Info Sheet

For a comparison study with the vet fluidlab 1

Introduction

The vet fluidlab 1 is a POC device for the (semi-)quantitative analysis of urine formed elements of dogs and cats. Compared to the gold standard (microscopic examination of urine sediment) the vet fluidlab 1 uses native uncentrifuged urine. The use of uncentrifuged urine leads to time savings in the analysis and preserves the elements in the sample. In addition, the observer dependency is excluded by the automated urine analysis of the vet fluidlab.

When comparing the vet fluidlab 1 with the gold standard, there are several critical steps to consider. This information sheet serves as a guide for a valid comparative study.

Critical Steps

When measuring with the vet fluidlab 1 the following critical steps must be taken into consideration:

- Sample Preparation and Manual Microscopy
  The vet fluidlab 1 uses uncentrifuged native urine for its measurements. To ensure a valuable comparison study, the same sample should be used for comparison, which means, that the results of the vet fluidlab 1 cannot be compared to e.g. a centrifuged sediment sample.
  Manual counting shall be performed with uncentrifuged urine. Counting chambers, e.g. Fast Read Slides shall be used for a quantitative count in cells/µL. Microscopic units should not be used for the comparison.

- Results from Reference Lab
  The results of the vet fluidlab 1 shall always be compared to another POC method. Sending a urine sample to a reference lab can lead to differences in the results because of transport and the long turnaround time (TAT). A long TAT may lead to formation of crystals and cell lysis.

- Sample Storage and Measuring Time
  Samples should be analysed within 30 minutes after their collection. Samples which cannot be analysed immediately shall be stored in the fridge after their collection. The time between the measurement with the vet fluidlab 1 and the comparison method shall not exceed 30 minutes.

- Sample Homogenization and Pipetting
  Proper homogenization of the sample is essential for achieving correct results. Aspiration of the sample has to be performed right after homogenization otherwise there is an immediate sedimentation of the high-density elements (crystals, casts).

- Sample Carrier Handling
  Presence of bubbles as well as of dirt in the optical area may interfere with correct evaluation of individual sediment particles.
  Storing the SC in a vertical position before measurement may lead to false negative results due to the gravity sedimentation of high-density elements (crystals, casts).

- Replicates
  Measurements should be performed in Triplicates during the comparison study to exclude deviating results due to handling errors.