

Baxter
Artis Physio Plus
DIALYSIS SYSTEM

NEW POSSIBILITIES



SIMPLE DELIVERY



The **Artis Physio Plus** multi-therapy system is Baxter's newest innovation for effective delivery of hemodialysis therapies.



DELIVER SIMPLE, EFFICIENT,
AND CONSISTENT DIALYSIS



A NEW MULTI-THERAPY
SYSTEM



The modern dialysis clinic is a demanding environment. Hemodialysis is a complex process and simplifying routine practices to help reduce the strain of daily work can make a difference. Every hemodialysis patient is unique, and their individual needs require consideration to help ensure optimal outcomes.

For patients with renal failure, hemodialysis constitutes an important part of everyday life. Being recognized and treated as an individual is important for each patient as they are prescribed hemodialysis therapy.

Although your patient population is increasing, your resources are not. We understand you need meaningful innovations and services that help you deliver better outcomes for more patients, simply, efficiently and consistently.

The **Artis Physio Plus** multi-therapy system offers a unique combination of efficient HD, effective HDF and the innovative HDx therapies, providing total control over your treatment strategy.

Based on proven technology, the **Artis Physio Plus** multi-therapy system is designed for consistent treatment delivery and smooth integration within your care environment, to allow you and your clinic to efficiently meet your clinical and operational targets.

This reliable multi-therapy system is designed to simplify the delivery of personalized treatments, empowering you to deliver the right treatment for your patients.

WHAT'S NEW ABOUT THE **ARTIS PHYSIO PLUS** SYSTEM

- + A multi-therapy system enabling a choice of therapy
- + Simplified infusion lines for improved on-line capabilities
- + Short **Eco Heat** disinfection between treatments
- + New components designed to strengthen reliability



THE THERAPY
OF YOUR CHOICE



ENHANCED
PERFORMANCES

Every patient is different – meeting each individual's needs requires personalized treatments. The **Artis Physio Plus** system has been designed to help you deliver your therapy of choice, efficiently and consistently.

HDx: EXPANDED HEMODIALYSIS BY THE **THERANOVA*** DIALYZER

HDx therapy enabled by the **Theranova** dialyzer targets the efficient removal of large middle molecules (25 kDa to <60 kDa).¹ The **Artis Physio Plus** system allows for the delivery of the HDx therapy, which is a new option for dialysis patients who are believed to benefit from effective removal of large uremic toxins.

HDF: CONSISTENT PERFORMANCE WITH **ULTRACONTROL**

With one button, the fully-automated **UltraControl** function helps deliver high convective volumes in HDF post dilution with proactive control of trans-membrane pressure (TMP).² With the **UltraControl** modality, HDF sessions run with few alarms and minimal nurse intervention.³

HD: SIMPLE, EFFICIENT AND EFFECTIVE TREATMENTS

The **Artis Physio Plus** is a convenient system that makes conventional HD treatments run smoothly and effectively. Treatments can be further optimized with Baxter's integrated consumables, and automated processes allowing for standardized workflows.

* Do not use **Theranova** dialyzers in HDF or HF mode



REDUCE IDH WITH **HEMOCONTROL**

Intradialytic hypotension (IDH) is a common problem in HD patients,⁴ and is associated with poor clinical outcomes.⁵ The **HemoControl** modality helps remove water physiologically and may reduce IDH by 39%.⁶ It has been shown to potentially improve patient recovery time,⁷ increase patient well-being,⁸ and reduce the need for nurse intervention.⁹ Additionally, the favorable change of the IDH occurrence rate, associated with the removal of large middle molecules enabled with HDx therapy, may provide new opportunities for improving patient care.

MONITOR KT/V IN REAL TIME WITH **DIASCAN**

Consistently reaching the prescribed dose may reduce the risk of all-cause mortality.^{10,11} The **Artis Physio Plus** system gives users the advantage of **Diascan**, a fully-automated Kt/V monitoring system, operating with no additional work, and at no additional cost. From the very beginning of treatment, the **Diascan** Kt/V monitoring provides repeated measures of ionic clearance (K) and an alert system can be activated to help detect possible deviations. This provides ample time for rectifying issues and contributes to consistently reaching the treatment targets.^{12,13}

CITRATE DIALYSIS SUITABLE FOR EVERY PATIENT

Citrate – a well-known and well-tolerated antioxidant and anticoagulant – allows for acetate-free dialysis fluid, which helps promote patient well-being. With the aid of the **Artis Physio Plus** system, Citrate dialysis fluid is not only suitable, but beneficial for patients in regard to:

- + tolerance to the treatment^{14,16}
- + management of acid-base status^{15,16}
- + dialysis-induced thrombogenicity¹⁶

Citrate dialysis is easily implemented with the **BiCart Select** citrate system, which offers convenient handling and reduces the weight of concentrates to less than 3kg/session. Alternatively the **Softpac Citrate** bag may be used.

OPERATIONAL SIMPLICITY



EFFICIENT AND CONSISTENT TREATMENT DELIVERY

Dialysis clinics are busy environments, and thus require high levels of efficiency from nurses and dialysis technicians. Busy staff do not have time for lengthy learning processes or improvisation. The **Artis Physio Plus** system is the answer.

INTUITIVE CONTROL WITH THE **NAVPAD** INTERFACE

Applying a user-centric methodology, the handling and operating modes have been designed to simplify routine practices and free up much-needed time for patient care. The intuitive, user-friendly graphical interface and the **NavPad** touchpad place the user in full control.¹⁷

EASY TO LEARN, EASY TO REMEMBER

- + **NavPad** touchpad: only five buttons to control the system
- + Intuitive interface: visual representation mirrors normal steps of treatment delivery
- + Help-on-screen: step-by-step guidance to facilitate unusual procedures

INTEGRATED **ARTISET** BLOOD CIRCUIT

The proven **Artiset** Blood Circuit makes preparation and priming fast and convenient,¹⁸ potentially freeing up time and resources without compromising patient safety.

