



In Practice



Zoetis Virtual Laboratory enhances every element of your diagnostic practice with an integrated support network of board-certified specialists paired with expert-level AI¹⁻⁵ enabling end-to-end support that elevates care and helps improve patient outcomes.

Meet Honey, an 8-year-old, spayed female Boxer

Clinical signs

Frequent urination, straining to urinate, occasional urinary incontinence and difficulty going on long walks

History

Urinary incontinence, managed with medication for 4 years

Case presentation

- TPR: WNL
- BCS: 4.5/9
- Normal thoracic auscultation
- Discomfort on orthopedic exam, especially with hip extension
- Moderate erythema around vulva

How does the Virtual Laboratory help your clinic provide Honey with the best possible care?



Best-in-class AI with Vetscan Imagyst®

Fast, efficient AI-powered analysis across multiple applications, for accurate results¹⁻⁵ in minutes



End-to-end expert support

Add-on clinical pathologist reviews* with Vetscan Imagyst and complimentary specialist consultations, available anytime[†] via Zoom or email



Connected diagnostic insights

Point-of-care results, specialist consultation insights and Zoetis Reference Laboratories — all accessible in your ZoetisDx portal

Get powerful insights at the point of care

With AI-powered analysis available on Vetscan Imagyst, review expert-level urine sediment results for Honey's case in just minutes¹

Add an expert review for dedicated diagnostic support

Diagnose and treat with confidence in just hours

Minimum Diagnostic Database Findings

Complete blood count

- HCT 34.0 % (37-55%)
- WBC 16.0 X 10⁹/L (6.0-17.0 X10⁹/L)
- PLT 125 X 10⁹/L (165-500 X10⁹/L)

Chemistry

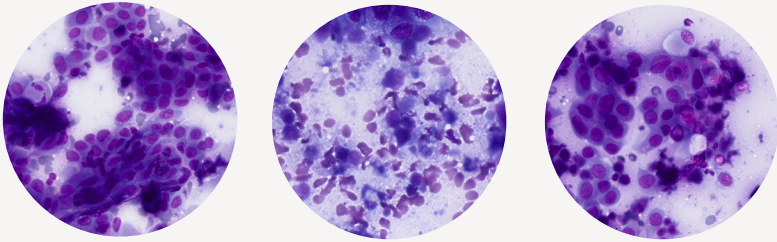
- ALP 312 U/L (20-150 U/L)

Complete Urinalysis including Vetscan Imagyst AI Urine Sediment

Blood Cells	Semi-Quant (per HPF)	Bacteria	Semi-Quant (per HPF)
RBCs	Moderate (21-1000)	Cocci	None to rare
WBCs	Few (6-20)	Rods	None to rare
Crystal	Semi-Quant (per HPF)	Epithelial Cells	Semi-Quant (per HPF)
Struvite	None to rare (0-1)	Squamous Epithelial Cells	None to rare (0-1)
Calcium Oxalate Dihydrate	None to rare (0-1)	Other Epithelial Cells	Moderate (5-10)
Casts	Semi-Quant (per HPF)	USG	Urine Chemistry
Hyaline Cast	None to rare (0-<1)	1.035	2+ Blood
Non-Hyaline Cast	None to rare (0-<1)		1+ Protein

Add-on Clinical Pathologist Review*

Cytological evaluation from a board-certified clinical pathologist helps ensure an accurate diagnosis, for fully-informed treatment decisions that help enhance patient outcomes.



High-definition cell images from Vetscan Imagyst AI Urine Sediment enable accurate digital cytological review in hours¹

Honey's cytology report

Microscopic Description

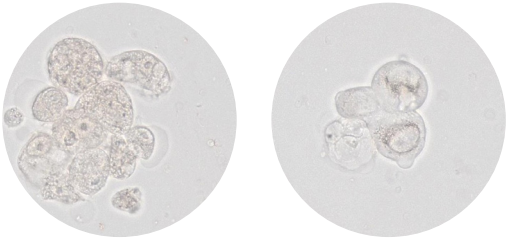
Moderately sized scanned regions from two slides are examined. The samples are highly cellular, well-prepared, and nicely stained. They contain a markedly pleomorphic population of epithelial cells seen individualized and in variably sized, cohesive clusters. The epithelial cells are round to polygonal, frequently individualized, and have basophilic cytoplasm and distinct cell margins. The N:C ratio varies widely throughout the population of cells. Nuclei are round to oval, central to paracentral with lacey chromatin and 1-3 nucleoli. These cells display moderate to occasionally marked anisocytosis and anisokaryosis. Bi and multinucleate cells (up to 6) are seen. And occasional cells appear to be cannibalistic. The background contains numerous ruptured cells, non-specific debris, necrotic cell clusters, and small amounts of blood. Infectious agents are not identified.

