HOSMED
Enhancing Life

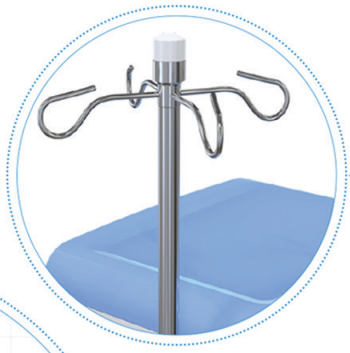
Hemodialisis

Vanir Series

www.hosmed-inc.com

Intelligent Security System

Escort For Treatment



Alarm LED

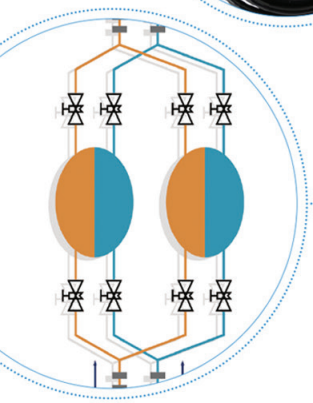
- The IV pole integrates three color alarm LED such as red yellow green, which can be checked from distance with clear version .

*KTV On-line

- The treatment guidance such as Urine clearance, Urea concentration decrease etc can be checked during the treatment, which can provide the treatment prescription.

*BPM

- Measure the blood pressure and heart rate of the patients, which can decrease the operation burden of the medical staff.



Real-time Leak Monitoring

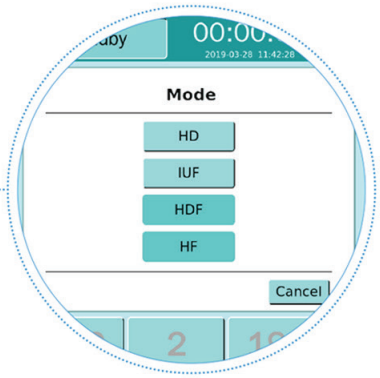
- Balance system for real-time leak monitoring to ensure the safety of patient.

Back-up Power

- Blood circuit runs for more than 40 minutes.

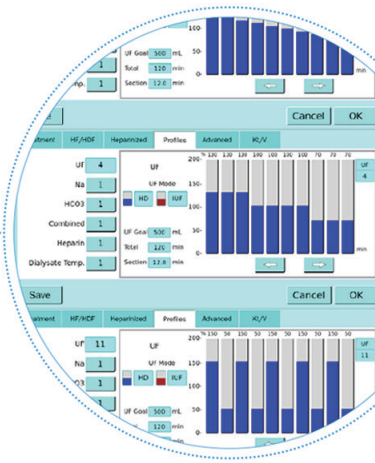
Comprehensive Treatment Mode

- HD
- Sequential HD
- IUF



Multi-treatment Profiles, Providing Personalized Treatment

- Sodium profile
- UF rate profile
- Carbonate profile
- ……
- Heparin flow profile
- Dialysate flow profile
- Dialysate temperature profile



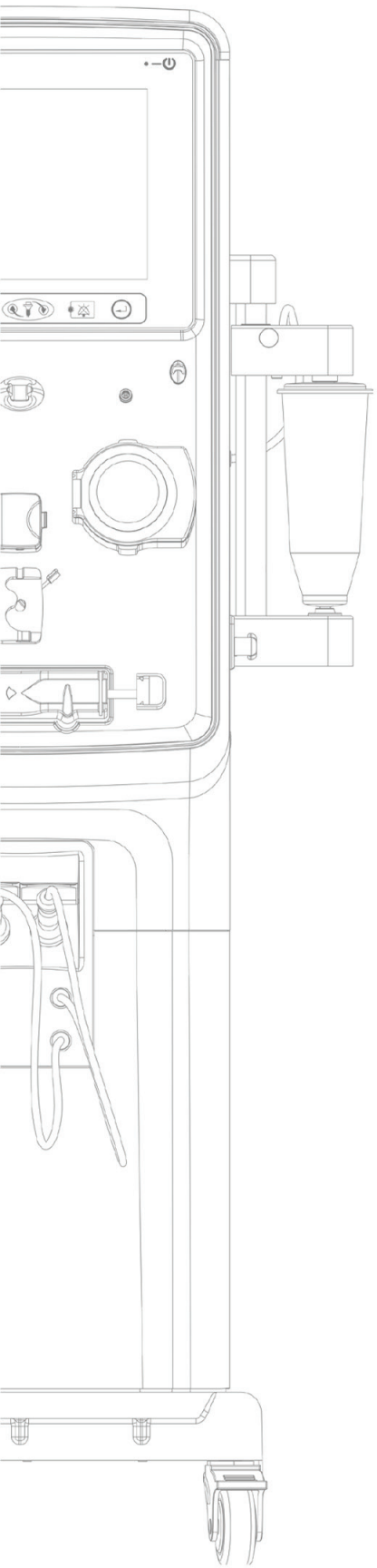
*Bicart Holder

- Using Bicart online,avoid microbial contamination of B fluid.

