Contents

Introduction
Wound healing and modern wound care

Wound types
Wound management using the JorVet range:
• Necrotic
• Sloughy/Infected
• Granulating
• Epithelialising
• Surgical Wounds

Products
• Drapes, swabs and cotton wool
• Manuka dressings
• Dressing products
• Bandages
• Dressing protection
• Dressing aids

Case Studies
• Cat
• Horse
• Rabbit

Wound Reference Chart
Wound healing and modern wound care

Wounds heal through a process of events that are influenced positively or negatively by the local environment. Research in the 1960's pioneered the development of advanced dressings that try to positively effect the wound environment to achieve the optimum wound healing rates. Since then many modern products have been developed that in principle reduce bacterial burden and/or maintain a healthy level of moisture within the wound bed.

The development of antibiotic resistance is largely responsible for a move toward topical management of bacterial burden and contamination. The rediscovery and research into more "traditional" methods of wound management finds us recognising the true value of products that were once considered ancient remedies. Honey, particularly Manuka, is one of those. Honey derived from nectar of the Manuka bush (Leptospermum scoparia) has now proven itself of great value in modern wound care. Able to positively influence the wound environment, regular and successful use of this potent antimicrobial, debriding and anti-inflammatory agent is proving a routine option for all types of veterinary wounds in practice.

The following booklet describes and assists with the use of the Kruuse wound management range.

JorVet acknowledgement of thanks for the case studies and text courtesy of Georgie Hollis BSc MCWHA, Secretary Veterinary Wound Healing Association. (www.vetwoundlibrary.com)

All wounds require a full assessment and careful preparation before a dressing is selected.

The etiological description of wounds assists in the clinical decision making process giving a guide to the extent of injury and the level of contamination.

Surgical wounds: Generally Clean
Lacerations: Contaminated/Dirty
Degloving injuries: Contaminated/Dirty
Avulsion: Contaminated/Dirty
Puncture or bite wounds: Dirty/Infected
Abrasions: Contaminated/Dirty
Burns: Contaminated

Each wound should be addressed systematically
- Accurate history taken
- Thorough examination of the patient and extent of trauma
- Wound preparation – clipping and lavage
- Surgery if necessary
- Debridement of clearly defined devitalised tissue
- Appropriate dressing selection
- Sympathetic bandaging
- Immobilisation if necessary
The status of the wound from first presentation and at each dressing change should be noted. It will assist in the choice of management and dressing selection.

**Necrotic**
Wounds presenting with dry, dead or devitalised tissue can be described as necrotic. Cleansing and lavage will be required to reduce wound bioburden. Wounds are usually heavily contaminated, dirty, with or without infection.

**Sloughy**
Thick, yellow to green slough is produced alongside the inflammatory process during the early stages of healing and alongside infection. With infection, wound edges may undermine, and infection may be suspected, coupled with purulent exudate, smell or the tissue that is fragile and bleeds easily.

**Granulating**
Healthy granulation is the first part of the proliferative phase of healing where a new vascular bed replaces tissue deficit. Closure by reconstruction or primary intention may be achieved at this stage assuming there is enough tissue to do so.

**Epithelialising**
During granulation epithelial cells will migrate from healthy wound margins and the remnants of hair follicles. Wound contraction will contribute to considerable reduction in wound size at this stage.
Use of the JorVet products based on tissue status:

**NECROTIC WOUNDS**

**Objective:** To remove devitalised tissue and promote healthy granulation tissue formation.

**Preparation:** Prepare for sharp debridement and lavage. Following physical removal of devitalised tissue and debris, a further thorough high volume lavage using 0.2 to 0.5% chlorhexidine, saline or balanced electrolyte solution will reduce contamination further.

**Dressing Selection:** Kruuse Manuka Honey is ideally suited for wound type. Applied after physical debridement it will assist further autolytic debridement between dressing changes, while having a broad spectrum antimicrobial effect. An absorbent secondary dressing will be required.

<table>
<thead>
<tr>
<th>Exudate Level</th>
<th>Primary Dressing</th>
<th>Page</th>
<th>Secondary Dressing</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry/Low</td>
<td>Kruuse Manuka G</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>Moderate</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>High</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
</tbody>
</table>

**SLOUGHY WOUNDS**

**Objective:** To remove devitalised tissue and promote healthy granulation tissue formation.

**Preparation:** Cleanse the wound surface and any pockets using high volume lavage of 0.2 to 0.5% chlorhexidine, saline or balanced electrolyte solution.

**Dressing Selection:** Kruuse Manuka Honey is ideally suited to sloughy wounds, contaminated and infected wounds that may present in this category. Kruuse Manuka AD has the highest capacity for absorption of the Kruuse Manuka honey range and as wounds of this type tend to exude more heavily, it is the dressing of choice during this stage. Kruuse Manuka G may also be applied directly to the wound if preferred.

<table>
<thead>
<tr>
<th>Exudate Level</th>
<th>Primary Dressing</th>
<th>Page</th>
<th>Secondary Dressing</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry/Low</td>
<td>Kruuse Manuka G</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>Moderate</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>High</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
</tbody>
</table>
GRANULATING WOUNDS

Objective: Healthy granulation tissue should be preserved and supported by maintaining a moist, clean wound environment. A decision should be made at this stage to find the best route to wound closure. This may be through reconstruction, grafting or closure by secondary intention.

Preparation: The wound should be gently irrigated with warm saline or balanced electrolyte solution to remove any exudate or residues from previous dressings. Do not scrub the wound surface.

Wound Dressings: Kruuse Manuka ND gently supports formation of healthy granulation tissue by encouraging a beneficial moist wound environment due to its osmotic effect. The Manuka Honey also provides a broad spectrum antimicrobial effect to ensure that those wounds that are not quite ready to close through surgery remain healthy.