Interpretation

Urothelial (transitional) cell carcinoma

Object detection with high-definition cell imaging and AI analysis

- Evaluate ~1000 fields of view to **accurately identify critical urine sediment elements** for clear, actionable insights¹
- **Epithelial cell clusters** could be present in cases of:
 - ✓ **Urothelial Neoplasia**



Accurate, real-time results guide a more efficient diagnostic workup

Recommended next steps:

- ✓ Add-on clinical pathologist review* to evaluate epithelial cell morphology

Access fully-integrated insights in your ZoetisDx portal

- ✓ Review all test results, including easy-to-interpret trending, and expert reports
- ✓ Schedule complimentary consultations for additional guidance
- ✓ Engage in clear client communication and education for improved compliance

Same-day support guides a more advanced diagnostic workup

Recommended next steps:

- ✓ Abdominal radiograph and ultrasound
- ✓ Complimentary consultation with a board-certified Veterinary Oncologist

Partner with a board-certified oncologist to design Honey's ideal treatment plan

Complimentary guidance from dedicated experts across 14 specialities via email or Zoom consultations, scheduled anytime, anywhere in your ZoetisDx portal

You are not alone — connect with experts at any point in Honey's case

Detailed case reports, provided after every session, include an overview of clinical history, a consultation summary, considerations for further testing, treatment recommendations and additional resources and clinical references.

Oncology consult report

Potential risk factors	Staging	Treatment
<ul style="list-style-type: none">Exposure to older topical insecticides for flea and tick control, exposure to pesticides, cyclophosphamide administration, female sex and obesityScottish terriers, Shetland sheepdogs, beagles, fox terriers and West Highland white terriers are at increased risk	<ul style="list-style-type: none">Imaging of the abdomen and thorax should be done to complete stagingCT can also be considered, but is usually reserved for when surgery is being considered	<ul style="list-style-type: none">The location of most bladder tumors (in the trigone region) makes surgical removal often impossibleFirst-line therapy for canine transitional cell carcinoma (TCC) is chemotherapy combined with piroxicam (an NSAID), with a median survival time of one year

Key takeaways

- ✓ TCC is the most common form of canine urinary bladder cancer.
- ✓ <20% of dogs with bladder cancer have metastasis at diagnosis, but ~50% will disseminate during progression.[‡]
- ✓ Bladder cancer is treated as a chronic disease, with life-long treatment needed to slow tumor growth.



Bringing specialist-level medicine directly to your clinic

Elevate your diagnostic workup to help improve patient outcomes with Zoetis Virtual Laboratory. Schedule a complimentary specialist consultation in your ZoetisDx portal today!

* Option to send digital slide image to our network of clinical parasitologists or pathologists as needed. Additional costs may apply.

† Dependent on consultant availability.

‡ Excerpt from Zoetis Clinical Consultation Service Report.

References: 1. Data on file, Study No. DHXMZ-US-23-218, 2023, Zoetis Inc. 2. Data on file, Study No. D870R-US-21-045, 2021, Zoetis Inc. 3. Nagamori Y, Hall-Sedlak R, Blagburn B, et al. Multicenter evaluation of the Vetscan Imagyst system using Ocus 40 and EasyScan One scanners to detect gastrointestinal parasites of feces in dogs and cats. Journal of Veterinary Diagnostic Investigation. 2023;36(1). doi: 10.1177/10406387231216185. 4. Data on file, Study No. DHX6Z-US-23-222, 2023, Zoetis Inc. 5. Data on file, Study No. DHX6Z-US-22-131, 2022, Zoetis Inc.

LOOK DEEPER

Learn more at zoetisdiagnostics.com/virtual-laboratory

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