Information System RJ45 Interface

- The information management system can be connected through the RJ45 interface, so that realize intelligent and refined management of the entire treatment process.

Technology Empowers Hemodialysis



Intelligent Operation

- 12.1 inch LCD+touch screen, muti-language operation interface.
- Adjust the level of venous bubble catcher automatically to prevent blood pollution and reduce dialysis risk.
- Convenient process for sequential dialysis (Dialysis ←→ IUF) and high-low sodium sequential dialysis.

Safe & Effective Treatment

- The hydraulic,blood circuit and monitor system can be mandatory self-test, so that ensure the safety treatment.
- Ultrasonic and optical detector on venous ensures the safety of blood return.
- Dialysate configuration feedback control system to ensure accurate dialysate concentration.
- Advanced capacity balance feedback control system, ensures UF precision.

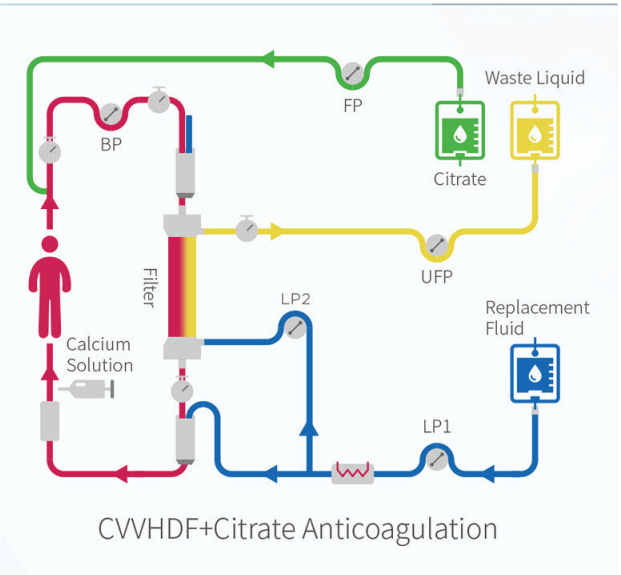
Visual Intelligent System

- Preset automatic switch time and disinfection mode, and record all disinfection.
- Dynamic tracking and monitoring functions such as arterial pressure, venous pressure and transmembrane pressure can respond to abnormal situations on time and alarm.

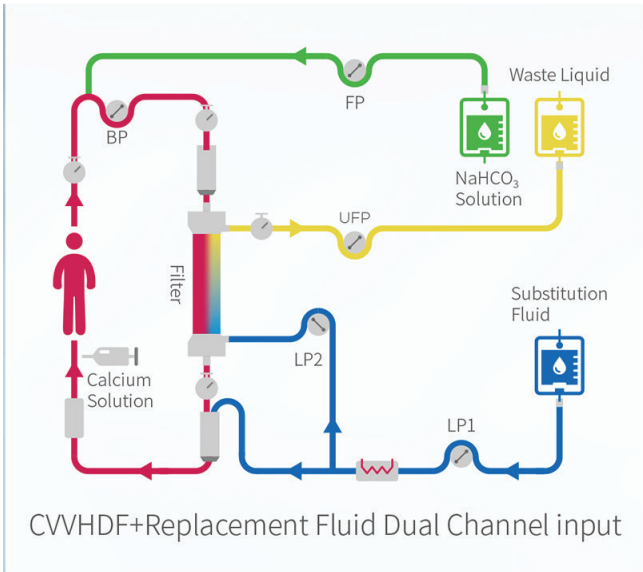
Powerful Compatibility

- Can be operated with Various brands of filters.
- Compatible with various brands of dialysis powder, bloodline and other hemodialysis consumables.

Citrate anti-coagulation and double input channel for substitution fluid flow



CVVHDF+Citrate Anticoagulation



CVVHDF+Replacement Fluid Dual Channel input

Clinical advantages of citrate anticoagulation:

- All treatment modes can adopt the Citrate anti-coagulation.
- Seperate citrate infusion pump and
- weighing scale.
- Control the citrate flow accurately.
- Automatic injection by propor-tion, achieve the safe topical citrate anticoagulation.

