

Equine Emergencies:

How to recognize and handle urgent health concerns

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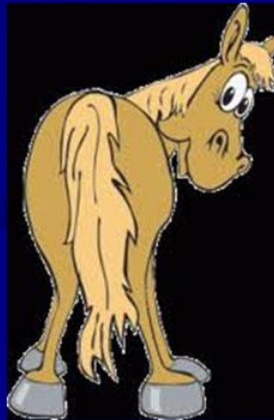
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Know your horse

- It is important to know what is normal before you can recognize what is abnormal
- Every owner should know how to take vital parameters (T, P, R) on their horse
 - normal T = 37.0 – 38.4 C or 99-101.4 F
 - normal P = 28 – 40 beats per minute
 - normal R = 8 – 16 breaths per minute



- Hydration status can be determined via the skin pinch test, oral mm quality, and CRT
- Capillary refill time (CRT) of the oral mm can show blood pressure changes or shock
 - normal CRT < 2 sec
 - normal mm are pink and moist
 - skin pinch – skin should return to normal position immediately



What is abnormal?

- Obvious abnormalities include fever, elevated HR or RR, signs of pain, sudden lameness, squinty eyes, etc
- Less obvious abnormalities:
 - a horse that is off feed
 - a horse that is standing off by himself when he is normally a social butterfly
 - muddy or purple oral mm
 - lethargy
 - laying down more than normal

Types of common emergencies:

- Colic
- Lacerations, abrasions, punctures
- Eye injuries
- Choke
- Foaling difficulties
- Sudden severe lameness
- Allergic reactions

Colic

- Signs can vary:
 - depression and inappetance
 - stretching repeatedly
 - kicking at the belly
 - looking at the belly
 - pawing the ground
 - sweating
 - laying down or rolling



Colic

- Common cause in fall and winter is inadequate water intake and consumption of lots of dry matter (hay) - constipation or impaction

Colic

■ Other types of colic include:

- gas colic
- spasmodic colic
- bowel displacement (nephrosplenic)
- intestinal accident (torsion, volvulus, intussusception, parasite obstruction)
- proximal enteritis, colitis

Colic

- If signs do not resolve quickly, veterinary evaluation is essential
- Treatment can include pain meds, fluid therapy, laxatives, etc.
- The horse may also require referral for medical or surgical management (can be very time-sensitive)

Colic

To determine the urgency of the situation, owners can:

- Take a heart rate..... > 60 bpm usually more serious colic, should not wait to call vet
- Take respiratory rate – elevations can mean significant pain
- Assess degree of pain – is the horse just off feed and depressed, or is he rolling, laying down, kicking at himself
- Check mm colour and CRT

- If a vet has been called, do not give the horse any oral or IM pain meds. They will work faster and better if given IV by the vet
- Walk the horse. If he wants to roll, do not get injured trying to stop him. Move him to a place where he will not injure himself.
- FYI – Banamine/Flunixin/Flunazone injectible should not be given IM at all – can cause serious muscle abscessation

Lacerations/Abrasions/Punctures

- Horses can be accident-prone, injuries are common
- Not all require immediate veterinary attention
- The need for veterinary care depends on location of the wound, severity, and pain associated with the injury

Abrasions

- Abrasions or 'scrapes' are usually not full-thickness through the skin
- Can be painful but in many cases will heal without oral medications if treated topically
- Rec :
 - wash the injury daily with antiseptic solution and water, rinse and dry.
 - apply antibacterial dressing daily such as Polysporin or Hibitane ointment, keep clean



Lacerations and Punctures

- Can be full thickness or partial thickness
- Always a good idea to get veterinary advice, esp if:
 - heavy bleeding or severe pain
 - over a joint or tendon sheath or other vital structures like eyes and mouth
 - foreign objects present in tissue (nail in hoof, wood in wound, etc)
- Suturing is best done within first 6 hrs after the injury, but exceptions to the rule are common



What to do until the vet gets there:

- If bleeding heavily, apply pressure for a few minutes and then apply pressure bandage
- If necessary, can apply tourniquet to leg above wound
- If not bleeding but heavily contaminated, flush with garden hose to remove debris or flush with antiseptic solution such as tea-coloured betadine and water or chlorhexidine
- Apply bandage to keep clean if possible

