



EQUINE EMERGENCY: Triage and Treatment

Alexandra Tracey, DVM
Equine Surgery Resident
Iowa State University



TRIAGE

What is an emergency?

- Dyspnea (difficulty breathing)
 - Swelling of pharynx/larynx (throatlatch)
 - Trauma or spasm of the airway
- Blood loss
 - External- lacerations
 - Internal-
 - Guttural pouch (carotid artery bleed)
 - Uterine artery
- Fractures



TRIAGE

Other Emergencies

- Dystocia (problems giving birth)
- Colic
- Choke (esophageal obstruction)
- Penile lacerations/blockage
- And the list goes on...



TRIAGE

What first?

- Safety (you and the horse!)
- Establish airway
- Stop bleeding
- Stabilize fractures
- Continue first aid

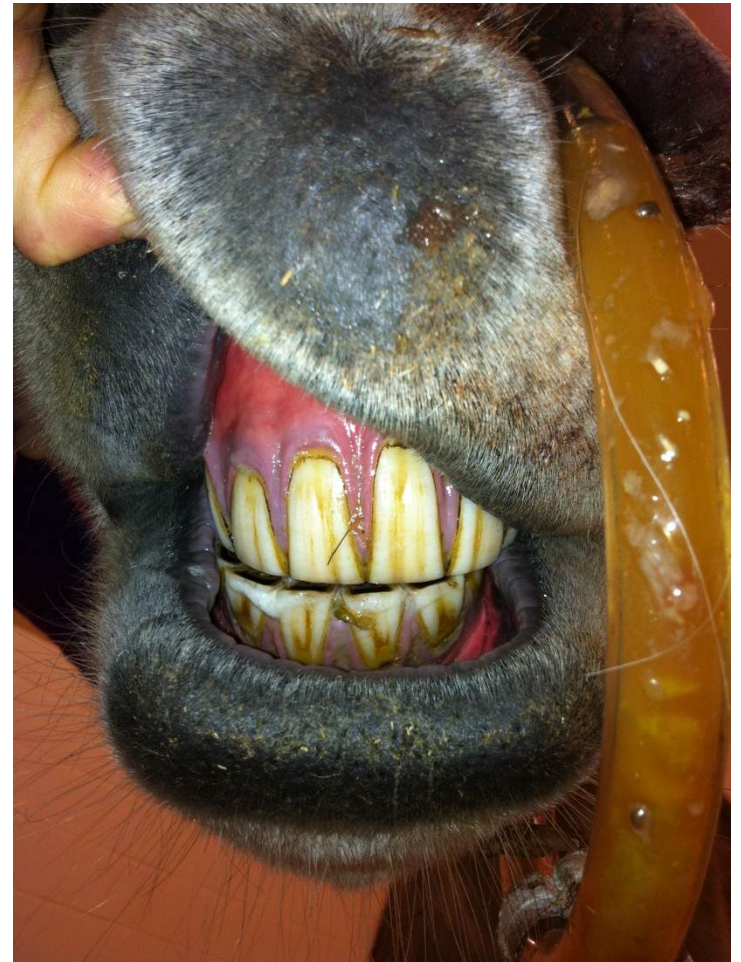


SAFETY

- Assess the situation:
 - Is the area safe?
 - Can you safely reach/treat the horse?
 - What can you do to make it safer?
- Stabilize the environment
- Calm the horse (sedate if available)

Physical Exam

- Pulse/heart rate
- Respiratory rate
- Capillary refill time
- Mucous membranes
 - Color
 - Moistness
 - Patechiaie



Mucous Membranes (gums)