Advantage of double input channel for substitution fluid flow:

- Avoid Calcium ion precipitation, ensure the treatment result.
- Automatic injection by proportion, achieve the safety supplement of the substitution fluid.
- External inf usion pump is not required, easy operation and safe treatment.

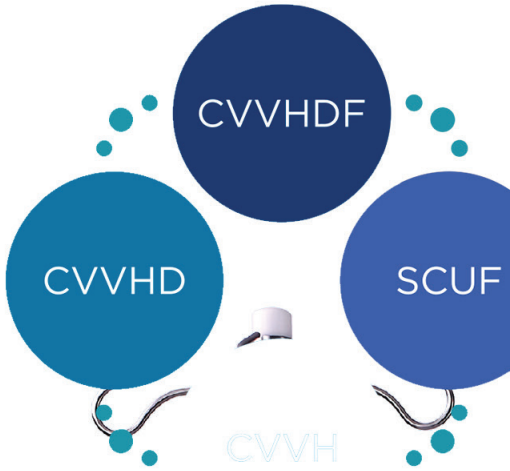
Hemodialisis

Vanir Series


HOSMED
HD
01:44:28
107
-122
78
14.2
500
37.1
245
146
0
122/78
81
100
2

Convenient one-button prime

One button mode switch and one button prime, more convenient for clinical treatment.



Multiple dilution modes of substitution fluid

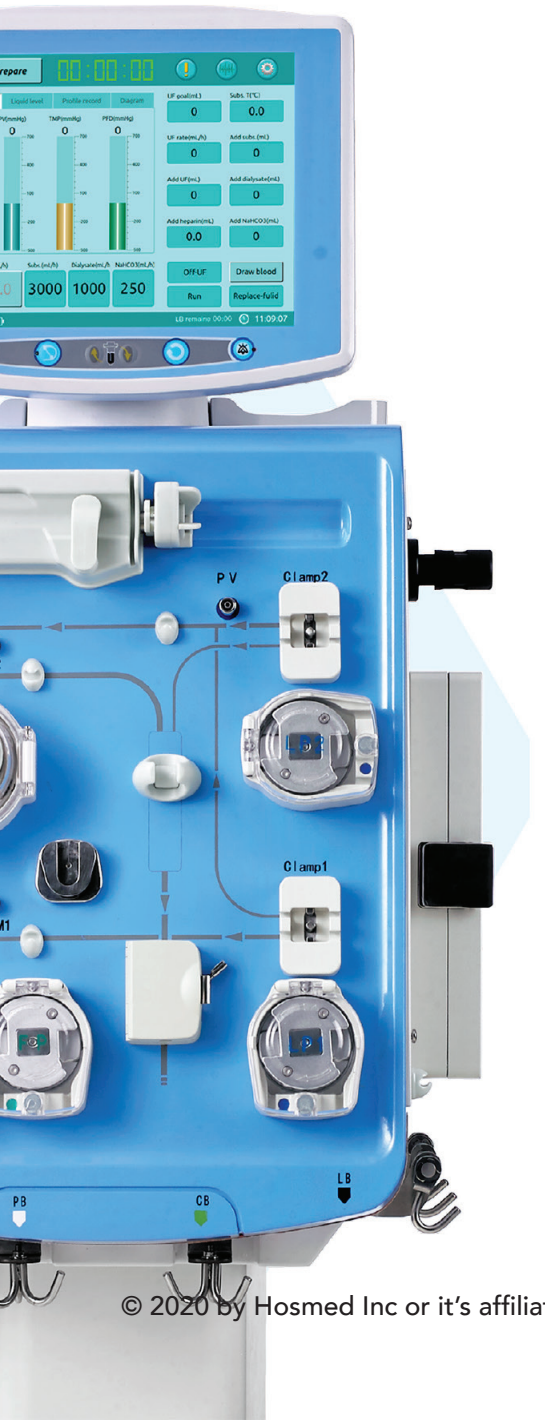
Adopt various methods for substitution fluid such as the pre-dilution, post- dilution, pre -post mix dilution.
One button switch dilution method, do not need to change the connection of tubing manually.
Can set the flow of pre -post -dilution substitution fluid.

Multi-functional infusion pump

The multi-functional infusion pump can be used for bolus injection of heparin, calcium chloride and ect. and recognize the syringe size automatically, such as 10ml,20ml,30ml and 50ml.

