



RUNNING ALTERNATIVE FLUIDS ON THE VETSCAN[®] HM5

HM5

The VETSCAN HM5 analyzer is validated for providing in-clinic nucleated cell counts* in alternative fluid samples for some species, including pleural and peritoneal in dogs and synovial fluid in horses.¹ For results for species and/or fluids not validated, fluid samples may be run, however, precision and accuracy cannot be determined. These cell counts can enable identification of inflammation, infections, and neoplasia, and characterize the effusion to aid in a diagnosis.

Pleural, Pericardial, and Peritoneal Fluid Procedure

1. Run undiluted sample in a red top tube under the appropriate species setting on the HM5.
2. Observe the total white blood cell (WBC) number, which is useful for classification of fluids and provides the total nucleated cell count (TNCC).
3. Total protein concentration can be performed on a refractometer.
4. Microscopic evaluation of a stained smear is necessary for leukocyte differential and identification of non-leukocyte cells and/or infectious organisms.

Synovial Fluid Procedure

1. Add a flake of hyaluronidase[†] (enzyme concentrate) to sample in a red top tube, mix, and store at room temperature for 10 minutes.
2. Run the undiluted sample under the appropriate species setting on the HM5.
3. Observe the total WBC number, which is useful in determining if the WBC count is normal or abnormal.
4. Microscopic evaluation of a stained smear is necessary for a leukocyte differential and identification of non-leukocyte cells and/or infectious organisms.

[†]Hyaluronidase from Sigma Chem Co., Part # H3506, 100 mg bottle.

Perform an Enzymatic Cleaning cycle (white HM5) or a Soak Cleaning cycle (blue HM5) using HemaClean (HemaClean, part no. 790-1513) after every synovial fluid sample run.

For additional assistance, please contact Zoetis Technical Support at **1 800 822 2947** or email **DXSupport@zoetis.com**. Zoetis Technical Support is available 24 hours a day, 7 days a week, if you need further assistance.

*HM5 analyzers are not intended to provide accurate differential counts for alternative fluid analysis samples.

¹Brudvig JM, Swenson CL. Total nucleated cell and leukocyte differential counts in canine pleural and peritoneal fluid and equine synovial fluid samples: comparison of automated and manual methods. *Veterinary Clinical Pathology* 2015;44:570-9. doi:10.1111/vcp.12298.