## How to understand bacteria results on the SediVue Dx Urine Sediment Analyzer

<table>
<thead>
<tr>
<th>Bacteria result (rods/cocci)</th>
<th>Definition</th>
<th>Possible reason for validation</th>
<th>Recommended next steps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>None detected</strong></td>
<td>The element has not been detected or there are not enough recognizable features to classify.</td>
<td>Patient has clinical signs or a history of persistent urinary tract infections.</td>
<td>If visual review of images is negative and patient has no clinical signs or history, bacteriuria is unlikely. No further action is necessary.</td>
</tr>
<tr>
<td><strong>Suspect presence</strong></td>
<td>Some recognizable features of an element (cocci, rods, casts) are present; however, the quantity or detail is insufficient to report as “present.”</td>
<td>Crystalline or amorphous debris is common in canine and feline samples (especially free catch).</td>
<td>Differentiate bacteria from debris. Review visually; if confirmed, diagnose and manage based on your interpretation. <em>If, however, visual review is inconclusive and white blood cells, red blood cells, clinical signs, and/or history of urinary tract infection are present, confirm presence of bacteria with a dry prep. If, however, visual review is inconclusive and there are no supporting clues present (e.g., active urine sediment, history), the presence of bacteria is unlikely.</em></td>
</tr>
<tr>
<td><strong>Present</strong></td>
<td>There is high confidence that bacteria are present in the sample.</td>
<td>Bacteria results may be confounded by other debris and artifacts in the sample (e.g., sperm, crystalline debris).</td>
<td>If visual review of images is confirmatory and/or the patient has clinical signs or history, bacteriuria is likely. No further action is necessary.</td>
</tr>
</tbody>
</table>
When urinalysis and culture results don’t align, which is right? Sometimes both.

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<th>Bacteria result (rods/cocci)</th>
<th>Culture result</th>
<th>Causes for discordant results</th>
</tr>
</thead>
</table>
| **Present**                   | No growth      | Bacterial growth was inhibited or prevented by:  
                              |                 | • Antibiotic treatment at time of sample collection.  
                              |                 | • Exposure of sample to extreme temperatures.  
                              |                 | • Extremes of urine pH (≤4 or ≥9).  
                              |                 | • High quantity of white blood cells in urine.  
                              |                 | Microscopy results misidentified amorphous or crystalline debris as bacteria.*  
                              |                 | False identification of cocci was due to random motion of small colloidal particles (Brownian motion).*  
                              |                 | Stain used on urine sample prior to in-house microscopy was contaminated by bacteria.  
                              |                 | Anaerobic bacteria were identified by the analyzer but cannot be grown in aerobic cultures (rare).  
                              |                 | *Particularly with unstained urine sediment examinations.  |
| **None detected**            | Positive       | Bacteria colony counts are too low to be visualized on urine sediment analysis because of:  
                              |                 | • Very dilute urine.  
                              |                 | • Incomplete or unsuccessful antibiotic therapy.  
                              |                 | • Localized pyelonephritis.  
                              |                 | In cases where clinical history is suggestive of urinary tract infection or an active urine sediment is present, urine culture should be considered even in the absence of bacteriuria on urinalysis.  |
When do you need a dry prep?
How to do it in 5 minutes or less.

When?
A dry prep should be considered only when you are unable to visually confirm absence or presence and:

- Patient has clinical signs or previous history.
- Other supporting results in the sample (e.g., white blood cells, red blood cells).

Why?
A dry prep (air-dried, stained cytological slide) is a quick, effective way to:

- Validate the absence or presence of bacteria.
- Distinguish bacteria from amorphous or crystalline debris.

How?
You can do a dry prep in 5 minutes or less!
Watch a short video to learn how.

Bacteria aren’t tagged on your urine sediment images. Here’s why:

The SediVue Dx® Urine Sediment Analyzer classifies and counts all bacteria without tagging them as tagging bacteria could be overwhelming and block your visual interpretation.

Image tags are also not available when:

- The sample is overcrowded and the results are suppressed.
- Testing species other than canine and feline.
- Sample types other than urine are run.