

First Aid Basics for the Barn and Trail*

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*(w/ some comments on vaccines)

FIRST AID BASICS

2

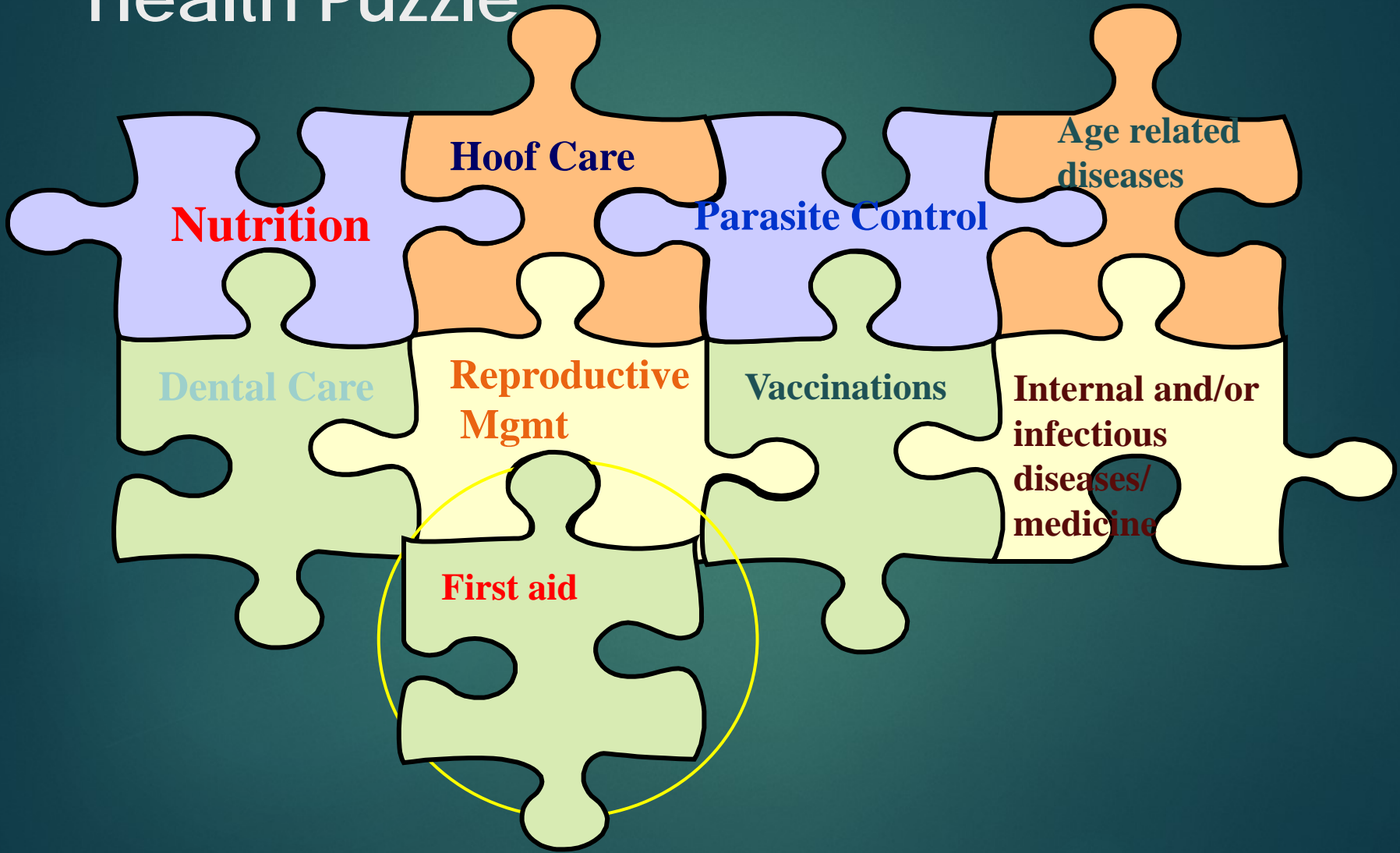
Goals of this Zoom discussion

- ▶ Please use the chat or question box to keep this presentation useful to your needs
- ▶ Enable horse owners to provide appropriate first aid care and help dispel myths
- ▶ Dr Google?

