**EQUINE HERPESVIRUS**

Equine herpesvirus (EHV) is a common DNA virus that occurs in horse populations worldwide. The 2 most common types are EHV-1, which causes abortion, respiratory disease and neurological disease; and EHV-4, which usually causes respiratory disease only but can occasionally cause abortion. Respiratory disease caused by EHV-1 is most common in weaned foals and yearlings, often in autumn and winter. Older horses are more likely than younger ones to transmit the virus without showing signs of infection. Although EHV-1 causes outbreaks of abortion, EHV-4 has only been associated with single occurrences and not a risk for contagious abortions.

Clinical signs: fever, nasal discharge, abortion and neurological signs.

**EQUINE VIRAL ARTERITIS**

Equine Viral Arteritis (EVA) is a contagious viral disease spread by direct contact or by breeding with a previously infected horse. If mares are infected while pregnant, they will usually abort. Affected horses are sick for a week to 10 days with flu-like symptoms. Most recover completely with proper care but can spread the disease to others after recovery via sexual contact.

Clinical signs of EVA are characterized by swelling in the loin of all horses and swelling in the scrotum of stallions. EVA virus can be shed in the semen of stallions for years after infection. EVA may cause abortion between month 3 and 10 of gestation following respiratory infection.

**EQUINE INFLUENZA**

Equine influenza is one of the most common infectious diseases of the respiratory tract of horses. Equine influenza is contagious and the virus can spread rapidly through groups of horses in aerosolized droplets dispersed by coughing. The severity of clinical signs depends on the degree of existing immunity, among other factors.

Equine influenza clinical signs may include cough, fever, muscle soreness and nasal discharge. Treatment is generally supportive. Rest until at least 12 to 24 hours to dementia with head pressing, teeth grinding, circling and often blindness. The disease is fatal in up to 90 percent of cases. Surviving horses often have residual mental dullness. Treatment is generally supportive.

**WEST NILE**

The West Nile virus is transmitted from avian reservoir hosts by mosquitoes, and infrequently by other blood sucking insects, to horses from wild birds or rodents, which serve as natural reservoirs for these viruses. Human beings are also susceptible to these diseases when the virus is transmitted to them by infected mosquitoes; however, horse-to-horse or horse-to-human transmission by mosquitoes is highly unlikely, because the amount of virus released by a horse is very small.

CLINICAL SIGNS can include behavioral changes, loss of appetite and fever. These clinical signs can progress in 12 to 24 hours to dementia with head pressing, teeth grinding, circling and often blindness. The disease is fatal in up to 90 percent of cases. Surviving horses often have residual mental dullness. Treatment is generally supportive.

**RISK-BASED EQUINE DISEASES**

EQUINE DISTEMPER

Stray is most contagious disease that causes the highly contagious disease strangles (also known as “distemper”). Strangles commonly affects young horses (weanlings and yearlings), but horses of any age can be infected. Vaccination against S. equi var. equi is recommended on premises where strangles is a persistent endemic problem or for horses that are expected to be at high risk of exposure.

The organism is transmitted by direct contact with infected horses, or indirectly by contact with: water troughs, hoses, feed bunks, pastures, mental dullness. Treatment is generally supportive.

**TETANUS**

Transmission of Eastern Equine Encephalomyelitis (EEE) and Western Equine Encephalomyelitis (WEE) viruses is by mosquitoes, and infrequently by other blood sucking insects, to horses from wild birds or rodents, which serve as natural reservoirs for these viruses. Human beings are also susceptible to these diseases when the virus is transmitted to them by infected mosquitoes; however, horse-to-horse or horse-

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**STREPTOCOCCUS AOQUIS SUBSP. AOQUIS**

Streptococcus equis subspecies equis (S. equi var. equis) is the bacterium that causes the highly contagious disease streptococcal disease (also known as “distemper”). Strangulating commonly affects young horses (weanlings and yearlings), but horses of any age can be infected. Vaccination against S. equi var. equis is recommended on premises where streptococcal disease is a persistent endemic problem or for horses that are expected to be at high risk of exposure.

The organism is transmitted by direct contact with infected horses, or indirectly by contact with: water troughs, hoses, feed bunks, pastures, mental dullness. Treatment is generally supportive.

**ARBOVIRAL DISEASES**

Arboviruses include fever, depression, nasal discharge, cough, swollen lymph nodes and reluctance to swallow. Recovery can take weeks to months, and some horses become chronic carriers of the bacteria.

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Equine influenza clinical signs may include cough, fever, muscle soreness and nasal discharge. Treatment is generally supportive. Rest until at least 2 weeks after the cough has resolved is an important component of successful treatment.

Vaccination plays an important role in prevention.

**STRANGLES**

Streptococcus equis subspecies equis (S. equi var. equis) is the bacterium that causes the highly contagious disease streptococcal disease (also known as “distemper”). Strangulating commonly affects young horses (weanlings and yearlings), but horses of any age can be infected. Vaccination against S. equis var. equis is recommended on premises where streptococcal disease is a persistent endemic problem or for horses that are expected to be at high risk of exposure.

The organism is transmitted by direct contact with infected horses, or indirectly by contact with: water troughs, hoses, feed bunks, pastures, stalks, trailers, tack, grooming equipment, nose wire cloths or sponges, attendant’s hands and clothing, or insects contaminated with nasal discharge or pus draining from lymph nodes of infected horses. Streptococcus equis has demonstrated environmental survivability particularly in water sources and when protected from exposure to direct sunlight and disinfectants, and can be a source of infection for new additions to the herd.

