Advanced veterinary wound care
**Dechra Veterinary Products** are pleased to be working with **Advancis Medical** who are dedicated to the improvement of wound care through the continuous development and production of quality products specifically designed to manage the demands of modern wound care.

**Activon medical grade Manuka honey** *(Unique Manuka Factor +12)*

Advancis was the first medical device manufacturer to recognise the potential of Manuka honey and develop it into a safe CE marked medical device for application to wounds. The honey is available in products designed for easy application to wounds. Activon Tulle, Activon in a tube and Algivon have been established as market leaders in human chronic wound management.

**Atraumatic exudate management**

**Eclypse** is a super absorbent dressing for the rapid uptake of exudate, with unique fluid handling capabilities. This dressing combines a high capacity for exudate with a unique gel-forming absorbent material to reduce potential for damage to newly formed tissue. Eclypse Adherent combines Silfix® soft silicone adhesion technology with Eclypse.

**Hydrophilic foam dressing**

**Advazorb Plus** is a superb hydrophilic foam dressing which will maintain a moist wound healing environment and provide wound protection.

**Atraumatic silicone contact layer**

**Silflex** is a polyester mesh coated with Silfix® soft silicone which will adhere to the surrounding skin but not to the wound bed itself. Minimises trauma at dressing change.

**Contents**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to veterinary wound management</td>
<td>p3</td>
</tr>
<tr>
<td>Dressing selection guide</td>
<td>p3</td>
</tr>
<tr>
<td>Product - Activon® Manuka honey</td>
<td>p4</td>
</tr>
<tr>
<td>Product - Advazorb Plus®</td>
<td>p5</td>
</tr>
<tr>
<td>Product - Siltape®</td>
<td>p5</td>
</tr>
<tr>
<td>Product - Eclypse®</td>
<td>p6</td>
</tr>
<tr>
<td>Product - Eclypse Adherent®</td>
<td>p6</td>
</tr>
<tr>
<td>Product - Silflex®</td>
<td>p6</td>
</tr>
<tr>
<td>Use of Citrugel® on an equine trauma wound</td>
<td>p5</td>
</tr>
<tr>
<td>Use of Activon®, Eclypse &amp; Advazorb Plus® on canine bite wounds</td>
<td>p7</td>
</tr>
<tr>
<td>Use of Activon Tube® &amp; Algivon® following a canine RTA</td>
<td>p7</td>
</tr>
</tbody>
</table>
An introduction to veterinary wound management

Animal wounds are a common occurrence in veterinary practice and are most likely traumatic or resulting from surgical procedure. Clinical management aims to provide a rapid return to function while eliminating risks of delay.

Research by George Winter in the 1960’s pioneered the moist wound healing principle and since then many other researchers have followed, stating that a moist environment encourages essential cellular activity, collagen formation and vital contraction processes. Wound dressings have subsequently developed to manage the wound environment more actively, by managing the factors associated with delayed healing.

The need for specific properties varies according to the wound and different wounds will require different dressings at different stages to get the best results. Advanced dressings are principally designed to actively re-hydrate or to absorb and retain excess wound fluid as well as protecting against further trauma. They may also be required to manage infection, contamination and inflammation.

There are several key principles to adopt when using advanced dressings which will maximise the outcome and make for easy application and removal.

Preparing the wound to heal

In all cases a full patient history should be attained to establish related or unrelated conditions that may affect healing, management or recovery.

Prior to examination the area around the wound should be clipped with a generous margin so that the extent of injury is visible and to allow the dressing to overlap the wound by at least 2cm. To minimise unnecessary contamination of the wound during clipping a generous layer of Citrugel can be applied to the wound surface. Loose clippings will be caught by the gel and can be washed off easily before further treatment.

Considerations

Tendon, ligament and bone structures benefit from being covered with a generous layer of Citrugel prior to dressing (see p5), regardless of the exudate level, as this will protect against trauma, dressing adhesion and dehydration.

