Urine Sediment Guide

Cells

Figure 1: Erythrocytes and one squamous epithelial cell
Figure 2: Erythrocytes and two leukocytes (black arrows)
Figure 3: Numerous leukocytes and few red-shaped bacteria
Figure 4: Many red-shaped bacteria (100x objective field of view)
Figure 5: Many leukocytes and large red-shaped bacteria (black arrowheads)
Figure 6: Numerous bacteria and leukocytes
Figure 7: Transitional epithelial cells
Figure 8: Squamous epithelial cells
Figure 9: Epithelial cells (black arrow), RBC (red arrow) and WBC (blue arrow)
Figure 10: Transitional cell carcinoma (NMB wet prep on right)
Figure 11: Transitional cell carcinoma (NMB wet prep on right)
Figure 12: Transitional cell carcinoma—air-dried and Diff-Quik® stained
Figure 13: Hyaline cast (borders outlined)
Figure 14: Granular (left) and mixed waxy and granular (right) casts
Figure 15: Waxy cast

Casts

Figure 16: Struvite
Figure 17: Amorphous (NMB wet prep on right)
Figure 18: Bilirubin
Figure 19: Ammonium urate
Figure 20: Left: Calcium oxalate monohydrate Right: Calcium oxalate dihydrate
Figure 21: Drug (Tribrissen™) crystals (10x objective field of view)

Crystals and Miscellaneous

Figure 22: Left: Fat droplets (red arrow, RBC); Right: Sperm
Figure 23: Capillaria plica ova
Figure 24: Contaminant fragmented fiber

All images, unless otherwise indicated, are representative of a High Power Field of view (40x objective field of view).

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Interpretation (Expected Values)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Normal</th>
<th>Reporting Results</th>
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<tbody>
<tr>
<td>WBC</td>
<td>0–5 / HPF</td>
<td>Number / HPF</td>
</tr>
<tr>
<td>RBC</td>
<td>0–5 / HPF</td>
<td>Number / HPF</td>
</tr>
<tr>
<td>Epithelial Cells</td>
<td>0–Few / HPF</td>
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<tr>
<td>Crystals</td>
<td>Variable</td>
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</tr>
<tr>
<td>Casts</td>
<td>0–Few / LPF</td>
<td>Number / LPF</td>
</tr>
<tr>
<td>Bacteria</td>
<td>0–Few / HPF</td>
<td>1 + to 4 + / HPF</td>
</tr>
</tbody>
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