- I. **1st -Be prepared:** Design a first aid kit and be able to use it.
- II. **2nd Don't Panic:** You have more time than you think... if you use it wisely.
- III. **3rd-Call for Help:** Call your veterinarian for information



Horse Herd Health Puzzle



Normal Parameters

Since our horses cannot tell us when they are not feeling well, we must identify normal behaviors so we can recognize abnormal issues.

- ▶ **Temperature:** 99.5 -101.5 degrees F
- ▶ **Pulse:** 30-50 beats/min at rest
- ▶ **Respirations:** 10-25 breaths/min at rest
- ▶ **Mucous membranes:** pink and moist
- ▶ **Intestinal Sounds:** should be present-all quad.
- ▶ **Capillary Refill Time:** less than 3 seconds



FIRST AID KIT

- ▶ Your veterinarian's name and phone number.
- ▶ cell phone/GPS sat text device
- ▶ flashlight/headlamp.
- ▶ Information about and directions to your location.
- ▶ Digital thermometer and stethoscope
- ▶ Bandage materials can be purchased from your veterinarian; Proper application is as important as having the materials.
- ▶ Antibiotic eye ointment

FIRST AID KIT basics

- ▶ Keep out of the reach of children and/or any animal intruders.
- ▶ Bandage Scissors or plastic protective bandage knife
- ▶ Stethoscope-basics
- ▶ First Aid Newsletter and physical parameters card

First Aid Kit List

7

Essentials

- ▶ Thermometer
- ▶ Stethoscope
- ▶ Bandage scissors
- ▶ 1 l Saline (wound/eye flush)
- ▶ Antibiotic eye ointment
- ▶ Antibiotic wound ointment-ssd
- ▶ Leatherman/small wire cutter
- ▶ Hoof knife
- ▶ Banamine paste
- ▶ +/- IM Sedative

Bandaging materials

- ▶ 2 rolls vet rap
- ▶ 2 rolls elastikon
- ▶ 2 double sheet cottons or Gamgee roll
- ▶ Small roll gorilla tape or EZ boot
- ▶ 1 roll 6" brown gauze
- ▶ Telfa pad& diaper
- ▶ 6" polo wrap



FIRST AID KIT

- ▶ Epsom Salts. May be used for foot abscesses-Soak bag.
- ▶ Duct/Gorilla Tape.
- ▶ Bute Paste and/or Banamine Paste.
- ▶ Miscellaneous medications and ointments previously prescribed by your vet. Before using consult with your vet. Make absolutely certain that you know what to use these for and that they have not passed any expiration date for useage.
- ▶ Hoof pick, rasp and knife

BASIC FIRST AID Kit: continued 9

- ▶ knife, wire cutters, pliers-leatherman
- ▶ Information about your horse's medical history w/vaccination and deworming status.
- ▶ *You can add other things to the kit as you accumulate and are educated in their use.*

