

CARDIOsmart

Ultrafiltration in Congestive Heart Failure.

Congestive Heart Failure is a disease in which the heart is not able to pump blood efficiently into the body. This involves the stagnation of blood and other body fluids in various districts and organs, this syndrome is the most frequent cause of hospitalization in elderly patients over 65 years.

Ultrafiltration, resolve pulmonary and peripheral water overload in shorter times avoiding inconveniences related to the use of high dose diuretics (hypokalemia, hypomagnesemia, metabolic alkalosis), furthermore Increase sodium elimination compared to diuretics.

CARDIOsmart:

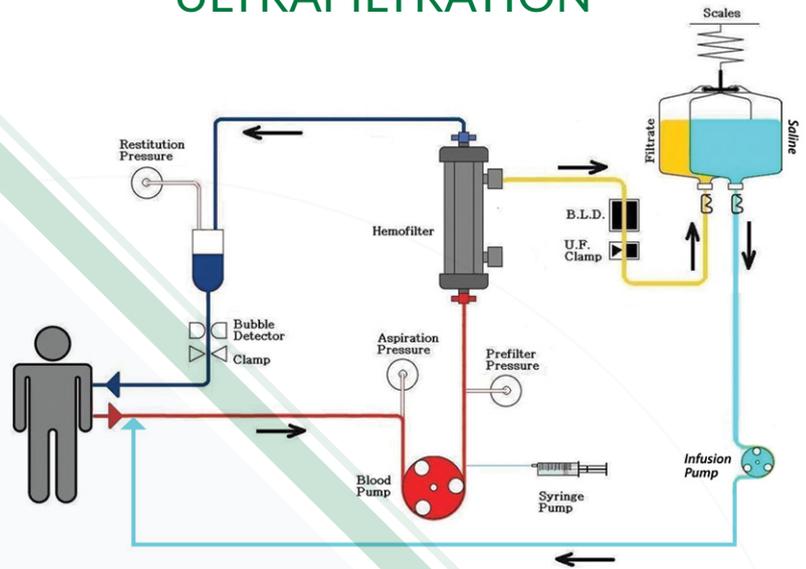
- Removes fluids in excess from the patient's blood safely and effectively.
- Fluid removed is continuously measured by an electronic scale.
- Continuous infusion of saline in the blood close to the patient's access reduce the risk of clotting and prevent early stop of the therapy.



The preassembled **CARDIOsmart** set has been designed to enable easy set up of the machine.



ULTRAFILTRATION



TECHNICAL DATA

Class	Class 1 type BF (norm IEC EN 60601-1)
Arterial pressure	From - 300 mmHg to + 200 mmHg Resolution 5 mmHg Accuracy ± 10 mmHg $\pm 3\%$ of current value
Ultrafiltration pressure	From - 300 mmHg to + 200 mmHg Resolution 5 mmHg Accuracy ± 10 mmHg $\pm 3\%$ of current value
Restitution pressure	From - 100 mmHg to + 400 mmHg Resolution 5 mmHg Accuracy ± 10 mmHg $\pm 3\%$ of current value
Pre-filter pressure	From - 100 mmHg to + 400 mmHg Resolution 10 mmHg Accuracy ± 10 mmHg $\pm 3\%$ of current value
Weight scale	Max: 6500 g Accuracy: $\pm 0,1\%$ of Max Value. Sensitivity: 1,5 g Max overload: 15 kg
Blood pump flow	Adjustable from 5 ml/min to 250 ml/min. resolution 5ml/min
Fluid control	Gravimetric balance, maximum 6.5 kg ± 1.5 gr
Pre-filter pump flow	from 0 to 960 ml/h (with steps of 60 ml/h)
Pump flows accuracy	Blood and pre-filter pump : $\pm 10\%$ with inlet and outlet pressures between - 300 and + 600 mmHg
Anticoagulant pump	Programmable syringe pump disabled and Continuous: use the syringes in the kit
Anticoagulant pump accuracy	2% with pressure from 0 to 600 mmHg
Display	LCD color graphic display TFT type QVGA backlit diagonal 5.7 inches, resolution 320x240 points (4: 3 format)
Air sensor	Ultrasound with bubble alarm threshold > 100 microliters at maximum blood pump capacity
Blood leak detector (BLD)	Optical with alarm threshold for 0.1 ml of blood in 10 ml of ultrafiltrate
Maximum circuit pressure	600mmHg (measured before filter)
Acoustic signal	Acoustic alarm sound level: 65 dB at 1m (operator distance in normal DMA use). The volume of the audible alarm is not adjustable.
Hemofilter (preconnected)	DP03 HE, 0,3 m ² , PUREMA
CARDIOsmart Reference code	M03338
CARDIOsmart Kit Plus	M90354

ELECTRICAL DATA

Power supply / Frequency	115 VAC, 60 Hz
	230 VAC, 50 Hz
Absorbed power	100 VA in normal use condition (treatment in progress)
	150 VA for a second at the opening of the electro-clamp

DIMENSIONS AND WEIGHT

Equipment Height	360 mm
Equipment Width	370 mm
Equipment Depth	285 mm
Equipment Weight	12 Kg
Trolley Height	930 mm
Trolley base	440x500 mm
Maximum height pole	1970 mm
Trolley weight	21 Kg

ENVIRONMENTAL WORKING CONDITIONS

Temperature	Range 15 : 35 °C
Humidity	from 35 to 85% non condensing

ENVIRONMENTAL TRANSPORT AND STORAGE CONDITIONS

Temperature	Range -10 : +50 °C
Humidity	from 35 to 85% non condensing

MANUFACTURER

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