

# The Complete Urinalysis Sample Guide

## Step 1. Prepare the sample and start the run on the SediVue Dx\* Analyzer

**If the sample is in a syringe**



1. Fill with at least 1 mL of sample. Replace the needle with a SediVue\* syringe tip, and then draw 0.5 mL of air into syringe.
2. Gently invert the syringe 10 times to mix the sample and then purge all of the air from the syringe.
3. Immediately after inversion, carefully inject 165  $\mu$ L of urine into the cartridge fill port and press the **Start** button on the analyzer.

**If the sample is in a container**



1. Cap the container and gently invert it 10 times to mix.
2. Immediately after inversion, aspirate 165  $\mu$ L of sample **from the bottom third of the sample**, ensuring there are no bubbles in the sample.
3. Carefully inject 165  $\mu$ L of urine into the cartridge fill port and press the **Start** button on the analyzer.

**IMPORTANT:**

Crystals start to settle immediately after inversion.

Be sure to aspirate from the bottom third of the sample. Then remove excess urine on the outside of the tip with a lint-free wipe.

### Guidelines for success

- **Fresh is best**—analyze urine samples within 30 minutes of collection.
- Storing urine samples in the refrigerator longer than 2 hours may introduce the in vitro formation of crystals and crystalline debris.
- Transfer voided samples to a urine sample container with a lid.
- **Mix** the sample **immediately** before filling the cartridge.

### Performing a line smear (dry slide preparation)

1. Centrifuge the sample. Then aspirate it down to the pellet, and then flick the bottom of the tube to resuspend the formed elements.
2. Dispense a drop of sample at the base of a labeled glass slide.
3. Hold a clean glass spreader slide at approximately 30°–40° in front of the drop of urine. Then back it into the drop allowing the material to spread along edge of the spreader slide.
4. Move the spreader slide toward the end of the specimen slide, keeping the two in contact with each other.
5. In the middle of the slide, abruptly stop spreading the urine sample and lift the spreader slide straight up to form a line of material.
6. Air dry thoroughly and then stain the slide using your routine hematology/cytology stain (e.g., Diff-Quik\*) and then review microscopically.

Visit [idexxlearningcenter.com/dryprep](http://idexxlearningcenter.com/dryprep) to see these steps in action.

## Step 2. Prepare the sample and start the run on the IDEXX VetLab\* UA\* Analyzer



1. Flood the UA strip making sure that all the test pads are saturated. Do not bend the strip.
2. Tap the long edge and back of the strip on a paper napkin to remove excess urine.
3. Immediately place the strip into the analyzer and press the Start button.

**Note:**

When you're finished, dispose of the test strip and use a lint-free wipe to clean the test strip tray.

## Step 3. Complete the physical evaluation



1. Visually inspect the color and clarity of the sample (e.g., pink, cloudy).
2. Place a drop of sample on a refractometer to obtain urine specific gravity (USG).
3. Note the physical information in the patient's record using the IDEXX VetLab\* Station.

**Note:**

It's important to recalibrate your refractometer on a regular basis.

## Step 4. Evaluate your results and images

Sample images are an important part of the results and should be reviewed with every sample run in order to validate the numerical data.

	When results and image review indicate:	Consider the following:
<b>Bacteria</b>	"None to rare" or "suspect presence," no or few possible bacteria seen, <b>without clinical signs</b>	Bacteriuria unlikely; <b>no line smear needed</b>
	"Suspect presence," bacteria are possibly seen, with(out) clinical signs	Perform a line smear to validate (see instructions at right). If patient persists with chronic urinary tract infection, consider culture and sensitivity testing.
	"Suspect presence" or "present," <b>bacteria are obviously seen</b> , with(out) clinical signs	Culture and sensitivity testing; <b>no line smear needed</b>
<b>Dilutions</b>	A dilution is recommended	Perform a dilution using these steps:
	Preanalytic: <ul style="list-style-type: none"> <li>• Hematuric</li> <li>• Cloudy (turbid)</li> </ul> Postanalytic: crowded	<ol style="list-style-type: none"> <li>1. After the patient run has been initiated, tap <b>Run Dilution</b>, specify the desired dilution factor (total parts), and tap <b>Run</b> or <b>Append Results</b>.</li> <li>2. In a test tube, place one part of <b>well-mixed</b> sample with the selected parts of 0.9% normal saline 10 times.</li> <li>3. Immediately inject 165 <math>\mu</math>L of the diluted sample into the cartridge fill port.</li> <li>4. Press the <b>Start</b> button on the analyzer.</li> </ol>

### How to use the SediVue\* Bacteria Confirmation Kit

1. On the IDEXX VetLab\* Station, select the patient from the In-House Results list, tap **Add Test**, tap the **SediVue Dx** icon, tap **Confirm Bacteria**, and then tap **Append Results**.
2. Dispense 165  $\mu$ L of well-mixed urine and dispense it into a new sample tube.
3. Add 1 drop of Reagent 1 (red) to the same tube and invert the tube 5 times to mix.
4. Add 1 drop of Reagent 2 (blue) to the same tube and invert the tube 5 times to mix.
5. Inject 165  $\mu$ L of the prepared sample into a cartridge on the analyzer and press **Start**.