How many tests submitted for canine lepto-
tospirosis come back positive? Fort Dodge
Animal Health representatives have con-
ducted surveys of veterinary practices in
about 20 states since 2002. So far, with
data provided by Zoasis Corp. and Antech
Diagnostics Inc., the results indicate that
20% to 30% of submitted leptospirosis
tests return with positive results.

These findings mirror what researchers
already knew: Leptospirosis is on the rise.
“In the last 20 years, we’ve seen a reemer-
gence of canine leptospirosis, along with
changes in geographic distribution and the
most common serovar types,” says Larry
Glickman, VMD, DPH, head of clinical epi-
demiology in the department of veterinary
pathology at Purdue University’s School of
Veterinary Medicine in West Lafayette, Ind.
Dr. Glickman co-authored a study in early
2002 that found a significant increase in
canine leptospirosis prevalence between
1983 and 1998.¹

More recent retrospective studies con-
ducted at Purdue’s School of Veterinary
Medicine corroborate the shift in geograph-
ic distribution and serovar-specific preva-
lence. For example, one study published in
the July 1, 2004, issue of JAVMA found
significant associations between leptospiro-
sis and environmental factors, including
dogs living in rural areas that were urban-
ized between 1990 and 2000.² Simply put,
cases that once flourished predominantly in
rural environments are now cropping up in
metropolitan areas. As housing develop-
ments replace former woodlands, wetlands,
and farmland, pets and people are more
likely to encounter raccoons, skunks, opos-
sums, and rats—the most common mamm-
alian hosts for Leptospira species. And
even though leptospirosis is more common
in wet, moderate climates, infection is pos-
sible in any environment, says Dr. Glick-
man. “I haven’t seen any place where lep-
tospirosis is not present,” he says. “You’ll
see it wherever you look for it.”

In regard to Leptospira serovars, a

2004 JAVMA study looked at 90 dogs
from Indiana that were diagnosed with
leptospirosis from 1997 to 2002. Most of
the cases were associated with grippoty-
phosa, followed by bratislava, ictero-
haemorrhagiae, and pomona.³

A new vaccination
These trends in Leptospira infection—
higher frequency, broader areas of inci-
dence, and newly recognized serovars—

Leptospirosis (continued)
Leptospirosis (continued)

have led Fort Dodge Animal Health to develop LeptoVax™ 4, the newest member of its Duramune line of Leptospira vaccines. “The number of canine leptospirosis cases has risen dramatically in recent years, with most cases caused by the emerging serovars grippotyphosa and pomona,” says Mike LaRosh, DVM, director of Fort Dodge’s companion animal professional services. “LeptoVax™ 4 and other Duramune Leptospira vaccines are the only vaccines proven effective against these two emerging serovar threats, as well as the traditional serovars.” In addition, Dr. LaRosh says vaccines that only protect against traditional serovars may not offer cross-protection against newly emerging serovars, which leaves dogs at risk for serious infection.

Another advantage of LeptoVax™ 4 and other Fort Dodge Leptospira vaccines is the company’s use of subunit technology, which helps produce safe and highly effective vaccines (see Take Note sidebar).

Considering these developments, Dr. Glickman advises veterinarians to do three things. First, vaccinate for leptospirosis routinely. He strongly recommends twice-a-year vaccination for sporting, hunting, or outdoor dogs, and once a year for all other dogs (see the Don’t Wait sidebar).

Second, know the science behind this devastating disease so you can diagnose it, treat it, and ideally, prevent it.

Finally, submit tests to laboratories for confirmation if you suspect leptospirosis. The sooner you identify this potentially deadly disease and begin antibiotic therapy, the better the outlook for your patient’s recovery.

References

Take Note

Subunit technology provides added measure of safety to Leptospira vaccines

Safety and efficacy are important considerations to Fort Dodge Animal Health when manufacturing their Leptospira vaccines. That’s why Fort Dodge uses its exclusive subunit technology—an innovative method to produce Leptospira vaccines.

“Subunit technology involves separating the surface immunogens of Leptospira from extraneous intracellular debris,” says Dr. Mike LaRosh, Fort Dodge’s director of companion animal professional services. “The final result is a purified vaccine containing the majority of surface Leptospira immunogens necessary for protection.” This differs from other canine vaccines that rely on whole-cell products, which contain the entire Leptospira organism, he explains.

In fact, in a study of more than 144,000 doses given to dogs, the reaction rate for Fort Dodge’s Leptospira vaccines is just 0.27 percent for all breeds.

