



# DIALOG iQ

CHALLENGE THE THINKING

# DEFINING NEW STANDARDS

## BEGINS WITH CHALLENGING CONVENTIONAL THINKING

Progress for B. Braun means continually challenging and encouraging all employees, customers, physicians, medical professionals and patients to pursue developments which break new ground and move us forward.

B. Braun's goal with the Dialog iQ was to challenge the thinking of today's current practices.

Drawing on over fifty years' experience in dialysis systems technology – and working in constant dialogue with healthcare professionals – B. Braun is in an excellent position to ask the right questions in order to make a real difference in dialysis.

How can hemodynamic stability be ensured in dialysis patients?

What is the right balance between elimination and retention in HDF?

Which treatment situations require careful online monitoring of dialysis dose?

How can safety and usability improve patient satisfaction?





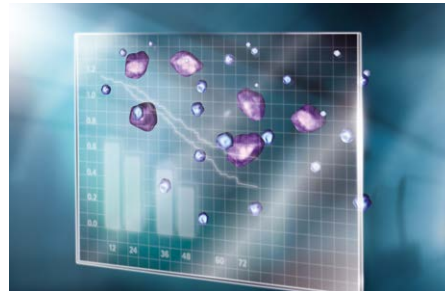
Experience how the Dialog iQ can define new standards in renal care.

Download the dedicated app and discover the new Dialog iQ from every angle.



# THE NEW DIALOG iQ

## PLACING PATIENTS AT THE CENTER

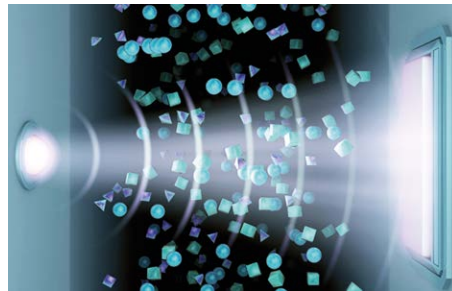


### HEMODYNAMIC STABILITY

The Dialog iQ's system with two biological inputs gives improved information on the patient's hemodynamic condition.

### xevonta HDF

Scientific knowledge about the elimination of uremic toxins during HDF has been growing over recent years. Maybe it is not only a matter of elimination anymore.



### DIALYSIS DOSE

It is important to measure and achieve appropriate dialysis dose for all patients and in all treatment modes (SNCO, HD, HDF).

### SAFETY & USABILITY

Ease of use in dialysis equipment means more time to focus on what is most important – the patients.



# BETTER INSIGHTS FOR BETTER OUTCOMES

System intelligence in medical devices is the ability to learn from multiple information sources and take action based on patients' individual needs.

**ABPM** – Automatic blood pressure measurement

- The most direct insight into a patient's hemodynamic status
- New system increases patient comfort by reducing the pressures of actual measurement and the time required



Scan QR code to see the bioLogic animation

**BIOLOGIC FUSION** is system intelligence

- Two biological input parameters – blood pressure and relative blood volume
- Adaptive system that learns, supporting patient individualization

**RELATIVE BLOOD VOLUME** is a good addition to blood pressure readings

- Gives insight into vascular refilling
- No additional disposables required

**OXYGEN SATURATION** gives a new insight into the patient's condition

- Continuous monitoring of arterial (fistula) or venous (catheter) oxygen saturation during treatment
- Clinical observations suggest that intradialytic hypoxemias are associated with morbid events such as hypotension and cramps<sup>1</sup>

**SIX INDEPENDENT PROFILES** are designed for full patient individualization

- The only dialysis system with temperature, dialysate and heparin profiles
- Patient profiles are easily stored with NEXADIA or with patient card

## GOOD TO KNOW ...

Blood volume monitoring alone is not sufficient to ensure hemodynamic stability in dialysis patients.<sup>2</sup>

### REFERENCES

- <sup>1</sup> Meyring-Wösten A et al. Intradialytic Hypoxemia and Clinical Outcomes in Patients on Hemodialysis. Clin J Am Soc Nephrol. 2016 Apr 7;11(4):616-25.
- <sup>2</sup> Booth J et al. Do changes in relative blood volume monitoring correlate to hemodialysis-associated hypotension? Nephron Clin Pract. 2011;117(3):e179-83.