For on-line fluid infusion, the **Artis Physio Plus** system features low-waste accessories that are simple to handle and store.

The benefits of an integrated blood circuit:

- + One-button auto-priming and automated patient connection and rinseback
- + All consumables installed in a single, short and continuous sequence
- + On-line priming and **Evaclean** draining port eliminate unnecessary waste



MORE AUTOMATION, HIGHER EFFICIENCY

The **Artis Physio Plus** system has been designed to help you deliver your treatment of choice with minimum inefficiencies, downtime, and unpredictability across your clinic. Its new **Eco Heat** disinfection only takes 23 minutes to run, minimizing the time between-treatments and facilitating workflow for optimized efficiency.

Unique **CleanCart** cartridges allow for convenient descaling and cleaning that is environmentally friendly and non-corrosive to equipment. "Auto-Start" and "Auto-Stop" for regular disinfection reduce the need for operator intervention. **Artis Physio Plus** is a system you can count on.

- + Smooth workflow integration
- + Disinfection processes with Auto-Start/Stop
- + On-line priming: eliminates the burden of saline bags

HIGH-QUALITY FLUID

The **Artis Physio Plus** system builds on Baxter's long expertise in designing systems for on-line production of infusion fluid. The system utilizes proven hydraulic technology with an additional filtration stage, including "integrity testing" of the ultrafilter membrane and state-of-the-art disinfection processes. The **Artis Physio Plus** system is designed to produce on-line non-pyrogenic fluid suitable for infusion in accordance with the latest quality standards.

A RELIABLE PLATFORM, EASILY SERVICED

With a trusted technological platform benefiting from 10 years of continuous improvements, the **Artis Physio Plus** system includes enhanced components designed for strengthened reliability and reduction of maintenance procedures to a 2-year schedule. With a rotatable screen, an integrated service interface for calibration and troubleshooting, a black-box data recorder for off-line investigations, and easy access to inside components, all facilitate streamlined maintenance operations.



1. Kirsch AH, et al. *Performance of hemodialysis with novel medium cut-off dialyzers*. Nephrol Dial Transplant 2017; 32: 165-172.
2. Teatini U, et al. *Evaluation of a New Online Hemodiafiltration Mode with Automated Pressure Control of Convection*. Blood Purif 2011; 31:259-267.
3. Panichi V, et al. *Divert to ULTRA: Differences in infused volumes and clearance in two on-line hemodiafiltration treatments*. Int J Artif Organs 2012; 35(6):435-443.
4. Caplin B, et al. *Patients' perspective of haemodialysis-associated symptoms*. Nephrol Dial Transplant 2011; 26(8):2656-2663.
5. Stefánsson B, et al. *Intradialytic Hypotension and Risk of Cardiovascular Disease*. Clin J Am Soc Nephrol 2014; 9:2124-2132.
6. Nesrallah GE, et al. *Biofeedback dialysis for hypotension and hypervolemia: a systematic review and meta-analysis*. Nephrol Dial Transplant 2013; 28:182-191.
7. Gil HW, et al. *Efficacy of hemocontrol biofeedback system in intradialytic hypotension-prone hemodialysis patients*. J Korean Med Sci. 2014; 29:805-810.
8. Déziel C, et al. *Impact of Hemocontrol on Hypertension, Nursing Interventions, and Quality of Life: A Randomized, Controlled Trial*. Clin J Am Soc Nephrol 2007; 2:661-668.
9. Doria M, et al. *The dialysis staff workload and the blood volume tracking system during the hemodialysis sessions of hypotension-prone patients*. Int J Artif Organs 2014; 37(4):292-298.
10. National Kidney Foundation. *Clinical Practice Guidelines*. Am J Kidney Dis 2006; 48(Suppl.1):S2-S90.
11. Tattersall J et al. *EBPG guideline on dialysis strategies*. Nephrol Dial Transplant 2007; 22(Suppl.22):ii5-ii21.
12. McIntyre CW, et al. *Assessment of haemodialysis adequacy by ionic dialysance: intra-patient variability of delivered treatment*. Nephrol Dial Transplant. 2003; 18:559-562.
13. Mercadal L, et al. *Ionic dialysance: Principle and review of its clinical relevance for quantification of hemodialysis efficiency*. Hemodial Int. 2005; 9:111-119.
14. Molina Nuñez M, et al. *Citrate versus Acetate-Based Dialysate in On-Line Haemodiafiltration A Prospective Cross-Over Study*. Blood Purif. 2015; 39:181-187.
15. De Sequera Ortiz P, et al. *Acute effect of citrate bath on postdialysis alkalaemia*. Nefrologia. 2015; 35:164-171.
16. Grundström G, et al. *Replacement of acetate with citrate in dialysis fluid: a randomized clinical trial of short term safety and fluid biocompatibility*. BMC Nephrol 2013; 14:216.
17. Ward RA and Ronco C. *Improvements in Technology: A Path to Safer and More Effective Hemodialysis*. Blood Purif 2009; 27:6-10.
18. Garzotto F, et al. *Priming process of dialyzer: manual versus automatic procedure*. ERA-EDTA 2008 [abstract F-PO1573].

The products meet the applicable provisions of Annex I (Essential Requirements) and Annex II (Full quality assurance system of the Council Directive 93/42/EEC of 14 June 1993, amended by Directive 2007/47/EC)