LeptoVax™ 4, the newest member of the Duramune line of Leptospira vaccines, is a standalone vaccine that includes four prevalent Leptospira serovars: grippotyphosa, pomona, icterohaemorrhagiae, and canicola. If preferred, veterinarians can continue to offer leptospirosis protection using the Duramune line of combination vaccines.
Ask most pet owners why they visit the veterinarian once every year, and they’ll probably say, “to get my pet’s shots.” Annual vaccination schedules have offered veterinarians a great opportunity to see clients annually to recognize and treat disease early. Unfortunately, many clients today think that vaccinations are the most important reason for routine veterinary visits. That’s why it’s important to review the vaccinations you offer to see how they might fit in a twice-a-year wellness program. Consider these facts:

1. The 2003 AAHA Canine Vaccine Guidelines and the 2000 American Association of Feline Practitioners and Academy of Feline Medicine Advisory Panel on Feline Vaccines Report both recommend administering certain vaccines no more frequently than every three years. The guidelines also support administering other vaccines annually or more often for pets at increased risk for certain diseases. The important point: Many practitioners are re-examining their vaccination schedules in light of these recommendations. You can use changing vaccination protocols to your advantage if you 1) analyze the vaccinations you recommend and stagger them between visits, 2) develop a twice-a-year wellness program, and 3) educate clients about all the important services you offer during twice-a-year exams.

2. The 2002 AAHA Compliance Study found that overall compliance for canine and feline core vaccines in pets that visited a veterinarian during the preceding 12 months was 87 percent. However, there were still 12.4 million dogs and cats that weren’t protected against core diseases (distemper, hepatitis, and parvovirus infection in dogs and feline viral rhinotracheitis, calicivirus infection, and panleukopenia in cats), even though they visited a veterinarian during the preceding 12 months. These figures didn’t include some 10.6 million dogs and 22.7 million cats in the United States that weren’t seen by a veterinarian at all in that time. Obviously, there’s room to improve compliance in all areas—including vaccinations—regardless of the vaccination schedule you follow.

To encourage client compliance, first establish a uniform healthcare protocol. Vaccinations provide a great tool to reinforce the importance of twice-a-year wellness exams. So review your vaccination protocols today and see how they might fit into a twice-a-year wellness program.

Stress the importance of all aspects of a comprehensive, individualized healthcare programs, including:
- dental care
- nutrition
- behavior counseling
- diagnostic testing
- parasite control
- zoonotic disease prevention
- vaccination and its potential benefits and risks, as well as the pet’s lifestyle (contact with other animals) and exposure risks
- regional incidence and risk factors for various infectious diseases.

It’s difficult to provide all this information in a 15- to 30-minute appointment. And even if you fit it all in, clients will likely feel overwhelmed and stop listening. A better solution is to plan twice-a-year wellness visits to thoroughly assess each pet and offer and implement your recommendations.

Explain to clients that during a six-month period, a pet’s health status can change, as can its environment, lifestyle, and travel habits. All of these factors warrant reassessing healthcare recommendations for vaccinations, diagnostic testing, parasite control, and so on. You’ll also review the client’s compliance with recommendations you made at the last appointment, including internal and external parasite prevention and control, dental care, and so on.

Vaccinations provide a great tool to reinforce the importance of twice-a-year wellness exams. So review your vaccination protocols today and see how they might fit into a twice-a-year wellness program.
The fastest land animal and one of the oldest cats on Earth, the cheetah can reach speeds in excess of 70 mph in as little as four strides. That’s why it’s devastating to learn that cheetahs are sprinting toward extinction. With the help of Fort Dodge Animal Health, the Cheetah Conservation Fund (CCF) is racing against time to protect the species.

Founded by Laurie Marker, PhD, in 1990, CCF is on the core management team of the large cat specialist group of the World Conservation Union, the world’s largest scientific organization for nature conservation. With the help of EarthWatch volunteers, the CCF’s conservation efforts encompass all aspects of the cheetah’s struggle, including losing its habitat and falling prey to commercial farming. About 95 percent of cheetahs live on farmland in Namibia, Africa, where farmers, who fear that cheetahs threaten livestock, may trap or kill the cats.

CCF’s goal is to develop livestock management and nonlethal predator control practices to resolve the cheetah and farmer conflict. For example, the organization created an Anatolian shepherd guard dog program, which places eight-week-old puppies with farmers’ herds to protect them against cheetahs, baboons, jackals, caracals, and leopards. Trained to bark and stand in an attack stance if threatened, an Anatolian shepherd’s large size and bark frighten away most predators. CCF has placed more than 200 puppies on Namibian farms.

CCF also conducts conservation education programs for villagers, ranchers, and school children in Namibia to teach them about the cheetah and its plight. “If people can understand cheetahs better, they might be willing to try other solutions to protect the cheetahs’ livelihood,” Dr. Marker says.

A helping hand
To support the group’s data collection and treatment efforts, Fort Dodge has formed a partnership with CCF. Every year, Fort Dodge donates anesthetics. CCF’s professional staff members use these products intensively in their work. CCF performs routine health exams and blood screenings, offers treatment for emergencies and illness, collects sperm for cryopreservation studies, and gathers tissue samples—such as gastric biopsies to study gastritis, a common disease among cheetahs.

Dr. Marker says CCF has anesthetized animals in some pretty remarkable circumstances. “Many times we’ve had to pick up cheetahs captured by farmers,” she says. “Sometimes farmers release the cheetahs into enclosures that are too large, and we can’t coax them into boxes for transportation. In these cases, we dart the cheetah so we can move it into the box.”

Dr. Marker says Fort Dodge’s sponsorship has made an enormous difference in CCF’s success. “Without Fort Dodge, CCF would not be able to collect the crucial biomedical samples we need for cheetah research,” Dr. Marker says.