Dressing selection guide

<table>
<thead>
<tr>
<th>Product</th>
<th>Necrotic</th>
<th>Sloughy</th>
<th>Contaminated/Infected</th>
<th>Granulating</th>
<th>Epithelialising</th>
<th>Exuding</th>
<th>Delicate tissue/grafts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activon Tube</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Activon Tube</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Algion</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eclypse</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eclypse Adherent</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advazorb Plus</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Citrugel</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silflex</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Common causes of delayed healing in animal wounds:

- Dehydration of the wound environment
- Maceration of the wound environment
- Contamination or infection within the wound
- Foreign material, devitalised tissue and wound debris
- Physical interference, friction and movement
- Compromised blood flow
- Dehydration (Physiological)
- Poor nutrition
- Lack of immune response

Wound preparation guide:

**Early traumatic wounds**

Wounds that are treated within 4 hours of occurring have a good chance of uneventful direct closure. The wound should be generously lavaged using saline and explored to establish the extent of trauma and any presence of foreign material. Anaesthesia may be required to do this effectively. Closure may be achieved by surgical means if the wound is sufficiently clean and enough viable tissue is available.

**Long-standing traumatic wounds**

Wounds that are over a day old may begin to show signs of deterioration in the form of contamination, infection and dead or devitalised tissue. The wound should be explored thoroughly and non-viable tissue removed. Anaesthesia is likely to be required to examine the extent of injury thoroughly. Thorough lavage with normal saline is recommended.

**Surgical wounds**

Surgical wounds, following closure should be simply cleansed with normal saline and patted dry with woven gauze prior to dressing.
**Activon honey**

**100% pure Manuka honey**

**Activon honey in a 25g tube**

Activon honey is a medical grade Manuka honey which has a reliable level of antibacterial potency not found in other honeys. Through osmotic action attributable to the high sugar levels in the antibacterial Manuka honey, exudate will be drawn from the wound into the dressing, which promotes autolytic debridement. Activon will maintain a moist environment and will help improve the condition of the wound bed. Activon honey benefits patients with wounds in a number of ways - see features list below.

**Activon Tulle**

Activon dressings are designed to retain Activon honey at a wound site, protect a wound, create a moist healing environment and form a barrier which effectively reduce or eliminate wound odour.

Activon Tulle is a triple layer primary wound dressing gauze and can be unfolded to wrap around a limb. Additional layers should be applied to maintain osmotic pressure.

**Algivon**

An absorbent, sterile, non-adherent wound contact dressing comprising calcium alginate (High M) fibres impregnated with Activon Medical Grade Manuka honey.

Algivon dressing has absorbent properties ideal for use on wounds that are exuding, which is common with bacterial contamination or infection.

**Antibacterial**

Unique non-peroxide factor in active Manuka honey.

**Osmotic effect**

Draws fluid from the wound bed, promoting autolytic debridement.

**Enhanced healing**

Honey is rich in water soluble antioxidants and provides favourable conditions that promote granulation and epithelialisation.

**Odour reduction**

Rapid reduction and elimination of wound odours.

---

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activon Tube</td>
<td>25g</td>
<td>CR3830</td>
<td>12</td>
</tr>
<tr>
<td>Activon Tulle</td>
<td>5cm x 5cm</td>
<td>CR3761</td>
<td>5</td>
</tr>
<tr>
<td>Activon Tulle</td>
<td>10cm x 10cm</td>
<td>CR3658</td>
<td>5</td>
</tr>
<tr>
<td>Algivon</td>
<td>5cm x 5cm</td>
<td>CR3831</td>
<td>5</td>
</tr>
<tr>
<td>Algivon</td>
<td>10cm x 10cm</td>
<td>CR3659</td>
<td>5</td>
</tr>
</tbody>
</table>

---

**Use of Activon Tulle in an equine limb wound**

**Applying Activon Tulle or Algivon**

- Open the dressing pack after the wound has been cleansed and examined.
- Apply the dressing directly to the wound allowing the dressing to overlap the wound edge by a minimum of 2cm.
- For large wounds more than one dressing may be required to ensure the wound area is fully covered.
- For smaller wounds the dressing may be cut to size using sharp scissors or folded to fit.

