

Advanced Technique Application Guide

Sternal Wound with Mepitel®

Including Avance® Foam Dressing Kit and Avance Film with Safetac® technology and Avance ViewPad™



The use of the NPWT is considered first-line treatment¹ in sternal wounds. The Avance® NPWT system should always remain in Continuous Therapy Mode for patients with open sternal wounds. Careful assessment of the wound bed and underlying structures is vital in patients with an unstable sternum, deep sternal wound infection and/or mediastinitis.^{1,2} Therefore, the protection of the wound bed with Mepitel® is indicated under the foam in open sternal wounds.^{1,2}

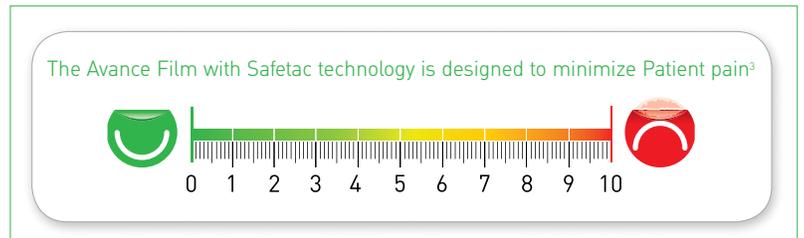
NOTE: The term **Safetac® film** referenced below is the abbreviated form of **Avance Film with Safetac technology**. The term **foam** is the abbreviated form of **Avance Foam**. The term **ViewPad™** is the abbreviated form of **Avance View Pad**.

1. Prepare

- A. Assess the patient for pain, and medicate as indicated and as ordered, prior to the dressing application.
- B. Prepare all dressing materials.
- C. Cleanse the periwound skin and thoroughly dry.

NOTE: Do not use oxidizing agents such as hypochlorite solutions or hydrogen peroxide prior to use of the Avance Foam dressing.

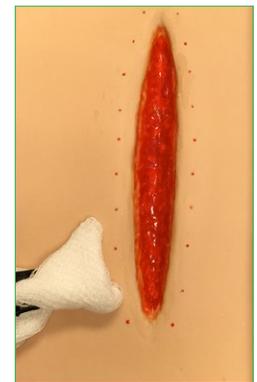
Always assess the wound for the most appropriate positioning of the ViewPad prior to application of the dressing. The most distal portion of the dressing is the preferred location of the ViewPad.



1A



1B



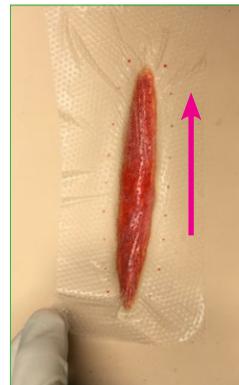
1C

2. Protect

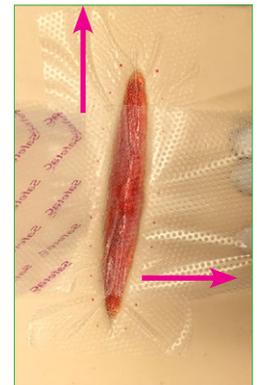
- A. If any underlying structures are present, these should be covered with a Mepitel wound contact layer. The Mepitel wound contact layer should be placed in a hammock-like position under the foam, extending 3 cm onto the periwound.
- B. If two layers of Mepitel are used, place in cross-pattern hammock-like position.

NOTE: No more than two layers of Mepitel should be utilized. Ensure that the Mepitel is changed at every dressing application.

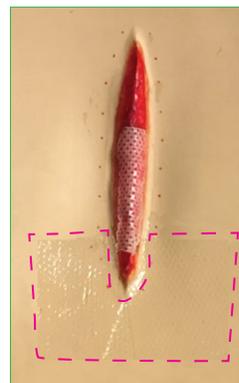
- C. For the Mushroom technique: Cut the Safetac® film approximately 1 cm larger than the foam square landing-pad (mushroom cap) (See step 3B) that will overlap onto intact skin. Apply the Safetac film periwound picture frame (window pane) at the distal portion of the wound, where the ViewPad will be located.