<table>
<thead>
<tr>
<th>Exudate Level</th>
<th>Primary Dressing</th>
<th>Page</th>
<th>Secondary Dressing</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry/Low</td>
<td>Kruuse Manuka ND</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>Moderate</td>
<td>Kruuse Manuka ND</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>High</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
</tbody>
</table>

EPITHELIALISING WOUNDS

Objective: Protection of fragile tissue margins and support of any remaining granulation.

Preparation: The wound should be gently irrigated with warm saline or balanced electrolyte solution between dressing changes.

Wound Dressings: For wounds with remaining granulation a Kruuse Manuka ND dressing will gently maintain a moist environment at the wound bed due to its osmotic effect. The Manuka Honey will also provide a broad spectrum antimicrobial effect to protect against bacterial contamination. Wounds that are close to healed and are to be managed at home may be kept healthy with a twice daily application of Krucare Aloe Vera.

Surrounding tissue and intact skin can be protected from drying and maceration using Krusan Zinc Oxide ointment, Pasta Plaster or Krucare Skin ointment.

<table>
<thead>
<tr>
<th>Exudate Level</th>
<th>Primary Dressing</th>
<th>Page</th>
<th>Secondary Dressing</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry/Low</td>
<td>Kruuse Manuka ND</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>Moderate</td>
<td>Kruuse Manuka ND</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
<tr>
<td>High</td>
<td>Kruuse Manuka AD</td>
<td>16</td>
<td>Absorbent Wound Pads</td>
<td>15</td>
</tr>
</tbody>
</table>

SURGICAL WOUNDS

Objective: Maintain a clean wound environment for a minimum of 48 hours post surgery. Wounds over joints should be immobilised to avoid dehiscence.

Preparation: Gently irrigate the suture margin using saline, or balanced electrolyte solution post surgery or at dressing change to remove any residual exudate and debris. Pat the wound dry using sterile gauze.

Wound Dressings: Dress the wound using a sterile, non-adherent dressing. For situations where a dressing is not feasible or appropriate, protection from contamination can be achieved by using a layer of Wound Plast Spray.

If contamination, infection or dehiscence is suspected, then use of the Kruuse Manuka range may be advisable for topical management. Kruuse Manuka ND may be used as a primary layer to reduce local contamination. Any open wounds can be filled with Kruuse Manuka G or Kruuse Manuka AD dressings and covered with Kruuse Steriprotect.

NB: Topical infection control using Kruuse Manuka dressings is not a substitute for the identification of the source of infection, disease factors and systemic management. Surgical revision and culture may be required prior to dressing.
**Manuka Dressing**

**MANUKA ND**
Honey impregnated non-adherent dressing. Primary wound dressing. 100% Leptospermum scoparium honey from New Zealand impregnated into acetate gauze. The dressing promotes a moist wound environment conducive to healing.

**Indications**
- Traumatic and contaminated wounds
- Sloughy wounds requiring autolytic debridement
- Superficial and partial thickness burns
- Pressure sores
- Surgical wounds

The KRUUSE Manuka roll is a unique product ideal for large vertical wounds. Example: Equine forelimb

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1251</td>
<td>Manuka ND 5x5 cm Non-adherent Dressing, 10/pkg, sterile</td>
</tr>
<tr>
<td>J1251a</td>
<td>Manuka ND 10x12.5 cm Non-adherent Dressing, 10/pkg, sterile</td>
</tr>
<tr>
<td>J1251b</td>
<td>Manuka ND 10x100 cm Non-adherent Dressing, 1 roll, sterile</td>
</tr>
</tbody>
</table>

**MANUKA AD**
Honey impregnated absorbent dressing. For moderate to heavy exuding wounds 100% Leptospermum scoparium honey from New Zealand impregnated into a pad of super absorbent polymers. The dressing maintains a moist wound environment conducive to healing.

**Indications**
- Traumatic and contaminated wounds
- Sloughy wounds requiring autolytic debridement
- Superficial and partial thickness burns
- Cavity wounds including abscesses
- Pressure sores
- Surgical wounds

KRUUSE Manuka roll is a unique product ideal for large vertical wounds. Example: Equine forelimb

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1252</td>
<td>Manuka AD 5x5 cm Absorbent Dressing, 10/pkg, sterile</td>
</tr>
<tr>
<td>J1252a</td>
<td>Manuka AD 10x12.5 cm Absorbent Dressing, 10/pkg, sterile</td>
</tr>
<tr>
<td>J1252b</td>
<td>Manuka AD 10x100 cm Absorbent Dressing, 1 roll, sterile</td>
</tr>
</tbody>
</table>

**MANUKA G**
Sterile honey wound dressing. 100% Leptospermum scoparium honey from New Zealand. May be used to add honey directly to the wound and provide a moist wound environment conducive to healing.

**Indications**
- Traumatic and contaminated wounds including minor abrasions and lacerations
- Sloughy wounds requiring autolytic debridement
- Superficial and partial thickness burns
- Cavity wounds including abscesses
- Pressure sores
- Surgical wounds

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1253</td>
<td>Manuka G 15g gel x 10, sterile</td>
</tr>
</tbody>
</table>
J0258 Sontara Disposable Surgical Drape. The original JorVet drape with the blue, rich cloth-like feel of Sontara fabric packaged in a fan-folded box. 38”W x 100 yds in a blue and red box. Variance may be 36” to 40”.

Surgery Sterilization Pack Wrap (CSR). These non-woven, soft but tough surgical wraps are useful for wrapping surgery packs during sterilization and storage. They can also be used for actual surgery drapes in precut sizing. The Sontara fabric is very durable but economical. It withstands steam sterilization for a superior barrier against air and water borne bacteria.