Clinical signs include fever, depression, nasal discharge, cough, swollen lymph nodes and reluctance to swallow. Recovery can take weeks to months, and some horses become chronic carriers of the bacteria.

**TETANUS**

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**CLINICAL SIGNS** can include fever, lethargy, weakness, altered behavior, somnolence, blindness and other neurological signs including muscle tremors, ataxia and seizures. Approximately 1/3 of horses that develop clinical signs of disease may die. Horses that survive often retain residual mental dullness.

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**CORE AND RISK VACCINATION GUIDELINES FOR ADULT HORSES**

ALL VACCINATION PROGRAMS SHOULD BE DEVELOPED IN CONSULTATION WITH A LICENSED VETERINARIAN

The American Association of Equine Practitioners (AAEP) published a comprehensive list of “core” vaccines, which all horses should receive, and “risk-based” vaccines, which benefit horses with particular risk profiles.

To obtain more information on core and risk vaccines vaccination guidelines for both adult horses and foals, please visit the American Association of Equine Practitioners website: www.aaep.org.

### CORE-BASED VACCINE SOLUTIONS Available from Zoetis

<table>
<thead>
<tr>
<th>Adults</th>
<th>Previously Vaccinated</th>
<th>Unvaccinated or History Unknown</th>
<th>Zoetis Vaccine Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus</td>
<td>Annual revaccination</td>
<td>2 DOSES; 3 to 4 weeks after 1st dose. Annual revaccination.</td>
<td>EQUILOID INNOVATOR® FLUVCAN INNOVATOR® 4, 5 and 6 WEST NILE-INNOVATOR® + EW®</td>
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<td>Encephalomyelitis, Eastern and Western</td>
<td>Annual revaccination</td>
<td>2 DOSES; 3 to 4 weeks after 1st dose. Annual revaccination.</td>
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<td>West Nile Virus</td>
<td>Annual revaccination</td>
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**Note:** Early revaccination may be advisable when horses are faced with an outbreak or with other conditions that might make heavy exposure likely.

### RISK-BASED VACCINE SOLUTIONS Available from Zoetis

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<tr>
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<tbody>
<tr>
<td>Equine Viral Arteritis</td>
<td>Annual revaccination (Refer to label for any restrictions and cautions.)</td>
<td>ONE DOSE, preferably given to maiden mares or when open. Vaccinate pregnant mares after foaling and not less than 3 weeks prior to breeding. Vaccinate maiden and barren mares any time but not less than 3 weeks prior to breeding. Revaccinate annually. Vaccinate mares and young animals at any time but kittens should be vaccinated not less than 3 weeks prior to breeding. Revaccinate annually.</td>
<td>ARVAC®</td>
</tr>
<tr>
<td>Equine Influenza</td>
<td>Annual revaccination</td>
<td>2 DOSES; 1st dose 3 to 4 weeks after 1st dose. Revaccinate annually.</td>
<td>FLUVAC INNOVATOR® FLUVCAN INNOVATOR® EHV 4/1 FLUVAC INNOVATOR® 4, 5 and 6 FLUVAC INNOVATOR® Triple-E FT®</td>
</tr>
<tr>
<td>Equine Herpesvirus - Respiratory form</td>
<td>Annual revaccination</td>
<td>2 DOSES; 1st dose 3 to 4 weeks after 1st dose. Revaccinate annually.</td>
<td>FLUVAC INNOVATOR® EHV 4/1 FLUVAC INNOVATOR® 5 and 6</td>
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<tr>
<td>Strangles</td>
<td>Annual revaccination</td>
<td>2 DOSES given by the intranasal route, 1st dose given 2 to 3 weeks after 1st dose. Annual revaccination recommended.</td>
<td>PINNACLE® I.N.</td>
</tr>
<tr>
<td>Pregnant mares</td>
<td></td>
<td></td>
<td>PNEUMABORT-K® + 1b</td>
</tr>
<tr>
<td>Equine Herpesvirus, Abortion form (EHV-1)</td>
<td>Previously Vaccinated OR Unvaccinated or History Unknown</td>
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### VACCINATIONS FOR FOALS

ALL VACCINATION PROGRAMS SHOULD BE DEVELOPED IN CONSULTATION WITH A LICENSED VETERINARIAN

Your veterinarian will decide what vaccines are essential for your horse, when they should be administered and at what frequency in order to help provide optimal immunity.

For foals, the vaccination history of the mare will help determine at what age their initial vaccines can be given. The foal’s susceptibility to disease and ability to mount an appropriate immune response to vaccination, based on the presence or absence of maternal antibodies derived from colostrum, should be discussed with your veterinarian.

More information on vaccination guidelines for both adult horses and foals can be found on the American Association of Equine Practitioners website: www.aaep.org.

### CORE-BASED VACCINE SOLUTIONS Available from Zoetis

<table>
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<tr>
<th>Foals &amp; weanlings (&lt;12 months of age)</th>
<th>Born to mares previously vaccinated against the disease indicated. Born to unvaccinated mare.</th>
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<td>Tetanus</td>
<td>2 DOSES; 1st to 4 weeks after 1st dose. Annual revaccination.</td>
<td>EQUILOID INNOVATOR® FLUVCAN INNOVATOR® 4, 5 and 6 WEST NILE-INNOVATOR® + EWT®</td>
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<tr>
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<td>Consult with your veterinarian as to need.</td>
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