Equine Vaccines

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Vaccines should never be considered 100% effective for disease prevention but are an important disease control STRATEGY.
Ideally, vaccines are administered **PRIOR** to exposure to a disease.

Vaccines may, however, be used in disease outbreak situations (post-exposure).
A standard vaccine protocol does not exist.

Vaccination recommendations are based on the following factors:

- Risk of Disease
- Consequences of Disease
- Effectiveness of Vaccines
- Adverse Reactions
- Cost vs. Cost of Disease
Risk of Disease

- Degree of exposure
- Geography
- Age
- Type of management
- Travel

Equine Horseman Magazine
Consequences of Disease

- Degree of illness
- Death?
- Degree of infectious spread

Equine Horseman Magazine
Effectiveness of Vaccines

• How effective are they expected to be for a particular disease?
• Is it worth the risks involved for that specific horse?
• Is it worth the cost?
Adverse Reactions

• Localized soreness or swelling at the vaccine site
• Fever, anorexia or lethargy
  – Occasionally
• Abscess formation, urticaria (hives), colic or anaphylaxis
  – Rarely

• Avoid vaccinating within 2 weeks of transport/show OR within 4 weeks of international travel
• Stagger vaccines in 3-4 week intervals to decrease adverse reactions
Cost vs. Cost of Disease

- $ Cost of the immunization vs. Cost of the potential disease
- $$$ worth avoiding a respiratory virus that requires the horse to have some time off?
- $$$ worth avoiding a lethal disease?
Diseases we vaccinate for in Alberta:

- Tetanus
- EEE & EWE
- Equine Herpes Virus
- Influenza
- West Nile Virus
- Strangles
- Potomac Horse Fever
- Rabies
- EVA
Tetanus

- **CORE** vaccination disease
- Potentially fatal
- Infection through punctures, surgical incisions, umbilicus or reproductive tract
- Clinical signs:
  - Hyper-responsive to noise
  - Stiff legged gait
  - Muscle Spasms
  - Convulsions
  - Death due to asphyxia
Eastern and Western Encephalitis

- **CORE** vaccination disease
- Fatal in majority of horses
- Transmission: blood-sucking insects → wild birds, rodents, horses
- Clinical signs:
  - Behavioural changes
  - Anorexia
  - Fever
  - Progression to dementia, head pressing, circling, teeth grinding

*Thee Oaks Equine*
West Nile Virus

- **CORE** vaccination disease
- Can be fatal
- Surviving horses often have permanent neurologic deficits
- Transmission: mosquitoes, other insects → birds, horses, other hosts
- Clinical signs:
  - Fever
  - Lethargy
  - Weakness
  - Altered behaviour
Equine Influenza

- **RISK-BASED** vaccination disease
- Very common and infectious respiratory disease
  - Rapidly spread via coughing
  - Large economic loss due to loss of training/competition time
- Clinical signs:
  - Cough
  - Fever
  - Muscle soreness and nasal discharge
  - May predispose the horse to secondary bacterial infections
Equine Herpes/Rhino Virus

- **RISK-BASED** vaccination disease
- Common disease
- EHV-1 → respiratory disease, abortion and neurologic disease
- EHV-4 → respiratory disease and sometimes abortion
- Clinical signs:
  - Fever
  - Nasal discharge
  - Cough
  - Abortion
  - Neurological deficits
Strangles

- **RISK-BASED** vaccination disease
- Highly contagious, especially amongst young horses
- Transmission: direct contact or indirect
- Long recovery and can have chronic shedders
- **Clinical signs:**
  - Fever
  - Depression
  - Nasal discharge
  - Lymph node enlargement
  - Reluctance to swallow
  - ‘Bastard’ strangles
Potomac Horse Fever

- **RISK-BASED** vaccination disease
- Causes summer and autumn diarrhea
- Fatal in severe cases
- Transmission: snail larvae and dragonflies
- Exposure to standing water
- Clinical signs:
  - Fever
  - Profuse diarrhea
  - Dehydration
  - Laminitis
• Fatal
• Transmission: bite of an infected animal (raccoon, fox, skunk, bat)
• Not typically administered in West
• Clinical signs:
  – Altered behaviour
  – Head pressing
  – Severe depression
  – Blindness
Recommendations

Adult Horses and Non-Pregnant Broodmares

March:
  +/- Flu/Rhino
  +/- Strangles

April/May:
  EWT/WN

June/July:
  +/- PHF

Competition or Travelling Horses

March:
  Flu/Rhino
  Strangles

April/May:
  EWT/WN

June/July:
  +/- PHF

Sept/Oct:
  Flu/Rhino
## Recommendations

### Yearlings

<table>
<thead>
<tr>
<th>Month</th>
<th>Vaccine</th>
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</thead>
<tbody>
<tr>
<td>March</td>
<td>Flu/Rhino</td>
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<tr>
<td>April/May</td>
<td>EWT/WN</td>
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</tbody>
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### Broodmares

<table>
<thead>
<tr>
<th>Month</th>
<th>Vaccine</th>
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<tbody>
<tr>
<td>5th month</td>
<td>Rhino</td>
</tr>
<tr>
<td>7th month</td>
<td>Rhino</td>
</tr>
<tr>
<td>9th month</td>
<td>Rhino</td>
</tr>
<tr>
<td>10th month</td>
<td>EWT/WN, Flu/Rhino</td>
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</tbody>
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Initial Series

• Boosters are very important to get the expected response from the vaccination protocol.
  – Exponential increase in level of antibodies
  – Likely to not be protective without the booster
Contact your veterinarian to make a vaccination plan for your herd.

Please see our website for this information and more!

www.mooreequine.ca