J0258a Wrap 18” x 18. 50/pk
J0258b Wrap 24” x 24. 50/pk
J0258c Wrap 30” x 30. 50/pk
J0258d Wrap 36” x 36. 50/pk
J0258e Wrap 45” x 45. 50/pk

Clear Adhesive Surgical Drape/Film with povidine. The majority of human surgeries use clear adhesive drape over the incision site. The rest of the patient is draped with standard non-woven disposable drape material. The clear adhesive drape offers several advantages:

1. Transparency—the film is ultra thin and highly transparent, which give clear observation to the surgical field for location anatomical landmarks.
2. Antibacterial—impregnated with povidine iodine giving the drape a slight orange tint. Very effective against most skin pathogens.
3. Fluid and pathogen resistance—sterile barrier prevents fluids or pathogens right up to the edge of the incision.
4. Permeable—allows the skin to breathe and vapor to pass.
5. High elasticity—follows natural contours for reliable gap-free adherence.
6. Low sensitivity—no irritation to skin or wound.
7. Moderate viscosity—no injury to skin when removing the dressing.

Range of sizes, packaged sterile in sealed pouch
J1086a 14cm x 20cm (6” x 8”) 20 pieces/box
J1086b 14cm x 20cm (8” x 12”) 20 pieces/box
J1086c 14cm x 20cm (12” x 18”) 20 pieces/box
J1086d 14cm x 20cm (18” x 24”) 10 pieces/box
New Weave Gauze Sponge. Synthetic rayon and polyester non-woven fabric. These sponges are lint free, superior in strength and 50 percent more absorbable than cotton sponges.

- **J0570a** Gauze Sponge 2” x 2”. 4-ply. 200/pk, 40 pk/case
- **J0570b** Gauze Sponge 3” x 3”. 4-ply. 200/pk, 20 pk/case
- **J0570c** Gauze Sponge 4” x 4”. 4-ply. 200/pk, 20 pk/case

Poly Stretch Conforming Bandage. The unique bandage pattern allows controlled stretch compared to cling gauze. It molds to any body shape to allow freedom of movement. It is also soft and light weight.

- **J0571a** Bandage 1” x 4.1 yds. 12/pk, 8pk/case
- **J0571b** Bandage 2” x 4.1 yds. 12/pk, 8pk/case
- **J0571c** Bandage 3” x 4.1 yds. 12/pk, 8pk/case
- **J0571d** Bandage 4” x 4.1 yds. 12/pk, 8pk/case

Sensi Wrap Cling Gauze Bandage. 2-ply high quality cotton gauze that is excellent for general bandaging.

- **J0572a** Bandage 2” x 4.5yds. 12/pk, 8 pk/case.
- **J0572b** Bandage 3” x 4.5yds. 12/pk, 8 pk/case.
- **J0572c** Bandage 4” x 4.5yds. 12/pk, 8 pk/case.
- **J0572d** Bandage 6” x 4.5yds. 6/pk, 8 pk/case.

Superfluff Gauze Bandage. A 6-ply 100 percent cotton gauze that is very soft with fluff dried heavy-ply for cushioning and protection.

- **J0573** Bandage 4 ½” x 4.1 yds. 12/bag, 4 bags/case

**J0850 Cotton Ball.** Medium fluffy quality cotton. 2000/paper bag.
Brown “Cling” Gauze. Our brown “cling” gauze is 100 percent pure cotton and comes in fine 24 x 17 mesh.
- J0192a Brown “Cling” Gauze. 3” x 5yds. 12/pk. 50pk/case
- J0192b Brown “Cling” Gauze. 6” x 5yds. 12/pk. 25pk/case

Sponge Gauze. Our sponge gauze is 100 percent pure cotton and comes in a 20 x 12 mesh. It is fully bleached and meets the USP standard.
- J0193a Sponge Gauze. 2” x 2”. 8-ply. 200/bag. 80 bags/box.
- J0193b Sponge Gauze. 3” x 3”. 12-ply. 200/bag. 20 bags/box.
- J0193c Sponge Gauze. 4” x 4”. 8-ply. 200/bag. 20 bags/box.
- J0193d Sponge Gauze. 4” x 4”. 12-ply. 200/bag. 10 bags/box.

- J0490a Sponge. 18” x 18”. Non-sterile. 5/pkg
- J0490as Sponge. 18” x 18”. Sterile. 2/pkg
- J0490b Sponge. 4” x 18”. Non-sterile. 5/pkg
- J0490bs Sponge. 4” x 18”. Sterile. 2/pkg

JorVet Fiberglass Casting Tape. A woven fiberglass mesh that is impregnated with polyurethane. It is activated by submersion in water. Many competing tapes are only 3 yards long!
- Lightweight yet durable
- Waterproof
- Easily shaped
- Packaged in foil pouch
- J0574a Tape. 2” x 4 yds.* 5/case.
- J0574b Tape. 3” x 4 yds.* 5/case.
- J0574c Tape. 4” x 4 yds.* 10/case.
**X-Span Tubular Dressing.** This tube-shaped gauze material is designed to hold a primary dressing in place. It is excellent for use on body parts that are difficult to secure with tape (i.e., the head). The material has a remarkable amount of stretch for optimum fit. Mid-line colored stripe for orientation.

- J0292 Dressing. 16mm W. Yellow.
- J0292a Dressing. 25mm W. Dark Green.
- J0292b Dressing. 32mm W. Light Green.
- J0292c Dressing. 60mm W. Turquoise.
- J0292e Dressing. 75mm W. Purple

**NOTE:** Approximate width unstretched 8 yd/roll=30 stretched yds.

**Orthopedic Stockinette.** Choice of polyester or cotton.
- J0291b Polyester Stockinette. 2” x 25 yds.
- J0291c Polyester Stockinette. 3” x 25 yds.
- J0291d Polyester Stockinette. 4” x 25 yds.
- J0291e Polyester Stockinette. 6” x 25 yds.
- J0291bc Cotton Stockinette. 2” x 25 yds.
- J0291cc Cotton Stockinette. 3” x 25 yds.
- J0291dc Cotton Stockinette. 4” x 25 yds.
- J0291ec Cotton Stockinette. 6” x 25 yds.