BASIC FIRST AID Kit: Bandaging¹⁰

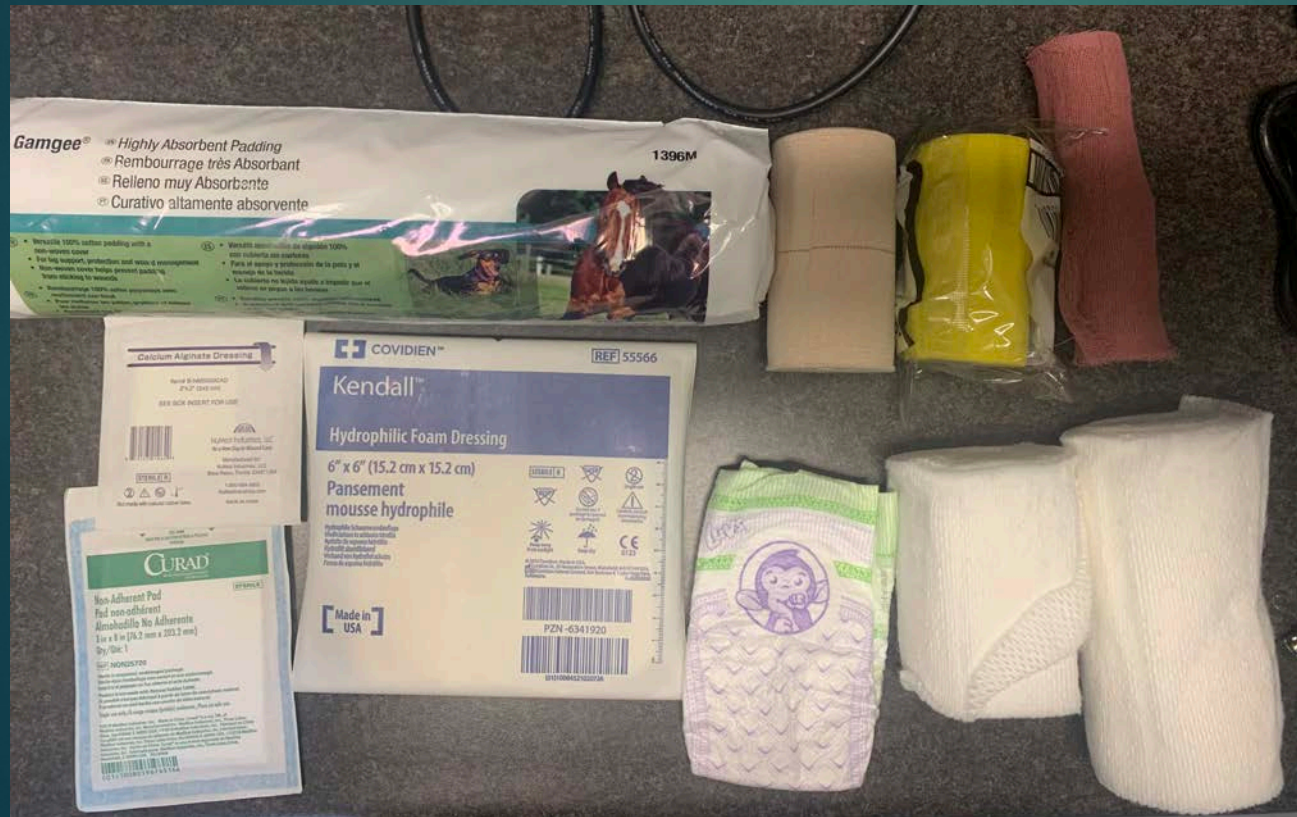
Materials

- ▶ 3 Rolls each of Vetrax, gauze padding and elastron. Combi Cotton (one roll)
- ▶ Gauze Squares 3" x 3" and 1 or 2 Infant Diapers
- ▶ AD ointment (handy for oozing below wounds).
- ▶ Water based Antiseptic wound ointment- Nitrofurazone or silver sulfadiazene
- ▶ saline eye wash/1 litre saline bag.
- ▶ Betadine Scrub and Betadine Solution.
- ▶ Latex Exam Gloves.

