

Dialog iQ® with Adimea

Ensuring Dialysis Adequacy for Improved Patient Outcomes¹



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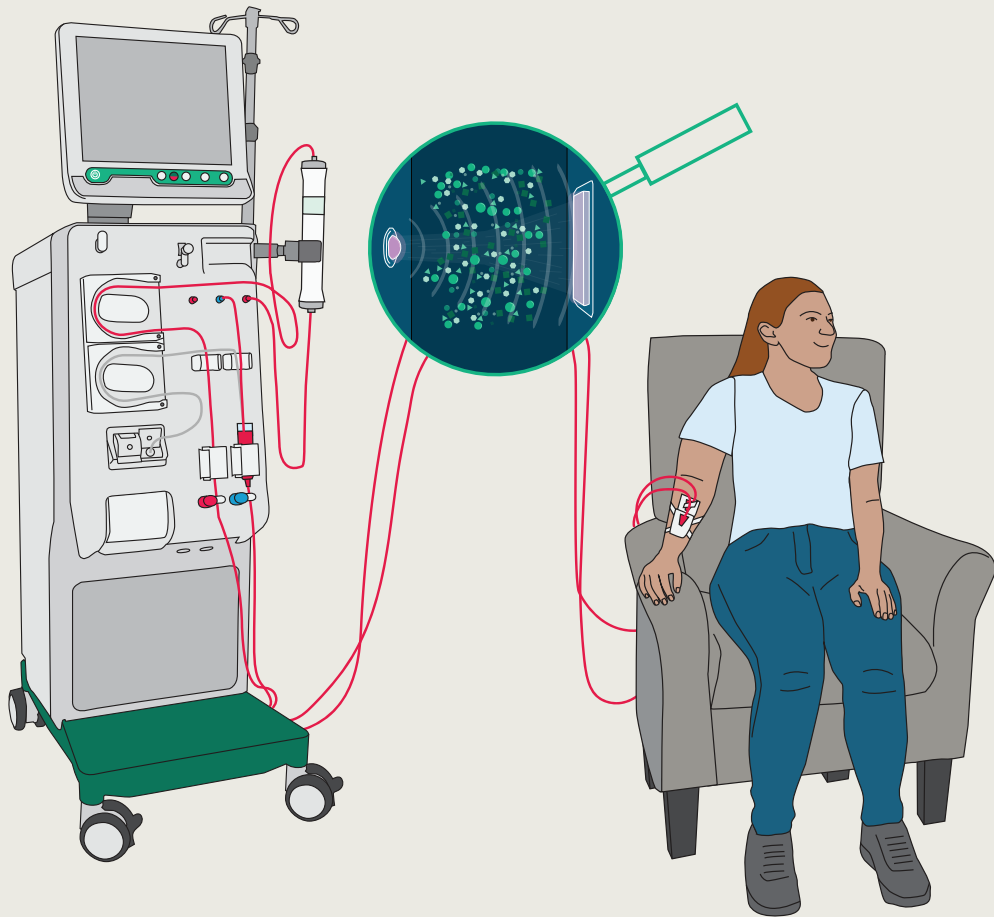
Adimea Specification

Contact B. Braun Medical Ltd today to learn more about how Adimea can help you improve dialysis adequacy and enhance patient care in your facility.

Adimea

Clearance refers to the rate at which waste products and excess fluids are removed from the patient's blood during a dialysis session. In the UK, guidelines recommended achieving clearance of $>65\%$ URR or $>1.2 \text{ Kt/V}^2$.

Currently, the National Kidney Foundation Kidney Disease Outcomes Quality Initiative (KtF-KDOQI) guidelines recommend that dialysis dose should be monitored at least monthly using blood samples. Published clearance data is available via the Renal Registry².



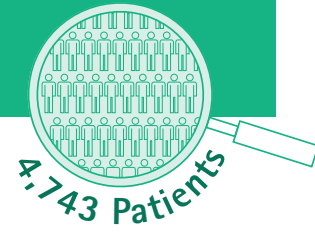
The Challenge of Dialysis Adequacy

Achieving dialysis adequacy is crucial for patients with end stage renal failure.

