Vantive

Evodial
Dialyzer

Evodial

DESIGNED FOR:	OTHER APPLICABLE THERAPIES:	MEMBRANE:
HFHD (High flux)	**CONVECTIVE** (HDF-HF, AFB-K)	**HEPRAN** (heparin-grafted **AN 69** ST, BPA-free)

SPECIALIZED FOR HIGH BLEEDING RISK PATIENTS

The **Evodial*** dialyzer series is specialized for patients with a high risk of bleeding.[1,2] It has been designed with the **HeprAN** heparin-grafted membrane,[3,4] and provides a convenient solution for patients requiring reduced or even heparin-free dialysis.[1]

FOCUSED ON HEPARIN-FREE DIALYSIS

> May increase the rate of successful heparin-free HD therapy sessions, compared to the current standard of care for high bleeding risk patients[1]
> May allow reduced systemic heparin dosing, without compromising the dialysis sessions[4,5,6]
> Study data indicate that no significant amount of heparin is released from the membrane during a dialysis session[7]

WITH ENHANCED CONVENIENCE[1]

> May reduce nurse workload and disposable consumption
> This could result in a lower use of healthcare resources, compared to standard heparin-free dialysis
> Polyvalent dialyzer design, which can accomodate standard hemodialysis, but also convective therapies (hemodiafiltration)

*Do not use **Evodial** in patients with a known allergy to heparin or type II thrombocytopenia caused by heparin (HIT type II).

Evodial Specifications

MATERIALS	**EVODIAL** 1.0	**EVODIAL** 1.3	**EVODIAL** 1.6	**EVODIAL** 2.2
Membrane	**HeprAN** (heparin-grafted **AN 69** ST) Acrylonitrile and Sodium methallyl sulfonate blend BPA-free			
Potting	Polyurethane (PUR)			
Housing	Polycarbonate (PC)			
Surface treatment agent	Polyethyleneimine (PEI)			
Protection caps	Polyethylene (PE): Blood caps (HDPE)/Dialysate caps (LDPE)			
Sterilization	Gamma ray (wet)			
Sterile barrier	PET/Aluminium/LDPE			

SPECIFICATIONS				
UF-Coefficient (mL/(h*mmHg))*	30	40	50	65
KoA urea*	530	637	824	1045
Blood Compartment volume (mL)	66	83	100	129
Minimum recommended priming volume (mL)	1000 (at UFR = 2000 mL/h)			
Maximum TMP (mmHg)	450			
Recommended Q_B (mL/min)	150–400	200–400	200–500	200–500
Storage conditions	≥ 4°C (or ≥ 39°F) and ≤ 30°C (or ≤ 86°F)			
Units per box	24			
Gross/net weight (g)	216/188	233/205	284/251	327/295

MEMBRANE				
Effective Membrane Area (m^2)	1.05	1.30	1.65	2.15
Fiber inner diameter (µm)	210			
Fiber wall thickness (µm	45.5			

SIEVING COEFFICIENTS	
Vitamin B12 (1.4 kDa)	1.0
Inulin (5.2 kDa)	0.96
Myoglobin (17 kDa)**	0.7
Albumin (66.4 kDa)**	< 0.0065

CLEARANCES IN VITRO (mL/min)*	**EVODIAL** 1.0	**EVODIAL** 1.3	**EVODIAL** 1.6	**EVODIAL** 2.2
Urea (60 Da) (Q_B–Q_D, mL/min)				
200/500	173	181	189	195
300/500	216	231	250	265
400/500	241	261	311	338
Phosphate (95 Da)				
200/500	135	146	156	168
300/500	156	172	187	207
400/500	168	187	205	230
Creatinine (113 Da)				
200/500	156	166	176	184
300/500	187	204	220	237
400/500	205	226	246	269
Vitamin B12 (1.4 kDa)				
200/500	85	96	111	126
300/500	92	106	124	143
400/500	96	111	131	153

*According to ISO 8637:
> UF-Coefficient: measured with bovine blood, Hct 32%, Pct 60 g/L, at 37°C
> KoA urea: calculated at Q_B = 300 mL/min, Q_D = 500 mL/min, UF = 0 mL/min
> Sieving coefficients: measured with bovine (or human**) plasma, Q_B = 300 mL/min, UF = 60 mL/min
> Clearances In-Vitro: measured at UF = 0 mL/min, ± 10% (excepted for vit. B12 ± 20%)

1. Laville M, et al. Results of the HepZero study. *Kidney Int.* 2014;86:1260–1267.
2. Kessler M, et al. Anticoagulation in chronic hemodialysis: progress toward an optimal approach. *Semin Dial.* 2015;28:474–489.
3. Thomas M, et al. AN 69: Evolution of the world's first high permeability membrane AN 69: Evolution of the world's first high permeability membrane. *Contrib Nephrol.* 2011;173:119–129.
4. Kessler M, et al. Heparin-grafted dialysis membrane allows minimal systemic anticoagulation in regular hemodialysis patients: A prospective proof-of-concept study. *Hemodial Int.* 2013;17:282–293.
5. Morena M, et al. Biocompatibility of heparin-grafted hemodialysis membranes: Impact on monocyte chemoattractant protein-1 circulating level and oxidative status. *Hemodialysis International.* 2010;14:403–410.
6. Frascá GM, et al. Post-Dilution Hemodiafiltration With a Heparin-Grafted Polyacrylonitrile Membrane. *Ther Apher Dial.* 2015;19:154–161.
7. Vantive. Data on File. Evodial Heparin leaching data. Study report BM10-008.

For safe and proper use of the device, please refer to the Instructions for Use.

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EN-CA-RC20-240003 (V1.0) 12/2024