Safety Movement

Small blind field of vision to ensure safety of equipment movement. 0 parts failure for 120KM movement test.



Ergonomic design, make the machines serve people

Rotatable b ig t ouch s creen o peration s ystem, t o observe and operate from different angles, to meet the requirement for rapid response under different scenarios.

Reliable fluid change management of substitution fluid and waste fluid

The maximum range of weighing scale is 30kg, and can hang different fluid bags with higher accuracy of fluid meter, which can decrease the workload of medical care.

Unique design for foolproof fluid change, easy operation, high safety.

Presise

The temperature of substitution fluid flow can be detected, the temperature control is more accurate

The liquid temperature is detected and feedback control precisely

- Unique substitution fluid flow temperature monitor and feedback system.
- Adopt infrared monitor to detect the temperature, the accuracy can be ±1.
- Adopt double-side heating device which can support large flow heating.

Precise control of fluid balance

- The scale system accuracy can be ±5g.
- The fluid balance error can not be more than ±20mL/h, the Cumulative error can not be more than±100mL.
- Satisfy the clinical requirement for the fluid accuracy (1mL/min~250mL/min)

More Accurate Liquid Flow

- Five high-precision peristaltic pumps.
- Wide flow range for meet more clinical needs.
- Stable operation and more comfortable treatment.

