



Complicated Wound Management: A Case-Based Approach

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Lecture Objectives

- Recognize the role that wound location and severity play in management of wounds
- Be aware of anatomic locations where wounds may occur that commonly involve other structures and strategies to rule out their involvement.
- Select wound management techniques based on location, chronicity, contamination, and other wound factors.



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Principles of Wound Evaluation

- **Assess**
 - Systemic health
 - Other wounds
 - Presenting problem
- **Body cavities/structures**
 - Thorax (trachea)
 - Abdomen
 - Joints, tendon sheaths
- **Clean**
 - Clip
 - Debride
 - Lavage



Wound Evaluation

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Bov Flank Laceration

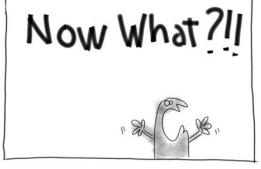
- 4 mo HO heifer
- Laceration: >4 wks



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Bov Flank Laceration

- Physical Exam
 - T: 100.3° F
 - P: 60 bpm
 - R: 44 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Normal GI sounds, rumen cont.
 - No other wounds



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Bov Flank Laceration

Body Cavities

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The slide contains three anatomical illustrations of the equine abdomen. The top illustration shows a lateral view of the abdominal musculature. The bottom-left illustration shows a longitudinal section through the rumen. The bottom-right illustration shows a ventral view of the abdominal cavity.

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The image consists of two photographs. The top photograph shows a person's hands holding a set of long, thin medical instruments, including a scalpel handle and several trochar needles, against a dark background. The bottom photograph shows a close-up of a cow's flank. A large, jagged laceration is visible, with a red-tipped probe being inserted into it. A gloved hand is visible on the right side of the wound.

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Handwriting practice lines consisting of five horizontal lines: a solid top line, a dashed midline, and a solid bottom line.

Bov Flank Laceration

- Large, open wound
 - Multi-layer closure
- Lots of dead space
 - Place drain
 - Bandage
- Contaminated wound
 - High volume lavage
 - Systemic antibiotics

Jackson-Pratt Drain

Diagram illustrating the components of a Jackson-Pratt drain:

- Inlet
- Body
- Thrombin-coated
- Disengaged

Anatomical diagrams (A, B, C) showing different types of lacerations:

- (A) Longitudinal laceration through skin and muscle.
- (B) Laceration through skin and muscle, with a yellow drain tube inserted.
- (C) Laceration through skin, muscle, and tendon, with a yellow drain tube inserted.

Photograph of a cow's flank showing a laceration and drainage.

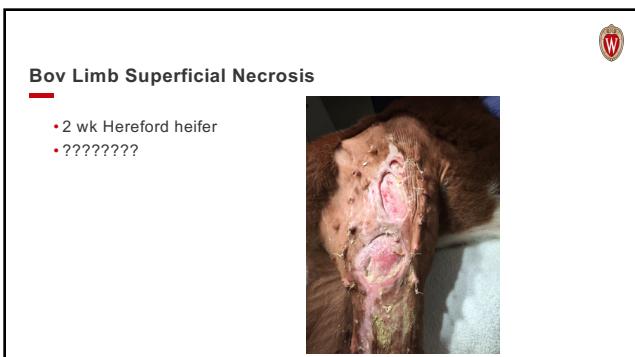
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Bov Limb Superficial Necrosis

- Physical Exam
 - T: 102.2° F
 - P: 84 bpm
 - R: 60 bpm (panting)
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Harsh bronchovesicular sounds
 - Lame on RH limb
 - No other wounds

Now What?!!

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Bov Limb Superficial Necrosis

- Neonatal exam
 - Passive transfer
 - Congenital abnormalities
 - Umbilicus
 - Joints

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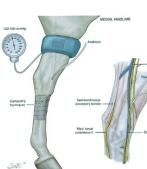
Bov Limb Superficial Necrosis

- Concerns
 - Quadriceps mm
 - Flexors of digit
 - Tibial, peroneal nn
 - Lateral saphenous v
 - Stifle joints
 - Tibia

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Bov Limb Superficial Necrosis

- Plan
 - Regional limb perfusion
 - Antibiotic
 - Local anesthetic
 - Wound debridement
 - Sharp


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Bov Limb Superficial Necrosis

- Plan
 - Bandage
 - Cleanliness
 - Reduce edema
 - Delayed primary closure



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Bandaging – Primary Layer

- "No single dressing may support the processes of wound healing in all phases." Equine Wound Management, 2016

Wound Characteristic	Dressing
Necrotic wounds	Wet-to-dry gauze
Desiccated wounds	Hydrogels
Wounds lacking granulation tissue	Alginates
Granulated wounds lacking epithelialization	Foams or silicone gel sheets
Excessively exudative wounds	Hypertonic saline dressings
Sutured wounds	Non-adherent gauze dressings
Infected wounds	Antibacterial dressings

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Bandaging Principles

- Bandaging Principles
 - Primary
 - Contact layer
 - Secondary
 - Padding
 - Immobilization
 - Absorption
 - Tertiary
 - Immobilization
 - Compression
 - Fix to limb



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Bandaging Principles

- Primary
- Secondary
- Tertiary
- Tertiary



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Bov vs Bale Spear

- 6 yo Angus cow
- Hit with bale spear



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Bov vs Bale Spear

- Physical Exam
 - T: 102.6° F
 - P: 76 bpm
 - R: 44 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Rumen: 2 strong contractions per minute
 - No other wounds

Now What?!!

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Bov vs Bale Spear

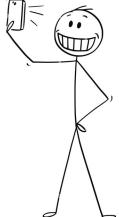
- Concerns
 - Pneumothorax
 - Ribs
 - Abdomen
 - Rumen

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Bov vs Bale Spear

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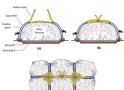
Bov vs Bale Spear




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Bov vs Bale Spear

- Plan
 - Encourage drainage
 - Prevent ascending infection
 - Manage dead space
 - Encourage granulation
 - Promote epithelialization





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Bov Distal Limb Laceration

- Est yearling Angus steer
- Trailer roll-over
- LH medial claw amputated




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Bov Distal Limb Laceration

- Physical Exam
 - T: 99.4° F
 - P: 72 bpm
 - R: 28 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Non-weightbearing on LH
 - No other wounds

Now What?!!

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Bov Distal Limb Laceration

- Concerns
 - Middle and distal phalanges
 - Coffin joint
 - Pastern joint
 - Flexor tendon sheath

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Bov Distal Limb Laceration

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Bov Distal Limb Laceration

- Plan
- Wound care
- Facilitated ankylosis
- Bone graft



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Bov Distal Limb Laceration



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Questions

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