

# Tiny patients. Small solutions. Big results.

Carpediem™ cardio renal  
pediatric dialysis emergency  
machine

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**Mozarc**  
medical

Carpediem™ system

Improved clinical outcomes  
for your smallest patients.

97%

Neonate survival rate  
upon discontinuation  
of treatment<sup>1\*</sup>.



Acute kidney disease in neonates is common and critical

8-24%

Acute Kidney Incidence  
(AKI) rates in the critically  
ill neonates<sup>2</sup>.

78%

Incidence of sepsis  
in neonatal  
patients with AKI<sup>3</sup>.

62%

Incidence rate of  
AKI after cardiac  
surgery in neonatal  
population<sup>4</sup>.

46%

Children diagnosed with AKI  
are at risk of developing  
chronic kidney disease  
within three years<sup>5</sup>.

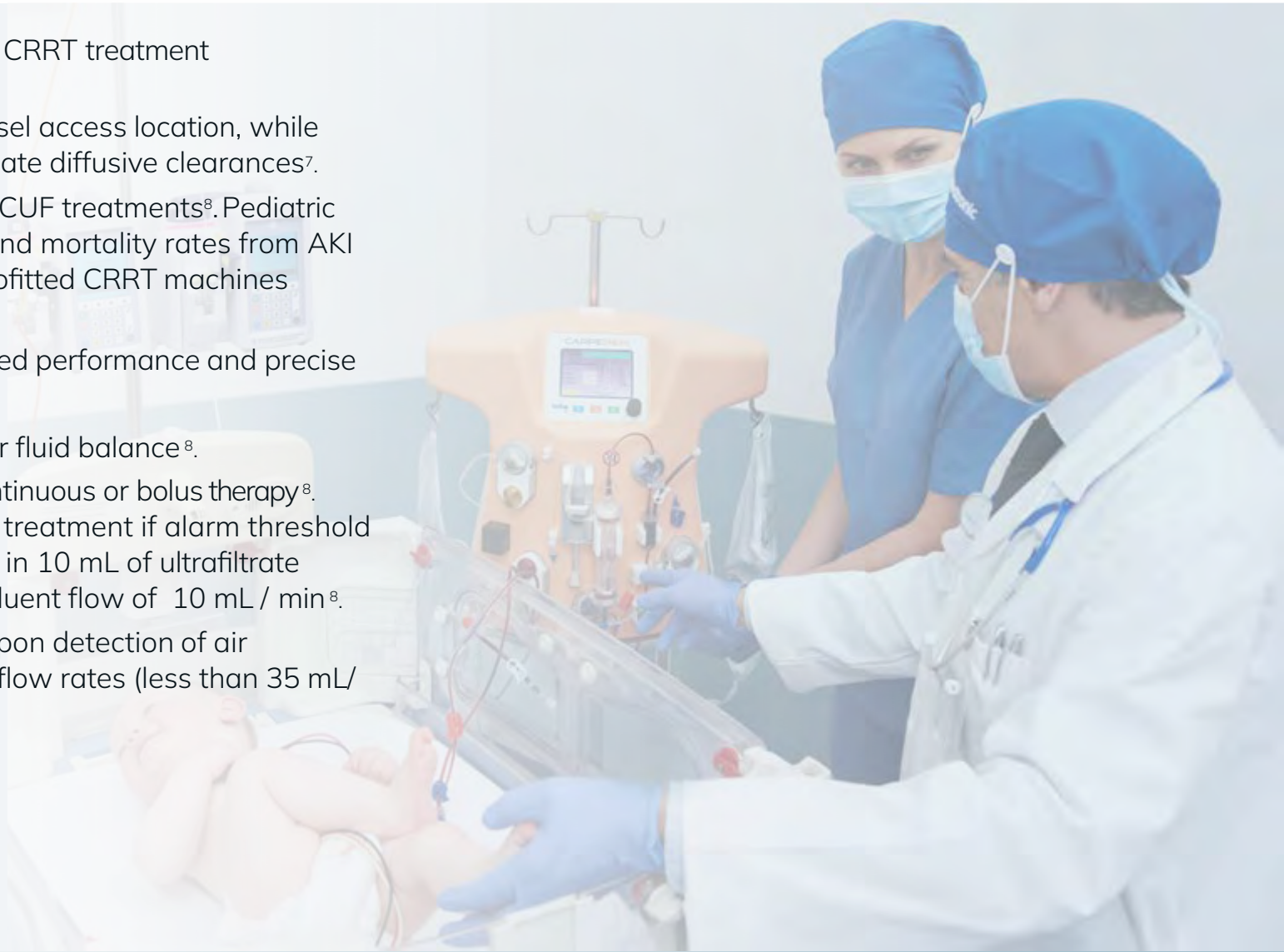


# Innovations in pediatric CRRT

Pediatric patients with acute kidney injury (AKI) and fluid overload (FO) can be treated with a dialysis system designed specifically for them<sup>6</sup>.