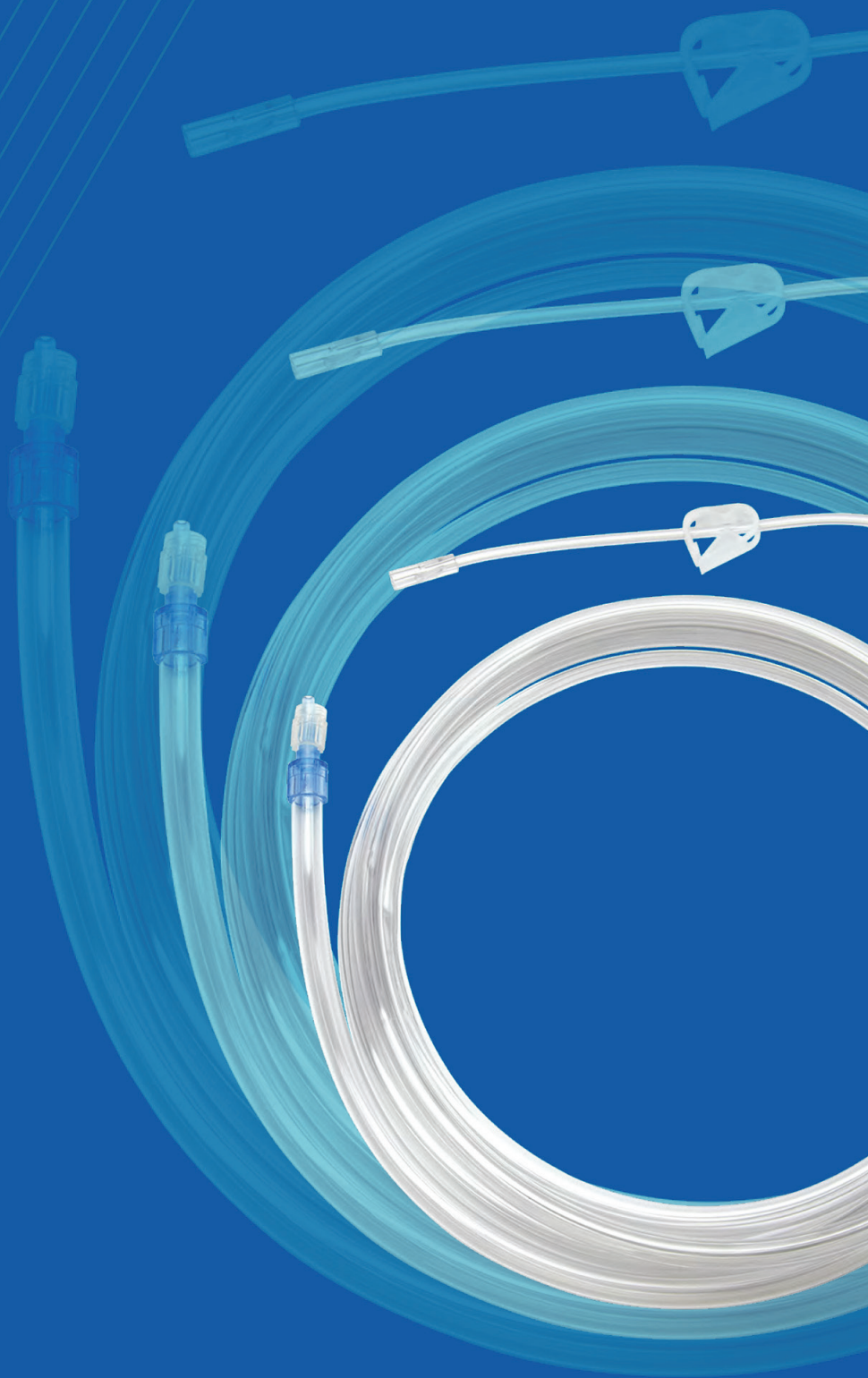
Reliable parts

- Motors, weighing sensors and pressure sensors have been purchased globally , ensure the quality of the products.
- The peristaltic pump is executed according to the strict quality standards and have been passed the trouble-free test of continuous operation for 90 million revolutions.

More clinical option

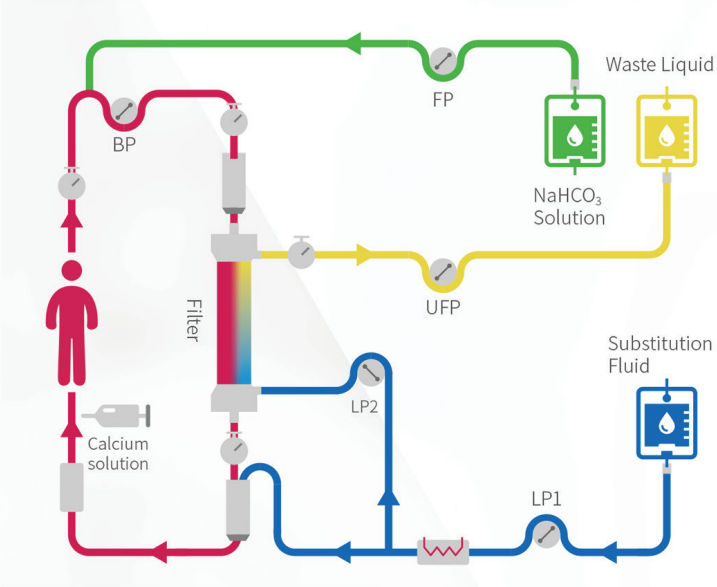
More universal consumables choices provide more affordable treatments to patients

provide more choices to clinical doctors



Comprehensive treatment mode

Vanir 5 has fourteen blood purification treatment modes and it's the most comprehensive functional device in the market, it can perform the contnuous blood purification therapy(CBP), plasma adsorption therapy, albumin adsorption therapy and hemoperfusion to meet various clinical treatment needs.



CVVHDF

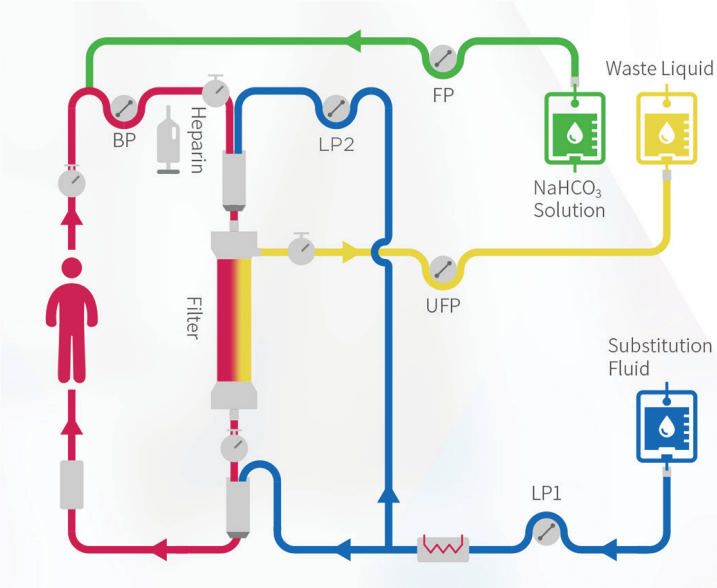
Continuous Venous Venous Hemodiafiltration

substitution fluid double channel input

Clinical application:

Severe Acute Kidney Injury (Aki), instability and continuously remove excess water or toxic substances, such as AKI with severe electrolyte imbalance, acid-base metabolic imbalance, heart failure, pulmonary edema, brain edema, acute respiratory distress syndrome (ARDS), severe infection after postoperative surgery, etc.