Lacerations

- Not all wounds can be sutured :
 - too old
 - infected or heavily contaminated
 - not enough skin to close
 - poor location
 - damaged skin

Attempts at suturing can be made to protect underlying tissues, but failure or dehiscence are common

Punctures

- Punctures should never be sutured unless absolutely necessary (heavy bleeding)
- Bacteria are driven deeply into the tissues and infection is usually unavoidable
- Generally are treated as an open wound

Open Wounds

- 1-2 times per day flush or wash with tea-coloured betadine solution or diluted chlorehexidine, rinse well (avoid hydrogen peroxide – cytotoxic)
- Apply wound dressing for antibacterial activity for the first 1-2 weeks and bandage if possible:
 - Polysporin, Vulketan
 - chlorehexidine ointment
 - honey, sugar-dyne
 - Nitrofurazone ointment (some evidence to show it can delay healing)

- Avoid wound powders or sprays that dry the wound
- Scabs and crusts are not desirable – they delay or stop wound contraction and new epithelial cell migration
- Wounds should be kept moist and soft
- Need a healthy moist granulation tissue bed across which epithelial cells can migrate

- After the first 1-2 weeks, if granulation tissue has filled the wound, switch from antiseptic dressing to closure-promoting dressing :
 - Vulketan, Dermagel, honey
- If granulation tissue bulges beyond the skin edges or skin edges dry out, wound may need to be trimmed and freshened by your vet.
- Open wounds should be bandaged and protected for as long as possible, if possible



Choke

- Obstruction of the esophagus – usually caused by rapid ingestion of dry feed materials (pellets such as High Fat/High Fibre, hay cubes, beet pulp, etc.....always feed soaked, soft, and wet)
- Can also be a result of scar tissue in the esophagus and stricture formation or poor dentition and improper chewing of food

■ Clinical signs :

- feed material and saliva flowing from both nostrils
- retching or gagging, distress
- extending the neck
- sometimes stretching or laying down (looking colicky and uncomfortable)



What to do:

- Call the vet
 - Take away any feed materials present
 - The horse will need to be sedated
 - A nasogastric tube will need to be placed and the obstruction needs to be softened and flushed into the stomach
- Rapid intervention will help prevent scar tissue formation of the esophagus as well as aspiration of feed material into the lungs

Eye Injuries

■ Call the vet if :

- the eye is squinting and tearing
- the cornea looks cloudy
- there is swelling of the lids
- the eye is red or the pupil is smaller than normal

Remember, the horse only has 2 eyes to start with.
Waiting too long could have serious outcome.

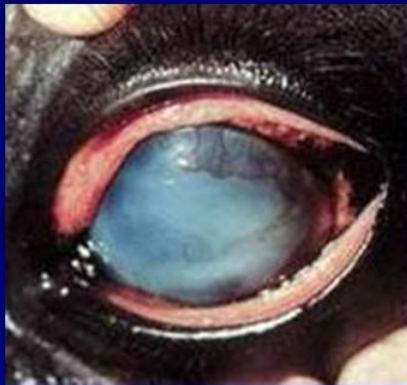
Common Eye Injuries

- Corneal ulcers (can turn nasty quickly if not treated...also very painful)
 - Uveitis
 - Lacerations of the lids
 - Foreign bodies
 - Glaucoma
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- It is best to have the eye assessed to determine the severity of the problem

Corneal ulcers



Uveitis



Glaucoma



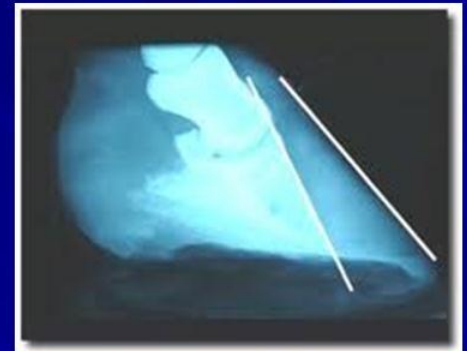
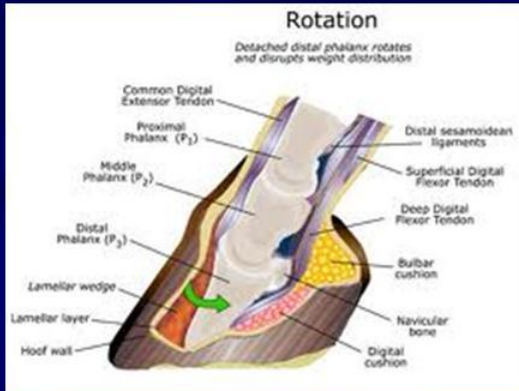
Sudden Lameness