**J0197 One-Pound Roll Cotton.** Great for wound care and padding. Bright white, seed-free long stem cotton. Layers in roll separated by blue paper. Outer white poly bag. 30 rolls/case.
Vet Lite Casting Material. This product was a popular product that was discontinued a few years ago in the veterinary field. It is now available once again. Constructed of thermoplastic white mesh. When heated in hot water it turns into a soft malleable material that can be shaped into any configuration. Hardens as it cools.

- Can be reheated and reshaped
- Partially used material may be retained for future use
- Waterproof
- Gloves not required
- Long shelf life

Vet Lite Roll.
J0758a Roll. 2"W x 70"L. 10 rolls/box.
J0758b Roll. 3"W x 70"L. 10 rolls/box.
J0758c Roll. 4"W x 70"L. 10 rolls/box.
J0758d Roll. 6"W x 70"L. 10 rolls/box.

Vet Lite Sheet.
J0728sa Sheet. 3"W x 15"L. 15 sheets/pk.
J0728sb Sheet. 4"W x 15"L. 15 sheets/pk.
J0728sc Sheet. 6"W x 15"L. 15 sheets/pk.

Cast Padding. Soft 100% cotton cast padding. Comfort padding for use under cast or as a protective bandage.

Priced to be competitive!
J-293a 2" W x 4 yds L
J-293b 3" W x 4 yds L
J-293c 4" W x 4 yds L
J-203d 6" W x 4 yds L

Standard White Porous Tape. High quality "athletic" white porous cloth tape that can be torn easily. Priced at considerable savings.
J0820ab Tape 1/2" W 10yds L 12 rolls/box
J0820an Tape 1" W. 10 yds L. 12 rolls/box
J0820bn Tape 2" W. 10 yds L. 6 rolls/box
J0820dn Tape 3" W. 10 yds L. 6 rolls/box
J0820en Tape 4" W. 10 yds L. 6 rolls/box
J-1030 Elastic Adhesive Bandage tape. Similar design to Elastikon® from J & J but at considerable savings. This stretchable tan woven fabric is a very familiar looking tape with red centering line. 5 yds in length.

- J1030a 2” x 6 rolls/box
- J1030b 3” x 4 rolls/box
- J1030c 4” x 6 rolls/box

Ace-Knitted Elastic Compression Bandages. These are the familiar beige stretch bandages. They are very useful for long standing injuries that require a large number of bandage changes. Choice of two closure styles. Individually wrapped.

- Standard Bandage with Metal Retention Clip.
  - J0858 Bandage with Clip. 2” W. 186” L stretched.
  - J0858a Bandage with Clip. 3” W. 186” L stretched.
  - J0858b Bandage with Clip. 4” W. 186” L stretched.
  - J0858c Bandage with Clip. 6” W. 186” L stretched.

Elastic Compression Wrap with Self-Closure Velcro. Both ends have Velcro for easy starting and closure.

- J0859 Bandage with Velcro. 2” W. 186” L stretched.
- J0859a Bandage with Velcro. 3” W. 210” L stretched.
- J0859b Bandage with Velcro. 4” W. 210” L stretched.
- J0859c Bandage with Velcro. 6” W. 210” L stretched.

JorVet Gauze Roll Bandage. This single-ply cotton gauze bandage conforms to a wide range of uses around the clinic besides the normal wound bandaging. Thick 28 x 24 mesh covered in paper. 10 yd L. 12 rolls/pk.

Applications:
- Wrapping over primary dressings
- Simple muzzles
- Tying endotracheal tubes during intubation
- Surgical tie downs

- J0888 JorVet Gauze Roll Bandage. 1” W.
- J0888a JorVet Gauze Roll Bandage. 2” W.
- J0888b JorVet Gauze Roll Bandage. 3” W.
- J0888c JorVet Gauze Roll Bandage. 4” W.
J1079 Absorbent wound pads lift and remove wound exudates in the same way that a disposable diaper works. The outer layers are a thin layer that allows moisture to pass into the thick middle absorbent layer. This keeps the wound surface dry. 5” x 9” green midline strip. It can be trimmed for sizing. Sterile packing in chevron pouch. 25 pieces/box. Less expensive and more absorbent than telfa pads.

Equine Leg Wrap. Made of soft quality bulk cotton which is covered on both sides with a permeable thin layer of non-woven material. The wrap acts much like a diaper in that the wound exudates is lifted and absorbed into the thick middle cotton layer. A dark mark mid-line runs full length to give proper orientation during application. A wide variety of materials and sizes are now available.

J0849 Bulk Equine Leg Wrap. 12” x 10yd.
J0849a Bulk Equine Leg Wrap. 14” x 10yd.
J0849b Bulk Equine Leg Wrap. 16” x 10yd.

J0849an Equine Leg Wrap. 12” x 36”. Non-sterile
J0849bn Equine Leg Wrap. 12” x 42”. Non-sterile
J0849cn Equine Leg Wrap. 14” x 42”. Non-sterile
J0849dn Equine Leg Wrap. 16” x 54”. Non-sterile

J0849as Equine Leg Wrap. 12” x 36”. Sterile.
J0849bs Equine Leg Wrap. 12” x 42”. Sterile.
J0849cs Equine Leg Wrap. 14” x 42”. Sterile.
J0849ds Equine Leg Wrap. 16” x 54”. Sterile.