Important Things to Note



- Heart Rate
- Pulse quality
- Warmth of extremities
- CRT
- Urine production



Sedation

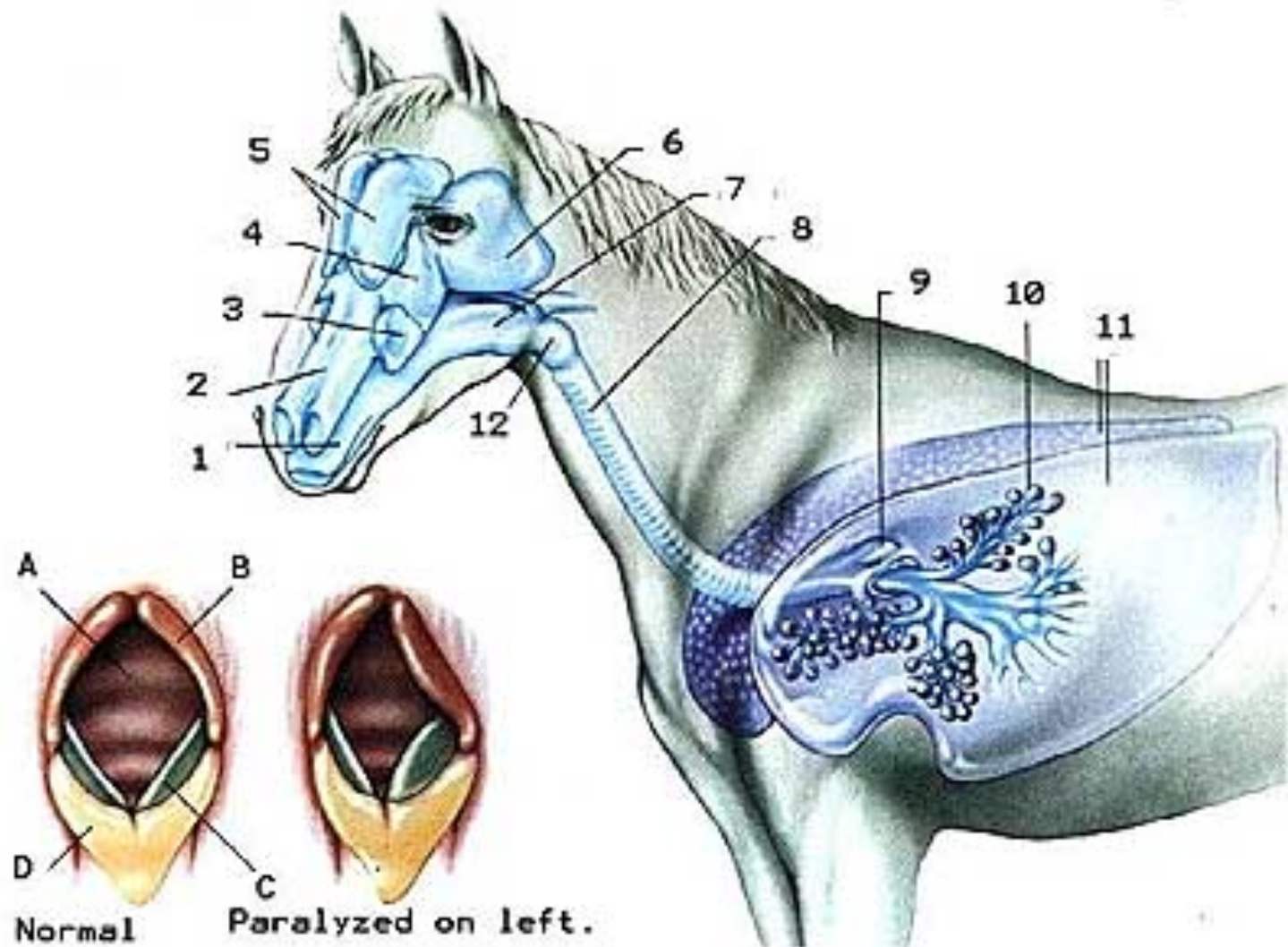
- Xylazine (Rompun)
 - Give 1-3cc in the muscle or vein
- Detomidine (Dormosedan)
 - Give 0.3-0.5cc in the muscle or vein
- Butorphanol (Torbutrol, Torbugesic)
 - Give 1cc in the muscle or vein