**Dressing Changes**

- Remove the dressing by gently lifting from one of the corners.
- The properties of honey will likely cause the wound to appear moist and ‘gooey’. The beneficial osmotic action of the honey will have drawn exudate and debris from the wound and should be removed using saline.
- As the wound reduces in size exudate levels should decrease and the dressing can be left in place for longer between changes.
- Honey dressings are unlikely to adhere to the wound due to their osmotic properties. However, should this occur gently irrigate the dressing area with saline and consider applying a layer of Activon Tube Honey to the wound prior to redressing.

**Secondary dressings:**

- Use an absorbent secondary dressing to allow for an increase in initial exudate level. This is due to the osmotic effect of the Manuka honey and is beneficial in nature. Advazorb plus or Eclypse Adherent are suitable for use over the Activon honey range.
- It is recommended that dressings are reviewed at one to two days initially to observe wound progression and ensure adequate exudate management.
- As the wound begins to heal the dressings may be left in place for up to five days.

**Acknowledgements:** Professor Derek Knottenbelt OBE, BVM&S, DVMS, DipECVIM, MRCVS Philip Leverhulme Hospital, University of Liverpool.
**Advazorb Plus**

*Moist wound management*

**Product description**

A film backed, conformable, low-adherent, hydrophilic, polyurethane foam wound dressing. Advazorb Plus has high fluid absorbency and retention characteristics. It is a flexible and effective dressing suitable for a wide number of applications. It will effectively manage exudate and maintain a moist wound healing environment.

Advazorb Plus can be used as a primary dressing on exuding wounds, or as a secondary dressing over products such as Citrugel. It can be cut to shape if required and can be held in place through normal bandaging techniques or stay sutures. Advazorb Plus is ideal for providing a moist wound environment whilst protecting the wound.

**Benefits**

- Reduces excess fluid at the wound site
- Helps maintain a moist environment
- Gentle and conformable
- Protects wound

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advazorb Plus</td>
<td>5cm x 7.5cm</td>
<td>CR3895</td>
<td>10</td>
</tr>
<tr>
<td>Advazorb Plus</td>
<td>10cm x 10cm</td>
<td>CR3882</td>
<td>10</td>
</tr>
<tr>
<td>Advazorb Plus</td>
<td>15cm x 15cm</td>
<td>CR3893</td>
<td>10</td>
</tr>
</tbody>
</table>

**Siltape**

*Soft silicone perforated tape*

**Product description**

Siltape is a soft silicone fixation tape delivered on a handy roll with perforations for ease of use, no scissors are required.

Siltape can be used in any situation where a regular adhesive tape would be used. It is particularly useful where friable or sensitive skin is an issue.

**Benefits**

- Atraumatic soft silicone, reduced pain on change, adjustment or removal
- Soft & conformable
- Adheres only to dry skin not to a moist wound
- Easily adjustable with no loss of adherence

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siltape</td>
<td>2cm x 3m</td>
<td>CR3938</td>
<td>1</td>
</tr>
<tr>
<td>Siltape</td>
<td>4cm x 1.5m</td>
<td>CR3939</td>
<td>1</td>
</tr>
</tbody>
</table>
**Eclypse**

*High exudate management*

**Product description**

Eclypse with Silfix® soft silicone technology is a highly absorbent, high capacity wound exudate management product designed to help reduce potential fluid leaks and reduce risk of maceration.

The dressing has a rapid wicking action combined with a secondary highly absorbent layer. The dressing provides a large capacity with an ability to take on fluid quickly. The backing is a fluid repellent film designed to prevent strike-through and resist abrasion.

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclypse</td>
<td>10cm x 10cm</td>
<td>CR3818</td>
<td>20</td>
</tr>
<tr>
<td>Eclypse</td>
<td>15cm x 15cm</td>
<td>CR3769</td>
<td>20</td>
</tr>
<tr>
<td>Eclypse</td>
<td>20cm x 30cm</td>
<td>CR3743</td>
<td>20</td>
</tr>
</tbody>
</table>

**Eclypse Adherent with Silfix® soft silicone contact layer**

**Product description**

Eclypse Adherent is a highly absorbent, high capacity wound exudate management product designed to help reduce potential fluid leaks and reduce risk of maceration.