# INTELLIGENCE IN HDF

## ACHIEVING THE BALANCE BETWEEN ELIMINATION AND RETENTION

The focus to date in convective therapies has been the efficient elimination of uremic toxins. In particular, the subgroup of middle molecules is a point of medical and scientific discussion. However, attention must also be drawn to substances that should be retained, e.g., proteins such as serum albumin.

### IMPORTANCE OF SERUM ALBUMIN

- Marker for nutritional and inflammatory status of maintenance dialysis patients<sup>1</sup>
- Strong predictor for mortality<sup>2</sup>

xevonta allows a efficient elimination of middle molecules and other uremic toxins, but restricts the loss of serum albumin to  $1.1 \pm 0.2 \text{ g/session}$  with xevonta with the largest surface area of  $2.3 \text{ m}^2$  when used under post-dilution HDF conditions with high convective volumes.<sup>3</sup>

### GOOD TO KNOW ...

Increasing the convective volume during HDF is associated with significant protein loss, mainly albumin.<sup>3</sup>

#### REFERENCES

- <sup>1</sup> Clinical practice guidelines for nutrition in chronic renal failure. K/DOQI, National Kidney Foundation. Am J Kidney Dis. 2000 Jun;35(6 Suppl 2):S1-140.
- <sup>2</sup> Kalantar-Zadeh K et al. Revisiting mortality predictability of serum albumin in the dialysis population: time dependency, longitudinal changes and population-attributable fraction. Nephrol Dial Transplant. 2005 Sep;20(9):1880-8.
- <sup>3</sup> Gayraud N et al. Influence of high convection volumes in removal performances of on-line haemodiafiltration (HDF). Nephrol. Dial. Transplant. (2013) 28 (suppl 1): i30-i32.



# DIALYSIS DOSE

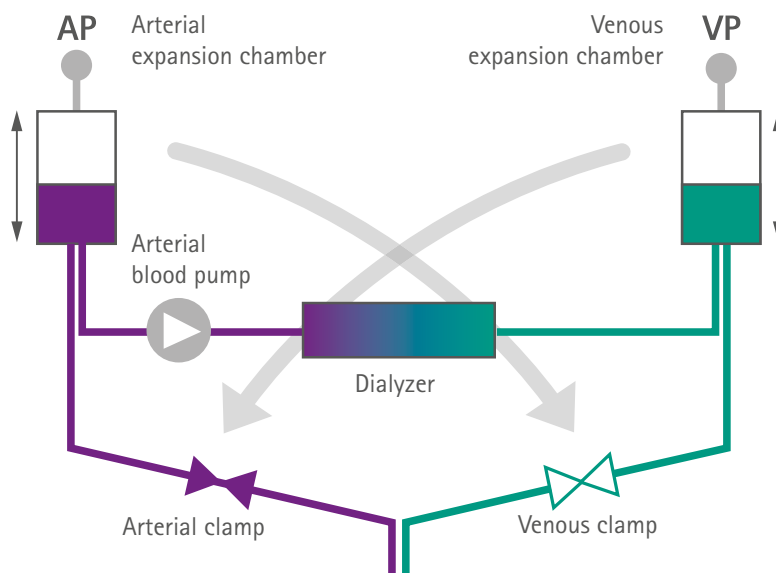
## MORE THAN JUST MONITORING CLEARANCE

Despite an increasing trend in the prescription of convective therapies, clearance of small molecules is still important, particularly in patients starting dialysis or having difficult vascular access.



### ADIMEA –THE REAL INSIGHT INTO TREATMENT QUALITY

- Adimea provides more information than a simple clearance monitoring
- Data shown consists of patient, access and dialyzer information
- Not just Kt/V: eKt/V, spKt/V, URR and UV-absorbance curves are also available, providing doctors and clinical staff with valuable additional insights



### NEW SINGLE-NEEDLE SYSTEM

is designed for a full treatment quality with only one pump

- Constant flow through the dialyzer – only one blood pump required
- Reduced extracorporeal blood volume is less stressful for patient's blood
- Clinical data proves a higher volume of blood is treated with Dialog iQ compared to a system using alternately operating pumps<sup>1</sup>
- The mean number of access problems in the first three months after shunt surgery is reduced by half when only Single Needle Treatments are performed in this period.<sup>2</sup>



Scan QR code to see the SNCO animation

### GOOD TO KNOW ...

Dialysis dose can also be measured by Adimea in Single Needle Treatments<sup>3</sup> – monitoring when it really counts.