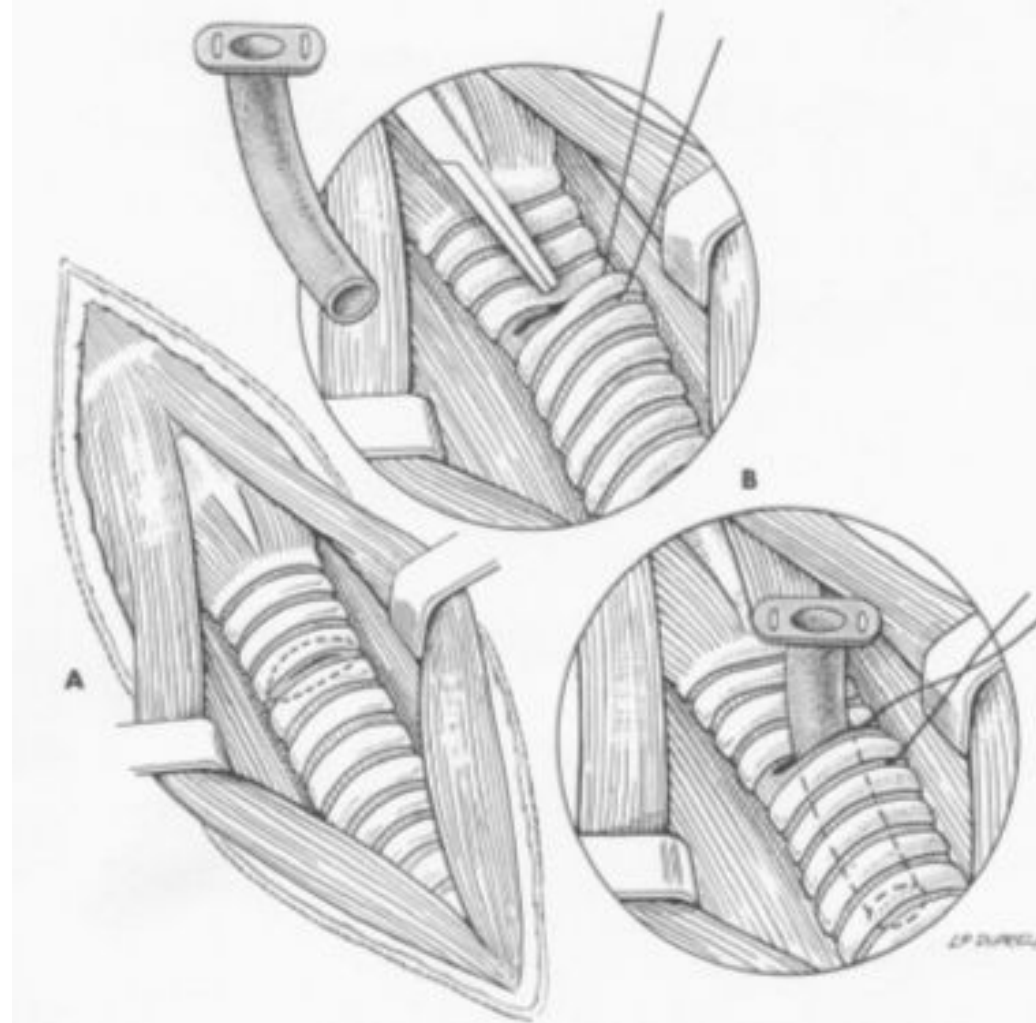
Dyspnea

- If the horse is having problems breathing, it is important to determine what is causing it.
- Check for:
 - Occluded nostrils
 - Swelling in the head or throatlatch
 - Penetrating chest wounds
 - Broken ribs
- Increased respiratory rate can also be caused by pain, fear, and shock.