Chronic renal failure (CRF), combined with acute pulmonary edema, uremia encephalopathy, heart failure, hemodynamic instability, etc.



CVVH

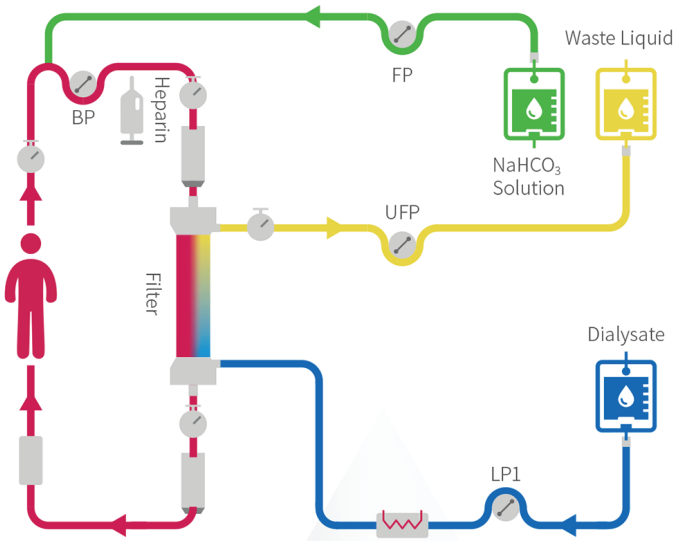
Continuous Venovenous Hemofiltration

Front and back end simultaneously dilution and exchange fluid dual-channel input

Clinical application:

Severe Acute Kidney Injury (Aki), instability and continuously remove excess water or toxic substances, such as AKI with severe electrolyte imbalance, acid-base metabolic imbalance, heart failure, pulmonary edema, brain edema, acute respiratory distress syndrome (ARDS), severe infection after postoperative surgery, etc.

Chronic renal failure (CRF), combined with acute pulmonary edema, uremia encephalopathy, heart failure, hemodynamic instability, etc.



CVVHD

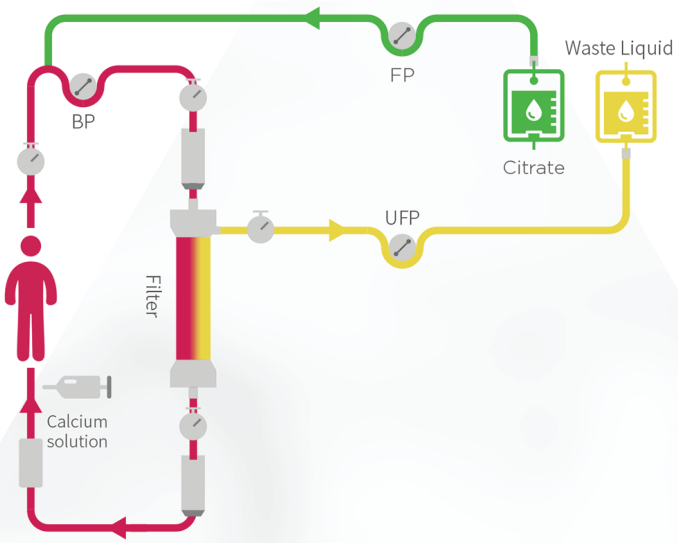
Continuous Venous Hemodialysis

Exchange Fluid Dual-Channel Input

Clinical application:

Severe Acute Kidney Injury (Aki), instability and continuously remove excess water or toxic substances, such as AKI with severe electrolyte imbalance, acid-base metabolic imbalance, heart failure, pulmonary edema, brain edema, acute respiratory distress syndrome (ARDS), severe infection after postoperative surgery, etc.

Chronic renal failure (CRF), combined with acute pulmonary edema, uremia encephalopathy, heart failure, hemodynamic instability, etc.