#### REFERENCES

- <sup>1</sup> Bieser W et al. Performance of an innovative, one-pump single-needle hemodialysis system versus a standard two-pump single-needle hemodialysis system. 53rd ERA-EDTA Congress. 2016 May 21-24; Vienna (Austria).
- <sup>2</sup> Wilson B et al. Impact of single-needle therapy in new chronic hemodialysis starts for individuals with arteriovenous fistulae. CANN J. 2009 Apr-Jun;19(2):23-8.
- <sup>3</sup> Rawer P et al. Clinical application of real-time Kt/V determination by ultraviolet absorbance (Adimea) in single-needle-cross-over (SNCO) dialysis and hemodiafiltration modes (HDF-online). 47th ERA-EDTA Congress. 2010 June 25-28 Munich (Germany)

Usability is more than just ease of handling of one or two components. It is the entire user experience of the dialysis system. This is why B. Braun invests so much time during development in dialogue with nurses and in user evaluations. The end result: We think this results in confident nurses and satisfied patients.



## MORE TIME FOR PATIENT CARE

### WHEN SAFETY MEETS USABILITY

#### RISK PREVENTION

- Risk of blood contamination in the machine is reduced with PODs (Pressure Oscillating Diaphragms)
- Automated loading of DiaStream iQ reduces risk of repetitive strain injuries

#### ENHANCED SAFETY

- PODs reduce blood-air contact, reducing clotting
- Reduced extracorporeal blood volume, in particular in single-needle therapies
- NEXADIA: Fully bidirectional machine connectivity reduces probability of errors

#### SIMPLIFIED PREPARATION

- One-touch priming
- DiaStream iQ Multiconnector saves time with automated loading and ejection of bloodline
- Reduced workload in setting up all therapies, especially single-needle

#### OPTIMIZED WORKFLOW

- Very fast preparation for HD and HDF
- Priming during disinfection
- Presetting of dialysis machine, bedside documentation and automatic saving of therapy parameters with NEXADIA save up to 21 minutes for the nurse per session<sup>1</sup>

