style="list-style-type: none"> With an airtight seal the dressing will collapse and have a wrinkled appearance, be firm to the touch and no hissing sounds heard. If this is not the case, gently press down all dressing areas and apply additional transparent film drape to achieve a seal. If the TRAC pad needs to be repositioned on the dressing, perform hand hygiene and apply sterile gloves, then: <ul style="list-style-type: none"> Trim out the existing TRAC pad. Cleanse with alcohol swab prior, if needed. Seal the original hole with drape. Wipe drape with alcohol swab (30+ seconds) and let dry prior to making a new 2.5 cm opening. Then reapply the TRAC pad and secure in place using strips of sterile drape. 	<p>If the dressing does not collapse in less than 1 minute, there may be a dressing leak or tubing blockage. Note: The vacuum effect of VAC Via is slower than the reusable machines.</p> <p>Repositioning is often done to aid in positioning and performance of activities of living. Where possible do in consultation with the client.</p>

Steps	Key Points
17. Clean up workspace: <ul style="list-style-type: none"> Discard the dressing tray and disposable scissors. Remove gloves; perform hand hygiene. 	
18. Document on the dressing: <ul style="list-style-type: none"> Apply the documentation sticker (if available) to the transparent drape. Document the number of interface(s) and wound filler(s) on the dressing. The following coding system may be used, if helpful: <ul style="list-style-type: none"> I for Interfaces G for Gauze W for White Foam B for Black Foam S for Silver Foam Write the date on the canister. 	<p>If documentation sticker not available, then write the count on the dressing itself or on a piece of tape and apply to the dressing.</p> <p>Document the number of wound filler pieces after each dressing change. It is critical to ensure that all pieces are removed at the next dressing change.</p>
19. Conduct the first Safety/Monitoring Check: <ul style="list-style-type: none"> Check the system from the dressing to the power source to ensure that the system is working correctly. Assess colour, movement, warmth, sensation distal to the dressing if NPWT on a limb. If tubing is a falls risk, secure accordingly. Assess that battery is charging. Ensure machine is plugged in. 	<p>VACVia Therapy is ON </p> <p>The seven Therapy Life Indicator green lights are visible each indicating one day of therapy; as the therapy progresses there are fewer green lights on.</p> <p>Once the therapy is turned ON for (1) continuous hour, the 7-day lifespan of the machine begins, it continues even if the unit is turned OFF.</p> <p>Keep the machine plugged in as much as possible to aid in charging the rechargeable batteries.</p>

Procedure: Removing a NPWT VACVia Dressing	
Steps	Key Points
1. Review the chart: <ul style="list-style-type: none"> Read NPWT orders and overall care plan. Review the documented packing count. 	
2. Prepare the client: <ul style="list-style-type: none"> Assess client's pain for appropriate medication(s) and allow time for the medication(s) to take effect as needed. 	<p>The client undergoing NPWT may experience pain and anxiety. Provide pain management strategies, medications, and reassurance.</p>
3. Set-up for dressing removal - Open Wounds only: <ul style="list-style-type: none"> Turn off the NPWT machine and clamp the dressing tubing for at least 30 minutes prior to dressing removal. If needed, do a NS pre-soak or a pre-soak with Lidocaine 1% (without epinephrine) with, or followed by, the same amount of NS using one of the following pre-soak methods: <u>Pre-soak Method #1:</u> <ul style="list-style-type: none"> Prepare a 50-60 mL Leur-lock syringe with the solution. Disconnect the dressing and canister tubing, keeping ends sterile with 4x4 gauze. Cleanse the connection with an alcohol 	<p>Black or silver foams are more likely to adhere to the wound bed than white foam. Turning the NPWT machine off releases the suction, allowing wound exudate to collect on the wound bed which helps to release the foam.</p> <p>Incision and Skin Graft sites do not need the 30-minute rest period or a pre-soak. The dressing can be removed <u>immediately</u> after the machine is turned off.</p> <p>Use of Lidocaine 1% without epinephrine requires a Physician/NP order. See the document bookmark <u>Lidocaine: Physician/NP Prescribing</u> in the</p>