SCUF

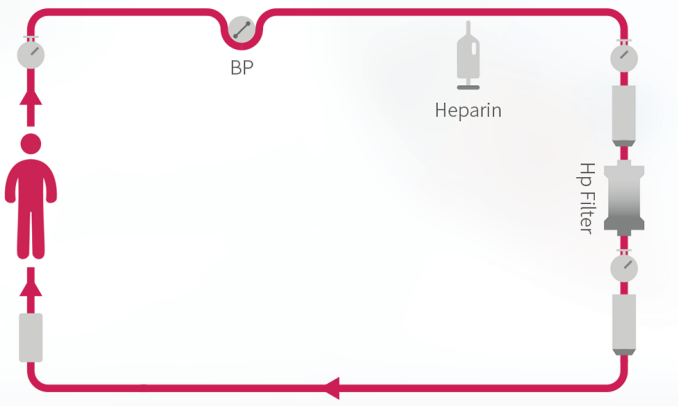
Slow Continuous Ultrafiltration

Clinical application:

Caused by various resons of poor effects on drug treatment Severe edema

Refractory heart failure

Acute and chronic pulmonary edema



HP

Hemopurfusion

Clinical application:

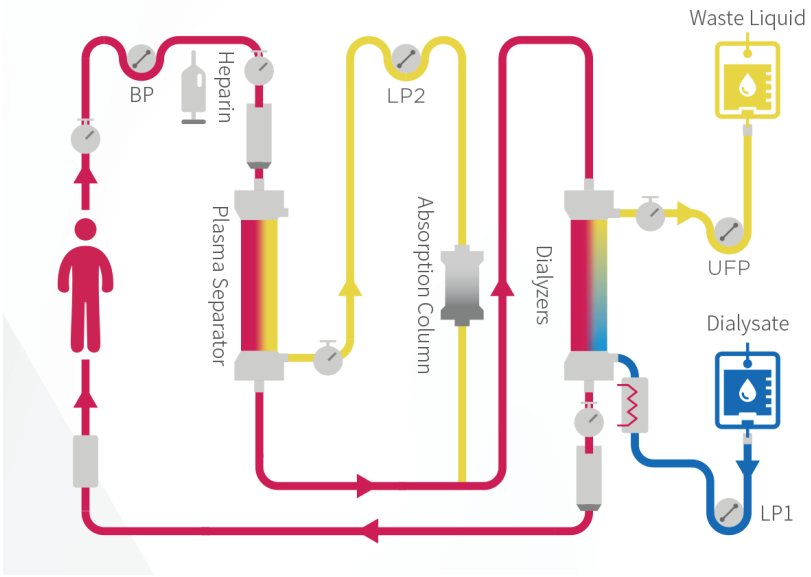
Acute drug poisoning or other toxicosis.

Uremia, especially refractory itching, refractory hypertension.

Severe hepatitis, especially hepatic encephalopathy caused by fulminant hepatic failure, hyperbilirubinemia, sepsis or systemic inflammation syndrome.

Psoriasis or other autoimmune diseases.

Other diseases such as schizophrenia, thyroid crisis, tumor chemotherapy, etc.

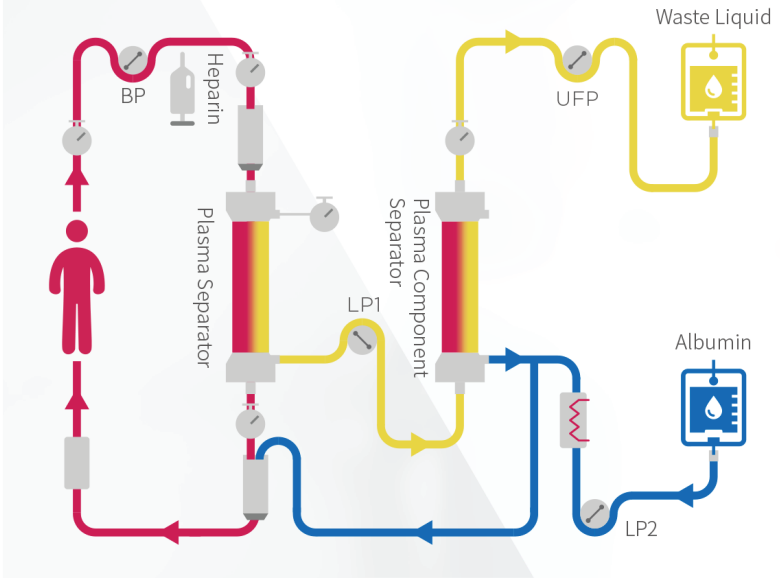


CPFA

Continuous Plasmafiltration Adsorption

Clinical application:

It is mainly used to remove medium and macromolecular toxins such as inflammatory mediators and cytokines.



