Handout

Saving Lives with Antibody Titer Tests Webcast

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September 8, 2011

Overview:

1) How and when does a dog or cat become antibody (IgG) positive?

2) Types of antibodies
   a. Systemic Antibody
   b. Local Antibody
   c. Passive Antibody

3) Active immunity
   a. Puppies and kittens
   b. Vaccine induced
   c. Innate factors
   d. Cellular immunity

4) What antibody titers are dependent on
   a. Significance of antibody titers

5) How to read/interpret an antibody titer
   a. Classical titer tests
   b. Alternate tests
   c. Titer interpretation

6) Types of immunity
   a. Protective immunity
   b. Cell-mediated immunity (CMI)
   c. Humoral (Antibody) immunity

7) "Gold Standard" tests used to determine titers for vaccinal immunity
   a. Types
   b. Features
   c. Gold standard tests for canine and feline diseases
   d. Other tests
   e. Laboratory tests

8) On-Site tests (TiterCHEK™ and VacciCheck™)
   a. Useful in puppies to ensure immune response to CDV/CPV-2
   b. What to do if test is not positive
   c. What to do if test is negative
   d. Meaning of a positive test and a negative test

9) Quality assurance
    a. Quality assurance program required before recommending a new test
    b. TiterCHEK™ and VacciCheck™ quality assurance

10) Recommended core canine and feline vaccines
    a. Canine Core Vaccines
    b. Feline Core Vaccines
    c. Local immunity and CMI

11) Antibody testing
    a. What detection of antibody demonstrates

12) Use of antibody testing
    a. To prevent or reduce an outbreak of disease in a shelter (adult animals)
    b. In a shelter outbreak
    c. In companion animals

13) Conclusions
    a. For shelters
    b. For companion animals
    c. About antibody testing

Notes:

How and when does a dog or cat become antibody (IgG) positive?

Types of antibodies

- Systemic Antibody
- Local Antibody
- Passive Antibody

Active immunity

- Puppies and kittens
- Vaccine induced
- Innate factors
- Cellular immunity

What antibody titers are dependent on

- Significance of antibody titers

How to read/interpret an antibody titer

- Classical titer tests
- Alternate tests
- Titer interpretation

Types of immunity

- Protective immunity
- Cell-mediated immunity (CMI)
- Humoral (Antibody) immunity

"Gold Standard" tests used to determine titers for vaccinal immunity

- Types

- Features

- Gold standard tests for canine diseases

  Abbreviations: VN = Virus Neutralization; HI = Hemagglutination Inhibition

Disease	Test
Canine Distemper Virus	VN
Canine Parvovirus Type 2	VN or HI
Canine Adenovirus Type 1	VN
Rabies Virus	VN

- Gold standard tests for feline diseases

Disease	Test	Correlation
Feline Parvovirus (Panleukopenia)	VN or HI	Excellent
Feline Calcivirus	VN	Good/Fair* (slgA)
Feline Herpesvirus	VN	Fair
Rabies Virus	VN	Excellent

* Plays a critical role in the upper respiratory tract

- Other tests

- Laboratory tests

On-Site tests (TiterCHEK™ and VacciCheck™)

- Useful in puppies to ensure immune response to CDV/CPV-2
- What to do if test is not positive
- What to do if test is negative
- Meaning of a positive test and a negative test

Quality assurance

- Quality assurance program required before recommending a new test
- TiterCHEK™ and VacciCheck™ quality assurance

Recommended core canine and feline vaccines

- Canine Core Vaccines
- Feline Core Vaccines
- Local immunity and CMI

Antibody testing

- What detection of antibody demonstrates

Use of antibody testing

- To prevent or reduce an outbreak of disease in a shelter (adult animals)
  - Negative or low incoming animal ⇨ In isolation or foster home (NOT placed in the shelter with an outbreak)
  - Positive or high incoming animal ⇨ Admitted to shelter
  - Negative or low animals already in the shelter are at risk
    - Placed in an isolation area or held with the other diseased animals
    - They should not be adopted until after an appropriate holding period
      - CPV-2 or FPV ⇨ at least 2 weeks
      - CDV ⇨ at least 6 weeks
    - Second test performed
      - CPV-2 outbreak ⇨ 2+ weeks
      - CDV outbreak ⇨ 6+ weeks

- In a shelter outbreak

- In companion animals
  - Young animals

  - Older animals (> 1 year)

  - Very old animals (dogs > 10 years; cats > 15 years)

Conclusions

- For shelters
- For companion animals
- About antibody testing