Steps	Key Points
<p>swab and let dry 30+ seconds.</p> <ul style="list-style-type: none"> ○ Connect the syringe to the dressing tubing. ○ Slowly instill the solution into the dressing; the dressing should budge slightly. If this does not occur, add more plain NS. ○ Remove the syringe and reconnect the dressing tubing to the canister tubing. ○ Let the solution rest in the dressing for at least 20 to 30 minutes. <p><u>Pre-soak Method #2:</u></p> <ul style="list-style-type: none"> ○ Prepare a 50-60mL catheter tip or Toomey syringe with the solution. ○ Cleanse tubing 5 cm away from the dressing. Use an alcohol swab and let dry for 30+ seconds. ○ Cut the cleansed TRAC pad tubing and connect the syringe to the dressing tubing. 	<p>Guideline: Negative Pressure Wound Therapy (Reusable/Disposable for Adults & Children) for dosage.</p> <p>The pre-soak method, either #1, #2, or another method, is to be determined through consultation with Physician/NP/NSWOC/ Wound Clinician.</p>
<p>4. Prepare for the procedure:</p> <ul style="list-style-type: none"> ● Gather supplies. ● Position client for the procedure. ● Clamp both tubing clamps. ● Disconnect dressing and canister tubing. ● If canister is to be reused, protect the dressing tubing end using the protective cap, if available. If not, use sterile gauze dressing. ● Perform hand hygiene; put on clean gloves. ● Set up a sterile dressing tray with NS. 	<p>See Equipment and Supplies List</p>
<p>5. Review packing count on the dressing:</p> <ul style="list-style-type: none"> ● Check the NPWT dressing for the current number of wound filler and interface layers/pieces used with the previous dressing change; ensure that this count matched the packing count documented in the client's chart. 	<p>Counts of the interface layer(s) and wound filler(s) should match.</p>
<p>6. Remove the dressing:</p> <ul style="list-style-type: none"> ● Anchor the drape with one hand; with the other hand, gently lift the dressing horizontally away from the wound, and slowly push the skin away from the dressing. If drape not releasing use an adhesive remover. ● Gently lift off the dressing. ● Count all the packing pieces to ensure all are removed. If the count does not match, inform Physician/NP. 	<p>A peeling motion can cause epidermal stripping and irritates the peri-skin and surrounding skin.</p> <p>Retained packing pieces can increase the risk of wound infection. Report any packing miscounts in the Patient Safety Reporting system.</p>
<p>7. Remove gloves; perform hand hygiene.</p>	
<p>8. If changing the dressing within the 7-day life of the machine, then see Procedure: Applying/ Reapplying a VACVia Dressing and connect the dressing to the existing machine.</p>	
<p>9. If machine has come to its 7-day end-date or the NPWT has been discontinued, dress the wound/ incision/skin graft as per orders.</p>	<p>Recycle batteries where possible; the machine should be recycled as electrical/electronic equipment.</p>

Procedure: Changing a VACVia Canister	
Steps	Key Points
<ul style="list-style-type: none"> • Gather supplies <ul style="list-style-type: none"> ○ New sterile canister ○ Alcohol swab x1 ○ Appropriate PPE • Wash hands • Turn the machine OFF by holding the ON/OFF button for 3 seconds. • Slide the dressing tubing clamp close to where tubing plugs into canister. Close the clamp. • Cleanse the tubing connector site with the alcohol swab for 30+ seconds. Allow to dry for 30+seconds. • Unplug tubing from canister tubing port. Keep end sterile by wrapping in with the alcohol swab. • Press down on canister tab to remove the canister. • Install a new canister and listen for a distinct click to confirm it is in place. • Reattach dressing tubing to canister port. • Open the tubing clamp. • Turn therapy on; hold ON/OFF button for 3 seconds. • Date the canister. 	<p>Canister is to be changed when it is noted to be full or when the solid yellow light over the blockage symbol comes on with an audible beep which repeats every 15 seconds. The alarm may be muted: hold the Mute button for 3 seconds (this muting will last 2 minutes).</p> <p>When the canister is changed, the audible and visual alarms will turn off. The green 'Therapy Life Indicator Lights' will continue in its 7-day cycle.</p>

Managing VACVia Alerts/Alarms	
<p>Note: All alarms may be muted by pressing the Mute button for 3 seconds; this muting will last 2 minutes.</p>	
Alerts / Alarms Display	Monitor / Manage
<p>Therapy Complete:</p> <ul style="list-style-type: none"> • When the machine is at the last 8 hours of therapy, the last Therapy Indicator will show both a YELLOW light and a GREEN light. • When the machine is ready to shut off, the last GREEN light goes off, leaving the YELLOW light. An alarm will sound of 8 beeps followed by one beep for 5 seconds and then the machine turns off. 	<p>Monitor for completion of the therapy.</p>
<p>Low Battery: </p> <p>Solid yellow light with 2 beeps repeating every 4 minutes.</p>	<p>Alarm indicates approximately 2 hours of therapy remain; plug in immediately to prevent disruption of therapy.</p>
<p>Blockage / Canister Full: </p> <p>Solid yellow light and an audible beep repeating every 15 seconds.</p>	<ul style="list-style-type: none"> • To ensure no blockages, ensure the tubing clamp is open and the tubing is not kinked. • If canister is full, then change canister.

Continue on next page

Alerts / Alarms Display	Monitor / Manage
<p>Air Leak: </p> <p>Solid yellow light and an audible beep repeating every 15 seconds</p>	<ul style="list-style-type: none"> • Do not shut off the machine. • Using your finger press along the edge of the drape to find areas which are loose or have lifted. Apply transparent film strips as needed. • Ensure tubing connection is tight and that the canister is securely locked on to the device. • If the air leak is resolved, the audible beep will stop and the yellow light will turn off. Note; there will be a short delay as the machine senses that the leak has been fixed or not. If not, the alarm will sound, try again to seal the air leak. • If unable to fix the leak, then apply alternative dressing as per order. Notify the prescriber that NPWT dressing has been removed.
<p>Machine Failure:</p> <p>All the lights will turn on and flash. Two beeps will sound, repeating every 15 seconds.</p>	<ul style="list-style-type: none"> • Try powering the unit on and off. • Try changing the batteries. • If machine is not working, obtain a new dressing kit and attach the new machine. • If a VACVIA dressing kit is not available, then remove current dressing and apply alternative dressing as per order. Notify Physician/NP/NSWOC/Wound Clinician that NPWT dressing has been removed.
<p>3M/KCI Customer Service: Phone: 1-800-668-5403</p>	