The traditional process of monitoring dialysis dose relies on monthly blood tests, which can lead to delayed problem identification and prolonged cycles of trial and error in optimising therapy. Additionally, sampling techniques can introduce errors, and the infrequent assessments fail to capture session-to-session variations³.

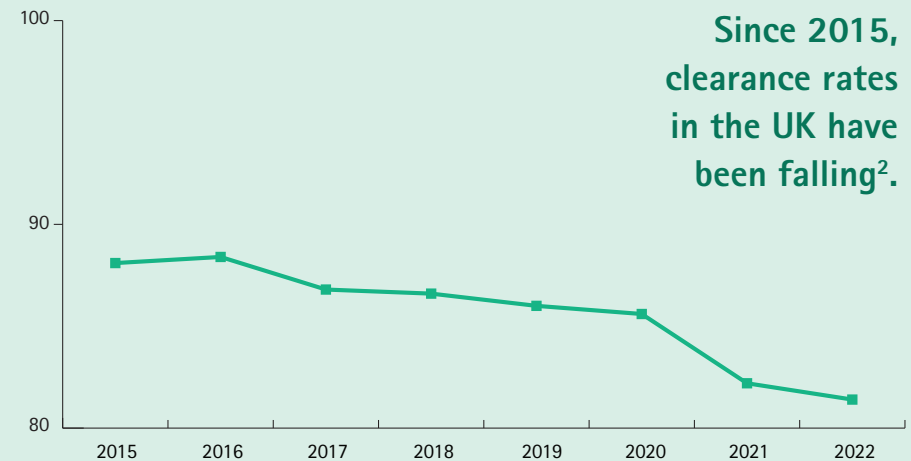
These challenges may result in under-dialysis, which negatively impacts patient outcomes, and is linked to increased morbidity and mortality⁴.

Almost
1 in 5 (18.6%)
patients in the UK
do not achieve
the URR of $>65\%$ target²
which equates to:



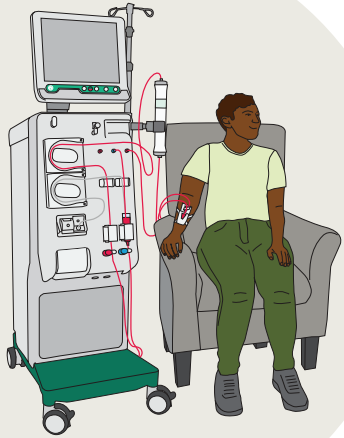
URR Clearance²

■ % achieved $>65\%$ URR



Since 2015,
clearance rates
in the UK have
been falling².

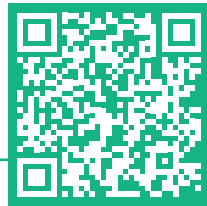
A Reliable Solution for Real-Time Dialysis Dose Monitoring



Dialog iQ® with Adimea technology supports clinical decision making by providing both the nurse and patient with real time visibility of clearance against target, helping identify potential improvements so that patients can achieve their treatment goals¹.

A study published in the International Journal of Artificial Organs found that using Adimea led to a significant increase in the proportion of patients reaching the target dialysis adequacy level⁵.

Scan QR code to read the full article.

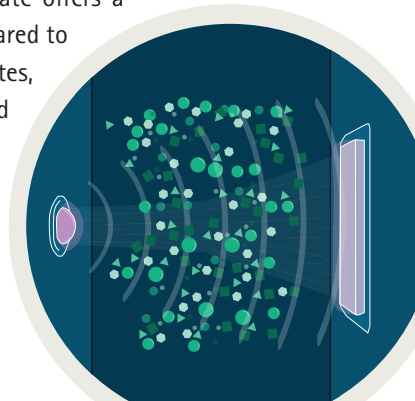


Adimea is an innovative tool that uses UV spectroscopy to continuously assess spent dialysate and determine dialysis dose in real-time.