- Severe lameness that appears suddenly can be serious:
 - fractures (usually 3 legged lame)
 - foot abscesses (often 3 legged lame)
 - tendon injuries (can be 3-legged lame)
 - laminitis (usually 2 or 4 feet affected, often walking as though on broken glass, trouble turning, standing with feet stretched forward, feet are hot and pulses strong)

3-legged Horses: Tendons, Fractures, Abscesses



Laminitis



- The sooner a diagnosis is established, the better the prognosis may be
- Keep the horse quiet and calm until the vet arrives
- Tell the vet if you see a nail in the horse's hoof, so x-ray equipment can be brought to the farm

- All are emergencies
- Untreated foot abscesses can spread to the bone
- Hairline fractures can become catastrophic if not diagnosed immediately
- Laminitis can result in rotation of the pedal bone which can be life-ending
- Bowed tendons can become significantly worse with poor prognosis or very long healing times if not assessed and treated

Allergic Reactions

■ Clinical signs:

- hives, pruritis
- swollen face or muzzle
- shaking, trembling
- heavy breathing, difficulty swallowing
- anaphylaxis (rapid heart rate, white oral mm, poor blood pressure, throat closure)



- Most commonly associated with exposure to weeds or insects
- Also possible reaction to medications, feeds, hay components
- Minor reactions may respond to antihistamines alone
- Some may require steroids or even epinephrine if severe enough

Foaling Difficulties

- Make sure prior to foaling that the mare does not have an intact Caslick's closure of the vulva
- This can result in severe tearing of the vulvar tissue during birth
- Monitor her udder several days prior to foaling for mastitis and early colostrum leakage (you may need to collect colostrum and store it for the foal)



- Mares usually foal at night...they do not like an audience (they can delay foaling...hold the baby in...if not given proper privacy)
- Stage 1 of foaling - restlessness, sweating, abdominal discomfort, laying down repeatedly, can last several hours
- Stage 2 – the water breaks, mares are straining and pushing actively – should not take longer than 30 minutes

- Normal fetal membranes are white or blueish
- If red membranes are protruding from her vulva instead, this is an emergency (the placenta has separated from the uterine lining prematurely and the foal is suffocating)
- Call the vet ASAP
- While waiting, you may have to try to deliver the foal



- Even if all goes well, a veterinarian should examine both the mare and the foal within a few hours of birth to :
 - ensure the mare has passed her entire placenta (3 hr rule)
 - her udder is healthy
 - she has no tearing inside and out
 - give Tetanus vaccination if needed
 - she is overall healthy

■ The foal should be examined for:

- normal nursing and behavior (should be standing within 1 hr, nursing within 2 hrs)
- IgG antibody levels
- navel problems
- the normal passing of meconium
- presence of cleft palate
- cardiac arrhythmias or murmurs

- Common post-foaling mare emergencies include:
 - failure to pass placenta within 3 hours
(can cause laminitis, infection, severe illness)
 - tearing of vulva or uterine tissue
 - mastitis
 - inability to let milk down or reluctance to let foal nurse



■ Common post-birth foal emergencies include

- meconium impaction
- navel infection leading to joint infection or systemic sepsis
- inability or reluctance to nurse
- neonatal maladjustment syndrome ('dummy foals' – unable to find udder or latch on, may have neurologic signs such as seizures)
- neonatal isoerythrolysis



First Aid Kit

- Vetwrap, roll gauze, leg wraps
- Telfa pads, syringes
- Maxi-pads or diapers for pressure bandages
- Duct tape, white tape, scissors
- Stethoscope, Thermometer
- Penlight or flashlight, hoof pick
- Latex gloves, rubber tubing or scarf (tourniquet)
- Saline solution (for eyes and wounds)
- Antibacterial soap and ointment

A big Thank You to Purina and Leis Feeds for inviting the Milverton - Wellesley Vet Clinic to this seminar

A big thank you to all of you attending

Any Questions??



Horses are scared
of 2 things:

1. things that move
2. things that don't.