J0849q Equine “Army Surplus” Brown Leg Wrap. This popular wrap was originally an army surplus product. The thick pad is brown on one side, white on the other. It is combined with two rolls of 6” brown cling gauze for a complete wrap. 18” x 22” brown gauze pad.
Gel Cast or “Unna Boot”. This pink soft cast or bandage is useful for the management of soft tissue sprains or lower leg edema. The cast is actually a bandage material that is 100 percent cotton gauze evenly impregnated with a non-hardening zinc oxide paste. Considered a primary dressing that should be covered with a secondary bandage. Rolled and packaged in individual vacuum sealed pouches.

Features and benefits:
- Contains zinc oxide paste to allow bandages to stay moist and comfortable, encouraging ambulation
- Thread locking edges that prevent unraveling
- Non-gelatin. Does not cake or harden, stays soft over an extended period of time
- No preservatives that may cause allergy or hypersensitivity
- Vacuum sealed pouch prolongs shelf life

J0880 Gel Cast. 3” x 10yds.
J0880a Gel Cast. 4” x 10yds.

Equine Bandage Sheeting. Popular “sheet” material constructed of thin sheet spun fibers. Highly absorbent material that offers excellent protection at an affordable price. Packaged in two forms. (not pictured)
J0871 Equine Bandage Sheet. 30” x 36” Rolled and packaged in poly bag. 12 sheets per bag, 20 bags.
J0871b Equine Bandage Sheet. 30” x 28” bulk in large flat bale. 240/bale.

Tube Gauze. Commonly used in bandaging cat declaws. Also can be used as a stockinette on cats and smaller animals. A very fine weave of 100% cotton that is knitted in a continuous seamless tube. Roll in dispensing box.
J0290a Roll 5/8” (w) x 50yds.
J0290b Roll 1” (w) x 50yds.
J0290ap Metal applicator cage for 5/8” tube gauze

Veterinary Plastic Splint. Made of strong, lightweight plastic; padded with non-irritating foam. Splint can be contoured at distal end with additional moderate heat. Modified cutout for carpal pad. Radiolucent—will not interfere with X-ray while in place. Familiar green color.
J0119a Plastic Splint. Small 1” x 8”.
J0119b Plastic Splint. Medium 1 1/2” x 12”.
J0119c Plastic Splint. Large 2” x 16”.
Carpal Splint. Made from a heavier material reinforced with the longitudinal ribs. A recessed area reduces pressure on the carpal pad. A slight bend in the distal end follows the natural resting position. Splints are provided with open pore foam for comfort. Light Blue.

- **J0650a** Carpal Splint. Toy 7½" x 1" x 5/8"D
- **J0650b** Carpal Splint. Small 10" x 1 1/4" x 5/8"D
- **J0650c** Carpal Splint. Medium 12" x 1½" x 7/8"D
- **J0650d** Carpal Splint. Large 15" x 1 7/8" x 7/8"D
- **J0650e** Carpal Splint. X-Large 18" x 2" x 1"D
- **J0650s** Carpal Splint. Set of 5.

Metal Mason-Meta Splint. The original lightweight aluminum for lower limb injuries. These splints may be used with an extension if a slightly longer splint is needed. These splints are reusable and designed to last.

- **J0651a** Splint. Toy 1"W 3¼" 3⅜" D
- **J0651b** Splint. Toy 1"W 5 ¼" 5 ⅛" D
- **J0651bx** Splint. Toy extension 1"W 3 ¼" 3⅜" D
- **J0651c** Splint. Small 1¼"W 5" 5" D
- **J0651d** Splint. Small 1¼"W 7" 7 ½" D
- **J0651dx** Splint. Small extension 1¼"W 4" 4" D
- **J0651e** Splint. Medium 2"W 7 ½" 7 ¾" D
- **J0651f** Splint. Medium 2"W 12" 12" D
- **J0651fx** Splint. Medium extension 2"W 6 ¼" 6 ⅛" D
- **J0651g** Splint. Large 2½"W 14" 14 ½" D
- **J0651gx** Splint. Large extension 2½"W 7 ¾" 7⅞" D
- **J0651h** Splint. X-Large 3"W 16" 16" D
- **J0651hx** Splint. X-Large extension 3"W 7 ¼" 7⅜" D
- **J0651s** Start Kit, Set of 8 Splints without extensions
- **J0651x** Starter Kit, Set of 8 Splints with 5 extensions

Quick Splint. The latest design in preformed splints for small animal use, it is made of high impact ABS plastic and is scored for individual sizing. Radiolucent. Excellent replacement for Thomas Schroeder splints. All splints come in a paired left and right leg set.

Rear Leg or Tarsal Splint. Shaped to follow hock contour.

- **J0119q** Splint. Cats and small dogs. 9" pr.
- **J0119r** Splint. Medium dogs. 12" pr.
- **J0119s** Splint. Large Dogs. 16" pr

Front Leg Splint. Extends up and beyond the shoulder and down below the carpus.

- **J0119x** Splint. Cats and small dogs. 12" pr.
- **J0119y** Splint. Medium dogs. 16"
- **J0119z** Splint Large dogs. 20" pr.
The SAM® SPLINT is a closed-pore, foamed, coated, malleable aluminum product that is so unique it is patented. This lightweight radiolucent immobilization device, well accepted in the human field, has been carefully evaluated and improved to meet the unique requirements of veterinary medicine. Familiar blue and orange color scheme. The SAM® SPLINT is the lightweight, universal veterinary splint.

**J0289** Roll. 36” x 4 ¼”.
**J0289p** Small Paw Splint. 2” x 4 ¼”. 2 ½ ozs. 10/pkg.
- Washable, not affected by water, disinfectants or temperature extremes.
- Compact. May be stored flat or rolled
- Easily cut with ordinary scissors
- Radiolucent

**Collars**

**Buster Clic Collar.** New quick and simple “clic” closing system. Makes the application of the collar as easy as buttoning your shirt. Fully transparent material, environmentally friendly 100 percent polypropylene. The newly developed material allows the animal all-around vision and animals can avoid walking into furniture, etc. Soft and flexible. Easy to apply to patient. Available in 8 sizes plus combo pack. 10/box.

