

Canine Parvovirus, Distemper Virus, and Adenovirus-2 Vaccines

■ Core Vaccine

Heartworm -
~~Heartguard~~,
Sentinel.

LEPTOSPIROSIS

- Bacterial spirochete that thrives in stagnant water/lakes and moist soil.
- Worldwide zoonosis (affecting people) and dogs. Infected dogs often shed organisms in the urine, serving as a source of infection to people
- Hosts are typically nonsymptomatic and may shed bacteria for their entire life by urine .
- The ideal conditions for the bacteria to survive outside the host are a warm and moist environment. May be seasonality to canine leptospirosis cases with the typical, highest number of cases being in the late summer and fall. Located in urban/suburban areas and rural areas.
- Backyard wildlife : raccoons, skunks, rats, opossum, rats, mouse, squirrels. Also cows and pigs.
- Transmission from the reservoir host to dogs can occur directly (contact with infected urine, bite wounds) or indirectly (contaminated water sources, soil, food, bedding). Mucous membranes (nose mouth eyes) or abraded skin are common points of infection.
- WHY 4 WAY LEPTO VACCINE IMPORTANT! MOST COMMON SEROVARS INFECTING DOGS IN THE US: ICTEROHAEMORRHAGIAE, CANICOLA, GRIPPOTYPHOSA, POMONA AND BRATISLAVA.
- ANNUAL VACCINATION WITH 4-SEROVAR VACCINES IS RECOMMENDED FOR AT-RISK DOGS, REGARDLESS OF BREED. IN REGIONS WHERE INFECTION OCCURS IN URBAN, BACKYARD DOGS, ALL DOGS MAY BE AT RISK AND 4-SEROVAR BACTERIN MAY BE CONSIDERED PART OF A CORE VACCINATION PROTOCOL.

Canine Coronavirus Vaccine

- Infection with canine coronavirus alone has been associated with mild disease only, and only in dogs < 6 weeks of age.
- It is not a core vaccine.

CANINE RABIES

- Each state has its own laws governing administration of the rabies vaccine. Some require yearly. Some every 3 years. This can affect plane travel health certificate or residence out of state.
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LYMES DISEASE

- *Borrelia burgdorferi* is a bacteria disease transmitted by deer ticks.
- Disease signs tend to occur 2–5 months after the infection and include lameness, arthritis, enlarged lymph nodes, lethargy and fever.
- Dogs can transport unattached ticks, which later attach to humans.
- Bacteria lives in the gut of the tick, and must migrate to the salivary glands of the tick for transfer to the skin of a host which takes 48 hours.
- The presence of small, flat, non-engorged *Ixodes* ticks on a dog suggests a very low risk of infection as peak transmission occurs after tick engorgement (> 48 h after attachment).
- Vaccinate dogs especially that are exposed to woods/grassy areas as in hunting/hiking/camping dogs. In areas of high deer populations. Problem in Michigan especially on Lake Michigan coast , “Up North”, and the U.P.

KENNEL COUGH/CANINE RESPIRATORY DISEASE

- ***Bordetella bronchiseptica* bacterial disease and Parainfluenza Virus**
- Dogs infected with canine parainfluenza virus (CPiV), canine influenza virus (CIV), or canine adenovirus-2 (CAV-2) are expected to experience more severe respiratory disease when coinfecting with *B. bronchiseptica* than with any these agents alone.
- Recommendations for *B. bronchiseptica* revaccination have been reported as "every 6 months in dogs with sustained risk of exposure. Pets exposed to boarding, grooming, training classes, dog parks, exposure on walks.
- Most boarding kennels require that this vaccine be given within 6 months of boarding; the vaccine should be administered at least one week prior to the anticipated boarding date for maximum effect.

Canine Influenza Virus (CIV)

Canine influenza virus (H3N8) emerged in the United States in greyhounds in Florida in 2003. The virus is now enzootic in many dog populations in Colorado, Florida, Pennsylvania, New Jersey and New York. The virus causes upper respiratory signs including a cough, nasal discharge, and a low-grade fever followed by recovery.

- A vaccine is commercially available.
- Not a core vaccine.