2A



2B



2C

Mepitel is a hydrophobic, porous, transparent and flexible contact layer that can be used in conjunction with the Avance NPWT System. When clinically indicated, Mepitel is applied to the wound bed to minimize pain and prevent trauma on dressing removal⁴ or to protect exposed fragile tissue from direct positioning of the NPWT dressing interface such as in areas of undermining and tunnel(s).

A periwound picture frame (window pane) is defined as protecting intact skin that is in contact with the Avance Foam. A periwound picture frame (window pane) is generally not recommended with the Avance NPWT System. However, in wounds where the ViewPad is larger than the wound, such as in narrow wounds, a periwound picture frame (window pane) with the Safetac film may be utilized.

3. Apply

NOTE: Ensure to debride the wound of necrotic tissue and free the sternal edges from adhesions in open sternal wounds, prior to the placement of the dressing application.

- A. For a wound with an intact sternum: Cut the foam away from the wound into an appropriate size, corresponding with the dimensions of the wound cavity. Extra foam pieces may need to be cut to accommodate deeper areas within the wound. Ensure that the foam extends 3 cm above the wound and all foam pieces are touching.

Mushroom Technique for a Narrow Sternal Wound (Steps 3B- 3D):

- B. Cut the foam, into a square mushroom cap (landing-pad) that will fully support the ViewPad™. Use the ViewPad as a size template. Do not filet/thin the foam.
- C. Place the foam mushroom cap (landing-pad) on top of the foam placed in the wound, at the distal portion of the dressing. Ensure that both the foam pieces are communicating and that the periwound is protected with a Safetac® film picture frame in areas where the foam landing-pad is located on intact skin (See step 2C).
- D. Cut the Safetac film to the appropriate size, and apply it over the foam in the wound and the foam mushroom cap (landing-pad). Ensure that there is an overlap of 3-5 cm past the first layer of the Safetac film picture frame (window-pane) onto the surrounding skin.

NOTE: Do not stretch or cut the Safetac film into strips as it may affect the adhesion to the skin once negative pressure is applied.

NOTE: To reduce the risk of maceration, do not apply more than two layers of the Safetac film.

- E. Remove the release liners on the Safetac film. Do not worry if there are a few wrinkles, as this ensures that the Safetac film was not stretched.
- F. Cut a hole, approximately 1 cm in diameter, in the Safetac film, center of the landing-pad (mushroom cap).
- G. Firmly place the ViewPad over the cut hole.

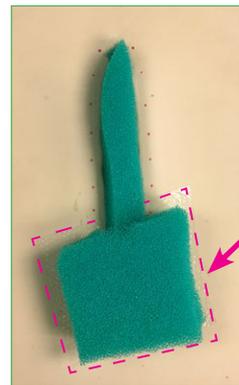


3A



3B

Remove the release liners

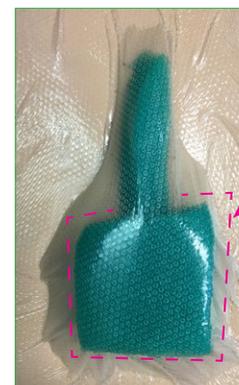


3C

Periwound protected



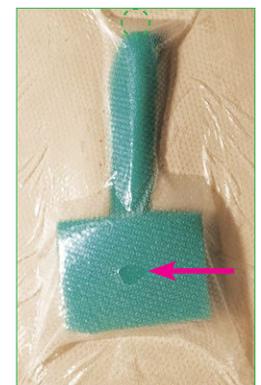
3D



3E

1st layer

2nd layer
(3-5 cm
overlap over
1st layer)



3F



3G

For the open sternum wound (non union of sternum): Cut two pieces of the foam. Place the first piece of the foam in the Mepitel hammock. Ensure to position and fit the first piece of the foam between the sternal edges to prevent shear forces between the bony edges. Cut the second piece of the foam over-sized to the wound dimensions. Ensure to position and fit the second piece of the foam in the Mepitel hammock within the wound and on top of the first piece of the foam. The oversized foam provides sternal stability when the patient is mobile.^{1,2}

For larger open sternum wounds, where an increase in the thoracic cage stability is needed, with a more uniform distribution of NPWT: Two ViewPads can be placed at the proximal and distal portion of the dressing and connected to the Avance® Y-Connector. If cutting the cover dressing film into strips is preferred for more thoracic cage stability, then the Avance Transparent Film should be utilized (not illustrated).^{1,2}

4. Commence

- A. Connect the ViewPad™ tubing to the Avance® Tubing.
Attach the canister to the Avance Max or Flex Pump and insert the Avance Tubing into the canister. Turn on the Avance Max or Flex Pump and commence therapy.