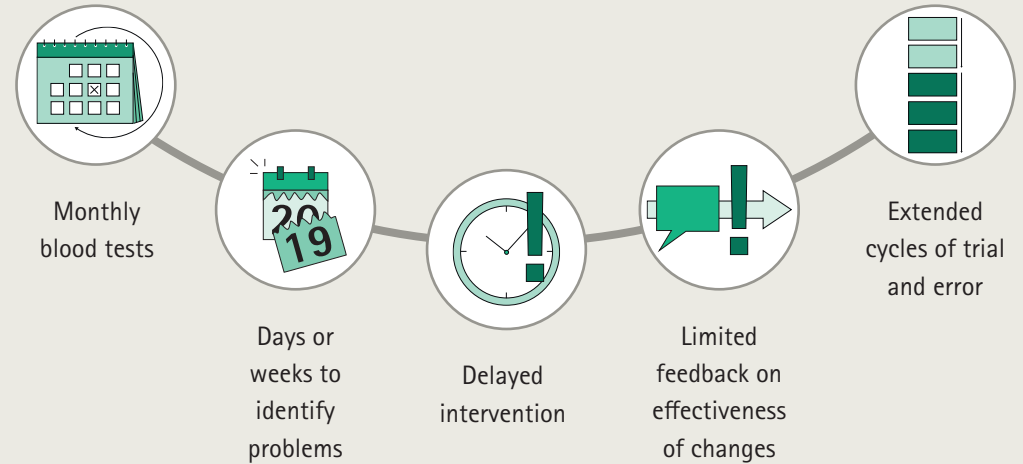
A sensor measures the absorption of light by waste molecules removed from the plasma during dialysis. This absorption directly correlates with urea concentration, providing a reliable measure of dialysis dose (Adimea Kt/V).

Adimea takes measurements every three minutes, providing about 80 measurements during a four hour dialysis session. This high sampling rate offers a detailed and accurate picture of the dialysis process compared to ionic dialysance, which typically measures every 45 minutes, even allowing detection of small disturbances like blood pump stops.

Inputting the pre-dialysis 'wet' weight alone eliminates the need to estimate urea distribution volume (V), further reducing errors whilst also streamlining processes.

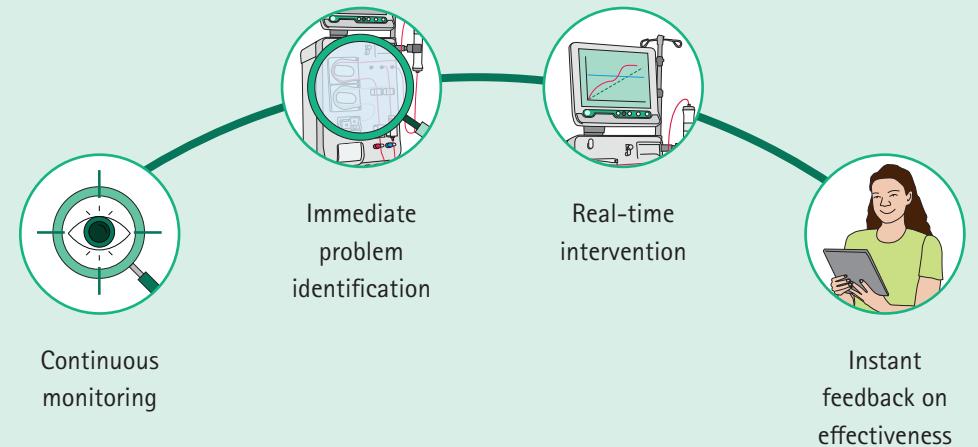


Traditional Process



VS

Adimea-Enabled Process



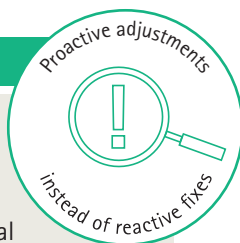
Rapid optimisation of treatment parameters

Adimea in Clinical Practice

Enhancing Workflow and Efficiency⁶

Dialog iQ[®] with Adimea reduces the time between identifying and resolving issues, enabling corrections within a single treatment session or a few days. Clearance concerns can be confirmed with same-day blood sampling instead of the usual monthly tests, allowing medical teams to promptly review clinical needs.

