

CLIENT EDUCATION HANDOUT

OPTIONAL
LOGO

Customer Name, Street Address, City, State, Zip code

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CAPRINE ARTHRITIS ENCEPHALITIS VIRUS

Overview

- Caprine arthritis encephalitis (CAE) is characterized by chronic arthritis of multiple joints, chronic mastitis, and/or chronic pneumonia in adult goats.
- Occasionally this virus can cause acute paralysis in young kids.

Species and Animal Groups Affected

- In dairy goat herds in the USA, between 38% to 81% of goats within dairy herds display evidence of exposure to infection on blood testing.
- The prevalence of this virus in meat and hair goat breeds in the USA is low.
- The main route of transmission is through ingestion of infected goat colostrum or milk by kids.
- Clinical signs of disease are most likely in adult goats over two years of age, however, acute paralysis can occur in kids between two to six months old.

Signs

- Infection in most goats does not provoke any clinical signs despite a positive blood test.
- In ~ 20 to 25% of infected goats, signs including arthritis, mastitis, and/or pneumonia occur several years after infection. Chronic weight loss is common.
- Chronic arthritis ("big knee") in mature goats is the most common sign, with joint swelling, pain, stiffness, and lameness, which is often combined with weight loss.
- Most goats with arthritis will also develop firm, enlarged udders with reduced milking capacity.
- Some goats will also develop coughing, difficulty breathing, and weight loss, and some can become slowly paralyzed over several months.
- Death results from secondary bacterial infections months to years later.
- Affected kids may show rapid paralysis at two to six months of age.

Causes and Risk Factors

- Disease arises from infection with the CAE virus.
- Risk factors can include large herd size, high stocking density, increased age, and intensive rearing systems.

Diagnosis

- Blood testing can indicate infection within three to six weeks after exposure.
- Be aware that goat kids can sometimes test positive due to absorption of antibodies (but not necessarily virus) from pasteurized colostrum.

Treatment

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Blackwell's 5-Minute Veterinary Consult: Ruminant 2nd Ed.

- None.

Expected Course and Prognosis

- Infected goats remain infected for life.
- Goats often die months or years after initial clinical signs appear.

Management Considerations

- There are no vaccines available.
- Control depends on limiting transmission by hand rearing kids from birth and culling infected animals.
- Blood testing and segregation of positive animals reduces prevalence, and can facilitate eradication.
- Re-testing every three to six months and elimination of new positive animals is necessary until three to five consecutive tests result in 100% of goats being negative, following which, yearly testing and acquisition of replacements from CAEV-free herds is recommended.
- Heat treatment of colostrum (56 - 59 °C for one hour) from infected goats reduces but does not eliminate the risk of transmission of infection to goat kids.

Notes

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Blackwell's Five-Minute Veterinary Consult: Ruminants, Second Edition, Christopher C.L. Chase, Kaitlyn A. Lutz, Erica C. McKenzie and Ahmed Tibary © 2017 John Wiley & Sons, Inc.