Mozarc medical

The complete solution for tiny patients

Carpediem™

cardio renal pediatric
dialysis emergency machine

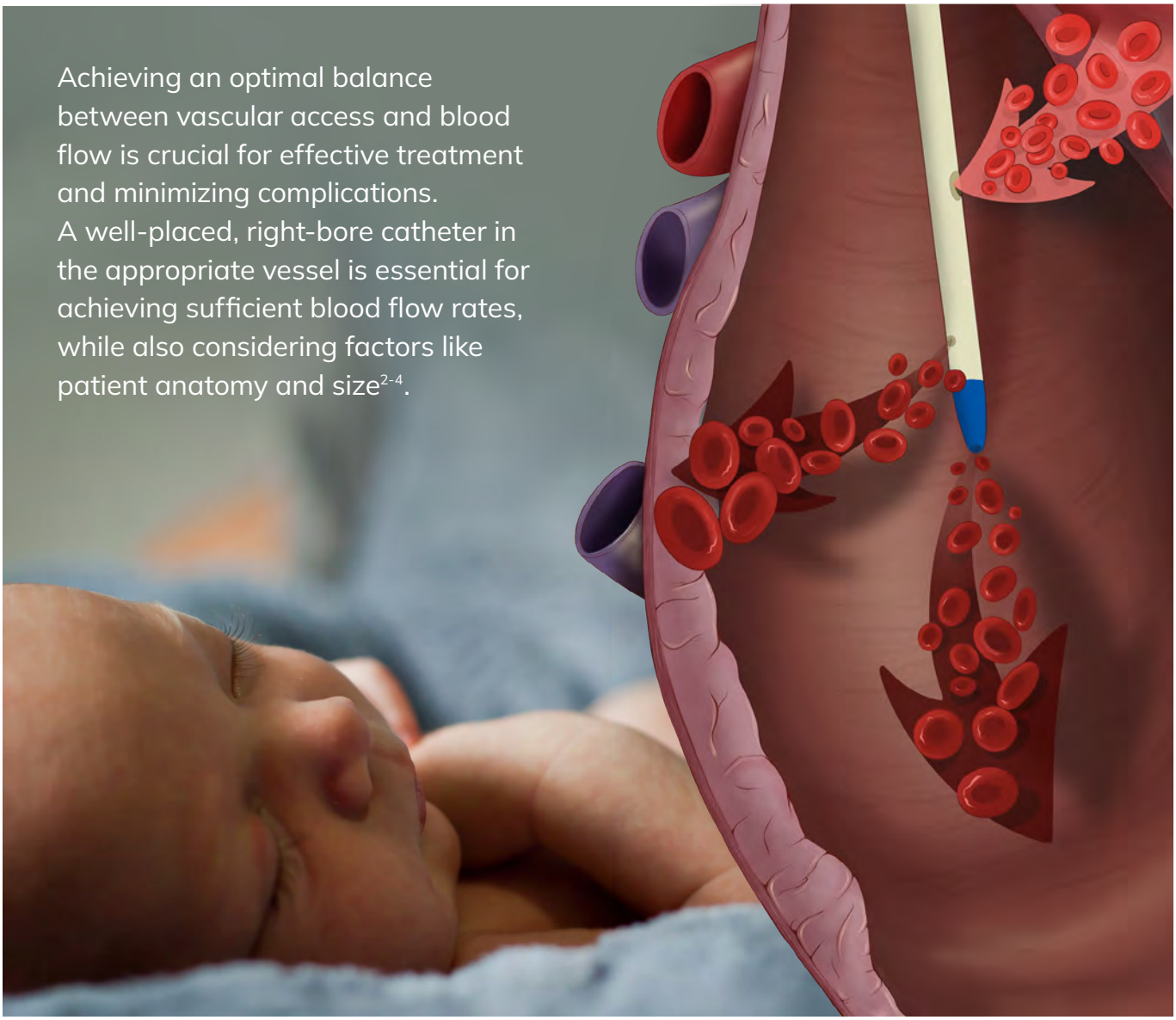
Renal replacement therapy (RRT) in neonates and infants is one of the most challenging and demanding treatments in nephrology and from a technical point of view, the choice of the vascular access and the management of the blood flow are probably two of the most important barriers to a safe RRT in neonates and infants[1].

When conventional RRT machines are used with small-sized central venous catheters, dialysis kinetics might be inadequate, and a suboptimal rate of blood flow significantly increases the risk of clotting[1].

The introduction of dedicated systems and miniaturized blood pumps have significantly improved the survival of small central venous lines, avoiding pressure peaks at low fixes but allowing comparable stroke volumes compared to adult pumps, thus minimizing the risk of circuit clotting phenomena[1].

Complications of catheterization are more common in young infants due to technical challenges because in very small children, well-functioning vascular access can be difficult to place[1].

A higher ratio of catheter diameter to vessel size increases the risk of venous stenosis, which over time can affect dialysis options for neonates and infants. This ratio should not exceed 45%[2,3].