**J0047a** Clic Collar 7.5cm.
**J0047b** Clic Collar 10.0 cm.
**J0047g** Clic Collar 12.5cm.
**J0047c** Clic Collar 15.0cm.
**J0047d** Clic Collar 20.0cm.
**J0047e** Clic Collar 25.0cm.
**J0047f** Clic Collar 30 cm.
**J0047h** Clic Collar 40 cm.
**J0047j** Buster Clic Collar 35cm.
**J0047s** Clic Collar Combo pack (7 smallest sizes).
(35cm and 40cm collar not included)

Note: Buster collars: Sized in centimeters, referring
**BUSTER Comfort Collar with Soft Rubber Outer Edge.** Our range of Buster collars has been extended with the new Buster Comfort Collar. This new design of BUSTER collar is soft and flexible and it also features a soft rubber outer edge for better comfort, both for the animal and his surroundings. The BUSTER Comfort Collar is transparent and has the quick-fastening system which is well-known from the BUSTER Clic Collar. Environmentally friendly material, 100% polypropylene. 5pk.

- J0047ac 7.5cm
- J0047bc 10cm
- J0047gc 12.5cm
- J0047cc 15cm
- J0047dc 20cm
- J0047ec 25cm
- J0047fc 30cm
- J0047sc set of all 7

**BUSTER Classic Collar**
Protective disposable collars for dogs and cats. Made of flexible recycled polythene. An inexpensive solution to prevent animals from reaching wounds on head and body.

- J0046a Buster Classic Collar 7.5 cm 10 pack
- J0046b Buster Classic Collar 10.0 cm 10 pack
- J0046g Buster Classic Collar 12.5 cm 10 pack
- J0046c Buster Classic Collar 15.0 cm 10 pack
- J0046d Buster Classic Collar 20.0 cm 10 pack
- J0046e Buster Classic Collar 25.0 cm 10 pack
- J0046f Buster Classic Collar 30.0 cm 10 pack
- J0046j Buster Classic Collar 35.0 cm 10 pack
- J0046s Buster Classic Collar Cambi Pack one of each
**Soft-E-Collar™.** The use of Elizabethan Collars is widespread in veterinary medicine. There have been a multitude of different designs over the years. Traditional "E" collars have tried to balance the comfort of the patient, yet it still is effective in offering licking and chewing protection. Clients like the attractive pattern along the comfortable foam padding. Pets can move about freely without damaging furniture, and are able to eat and drink more freely than with traditional collars. The Soft-E-Collar™ is a waterproof heavy nylon material that covers a soft foam doughnut shaped ring. It is help in place by a strong, at tie.

<table>
<thead>
<tr>
<th>Weight (oz)</th>
<th>Diameter (inches)</th>
<th>Center (Adjustable) (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1003a</td>
<td>XX-small</td>
<td>2.1</td>
</tr>
<tr>
<td>J1003b</td>
<td>X-small</td>
<td>2.6</td>
</tr>
<tr>
<td>J1003c</td>
<td>Small</td>
<td>3.2</td>
</tr>
<tr>
<td>J1003d</td>
<td>SS/Medium</td>
<td>5.7</td>
</tr>
<tr>
<td>J1003e</td>
<td>Small/Medium</td>
<td>7.0</td>
</tr>
<tr>
<td>J1003f</td>
<td>Medium</td>
<td>11.3</td>
</tr>
<tr>
<td>J1003g</td>
<td>Large</td>
<td>14.0</td>
</tr>
<tr>
<td>J1003h</td>
<td>X-large</td>
<td>19.0</td>
</tr>
<tr>
<td>J1003j</td>
<td>XX-large</td>
<td>22.0</td>
</tr>
<tr>
<td>J1003s</td>
<td>Set of all 9 sizes</td>
<td></td>
</tr>
</tbody>
</table>

**Flexy Collar.** Soft flexible “E” collar made of nonwoven water resistant material. Lightly padded for comfort and better protection. Shoelace drawstring works especially well on cats. Priced considerably less than similar E collars. Two-tone blue color. Packaged in 5-packs except for sets.

J1095a x-small 4" cat
J1095b small 5½" small dogs
J1095b medium 6½" small to med
J1095d large 8" medium dogs
J1095e x-large 9½" large dogs
J1095s introductory set of all five sizes
**Case History**

**Breed and Sex:** Male domestic short hair

**Wound location and presentation:**
Abdominal abscesses as a result of bite wounds.

**Management:** Wounds were thoroughly debrided and lavaged to reveal the extent of injury. The cat was an exceptional patient and continued to allow management without sedation. Kruuse Manuka AD was used to help debride, control wound infection and encourage granulation. As with wounds of this type and due to the osmotic action of the honey, a secondary dressing was required that would be capable of high absorption. As cost was an issue in this case, a sterile sanitary pad was used as a substitute for commercial absorbent dressings held in place using stay sutures and umbilical tape.

Debrided wounds packed with Kruuse Manuka AD – 07-11-11

Dressing change was initially at 2-3 day intervals until healthy granulation tissue became apparent and discharge reduced.

Absorbent tie over dressing in place.

The cat continued to be tolerant to dressing changes and allowed management without sedation. Packing of the wounds with Kruuse Manuka AD continued, covered by the tie over absorbent dressing, with changes at 3 days.
Conclusion:
This case shows effective use of Kruuse Manuka AD in a heavily contaminated abscessing wound. It is a strong illustration of how a Manuka honey dressing assists in debridement, and controls contamination leading to rapid and healthy granulation and wound contraction.