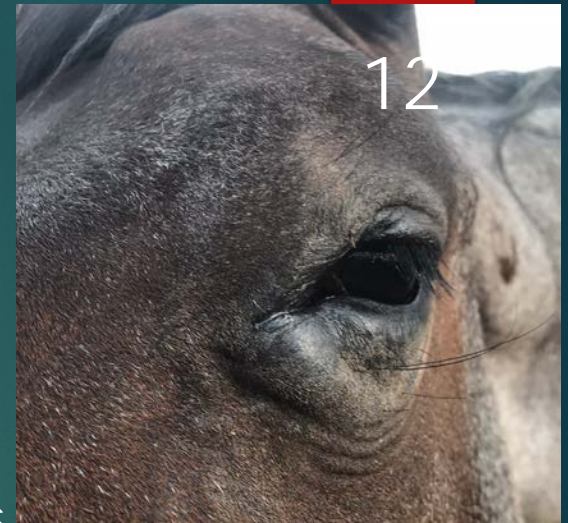
BASIC FIRST AID Kit: Bandaging¹

Materials

- ▶ Guidance on application
- ▶ Avoid bad bandage technique



Eye Injuries-common



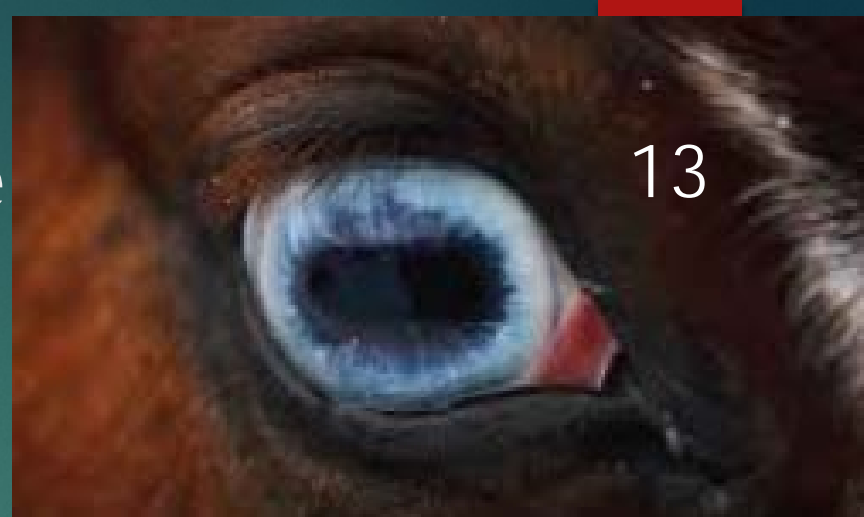
Most common eye injuries:

- ▶ Foreign bodies
- ▶ Conjunctivitis: This inflammation of the tissues (*conjunctiva*) surrounding the eye, red and discharge
- ▶ Scratched or damaged cornea:
- ▶ **Symptoms: all or none**

- ▶ Excessive blinking.
 - ~ Tears or discharge from eye.
 - ~ Swollen or shut eyelid(s).
 - ~ Reddening of the eye.
 - ~ A whitish or bluish tinge to the *cornea*



Treatment of eye problems



- ▶ **Step 1:** Carefully examine your horse's eye, gently grasping and removing any foreign body you can see, or by using Step 2.
- ▶ **Step 2:** Rinse the eye with saline from your first-aid kit, to clean out foreign bodies (such as dust or gravel), or accumulated mucus, and to relieve discomfort.
- ▶ **Step 3:** Apply triple antibiotic ophthalmic ointment, which will help to ward off infection if the cornea is damaged.
 - ▶ no steroids
 - ▶ Neosporin??

Typical Eye Injuries

14



Eye Problems: What to do

15

- ▶ **Step 4:** If your horse is blinking, tearing, or keeping his eye closed--all signs his eye is painful--administer a dose of Banamine, to relieve pain and inflammation.
- ▶ **Step 5:** If you notice a cloudy or bluish hue to his eye, immediately call your vet--your horse may have damaged the cornea. If the cornea is clear, the vet is not needed right away

Typical Eye Injuries

16



Colic

- ▶ **Signs:** Restlessness, pawing, looking at abdomen, lying down! rolling, reluctance to eat, depressed attitude, absence of bowel movements or diarrhea.
- ▶ **Early treatment and info to collect: Banamine?**
 - ▶ horse is rolling or thrashing?
 - ▶ membrane color, temperature, and respiratory/heart rates.
 - ▶ Never IM Banamine-DANGER
- ▶ *IM or IV Xylaizine if available*
- ▶ *Oral electrolytes*
- ▶ *Access to water*
- ▶ *No food*
- ▶ *Walking frequency*

Mild	Moderate	Severe
Pawing	Inappetence	Restlessness
Lip curling	Kicking at belly	Facial abrasions
Flank watching	Attempts to lie down	Rapid breathing
Reduced appetite	Unexplained sweating	Changes in colour of gums
Passing less or no droppings	Box-walking or circling	Repeated rolling
Changing in dropping consistency	Lowered head position	

Tying Up- exertional muscle problems

18

- ▶ **How to avoid?**
- ▶ **Signs:** Reluctance to move, sweating, hind muscles are tender, painful, and/or quivering. You may see dark brown urine.
- ▶ Do not move the horse! Call your veterinarian.
- ▶ Ensure adequate hydration and electrolytes
- ▶ Take temp-heat stress??
 - ▶ treatment
- ▶ Banamine paste and mild sedatives