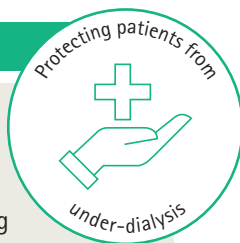
This advancement in monitoring technology embodies a new approach to dialysis care that is more precise, more responsive, and more patient-centred.



Patient Safety Through Reliable Dialysis Adequacy¹

Dialog iQ[®] with Adimea enables caregivers to make informed intradialytic decisions. Ross et al. developed a protocol to inform clinical interventions in response to low clearance, such as increasing dialysis time, altering flow rates, adjusting needle position, modifying anticoagulation, or replacing the dialyser¹. Adimea recalculates the Kt/V value with each parameter adjustment, immediately illustrating the impact.

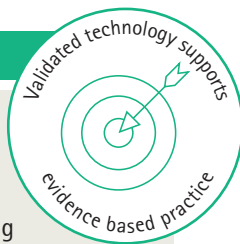
The research conducted, showed that real-time problem detection and intervention enhanced nursing care, improved dialysis quality, and promoted nursing autonomy which in turn, boosted morale.



Continuous Monitoring Proven to Improve Adequacy³

Dialog iQ[®] with Adimea technology utilises UV monitoring of dialysate solutes and has been validated as an accurate proxy for dialysis dose, showing excellent correlation with conventional blood-based Kt/V measurements. Adimea directly measures urea removal by tracking solute concentration in effluent dialysate, rather than relying on surrogate ionic signals.

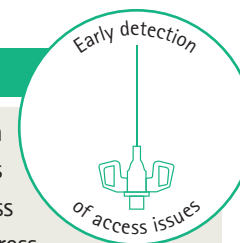
The software's high sampling rate enhances sensitivity to clearance changes and has been validated for use across multiple modalities, including single-needle cross-over. Adimea's Kt/V calculation improves accuracy by eliminating the need for separate estimation of urea distribution volume (V).



Advancing Vascular Access Surveillance¹

Dialog iQ[®] with Adimea's continuous clearance monitoring offers a new approach to access surveillance by instantly detecting drops in effective clearance, acting as an early warning system for access dysfunction. This real-time monitoring allows clinicians to address issues during dialysis, preventing complications that might otherwise go unnoticed until routine lab tests.

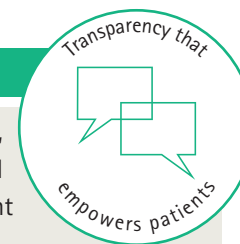
By revealing unusual clearance patterns or inconsistent pressures and flows, the system enables timely interventions, such as scheduling corrective procedures. Continuous monitoring also helps identify and correct "silent" issues, reducing the risk of access thrombosis or failure and supporting long-term access site health, avoiding the use of new access sites or bridging central lines.

