KRUUSE Wound Flushing Unit

The importance of wound lavage

"Progress in practical and economical wound management does not happen very often. The KRUUSE Wound Flushing Unit is physiologically sound and very well constructed. This simple system will certainly enhance your reputation for wound management and you will find that you get better results!

I cannot recommend this piece of equipment highly enough – every practice should have several of these available at all times!"

Professor Derek C Knottenbelt OBE, BVM&S, DVM&S, DipECEIM, MRCVS

Recognised RCVS and European Specialist in Equine Internal Medicine

The first few steps in traumatic wound management should be directed towards reduction of the bacterial contamination and the removal of foreign bodies and devitalized tissue. Ideally bacterial contamination should be below 10^5 potens bacteria/gram of tissue.

The importance of irrigation / lavage of the acute wound cannot be overstated. It is widely accepted that irrigation with a physiologically neutral warm solution is the preferred method of wound cleansing; it enhances wound healing and supports the natural repair whilst also reducing the complications that may inhibit healing significantly. The presence of foreign bodies and bacteria can be minimised by using the correct lavage system; it has significant advantages over traditional methods of mechanical swabbing of wounds with the associated risk of rubbing debris and bacteria into the wound bed.

Wound irrigation gently but effectively removes loose debris and exudate from the wound surface and creates a local environment that is conducive to healing.

Along with the physiological computability of the solution the **PRESSURE** of the lavage and the **VOLUME** of fluid used are the most important aspects of wound irrigation. Irrigation may be gentle or vigorous, depending upon the desired outcome and the extent and type of debris and the stage of wound healing. ***Optimal irrigation pressure needs to be achieved while minimising tissue trauma.***

Pressures between 0.5 – 0.8 bar (8-12 PSI / 55-88Kpa) are recognized as a standard that creates enough pressure to dislodge debris and bacteria without driving contaminants further into the wound. A pressure of 0.5 bar (8psi) appears to be effective in cleansing wound debris. Too low a pressure is ineffective and serves only to moisten the wound and the surrounding area.

A high volume of solution is advantageous and as a general guide should be provided at a rate of at least 100ml per cm of the longest part of the wound. When the pressure and physiological solution are correct, the volume of lavage fluid is the most significant factor in producing an effective lavage – the greater the volume the better the effect. Warm physiological solutions are better than cold!

Historically lavage in veterinary medicine involved the driving of sterile saline solution through a syringe with a 19-20 gauge needle. This method results in very variable pressure and poor volume usage. It is hard work and involves physical, effort particularly when it is used on large or heavily contaminated wounds.

KRUUSE Wound Flushing System

The KRUUSE wound lavage system facilitates optimal wound care at an affordable price: effective wound irrigation is ensured by the use of 3L of body temperature isotonic fluid delivered at the correct pressure.

KRUUSE is the first company to develop a dedicated veterinary Wound Flushing Unit with a documented and stabilised pressure of 0.82 bar (12 psi). The flushing unit delivers 3L of fluid in less than 5 minutes.

Provet Code	KRUUSE Code	Description	Pack Size
WOUN F U1	165050	Wound Flushing Unit	Each

KRUUSE Wound Flushing Solution

The KRUUSE Wound Flushing Solution sachet contains the correct amount of electrolyte to add to the Wound Flushing System to produce 3L of body temperature physiological saline solution.

The sachet also includes 0.04% polyhexanide (PHMB) as a preservative. This solution is ideal for professional wound lavage in a busy surgical or single handed field setting.

One sachet contains 30.051g powder consisting of:

Chloride	11.591g
Sodium	8.964g
Lactate	7.482g
Potassium	0.470g
Calcium	0.181g
PHMB	1.200g
Water	0.163g

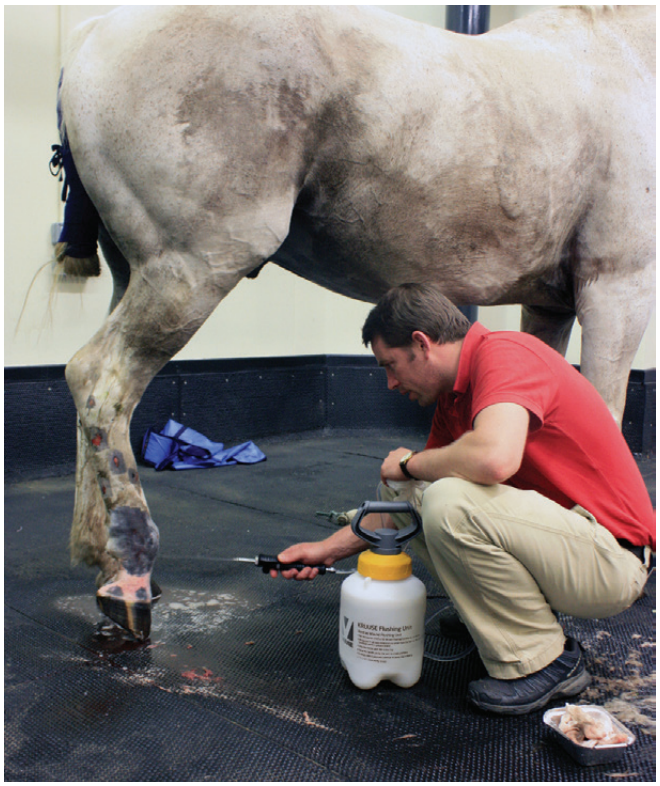
Provet Code	KRUUSE Code	Description	Pack Size
WOUND F S1	165051	Wound Flushing Solution	10

Protocol for wound preparation

1. Evaluate the wound
2. Flush the wound site gently at low pressure to remove gross contamination
3. Fill the wound with KRUUSE HydroGel
4. Clip hair around the wound
    a. Clipping hair is preferable to shaving which can cause local skin microabscessation
    b. The hair falls harmlessly onto the KRUUSE HydroGel without further contaminating the wound bed
5. Flush the area around the wound to remove any further contamination
6. Lavage the wound site with the KRUUSE Wound Flushing Unit using body temperature KRUUSE Wound Flushing Solution

    – this removes the contaminated HydroGel and any other contaminant, leaving a clean wound bed ready for reconstruction and/or dressing.

    The principles of physiological wound preparation are fulfilled.



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