Bruising, Sprains, Strains, and Kicks: Injuries

- ▶ **Signs:** Localized pain swelling with heat and potential instability
- ▶ **Early Treatment:**
 - ▶ Depends on location
 - ▶ Lameness-rest
 - ▶ Oral NSAIDS-judicious
 - ▶ apply cold water/ice/snow for 20-30 minutes 3-5 times daily
 - ▶ Compression wrap



SPRAINS AND STRAINS

20

- ▶ Early treatment:
- ▶ Focused at reducing swelling
- ▶ cryotherapy
 - ▶ apply direct uniform pressure.
 - ▶ Lower limb wounds may be bandaged.
 - ▶ Stabilize leg/joint



Lacerations

- ▶ Early treatment:
- ▶ Tetanus status?
- ▶ Irrigate irrigate irrigate
 - ▶ apply direct pressure.
 - ▶ Lower limb wounds may be bandaged.
 - ▶ Pressure wrap/tourniquet can be applied above the wound**



Horse Trailer/camp accidents 22



Lacerations and fractures

23

- ▶ Medications:
 - ▶ What to apply
- ▶ To suture or not to suture factors involved
- ▶ Important areas
 - ▶ Joints Tendons
 - ▶ Tendon sheaths
 - ▶ Sole/frog
 - ▶ Stability of the leg??



Laceration examples

24



Laceration/Punctures

Examples

- ▶ More serious
 - ▶ Location based therapy
- ▶ Foot and or near a joint



Puncture Wound from a Nail in ...

Esophageal Choke

26

- ▶ obstruction of the esophagus
- ▶ rarely involves blockage of the windpipe
- ▶ aspiration of food material
- ▶ Signs: Food material and/or saliva draining from nostrils shortly after eating.
- ▶ Treatment: Remove food and water
- ▶ Prevention: Regular dental exam/floating. Discourage horses "bolting" -smaller meals at more frequent intervals
- ▶ large rocks in feed pan that they must eat around

Choke

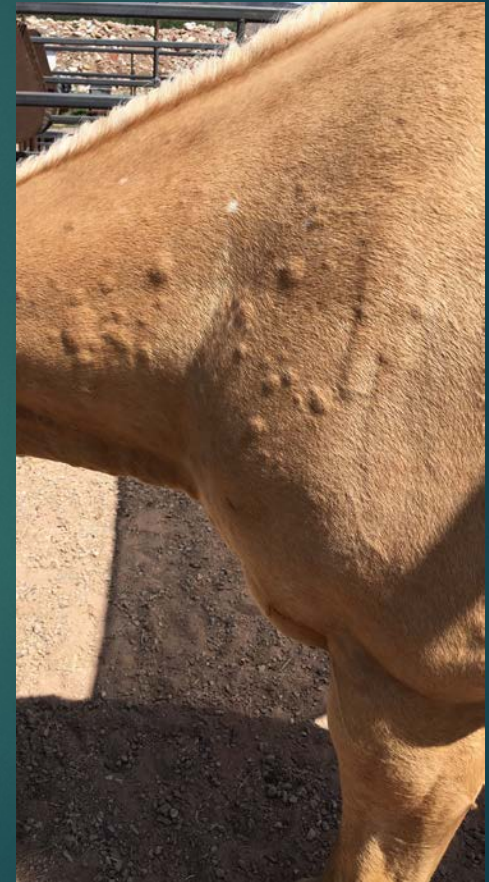
27



Skin diseases-urticaria aka hives

28

- What has been recently applied to skin
- Insects
- Changes in diet
- Rx management
 - antihistamines
 - steroids
- Previous occurrences



Whether to Medicate Your Horse

29

- ▶ Drugs and first aid knowledge
- ▶ Previous veterinary instructions
- ▶ Expiration dates are important
- ▶ Sometimes contraindicated
- ▶ Tranquilizers can be dangerous if a horse is in shock
- ▶ Pain meds may mask symptoms



