

Test Fluid Recommendations

The Infutest 2000 must be used with the right test fluid to ensure accuracy of the measurements displayed and to promote longevity of the internal valves and flow sensors. Here are some recommendations regarding the use of various fluids in the Infutest

1. USE DISTILLED WATER

The advantage of using distilled water is you can keep your Infutest set up and primed all the time without damaging the internal valves or gumming up the flow sensors. Outgassing is less likely to occur with room temperature distilled water than with cold water drawn directly from the tap.

The Infutest 2000 is calibrated using distilled water as the test fluid. For this reason, you should also use distilled water as the test fluid if you want to get maximum accuracy from your Infutest.

Distilled water may be left in the Infutest for months (or even years) without damaging the internal sensors or causing rusting of the valves.

2. USE TAP WATER WITH CAUTION

Water drawn from the cold faucet is an acceptable test fluid provided it's "soft" (low mineral content), clean and perfectly clear. Don't use water from the hot tap as foreign material from your building's water heater may damage Infutest's flow sensors.

Tap water that's been left open to air can collect dust and dirt, and can even grow algae if exposed to sunlight. To maintain cleanliness, tap water should be kept in an enclosed vessel away from direct sunlight, and should be replaced daily.

If you use water from the tap, collect the (cold) water in a jug and leave it for a few hours to de-gas and warm up to room temperature.

3. DON'T USE COLORED WATER

Infutest's flow sensors incorporate optoelectronics which are calibrated to detect *transparent* (i.e. distilled) water. Using water mixed with food dye or other coloring can cause Infutest to display erroneous flow and volume measurements. Dyes may also stain the tubing and fittings of Infutest's internal fluid system, which will **void the warranty**.

4. DON'T USE SALINE

You can use normal saline (e.g. 0.9% Sodium Chloride Injection USP) if you must, but you can damage the Infutest if you don't flush out the channel thoroughly with distilled water right after testing the pump.

Never use saline to test a pump, and simply drain the Infutest afterwards and store the instrument away on the shelf. Since Infutest's occluder valves are made of *magnetic* stainless steel, exposure to both salt water droplets and oxygen will eventually cause the valves to rust. At this point you will find you can't prime the Infutest, or you can't perform the Occlusion Pressure Test.

Damage to Infutest's valves from use of saline as a test fluid is not covered under warranty.

5. DON'T USE D5W, D25W or D50W

Infutest's flow sensors are designed and calibrated to work with distilled water. D5W, D25W and D50W, in addition to being too viscous, leave a sticky residue in the glass tubes of the flow sensors which prevent proper operation.

Never allow dextrose or TPN solution to get into the Infutest. If you do, the Infutest will probably display erratic and/or **erroneously low** measurements. You will then have to clean the sticky material out of Infutest's flow sensors.

Contamination of the flow sensors from use of dextrose or TPN solutions in the Infutest is not covered under warranty.

6. USE "CLEAN" PUMP SETS

You should obtain a new set for each make of pump you will be testing. Prime your "test set" with distilled water before installing it in the pump you are checking.

After testing the pump, drain the set and store it away in a sealed plastic bag until another pump of the same type needs testing. Don't store the set in a pump or use the set's roller clamp or pinch clamps to keep the set primed. If you treat your "test sets" with care, they will last for many PM's.

7. DON'T USE "DIRTY" PUMP SETS

If somebody gives you a pump to test, and that pump has a used set in it, take the set out of the pump and **throw it away.**

A set which has been used on a patient is likely to contain saline, dextrose, or other solutions which could potentially damage the Infutest.

More information on the proper use of IV sets is provided in the Application Note, *PUMP IV SETS AND SYRINGES*.

8. CLEAN YOUR INFUTEST REGULARLY

You should be cleaning your Infutest regularly, depending on how much pump testing you do and whether you use distilled water or tap water. Cleaning the Infutest 2000 is relatively simple, and the complete procedure is given in the Application Note, *CLEANING YOUR INFUTEST*.