Respiratory tract



Tracheostomy





Control Blood Loss

- Compression bandage
- Add layers! Never remove a blood soaked bandage, just add more over top.
 - Lots of padding and TIGHT!
- Tourniquet if appropriate (no more than 30 min)
- Clamp arteries/veins as needed (if visualization or palpation allows)

Lacerations

- 1. control hemorrhage
- 2. clean as appropriate
- 3. bandage (if not already)



Bandaging



- Non-adherent dressing
 - This layer is skipped if there is profuse bleeding
 - Telfa pads are most popular, held in place with rolled gauze

Bandaging



- Padding
 - Most important layer!
 - Thick quilted bandages or cotton
 - Absorbs hemorrhage or discharge from wound
 - Protects leg

Bandaging




- Pressure layers
 - Tight layer wrapped evenly over the padding
 - May include brown gauze and/or vetwrap
 - If you have enough padding it can't be too tight

Bandaging



- Sealing

- If the bandage is long term you can use elastic tape bandage to seal the top and bottom and stop dirt and shavings getting in



WHICH lacerations are emergencies?

- Joints/tendon sheath/bursas
- Flexor tendons cut
- Arterial bleeding
- Foreign body (nail in foot)
- Some eyelid lacerations (definitely those involving the globe)

Lacerations



- Foal attacked by a stallion
- Large wound on both sides of the neck
- Important structures? Worried?

Lacerations

- After a month of intensive care he went home...
- The wound healed well over the next year...
- Large scar but growing well, happy.



Trailer accident



Looks bad... but easily fixed!



Heel bulb laceration



- Concerns?
- Possible structures involved?

3 days later



3 months later



Body lacerations



Body lacerations



Multiple leg wounds



Degloving injury



Concerns?



Day after surgery

Inside of left front



Outside of right front



One month later

Inside left front



Right front

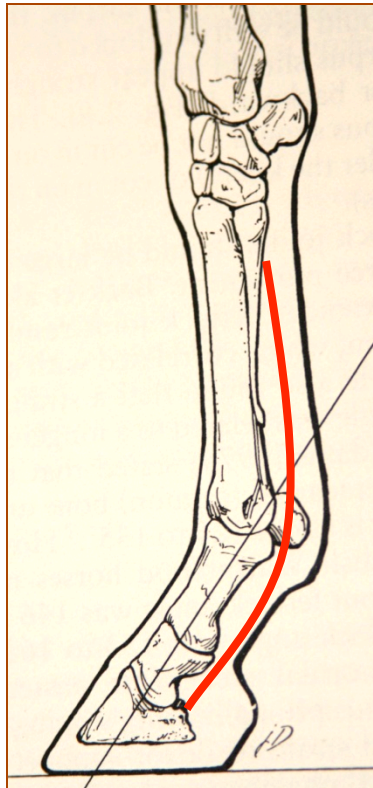


Now what?



First Aid Fractures

Lower Leg



- Fracture becomes the “joint” rather than the fetlock
- Suspensory ligament and flexor tendons exert a significant amount of force
- Counteract those forces with splinting techniques



First Aid Fractures



Kimzey “Leg Saver”

First Aid Fractures



Farley Compression Boot

First Aid Fractures

- **BIG bandage-**
 - very snug and well padded
- **Splint**
 - over bandage with duct tape- at least one
 - Use half PVC pipe or 2by4



From Walmsley, J. Equine Practice. In Practice. March 1999

First Aid Fractures



First Aid Fractures

○ Hindlimb

- Align sole of foot, plantar fetlock and flexor tendons
- Splint on back of leg

○ Forelimb

- Splint on front of leg
- Line up the front of all the bones



First Aid Fractures

○ **Cannon Bone fractures**

- 2 splints: back and outside of leg
- Above point of hock to the ground
- Big, snug bandage under splints





First Aid Transportation

- Minimize use of leg
- Provide stability and balance
- Sedation if needed
- Minimize amount of walking
 - Bring trailer to the horse if possible
 - Load and unload with as little difference in heights as possible
 - Carry foals



First Aid Transportation

- **Front limb** fractures facing **rearward**
- **Hind limb** fractures facing **forward**
- Large goosenecks preferred
- Confine horse with chest/rump bars/partitions to squeeze---not free in trailer!
- Head and neck free

Fracture Prognosis

- Long bone fractures in adult horses are rarely repaired successfully.
- Open fractures have a poor prognosis due to infection and implant failure.



