

# Urinalysis result in an apparently healthy dog: Abigail



**Patient:** Abigail (7-month-old, spayed female golden retriever)

**Reason for visit:** Abigail came in for a recheck examination post-spay. Prior to her appointment she appeared healthy and active, with no overt clinical signs. Her recheck appointment was scheduled for UA Day, and her veterinarian included a urinalysis as part of her diagnostic workup.

## Abigail's initial results and assessment

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2017 | JUN 7 | MAY 20 | MAY 18

5/18/17 2:18 PM SediVue Dx Urine Sediment Analyzer

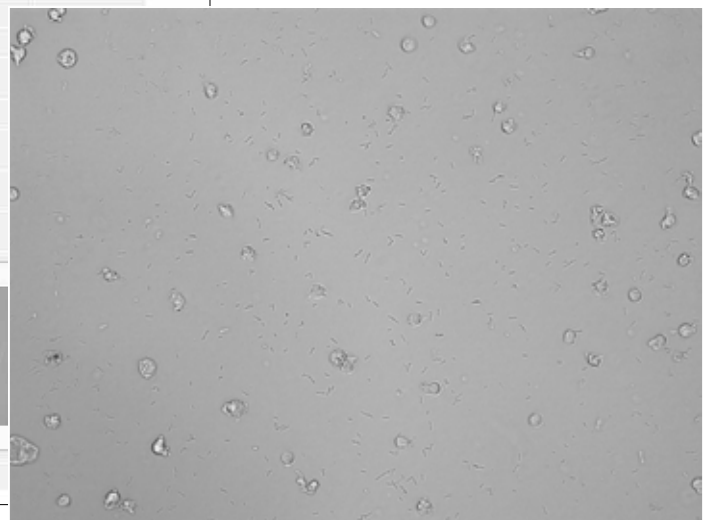
Collection		Cystocenti
Color		Pale Yell
Clarity		Clear
Specific Gravity		1.030
pH		7.0
Urine Protein		neg
Glucose		neg
Ketones		neg
Blood / Hemoglobin		neg
Bilirubin		neg
Urobilinogen		norm
Leukocyte Esterase		25
White Blood Cells	24/HPF	
Red Blood Cells	None detected	
Bacteria, Cocci	Suspect presence*	
Bacteria, Rods	Present	
Squamous Epithelial Cells	None detected	
Non-Squamous Epithelial Cells	None detected	
Hyaline Casts	None detected	
Non-Hyaline Casts	None detected	
Calcium Oxalate Dihydrate Crystals	None detected	
Struvite Crystals	None detected	
Amn Biurate Crystals	None detected	
Bilirubin Crystals	None detected	
Unclassified Crystals	None detected	

Images



Consider urine culture and sensitivity.

### Assessment

Based on the presence of pyuria and bacteriuria, a diagnosis of a urinary tract infection was made. Urine culture and sensitivity testing was requested from IDEXX Reference Laboratories.



# Urinalysis result in an apparently healthy dog: Abigail (continued)

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← ABIGAIL	
2017	JUN 7
	MAY 20
	MAY 18
	 5/20/17 (Order Received) 5/23/17 9:17 AM (Last Updated)
<b>Organism</b>	Escherichia coli GREATER THAN 100,000 ORGANISMS PER ML
<b>Amoxicillin</b>	Resistant (>=32 ug/ml)
<b>Amoxicillin / Clavulanic Acid</b>	Intermediate
<b>Piperacillin</b>	Resistant
<b>Imipenem</b>	Sensitive (<=1 ug/ml)
<b>Cephalexin</b>	Resistant
<b>Cefovecin</b>	Sensitive (1 ug/ml)
<b>Cefpodoxime</b>	Sensitive (2 ug/ml)
<b>Ceftiofur</b>	Sensitive (<=1 ug/ml)
<b>Amikacin</b>	Sensitive (<=2 ug/ml)
<b>Gentamicin</b>	Sensitive (<=1 ug/ml)
<b>Tobramycin</b>	Sensitive (<=1 ug/ml)
<b>Ciprofloxacin</b>	Sensitive
<b>Enrofloxacin</b>	Sensitive (<=0.12 ug/ml)
<b>Marbofloxacin</b>	Sensitive (<=0.5 ug/ml)
<b>Tetracycline</b>	Sensitive (2 ug/ml)
<b>Nitrofurantoin</b>	Sensitive (<=16 ug/ml)
<b>Chloramphenicol</b>	Intermediate (16 ug/ml)
<b>Trimethoprim-sulfa</b>	* Resistant (>=320 ug/ml)
	* Ticarcillin/Clavulanic Acid (TIMENTIN) has been discontinued by the manufacturer. Therefore, it is no longer available for testing.  The MIC (minimum inhibitory concentration) and interpretations on the report are based on serum levels. Antibiotics that are cleared by the kidneys will reach higher levels in urine and this may affect the susceptibility of the uropathogen being evaluated.
	 5/20/17 (Order Received) 5/23/17 9:17 AM (Last Updated)
<b>Source:</b>	URINE-CYSTO
<b>Status:</b>	FINAL
<b>Preliminary Culture Results:</b>	05/22: GRAM NEGATIVE RODS IDENTIFICATION AND MIC TO FOLLOW
<b>Completed Culture Results:</b>	Escherichia coli - GREATER THAN 100,000 ORGANISMS PER ML

## Results of Abigail's follow-up testing

Urine culture and sensitivity testing revealed that the infection was caused by *Escherichia coli*. Due to antibiotic resistance, the infection could not be treated with common antibiotics like amoxicillin and cephalexin.

## Abigail's management plan

- 2–4 weeks with appropriate antibiotics based on culture and sensitivity results.
- A complete urinalysis including urine culture and sensitivity testing was recommended one week after cessation of antibiotics to determine if the urinary tract infection was cleared.

## Key takeaway

Performing a complete urinalysis allowed for the identification of a subclinical urinary tract infection. Urine culture and sensitivity testing was needed to select the appropriate antibiotic treatment and improved the patient outcome.

Note: On UA Day (May 18, 2017), participating hospitals performed free urinalyses using the SediVue Dx<sup>®</sup> Urine Sediment Analyzer and tested on average more than 6X their normal volume of urine samples.