Heartworm Testing in Dogs

Effective Date: 9/15/2021

Responsible Staff:
- Vet techs
- Kennel staff

Purpose: This SOP provides vet techs and kennel staff with a step-by-step procedure for testing adult dogs for heartworm infection and documenting the test results in each animal’s medical record. The SOP is based on the recommendations for testing dogs in the 2020 AHS Canine Management Guidelines.

Definitions
- Dirofilaria immitis = canine heartworm
- Canine heartworm POC test = point-of-care test for heartworm antigen in whole blood or serum
- Canine microfilaria test = microscopic exam of a drop of whole blood for D. immitis microfilaria

Supplies Needed
- Disposable exam gloves
- Canine heartworm POC test for heartworm antigen
- Sterile 3cc syringes with 22 gauge needles
- Heparin
- Saline
- Microscope
- Microscope slides with cover slips
- Sharps box for needle disposal

Procedures
1. Test all dogs >6 months old (permanent canine teeth) for canine heartworm antigen and microfilaria.
2. Perform testing at intake.
3. Wear clean exam gloves.
4. Open the animal’s medical record in Chameleon.
5. Confirm that the animal’s ID neckband/kennel card and description match that in the medical record.
6. Rinse a 3cc syringe and needle with heparin to provide anti-bloodclotting activity.
7. Gently restrain the dog in a sitting or standing position.
8. Apply pressure to the upper front leg to occlude the cephalic vein. If this is too stressful to the dog, use manual pressure to occlude the lateral saphenous vein in a hind leg.
9. Perform venipuncture of the cephalic or lateral saphenous vein with the heparinized syringe and needle. Collect 1 mL of blood into the syringe.
10. Perform the canine heartworm antigen test according to manufacturer instructions for whole blood samples.
11. Place one drop of blood on a microscope slide and add one drop of saline to the blood. Place a cover slip on top.
12. Using the 10X microscope objective, examine the entire area under the cover slip for microfilariae.
13. Record the results of the canine heartworm antigen test and the microfilaria scan and testing date in the medical record.

14. Notify the veterinarian if the canine heartworm antigen test is negative but microfilariae were noted on the blood film scan.