VETSCAN® SA & UA SAMPLE HANDLING
BEST PRACTICE GUIDE

URINE SAMPLE COLLECTION METHODS

Cystocentesis

Insert a small sterile syringe with needle into the bladder through the abdominal wall to aspirate urine.

Ideal method for collecting samples, requiring at least 2 veterinary professionals.

Catheter

Place a urinary catheter within the urethra and advance it into the bladder using a sterile syringe to collect the urine.

Requires at least 2 veterinary professionals and often, sedation of the animal.

Free Catch

Use a sterile collection container and collect a midstream sample.

Most at-risk for contamination and can be difficult to obtain.

SAMPLE SIZE

A benefit of in-clinic automated urinalysis is the small sample size volume required.

- Acquire at least 1 mL of urine sample
- The SA requires approximately 650 µL (0.65 mL) of sample
- If running a UA test, additional sample may be required for the UA test strip

SAMPLE PREPARATION

The SA does not centrifuge samples or use centrifuged samples as this process can destroy cellularity, casts, or crystals.

Invert tube to mix thoroughly 5 times immediately prior to running the sample.

Urine samples may be tested immediately after collection for up to 1 hour post-collection, if stored at room temperature.[1,2]

Samples may be refrigerated in sealed, sterile containers for up to 4 hours.[3] Cold samples should be warmed to room temperature before testing. Refrigeration can enhance crystal formation in the urine.[4]

Fresh, room temperature, well-mixed samples are ideal.

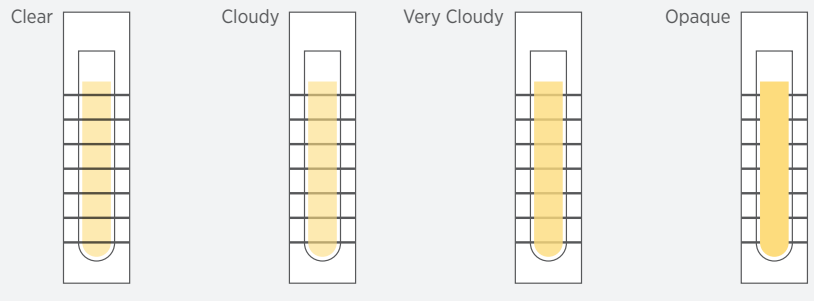
DILUTION

When to dilute?

Dilution may be necessary when sediment elements overlap and the analyzer cannot identify individual elements.

What should be reviewed before dilution?

Review urine color, turbidity, analyzer warnings such as 'TNTC – dilute and retest' message, and 96 images to determine appropriate next steps.



How to perform the dilution?

If the provided images do not deliver clinically actionable information, a 1:2 dilution should be performed initially with increasing dilutions (1:4, 1:8) performed until images and/or quantitative or semi-quantitative values provide clinical direction.[5]

Dilution Ratio	Urine Volume	Sterile Saline Volume (0.9% NaCl)
1:2	0.4 mL	0.4 mL
1:4	0.2 mL	0.6 mL
1:8	0.1 mL	0.7 mL

Diluting a sample will alter its general properties. Only dilute the urine sample if necessary.

When performing dilution, it is important to:

- Use sterile 0.9% NaCl to dilute urine samples
- Invert tube to mix thoroughly 5 times immediately before running the sample

Contact Technical Support for additional information: 800 822 2947 DxSupport@zoetis.com

Reference: 1. Chew, Dennis and DiBartola, Stephen, Interpretation of Canine and Feline Urinalysis. Nestle Purina, Wilmington, De, 2004 **2.** Sink CA and Weinstein NM. Specimen Procurement In: Practical Veterinary Urinalysis. Ames, IA: John Wiley & Sons Inc. 2012. pgs. 12-15. **3.** Sink CA and Feldman BF. Specimen Collection and Dipstick Analysis In: Laboratory Urinalysis and Hematology for the Small Animal Practitioner. Jackson, WY: Teton NewMedia. 2004. pgs. 3-18. **4.** Sink CA, Weinstein NM. Routine Urinalysis: Microscopic Elements. Practical Veterinary Urinalysis. Chapter 5. Ames, IA: John Wiley & Sons Inc. 2012, 55-112. **5.** Zoetis Data on File. Study No. TI-04858

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