Avoiding Emergencies

30

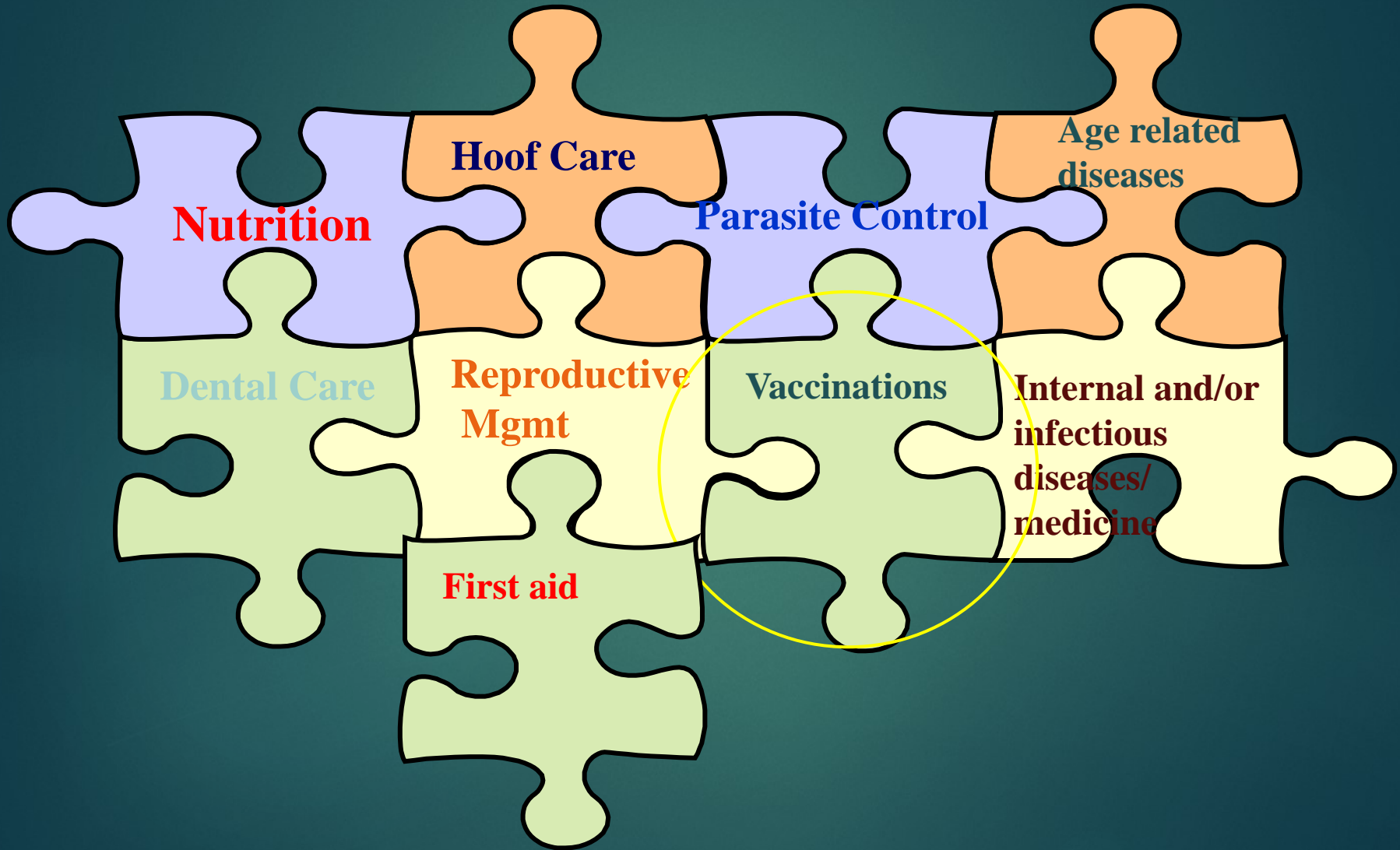
- ▶ **Practice Preventative Medicine.**
- ▶ Keep current on vaccinations and deworm regularly (Up to 80% of colics are related to damage done by intestinal parasites) especially small strongyles.
- ▶ Keep your horse cool and hydrated
- ▶ Avoid heat stress
- ▶ Minimize internal parasites

Good Horsemanship

- ▶ Provide fresh water and quality feed in a clean area.
- ▶ Keep stalls clean, highlines organized
- ▶ Know your horse's normal habits so you will recognize
- ▶ changes that may indicate that something is wrong.
- ▶ Repair safety hazards in the pasture, barn, and fences. Do not exercise sick or injured horses.
- ▶ Know your horse's limits, and do not exceed them.