Client Showering
<p>For clients with a skin graft, showering/tub bathing should wait until the VACVia dressing has been discontinued to avoid disturbing the dressing. Clients may have a sponge bath.</p> <p>For clients with a wound, clients can shower but not have a tub bath. The shower needs to be taken immediately prior to a scheduled dressing change and the shower time should be kept short.</p> <p>Set up for the shower:</p> <ul style="list-style-type: none"> • Gather the supplies: alcohol swab, (2) 2x2 gauze dressings and tape. • Turn the machine “Off”. • Wash hands. Don gloves. • Close the tubing clamp. • Using the alcohol swab, cleanse the connection point of the dressing tubing and canister port for 30+seconds and allow to dry for 30+seconds. • Disconnect the dressing tubing from canister port. • Cover the end of the tubing with a 2x2 gauze/tape to keep it clean. • Place the machine where it will not get wet. • To avoid water getting into the tubing; ensure that the dressing tubing is positioned downward during the shower. • The dressing is waterproof but should not be exposed to direct shower spray. If necessary, cover with a plastic sheet/tape. • After showering: <ul style="list-style-type: none"> ○ Gently pat dry the dressing and tubing. ○ Reconnect the tubing. ○ Open the tubing clamp.

Transition/Discharge Planning Refer to [Guideline Negative Pressure Wound Therapy for Adults & Children](#)

- For transition between an acute site to another acute care site
- For transition between an acute care site to community care
- For transition between an acute care site to long-term care
- For transition between a community care site or a long-term care site to an acute care site

Client/Family Education and Resources

1. Acute Care:

- a. When NPWT is started, teach patient/family the rationale for and the underlying principles of NPWT, as well as, general information regarding the VACVia machine being used.
- b. Prior to transition of care to Community (home/Ambulatory Care Clinic):
 - Review the [Client Health Education Resource: NPWT VACVia](#) which outlines the frequently asked NPWT-related questions and specific VACVia machine details e.g. the management of alerts/alarms, changing the canister.
 - Identify which method the patient is to use to manage an irreparable dressing leak and put together the client's Troubleshooting Supplies bag.

2. Community Care:

- a. When the client is transitioned from Acute Care with NPWT in place or when the NPWT is started at home/ambulatory clinic, teach/reinforce with client/family the rationale and underlying principles of NPWT, as well as, review the frequently asked NPWT-related questions and specific information regarding the VACVia machine being used, e.g. the management of alerts/alarms, changing the canister; see [Client Health Education Resource: NPWT VACVia](#).
 - Review/identify the method that the client is to use to manage an irreparable dressing leak. Ensure client has a Troubleshooting Supplies bag.

3. Long Term Care:

- a. When the resident is received back from Acute Care with NPWT in place or when NPWT is started within the long-term care site, teach/reinforce with client/family the rationale for and the underlying principles of NPWT, as well as, general information regarding the VACVia machine being used.

Documentation

1. With each VACVia NPWT dressing change, document on the appropriate paper or electronic documentation tool, as per agency policy, and include the following:
 - a. The full wound assessment
 - b. The numbers (#) of interface and wound filler packing pieces removed and replaced
 - c. Document the client's response to the dressing change.
2. Document NPWT clinical outcomes and care plan revisions as they occur.
3. For Acute Care & Long Term Care, document safety/monitoring checks on the [NPWT Safety/Monitoring Check Flow Sheet](#).
4. For Acute Care & Long Term Care, document canister fluid volume; use the Fluid Balance (In/Out) flow sheets as per unit policy.
5. Document client/family teaching provided on transition of care and any Troubleshooting Supplies given to client/ family on transition to the community setting.
6. When a VACVia NPWT dressing is applied/changed in the Operating Room (OR), the following is documented in the OR record:
 - NPWT type: Open Wound, Closed Incision or Skin Graft.
 - Type(s) of pieces (black foam, white foam, interfaces) placed in or removed from the wound cavity by the surgical team.
 - Number of pieces placed in/removed from the wound cavity by the surgical team.
7. Report NPWT adverse events in the Patient Safety Learning System, or report the safety event according to Health Authority or agency guidelines.

Bibliography/References

1. Refer to the [Negative Pressure Wound Therapy for Adults & Children Guideline](#) for the master list of references.
2. KCI (An Acelity Company). (2018). V.A.C.VIA Negative Pressure Wound Therapy System Instructions For Use. Retrieved from <https://www.acelity.com/healthcare-professionals/instructions-for-use?country=united-states&language=english>. Drawings adapted from same.

Document Creation

This guideline is based on the best information available at the time it was published and relies on evidence and avoids opinion-based statements where possible. It was developed by the Provincial Nursing Skin & Wound Committee and has undergone provincial stakeholder review.

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