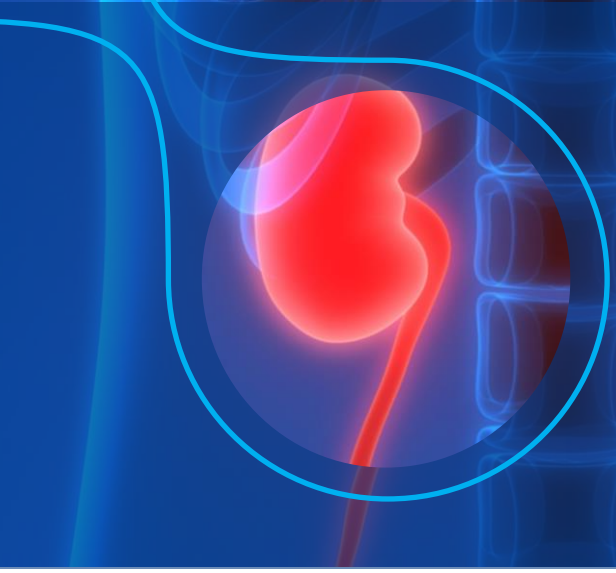

eurofins | Healthcare Facilities Testing

Dialysis water quality testing for renal units

Eurofins Healthcare Facilities Testing offers a dedicated renal equipment decontamination verification service, supporting compliance with ISO 23500 and the UK Kidney Association (formerly The Renal Association) guidelines.

Delivered by our accredited Eurofins Water Hygiene Testing UK laboratories in Sheffield (GB) and Belfast (NI), this service provides comprehensive microbiological and chemical analysis of rinse water, reverse osmosis (RO) and dialysis water used in hospital renal units.

The service is fully supported by our existing weekly hospital logistics network for endoscopy decontamination departments, enabling efficient sample collection with minimal disruption for hospital teams.

Why water testing for dialysis matters

Poor-quality dialysis water can pose serious health risks to vulnerable patients. Bacterial contamination or excess chemical residues can result in

- Inflammation, fever and pyrogenic shock (from endotoxins and microbes)
- Nausea and vomiting (from nitrates)
- Osteomalacia and bone density loss (from fluoride and aluminium)
- Neurological effects and organ damage (from heavy metals)

To ensure safety, renal services follow strict specifications under ISO 23500-1, ISO 23500-3, and UK Kidney Association guidance.

What renal water samples we test

We provide UKAS No. 1369 and 9508 accredited analysis for a comprehensive range of microbiological and chemical parameters.

Sample types

- Reverse osmosis (RO) water
- Dialysis water

Microbiological testing

- Total Viable Counts (TVCs)
- Endotoxins – LAL method (LOD: 0.01 EU/ml)

Chemical analysis

- Metals: Aluminium, Lead, Copper, Mercury, Arsenic, Cadmium, Zinc, etc.
- Ions: Nitrate, Fluoride, Sulphate, Calcium, Magnesium, Potassium, Sodium
- Other parameters: Total chlorine, Antimony, Barium, Thallium, Selenium

Turnaround Time (TAT)

Final reports typically available within 7 days (subject to availability), aligned with incubation time for TVCs.

How the service works in Great Britain

Designed with renal technical teams in mind, this service uses our trusted Eurofins Orange Box system, already in use across NHS estates and private healthcare settings.

Each Orange Box contains

- Pre-labelled sterile sample containers
- Alcohol spray, wipes, sterile gloves, and aprons
- Clear instructions for sample collection
- Secure cool-box packaging (maintains <5°C for up to 7 days)

Samples are collected by Eurofins-employed drivers on our regular milk-run schedules, ensuring full chain-of-custody and reliable collections. Boxes are delivered in advance so hospital staff have everything ready when needed.

Renal departments are not required to coordinate with endoscopy teams, but the use of the same logistics framework allows cost-effective and efficient weekly presence at site.

Collections work like clockwork – our drivers get to know exactly where to go, and hospital stores never lose sight of the bright Orange Boxes.

Benefits for renal departments

- Accredited testing of dialysis water and dialysate to ISO 25300-3 and aligned with the UK Kidney Association guidelines
- Dedicated to renal teams, with no need to coordinate with other departments
- All testing conducted in-house at Eurofins laboratories
- Trusted and reliable hospital logistics model
- Simple scheduling for monthly or quarterly sampling
- Results available within 7 days (subject to sample volumes and availability)

How the service works in Northern Ireland

1. Order bottles at least 24 hours in advance from the Belfast laboratory sample reception team.

2. Return samples to the laboratory within 12-18 hours of sampling for an analysis Monday to Friday 9am to 5pm.

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