The Manuka Honey impregnated absorbent dressing had significant advantages over 'liquid' honey as it had the added benefit of being held in close contact with the wound bed for maximum topical effect and wear time.

Courtesy Rachel Umney RVN
Clinical Administrator, Wendover Heights Veterinary Centre, Buckinghamshire, UK

Dressings are repeated again and the cat is seen again after 3 days.

At next dressing change on 15-11-11 (only 8 days after initial dressing) the wound bed is clean, filled with healthy granulation and the wound margins are beginning to reduce in size.

Allowed to heal by second intention the wounds continue to improve with continued use of the Kruuse Manuka AD dressing and tie over technique.

At 02-12-11 the wounds began to contract rapidly and the tie over dressing was removed. Further follow up pictures were not taken as the cat was not returned for further dressings changes. The owners reported that the wounds were now completely healed.
Kruuse Manuka Case - Equine

Infected equine carpal wound. Manuka AD 10 x 12,5 cm dressing applied.

Improvement after 4 days with a single dressing

Case Courtesy Professor Derek Knottenbelt OBE BVM&S DVM&S Dip ECEIM MRCVS Liverpool University
Manuka Case study - Rabbit

**Presentation:** Cellulitis and wound infection as a result of fly strike on a domestic rabbit.

**Management:** Crusty, purulent lesions were dressed directly with Medical grade, high UMF Manuka Honey.

Outcome: The owner reapplied the honey twice daily and after 2 days the wound had improved considerably, new epithelial and granulation tissue was clearly evident and there was no further discharge. The rabbit went on to heal without further incident. No antibiotics were used throughout treatment.

*Case Courtesy Alexandra Remeta.*
JorVet Manuka Case Study - Equine

Presentation: A 10 year old mare eventer (out of work) sustained concussive trauma of unknown aetiology to the medial antebrachium of the left forelimb on 26-12-11. She was seen by the vet the following day.

Management: The wounds were dressed with a hydrogel and foam dressing and bandaged. Changes were applied weekly. Unfortunately the mare repeatedly interfered with the bandages and physically attacked the wound resulting in removal of dressings. Despite best efforts from the owner to rebandage the limb, management of the original antebrachial wound was further complicated by the development of a pressure sore over the accessory carpal bone.

Six weeks after initial injury the wound was reviewed as it was failing to respond to open wound management.

06-02-12. Appearance of wound.
An X-ray was performed and revealed a sequestrum present at the distal radius.
The mare was admitted and the sequestrum debrided under standing sedation and local analgesia. A regional antibiotic perfusion with Gentamicin was also provided and the mare was kept on Penicillin and Gentamicin for 5 days.

16-02-12. Wound appearance pre-surgery showing island of necrotic tissue over the location of the sequestrum.
The bone fragment was cultured and the mare put on Norodine 30mg/kg BID due to the wide range of sensitivities. Kruuse Manuka Honey G and AD dressings were applied to the wound post surgery to provide a topical antimicrobial effect and to assist in wound debridement. Kruuse Manuka AD was packed into the area of tissue deficit and dressing changes were performed twice weekly.

20-02-12. Wound post surgery and after use of Kruuse Manuka showing improved granulation bed across the entire wound. Costs were an issue with this case and although grafting was considered an option. It was decided to allow the wound to heal by second intention for the time being.
23-02-12. Wound continues to improve and cleft reducing in size and depth.

27-02-12. Wound continues to improve and reduce in size.

05-03-12. Epithelialisation and contraction progressing well.

19-03-12. Wound 4 weeks post surgery and progressing well enough not to require grafting.

Outcome
Following removal of the sequestrum and application of the Kruuse Manuka dressings the wound began to granulate well and no further complications retarded healing. The pressure sore responded positively to light bandaging and donut shaped pressure reduction techniques. The wound continued to progress positively through epithelialisation and contraction alone.

Case Courtesy:
Vicky Nicholls BSc(hons) Bvet Med MRCVS BAEDT
Wright and Morten, Macclesfield, Cheshire, UK
A severe traumatic wound treated with MANUKA HONEY wound dressings

Case Courtesy: Dr Caroline Tessier, DMV, DACVS, DECVS
Pôle Equin, Chirurgie Equine, Oniris Nantes University, France

Presentation: A 2-yo Appaloosa filly is presented on emergency after being hit by a car 2 hours before. She suffers from a large traumatic wound of the left shoulder. On examination of the wound, a large skin flap is present on the distal aspect of the wound. The bicipital bursa and the shoulder joint are opened. The biceps tendon, infraspinatus tendon and triceps muscles are partially or completely severed. Severe shoulder instability with shoulder subluxation is present.

Management: On the day of admission (04/01/2012), the wound is debrided, many small pieces of glass and dirt are removed. The joint is lavaged and the joint capsule sutured. The muscles are partially sutured to cover the joint. The large skin flap is moderately hypothermic and bleeding is diminished. However, it is re-apposed to cover the wound and act as a natural bandage. The skin sutures are covered with a dry dressing and a support bandage is applied over the shoulder and around the thorax to limit the instability. The mare is placed on broad spectrum antibiotics and non-steroidal anti-inflammatories.

On 11/01/2012, wound dehiscence starts at the medial aspect of the shoulder, exposing the underlying tissue. Necrosis and tissue debridement is obvious and the wound is treated with MANUKA AD roll applied over the dehiscent areas. The wound is then covered with cotton dressing, changed every day.