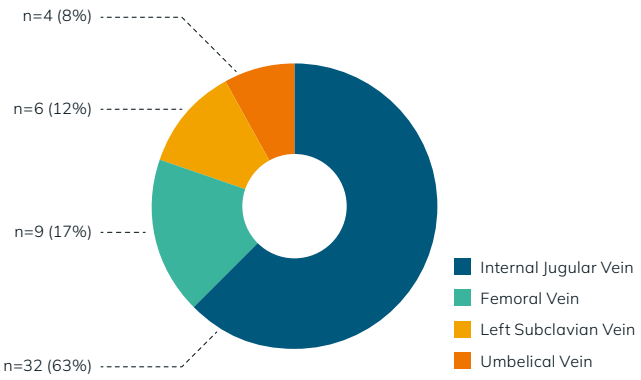


The added value of Carpediem

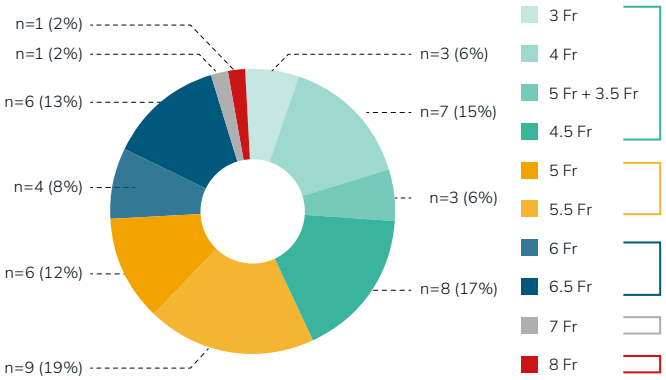
The Carpediem™ system, including miniaturized peristaltic pumps featuring three rollers that ensure precision and accurate flows[5,6] optimizes the use of 5 Fr dual lumen catheters, favoring the catheter insertion and reducing the risk of causing central vessel stenosis[3,4].

51 patients (25 patients from French experience[8] and 26 from Italian registry[7])

Vascular Access Placement



Catheter Size (Fr)



The pediatric dialysis access

The Amecath™* pediatric short-term haemodialysis catheter: the small haemodialysis dual lumen catheter for pediatric use[9]

Small scale for pediatric dialysis performance[9]

- Small catheter sizes from 4.5 to 7 Fr
- Lengths: 5 cm and 8 cm
- Low flow rates while maintaining pressure for dialysis (as low as 20 mL / min)[†]
- Reference length markings every 1 cm

[†]See IFU for pressure data.

References

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2. Cortina G, Daverio M, Demirkol D, Chanchlani R, Deep A. Continuous renal replacement therapy in neonates and children: what does the pediatrician need to know? An overview from the Critical Care Nephrology Section of the European Society of Paediatric and Neonatal Intensive Care (ESPNIC). *Eur J Pediatr.* 2024;183(2):529-541.
3. Daverio M, Cortina G, Jones A, et al. Continuous Kidney Replacement Therapy Practices in Pediatric Intensive Care Units Across Europe. *JAMA Netw Open.* 2022;5(12):e2246901.
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5. Ronco C, Ricci Z, Goldstein SL. (R)evolution in the management of acute kidney injury in newborns. *Am J Kidney Dis.* 2015;66(2):206–211.
6. Hothi DK. Designing technology to meet the therapeutic demands of acute renal injury in neonates and small infants. *Pediatr Nephrol.* 2014;29(10):1869–1871.
7. 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.
8. Battista J, De Luca D, Eleni Dit Trolli S, et al. CARPEDIEM® for continuous kidney replacement therapy in neonates and small infants: a French multicenter retrospective study. *Pediatr Nephrol.* 2023;38(8):2827-2837.
9. Amecath Instruction for Use. TD-DIA-SHT-IFU-10-MDT Issue. 01

Not for use in the U.S.

Carpediem™ machine is an active, non-invasive, class IIb medical device CE0123 manufactured by Bellco S.r.l..
Amecath™* data available under license from Ameco Medical Industries.
Amecath™* pediatric short-term haemodialysis catheter kits are Class IIa, CE2797 medical devices manufactured by Ameco Medical Industries.

Ordering information

Catheter

Kit	Straight Extension CFN	Curved Extension CFN	Description	QTY / Carton
	DLC-4505-KGY	**DLC-4505-KJGY**	4.5 Fr x 5 cm	10
	DLC-4508-KGY	**DLC-4508-KJGY**	4.5 Fr x 8 cm	10
	DLC-5505-KGY	**DLC-5505-KJGY**	5.5 Fr x 5 cm	10
	DLC-5508-KGY	**DLC-5508-KJGY**	5.5 Fr x 8 cm	10
	DLC-7008-KGY	**DLC-7008-KJGY**	7 Fr x 8 cm	10

Capital

CFN code	Name and Description	UOM
IB7010200	Carpediem™ machine	1 EA
LB22B2685	Biegler Warmer BW 685	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	MD043 - HMB32 mL 500 + 1500	4 / CT
MD087	HMB32 mL 500 + 1500	4 / CT
IB0507007	3 liters waste bag	20 / CT
FP4600203	Biegler Warmer Extension set 46000	20 / CT

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