Fracture prognosis

- Fractures of short bones have better prognosis, especially pastern bones.



Head Trauma



- Work carefully!
 - Often wobbly
 - May lose consciousness
- Skull fractures
 - Direct blow or collision
 - Poll impact or flip over

Penetrating Chest Wounds



- Do not remove foreign bodies if impaled
- Bandage thorax... close the hole!
 - Bandage around the foreign body if necessary
 - Return chest to negative pressure is goal

Nose bleeds

- May be simple like grass awn...
- Or complicated like guttural pouch mycosis
- Treat as an emergency unless you know the cause



Eyes



Eyes

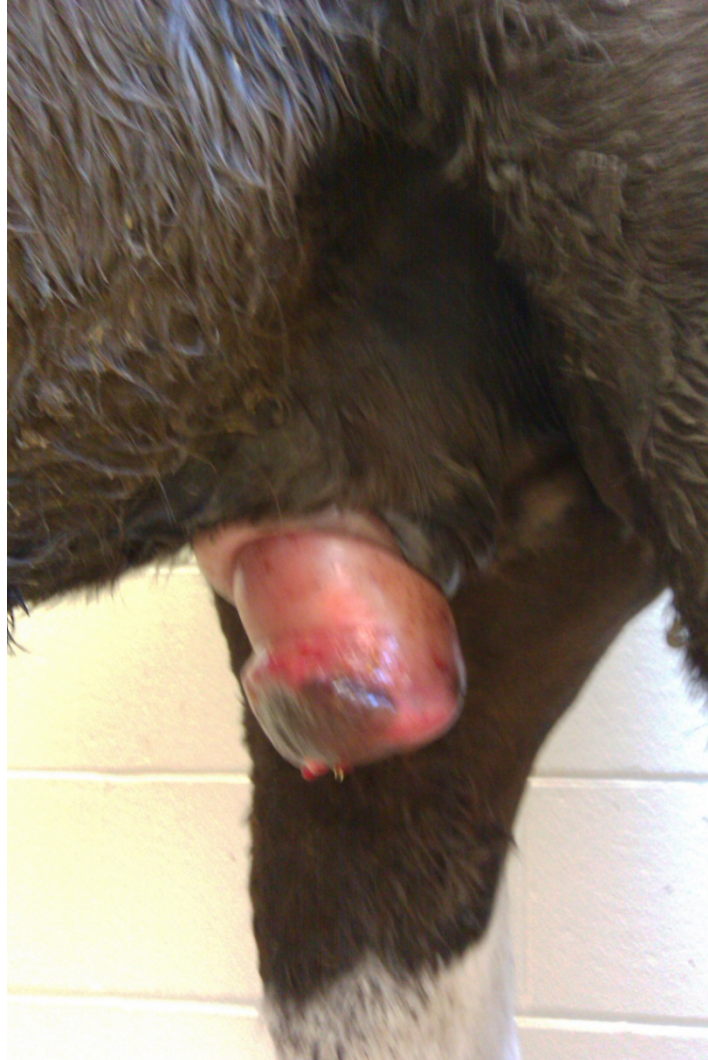


Choke



- Esophageal obstruction
- Some horses will clear on their own if kept from food.
- Best to call your veterinarian

Emergency?





Emergency Kit

- Bandage material (lots of padding!)
- Gauze
- Tape
- Stethoscope
- Thermometer
- Splints
- Duct tape
- Bute or Banamine (NSAID)