NOTE: Pressure setting should be selected in accordance with the prescriber's recommendation for the patient's etiology and wound type. For guidance, the recommended pressure range for Sternal wounds are Continuous Therapy Mode within a pressure range of -80 mmHg to -120 mmHg. Dressing changes should be done three times a week unless C-Reactive Protein(CRP) levels are rising. Consider more frequent dressing changes when CRP levels are rising based on the prescriber's recommendations. Assessment should include stable CRP levels (30-70 dlgl), wound assessment and pulmonary function².

- B. Once the negative pressure is applied, the dressing will collapse. There may be a tightening sensation in the wound, but that should resolve in a few seconds.

NOTE: If the dressing does not collapse, the system may not be sealed. Inspect the dressing, canister and tubing connections for possible leaks and correct accordingly.



4A



4B

The Avance Film with Safetac® technology promotes patient comfort by reducing pain, erythema, and skin stripping at the dressing change³ and is indicated for use on the patient with a dry periwound.

Best Practice Tips for the Avance Film with Safetac technology:

- Always apply to a dry periwound. Do not use any skin protectants on the periwound.
- Do not cut the Safetac film into strips.
- Always apply the Safetac film in one piece without stretching, with a 3-5 cm overlap onto intact skin.
- When multiple pieces of Safetac film are required for large wounds: Ensure that there is a 3-5 cm overlap where the Safetac film layers meet and a 3-5 cm overlap onto intact skin.
- Do not apply a periwound picture frame (window pane) with the Safetac film, except in instances of narrow wounds and when the relocation of the ViewPad is needed. Please refer to the Mushroom and the Bridging Application Guide for further instructions.

References:

1. Bovill, Estas, et al. "Topical negative pressure wound therapy: a review of its role and guidelines for its use in the management of acute wounds." *International wound journal* 5.4 (2008): 511-529.
2. Petzina, Rainer, et al. "Negative pressure wound therapy for post-sternotomy mediastinitis reduces mortality rate and sternal re-infection rate compared to conventional treatment." *European Journal of Cardio-thoracic Surgery* 38.1 (2010): 110-113.
3. Davies, P., Rippon, M. Evidence review: the clinical benefits of Safetac® technology in wound care. MA Healthcare Ltd, London, 2008.
4. White R. A multinational survey of the assessment of pain when removing dressings. Wound UK, 2008.

For further information on the Avance NPWT System, including safety considerations, see the Instructions For Use for the Avance Pump, Avance Dressings, and the Avance NPWT Clinician Guidelines or call the Apria Clinical Support line at 1-800-780-1228.

For additional information contact your Apria Healthcare Representative

1-800-780-1228 | apria.com | 26220 Enterprise Court, Lake Forest, CA 92630

The information provided herein is not to be construed as the practice of medicine or substituted for the independent medical judgment of a patient's treating clinician. This information, including but not limited to suggestions for product wear time, product selection and suggested use is based on generalizations and does not consider the unique characteristics of an individual's wound. Each patient's clinician shall remain solely responsible for assessing the severity of patient wounds, determining the appropriate treatment, and managing treatment of the wound. For additional information, please refer to the applicable product insert or contact Apria Healthcare at 1-800-780-1228.

Apria Healthcare LLC complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. Apria Healthcare LLC cumple con las leyes federales de derechos civiles aplicables y no discrimina por motivos de raza, color, nacionalidad, edad, discapacidad o sexo. Apria Healthcare LLC 遵守通用的聯邦民權法律規定，不因種族、膚色、民族血統、年齡、殘障或性別而歧視任何人。

The Mölnlycke Health Care, Avance, CFM Technology, ViewPad, Mepitel, Mepiseal and Safetac trademarks, names and logo types are registered globally to one or more of the Mölnlycke Health Care Group of Companies. Distributed by Apria Healthcare LLC. © 2018 Mölnlycke Health Care AB. All rights reserved.



APRIA HEALTHCARE®