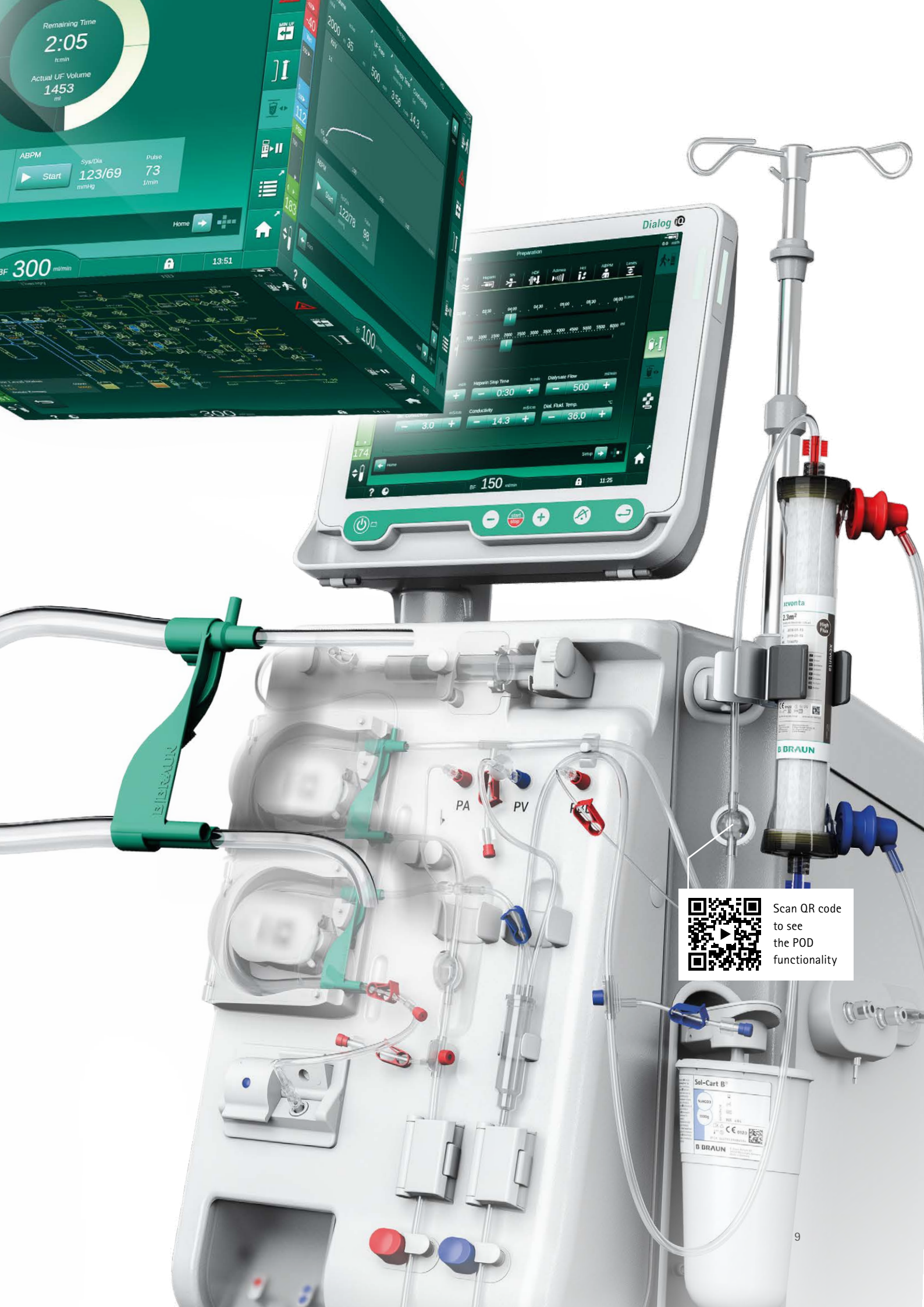
#### GOOD TO KNOW ...

Less blood-air contact reduces the risk of clotting during therapy.<sup>2</sup>

#### REFERENCES

<sup>1</sup> Osterkorn D et al. Networking for success in dialysis centers: A prospective comparative analysis. Gesundheitsökonomie und Qualitätsmanagement 2006; 11: 112 - 116

<sup>2</sup> Kessler M et al. Anticoagulation in Chronic Hemodialysis: Progress Toward an Optimal Approach. Semin Dial. 2015 Sep-Oct;28(5):474-89.