Horse Herd Health Puzzle pieces

32



Few comments on Immunizations

- ▶ protection from infectious diseases as easily and effectively as immunizations
- ▶ Core vs risk based vaccines:

Core

- ▶ Tetanus, West Nile, Sleeping Sickness (EEE,WEE) and RABIES

Risk based

- ▶ Rhinopneumonitis and Influenza
- ▶ Stangles

Expectation management

34

vaccination does not guarantee 100% protection.

Keep this in mind as you plan your horses
vaccination program with your veterinarian

Vaccination serves to minimize the risk of infection
and aid in the prevention of disease but does
not prevent disease in all circumstances

Primary series of vaccines and boosters should be
administered before likely exposure

Expectation management

Each horse in a population is not protected equally or for an equal duration following vaccination

All horses in a herd should be appropriately vaccinated and whenever possible should use the same schedule of vaccination

Expectation management

- ▶ Vaccination involves the administration via injection or intranasal of the causative organisms or important components of those organisms that are inactivated or modified to avoid causing actual disease
- ▶ It is meant to incite an immunologic response
- ▶ Two or more doses are usually needed to initiate and adequate protective immune response

Expectation management

- ▶ There is a lag period of 1-2 weeks after a full series of vaccinations are completed until the horse is fully protected
- ▶ After immunizations are completed, protective antibodies in the blood and immune system organs stand guard against the invasion of these infectious microorganisms
- ▶ Over time the levels of these antibodies decline gradually, some faster than others

Expectation management

- ▶ A booster is needed at regular intervals to maintain adequate protection
- ▶ Boosters can accomplish protection against tetanus, sleeping sickness and rabies if given only once per year
- ▶ Most other diseases require more frequent intervals to provide adequate protection

Vaccination strategy

39

Core vs. risk based vaccines take into acct:

Age

Use

Breed

Sex

General management

exposure risk

geographic location

Core vaccinations:tetanus

40

▶ Tetanus(Lock Jaw)

- ▶ Tetanus is caused by a toxin producing bacteria (*Clostridium tetani*) found in the intestinal tract of many animals including the horse and in the soils in the horse environment. Clostridial spores can exist for decades in the soil.



Core Vaccinations: Encephalomyelitis



- ▶ **WEE, EEE**
- ▶ WEE has been reported throughout North America while EEE appears only in the eastern and southeastern parts of the country. VEE has not been seen in this country aside from Texas in many years.

Core Vaccinations: West Nile Virus (WNV)

42

- ▶ Mosquitoes act as the vector to spread WNV and Sleeping Sickness after the insect acquires the virus from birds.
- ▶ Humans are also susceptible when bitten by an infected mosquito but as with horses are dead end hosts meaning they can not transmit the virus to other people and horses.

Vaccinations Needed: West Nile Virus (WNV)



- ▶ WNV causes neurologic signs including muscle tremors and spasms, hypersensitivity of the skin, loss of coordination, weakness, ataxia and recumbency

Risk based Vaccinations: Influenza and Rhinopneumonitis



- ▶ Clinical Signs include
 - ▶ Coughing
 - ▶ Fever
 - ▶ Depression
 - ▶ Loss of appetite
 - ▶ Nasal discharge

Vaccinations Needed: Rhinopneumonitis

▶ EHV1

- ▶ Respiratory disease
- ▶ Abortion
- ▶ Foal death
- ▶ Neurologic disease
- ▶ Paralysis
- ▶ Young Horses most susceptible from respiratory disease

▶ EHV-4

- ▶ Respiratory disease
- ▶ Young Horses most susceptible from respiratory disease



Respiratory Vaccinations

46

- ▶ Aerosol spread and direct contact with secretions, equipment and drinking water
- ▶ Rhino- Latent form in silent carrier animals not affected with clinical signs

Risk based vaccinations: Strangles



- ▶ Respiratory disease
- ▶ Swollen Lymph nodes under the jaw
- ▶ Very infectious
Bacterial
- ▶ Usually vaccinate to traveling horses that have not had the disease
- ▶ Long lasting immunity to natural infection

Questions?

48