The Carpediem™ system provides CRRT treatment for pediatric patients by:

- Reducing damage to blood vessel access location, while providing necessary and adequate diffusive clearances<sup>7</sup>.
- Enabling CVVH, CVVHD, and SCUF treatments<sup>8</sup>. Pediatric patients suffer high morbidity and mortality rates from AKI and FO, when treated with retrofitted CRRT machines designed for adult patients<sup>6</sup>.
- Delivering treatment with tailored performance and precise control:
  - High-precision scales monitor fluid balance<sup>8</sup>.
  - Heparin pump can deliver continuous or bolus therapy<sup>8</sup>.
  - Blood leak detector will stop treatment if alarm threshold is detected: 0.15 mL of blood in 10 mL of ultrafiltrate (hematocrit: 25%) with an effluent flow of 10 mL / min<sup>8</sup>.
  - Air sensor stops treatment upon detection of air bubble >10 µL at the typical flow rates (less than 35 mL / min)<sup>8</sup>.



# The right therapy for the right patient.

Designed on a miniaturized platform, the Carpediem™ system delivers continuous renal replacement therapy (CRRT) for pediatric patients weighing 2.5 kg or more<sup>8</sup>.

## Three-rollers peristaltic pumps

Miniaturized pumps support reduced priming volume and pressure shock<sup>7,9</sup>.

## Pediatric access

5 Fr catheter use reduces risk of damage to small pediatric vessels<sup>7</sup>.

## Priming volume

Low priming volume mitigates risks associated with blood / albumin priming<sup>7</sup>.

## Precise

Monitors prescribed weight loss with a  $\pm 30$  g range over 24 hours. System scales have resolution of  $\pm 1$  g<sup>8</sup>.





# Hemodynamic advantage

## Blood pump flow rate<sup>8</sup>:

2–50 mL / min  
Increments: 1 mL / min



## Infusion / dialysis pump flow rate<sup>8</sup>:

Up to 10 mL / min  
(Depending on selected modality and preassembled device model)



## Effluent pump flow rate<sup>8</sup>:

Up to 15 mL / min  
(Depending on selected modality and preassembled device model)



**Miniaturized peristaltic pumps<sup>6,7,9,10</sup>**  
with three rollers for enhanced accuracy of blood, infusion / dialysis, and effluent flows.





## Reinvented

No need to adapt adult machines and weigh the complexities which have traditionally plagued pCRRT treatments<sup>10</sup>.

## Dedicated

The Carpediem™ system clinically addresses AKI, FO and electrolyte disorders for these fragile patients<sup>7,11</sup>.

## Focused


Treatment flexibility and small enough to fit near the tiny patient<sup>8</sup>.

## Clinical Benefits

- 97% neonate survival rate (upon discontinuation of treatment)<sup>1\*</sup>.
- Fluid overload reduction<sup>7,11,12</sup>.
- Improved hemodynamic stability<sup>12</sup>.







Purposeful design  
to give every  
baby a chance

# Order information

## Capital

CFN CODE	Name and Description	UOM
IB7010200	Carpediem™ machine	1 EA
LB22B2685	Biegler Warmer model BW685	1 EA

## Disposable

CFN CODE	Name and Description	UOM
IB0595510	Procedure pack: BL250 KIT 0075 CVVH	4 / CT
IB0595540	Procedure pack: BL250 KIT 015 CVVH/CVVHD	4 / CT
IB0595550	Procedure pack: BL250 KIT 025 CVVH/CVVHD	4 / CT
IB0930250	Bicompartmental solution model MD043 -HMB32 mL 500 + 1500	4 / CT
MD087	Bicompartmental solution model HMB32 mL 500 + 1500	4 / CT
IB0507007	3-litre waste bags	20 / CT
FP4600203	Biegler Warmer extension set model 46000	20 / CT

## References:

\* 50% Carpediem™ system patients survived to ICU discharge.<sup>1</sup>

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9. Garzotto, F, Zaccaria M, et al. Choice of Catheter size for infants in Continuous Renal Replacement Therapy: Bigger Is Not Always Better. *Pediatr Crit Care Med.* 2019; 20(3): e170-e179.
10. Ronco C, Garzotto F, Brendolan A, et al. Continuous renal replacement therapy in neonates and small infants: development and first-in-human use of a miniaturised machine (CARPEDIEM). *Lancet.* 2014;383:1807-1813.
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12. Garzotto F, Vidal E, Ricci Z, et al. Continuous kidney replacement therapy in critically ill neonates and infants: a retrospective analysis of clinical results with a dedicated device. *Pediatr Nephrol.* 2020; 35(9):1699-1705.

## Disclaimers:

Carpediem™ machine is an active, non-invasive, class IIb medical device CE0123 manufactured by Bellco S.r.l.

Carpediem preassembled device 0075 is a non-active, non-invasive, class IIb medical device CE0123 manufactured by Bellco S.r.l.

BD Plastipak syringe is a medical device manufactured by Becton Dickinson S.A.

They are included in the Carpediem procedure pack 0075.

Carpediem preassembled devices 015 and 025 are non-active, non-invasive, class IIb medical device CE0123 manufactured by Bellco S.r.l.

BD Plastipak syringe is a medical device manufactured by Becton Dickinson S.A.

They are included in the Carpediem procedure packs 015 and 025.

The 3-litre waste bags are non-active, non-invasive, class I CE medical devices manufactured by Bellco S.r.l.

HMB32 Haemofiltration and dialysis solution is a non-active, non-invasive, class IIb medical device CE0123 manufactured by Haemopharm Biofluids S.r.l.

Biegler Warmer BW685 is a medical device manufactured by Biegler GmbH.

Biegler Warmer Extension Set 46000 is a medical device manufactured by Biegler GmbH.

Please refer to the package insert for complete instructions, contraindications, warnings and precautions.



## Not for use in the U.S.

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