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# B. BRAUN

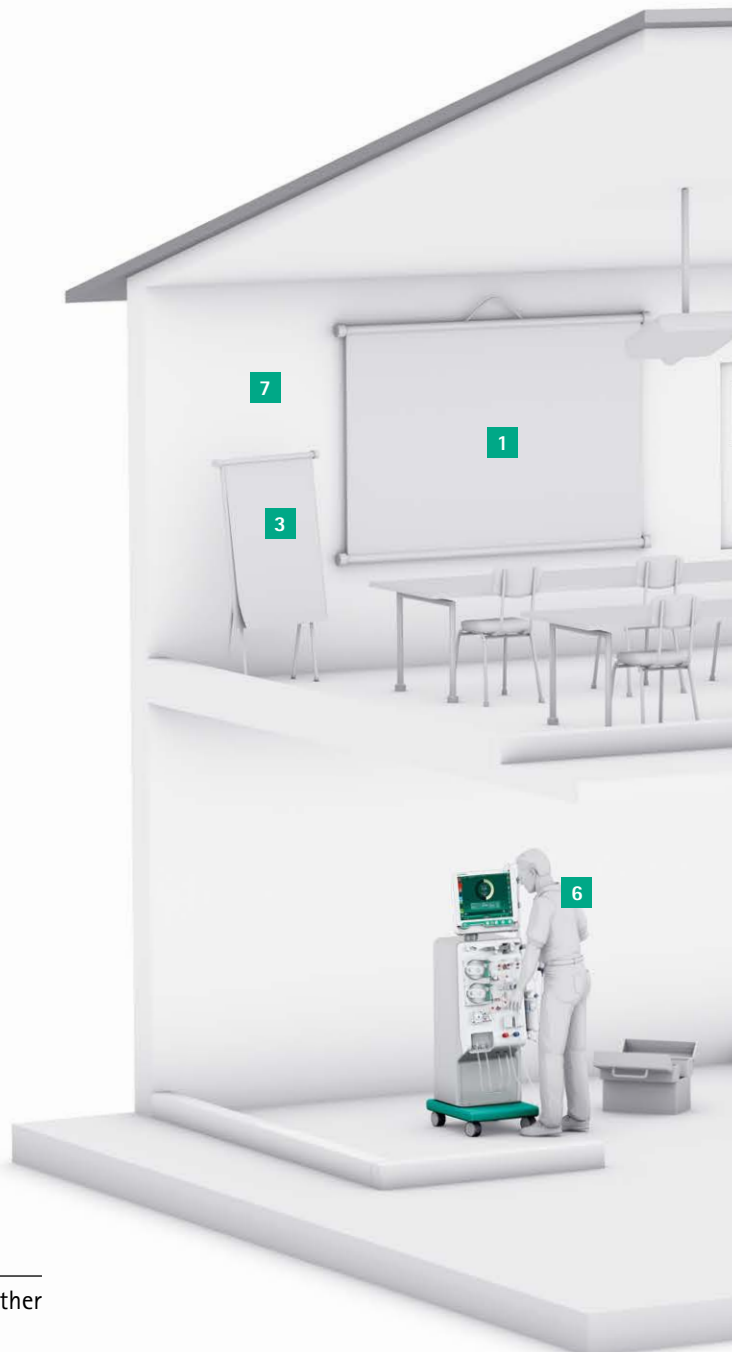
## SYSTEM PARTNER FOR RENAL CARE

### SERVICES & VALUES

- 1. Sharing expertise
- 2. System provider
- 3. Educational support
- 4. Applications training
- 5. Sustainability
- 6. Technical service
- 7. Clinical support
- 8. Logistics support

### PRODUCTS

- 1. Dialog iQ
- 2. DiaStream iQ
- 3. xevonta
- 4. Sol-Cart B
- 5. Diacan Safety
- 6. NEXADIA
- 7. AQUAboss
- 8. Concentrates

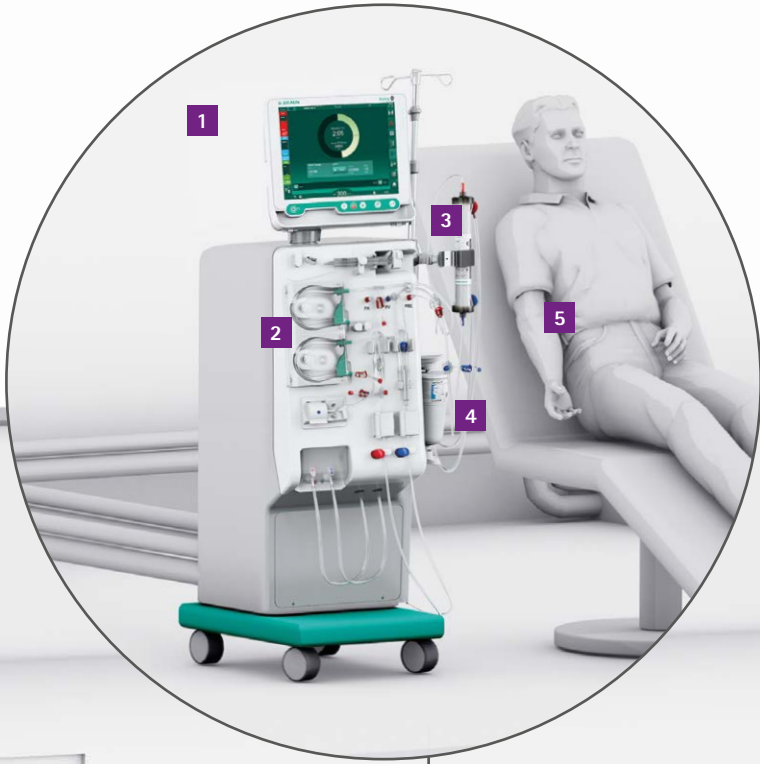


Learn more about the benefits of the new Dialog iQ and our other innovative products.

For further information, download the dedicated app by scanning the QR code alongside.







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