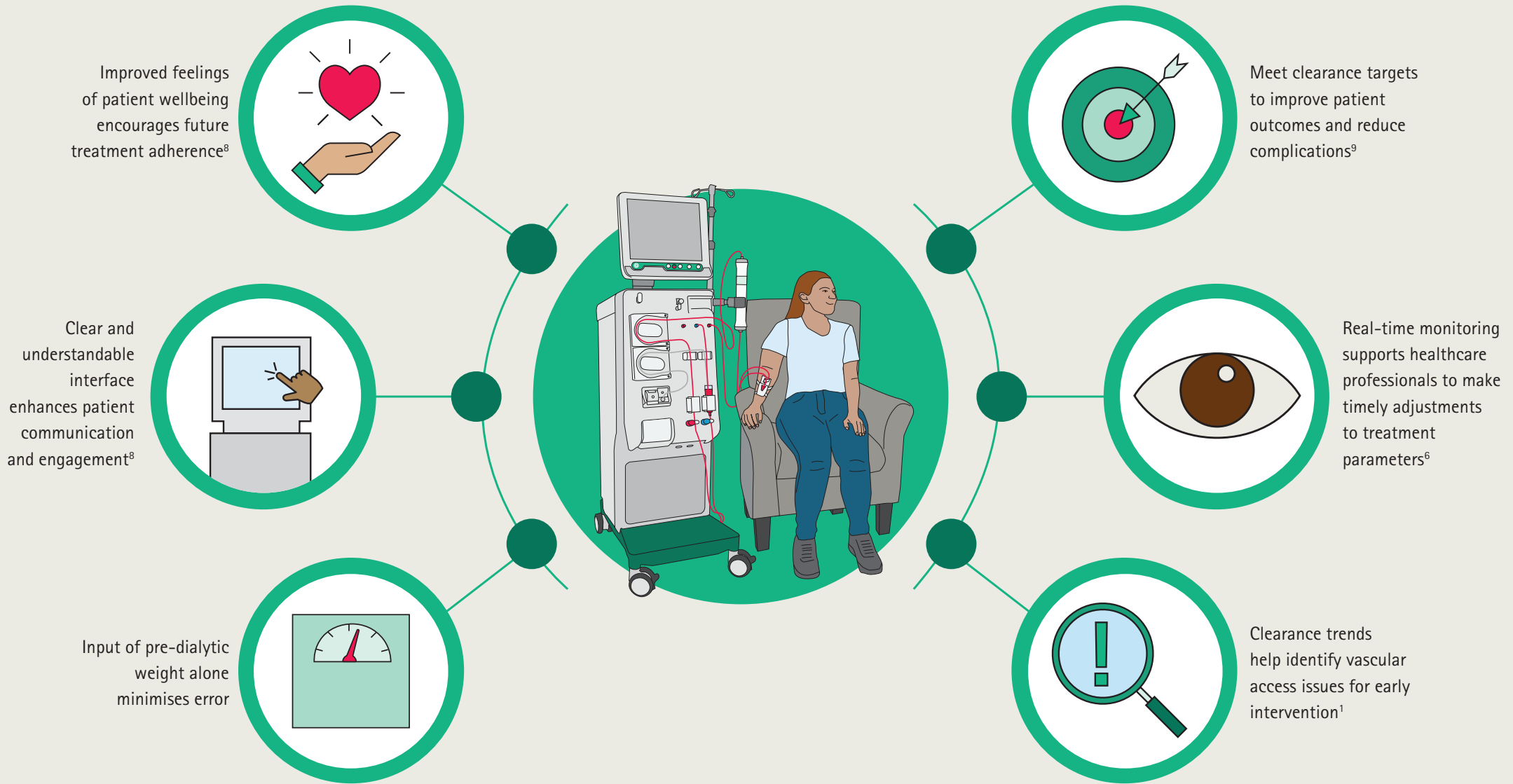


Fostering Patient Engagement and Compliance^{1,5}

Dialog iQ[®], with its Adimea feature, provides visual feedback, creating a powerful connection between the patient's actions and their treatment outcomes, which in turn leads to improved treatment adherence⁵.

When patients can see how staying on dialysis for the full prescribed time directly affects their clearance levels, it transforms an abstract concept into a tangible reality. The clearance data can help alleviate anxiety about treatment effectiveness, the clear progress indicators give patients a sense of control and accomplishment and, most importantly, it helps create a partnership between the patient and their care team, working together toward clearly defined goals.





Adimea Specification

Adimea is compatible with B. Braun Dialog+[®] and Dialog iQ[®] haemodialysis machines and has been validated for various dialysis modalities, including haemodialysis, hemodiafiltration, and Single-Needle Cross-Over.

Adimea's user-friendly interface and intuitive design make it easy to integrate into routine clinical practice.

A New Standard for Haemodialysis Quality

Adimea's real-time dialysis dose monitoring represents a leap forward in aligning dialysis practice with core clinical priorities.

Contact a member of the team to learn more about Adimea and how B. Braun Medical Ltd can support you.

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