Particularly suited to equine limb wounds, Eclypse Adherent is designed to absorb and retain fluid from medium to highly exuding wounds. Eclypse Adherent gently but effectively adheres to clipped fur preventing slippage and movement after bandaging. Eclypse can be used for highly exuding wounds in small and large animals.

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclypse Adherent</td>
<td>10cm x 10cm</td>
<td>CR3881</td>
<td>10</td>
</tr>
<tr>
<td>Eclypse Adherent</td>
<td>10cm x 20cm</td>
<td>CR3883</td>
<td>10</td>
</tr>
<tr>
<td>Eclypse Adherent</td>
<td>15cm x 15cm</td>
<td>CR3863</td>
<td>10</td>
</tr>
<tr>
<td>Eclypse Adherent</td>
<td>20cm x 30cm</td>
<td>CR3864</td>
<td>10</td>
</tr>
</tbody>
</table>

**Silflex**

*Soft silicone wound contact layer*

**Product description**

A wound contact non-adherent dressing made from polyester mesh coated with Silfix® soft silicone.

Silflex® is designed to gently adhere to the skin surrounding a wound and not to the wound bed. This is an atraumatic dressing which means it is designed to minimise the pain and trauma associated with dressing change. The dressing allows the passage of exudate.

**Indications**

- Surgical wounds
- Second degree burns
- Skin Grafts
- Any delicate tissue

**Benefits**

- Adheres only to dry skin not to a moist wound
- Atraumatic soft silicone, reduced pain on dressing change
- Allows passage of exudate
- Hydrophobic Silfix® soft silicone coating
- Soft and conformable

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Stock code</th>
<th>No. per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silflex</td>
<td>8cm x 10cm</td>
<td>CR3923</td>
<td>10</td>
</tr>
<tr>
<td>Silflex</td>
<td>12cm x 15cm</td>
<td>CR3924</td>
<td>10</td>
</tr>
</tbody>
</table>

**What is special about Silfix® soft silicone?**

Many traditional dressings and adhesive products contribute to increased pain and trauma on dressing change. As dressing technology advances, the issue of painful dressing changes that were once associated with wounds can now be largely alleviated with proper dressing selection.

Soft silicone is hydrophobic and does not stick to a moist wound only to the surrounding dry area. Silfix® helps to maintain a moist wound healing environment and makes it ideal technology for non-adherent wound contact dressings. Silfix® dressings will not damage newly formed granulating tissue or epithelial cells.

Silfix® dressings will not lose their adhesion after initial application. This can help achieve optimum dressing positioning without wastage.
**Use of Activon & Algion following a canine RTA**

**Presentation**

The male patient (Crossbreed) presented with a wound to its left fore following an RTA (Fig 1).

**Management**

Initially the wound was debrided and cleaned with the patient under general anaesthetic and then dressed with Activon Medical Grade Manuka Honey (Unique Manuka Factor +12). (Fig 2)

After 2 days the wound was looking clean and healthy. (Fig 3) The digit was then filled out and the remainder of the wound closed with a pad flap. (Fig 4) 5 days after surgery the flap was holding well, although after a further 2 days a small area of the wound had begun to break down. (Fig 5) The dog was again examined under general anaesthetic, the wound edges were freshened up and extra sutures placed on the flap. The wound was then dressed with Algion, Activon impregnated calcium alginate dressing to support the healing environment.

**Outcome**

Following dressing with the Alginate dressing 100% of the pad flap survived (Fig 6). Within 16 days from the initial date of injury the dressings had been removed and the dog was sent home with a buster collar. The wound healed with good cosmetic and functional results.

**Dressing summary**

The Activon Medical Grade Manuka Honey (Unique Manuka Factor +12) was used to help manage the local infection risk within the wound due to its antibacterial properties transferred from the nectar of the Manuka Bush. Autolytic debridement was also aided by the Activon as the high sugar level of 80% has an osmotic action of drawing fluid from the wound and softening and lifting necrotic tissue.