

# Urine sampling recommendations:

Rapid transport or measures to preserve the sample aid reliable laboratory diagnosis. Delays and storage at room temperature allow organisms to multiply, which generates results that do not reflect the true clinical situation. Where delays in processing are unavoidable, refrigeration at 2-8°C is recommended or the use of a boric acid preservative may be beneficial.

Boric acid preservative at a concentration of 0.1–0.2% holds the bacterial population steady for 48–96 hours, and other cellular components remain intact. There is no data available on the effect of boric acid on bacterial populations beyond 96 hours. Toxicity to certain organisms has been reported. The toxic effect is delayed and often reflects underfilling of the container.

Unless the sample will be transported to the laboratory within 60 minutes of collection, refrigeration is recommended for up to 24 hours post-collection. There is limited evidence that after 24 hours refrigeration, there is an increased risk of false-negative results.

## Cystocentesis samples

Specimens collected by cystocentesis are preferred for urine culture. For an aseptically collected cystocentesis sample, a boric acid container is not required. Urine may be collected into a sterile universal.

## Catheterised samples

Catheterised samples are acceptable for urine culture. A universal containing boric acid is recommended to prevent overgrowth of contaminants.

## Free-catch samples

Free-catch samples are acceptable for urine culture. A universal containing boric acid is recommended to prevent overgrowth of contaminants.

We request that the method of sampling is provided on the submission form, to aid interpretation of the results.

## Bibliography

Bartges, J. & Polzin, D. J., 2011. *Nephrology and Urology of Small Animals*. Chichester: Wiley-Blackwell.

Gunn-Christie, R. G. et al., 2012. ASVCP quality assurance guidelines: control of preanalytical, analytical, and postanalytical factors for urinalysis, cytology, and clinical chemistry in veterinary laboratories. *Veterinary Clinical Pathology*, 41(1), pp. 18-26.

Public Health England, 2018. *UK Standards for Microbiology Investigations - Investigation of Urine*.

[Online]

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