On 13/01/2012, half of the sutured area has dehisced, exposing widely the underlying shoulder. There is granulation tissue over the skin defect but the wound is still undergoing debridement. Treatment with MANUKA AD roll and MANUKA G in the deeper crevices is continued.
On 16/01/2012, there is healthy granulation tissue on the periphery of the wound. The center is still undergoing debridement. Wound dressings are applied as follows: hydrogel dressing over the wounds edges to enhance epithelialisation, and MANUKA AD roll and MANUKA G over the remaining of the wound to enhance debridement. The filly is discharged from the hospital with instructions to continue box rest and wound care. MANUKA dressing application should be continued until a healthy granulation bed is present over the entire wound surface.

On 21/01/2012, the wound is almost completely filled with a healthy granulation bed. MANUKA G is applied in the crevices of the wound, which is then covered with hydrogel dressings.
On 28/01/2012, the wound appears completely granulated and wound contraction has begun. MANUKA HONEY applications are discontinued. As the instability is markedly reduced, bandaging is discontinued; the wound is protected with a nylon shoulder cover.

On 28/03/2012, epithelialisation is almost complete and the filly is able to be turned out at pasture. Wound care is discontinued.
CASE HISTORY

Belle, a 1 year old female DSH presented with a wound to the ventral aspect of her tail. The owner had discovered the wound the previous day. A cat bite abscess was suspected and the case was managed as an open wound using Manuka honey. A successful outcome was quickly achieved.

CASE DIARY

DAY 1 – Owner noticed wound
DAY 2 – Presented at surgery with a wound to the ventral aspect of her tail base. The wound had inflamed, thickened edges with a deficit to the central area. Surgical intervention was considered. Due to the location of the wound an open moist wound management approach was taken. The owner was advised to bathe the wound twice daily with saline and to apply the Manuka honey 3 times daily. An Elizabethan style collar was advised to prevent patient interference. Wound size 1.6cm x 1.6cm. A long acting antibiotic and a painkiller injection were given and an oral suspension of painkiller dispensed. (Convenia, Cefovecin sodium – lasts up to 14 days/Metacam, Meloxicam – 8 days)

DAY 8 – Light scabbed area present over wound – flushed with Aquaspray and removed easily. The wound was healing very well. Large reduction in size – 1cm X 0.6cm and no depth to the wound, it had granulated well. The owner was advised to continue with the saline bathing and Manuka honey application twice daily.

Day 16 – The wound was fully healed. The owner reports they stopped topical treatment 3 days previously as wound had healed by then.

OUTCOME

A successful outcome was rapidly achieved using a simple moist wound management approach and with the aid of the benefits of the Manuka honey.

CASE REFLECTION

This case gives a good visual display of what can be achieved with Manuka honey. Dressings can’t always be used due to wound location so this shows how an owner can manage a wound with the correct advice. Quick results were seen which gave the owner confidence in the product and advice given by the practice. The owner did report that the honey was quite crystallized and difficult to remove from the tube. It was advised to gently warm the product to room temperature by rolling tube between the palms of the hands before use.
<table>
<thead>
<tr>
<th>Wound Type</th>
<th>Objectives of management</th>
<th>Dry Wounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Wound</td>
<td>Maintain a clean environment covered for 24 to 48 hours</td>
<td>Primary Dressing</td>
</tr>
</tbody>
</table>
| Necrotic        | Debride devitalised tissue and lavage prior to dressing with Kruuse Manuka Honey.       | Primary Dressing:  
Kruuse Manuka G  
Kruuse Manuka AD  
Secondary Dressing:  
Steriprotect |
| Sloughy         | Debride devitalised tissue and lavage prior to dressing with Kruuse Manuka Honey. Protect wound margins from exudate. | Primary Dressing:  
Kruuse Manuka G  
Kruuse Manuka AD  
Secondary Dressing: |
| Granulating     | Maintain a moist environment and protect new healthy granulation from damage between dressing changes. | Primary Dressing:  
Kruuse Manuka G  
Kruuse Manuka ND  
Secondary Dressing: |
| Epithelialising | Maintain a clean environment and protect from unnecessary trauma.  
Support elasticity of surrounding skin. | Primary dressing over open wounds:  
Kruuse Manuka ND  
Secondary Dressing:  
Absorbent Wound Padding  
Protect surrounding skin and promote elasticity: |
<table>
<thead>
<tr>
<th>Moderately Exuding Wounds</th>
<th>Wet Wounds</th>
</tr>
</thead>
</table>
| **Primary Dressing - Clean Wounds**<br>  
  Steriprotect  
  **Primary Dressing with infection:**  
  Kruuse Manuka ND  
  Kruuse Manuka G (with a cavity)  
  **Secondary Dressing with infection:**  
  Absorbent Wound Dressing | **Primary Dressing - Clean Wounds**<br>  
  Absorbent Wound Padding  
  **Primary Dressing with infection:**  
  Kruuse Manuka AD  
  Kruuse Manuka G (with a cavity)  
  **Secondary Dressing with infection:**  
  Absorbent Wound Dressing |
| **Primary Dressing**<br>  
  Kruuse Manuka G  
  Kruuse Manuka AD | **Primary Dressing:**<br>  
  Kruuse Manuka AD  
  **Secondary Dressing:** Absorbent Wound Pads  
  **Barrier Dressing (to protect surrounding skin)** |
| **Secondary Dressing:**<br>  
  Absorbent Wound Dressing | **Secondary Dressing:** Absorbent Wound Pads |
| **Primary Dressing:**<br>  
  Kruuse Manuka G  
  Kruuse Manuka AD | **Primary Dressing:**<br>  
  Kruuse Manuka AD  
  **Secondary Dressing:** Absorbent Wound Pads |
| **Secondary Dressing:**<br>  
  Absorbent Wound Dressing | **Secondary Dressing:** Absorbent Wound Pads |
| **Primary dressing over open wounds:**<br>  
  Kruuse Manuka ND  
  **Secondary Dressing:** | **Primary dressing over open wounds:**<br>  
  Kruuse Manuka AD |