DFPP

Double Filtration Plasmapheresis

Clinical Application:

Clinical Application: Rheumatic Immune Disease

Immun Nervous System Disease

Digestive System Disease

Hematological Disease

Renal Disease

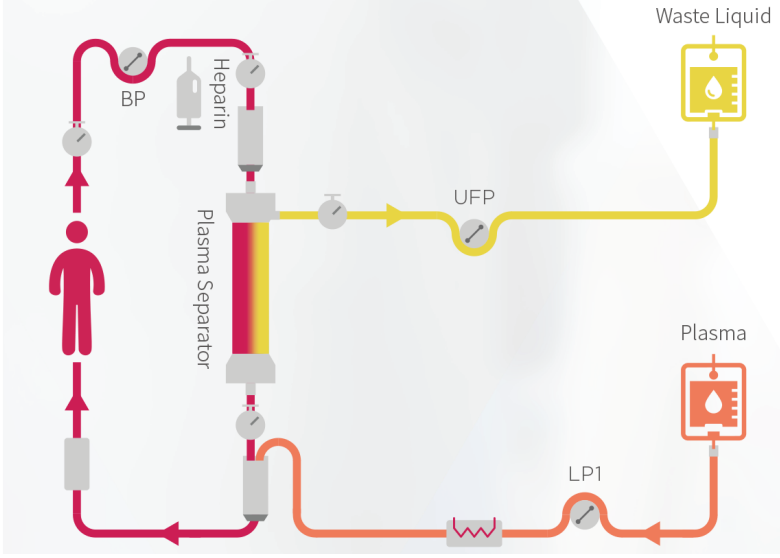
Rejection After Organ Transplantation

Autoimmune Skin Disease

Hypercholesterolemia

Hyperlipoproteinemia

Drug poisoning, etc.



PE

Plasma Exchange

Clinical Application:

Clinical Application: Rheumatic Immune Disease

Immun Nervous System Disease

Digestive System Disease

Hematological Disease

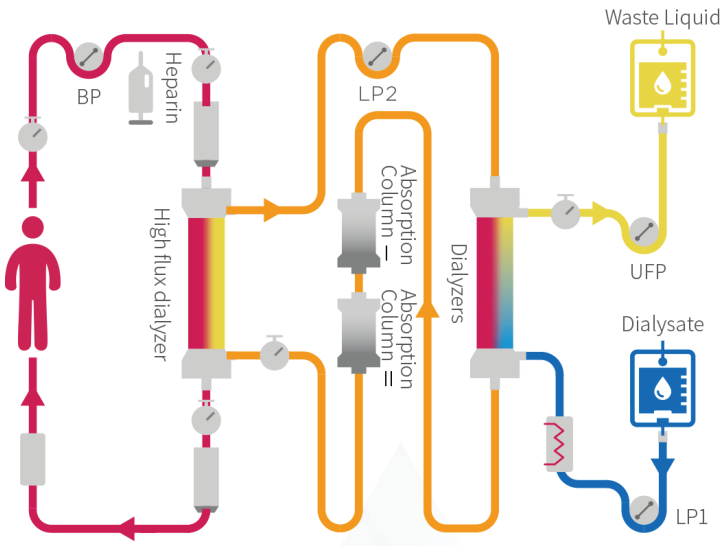
Renal Disease

Rejection After Organ Transplantation

Autoimmune Skin Disease

Metabolic Disease

Drug Poisoning,Etc

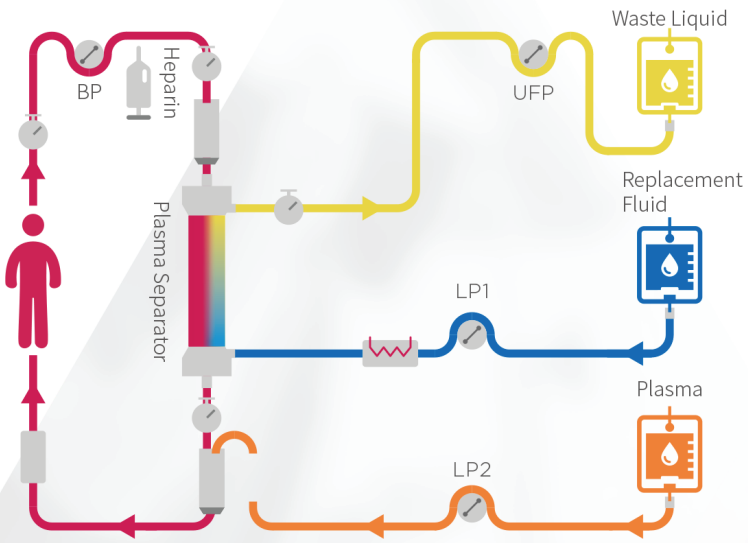


MARS

Molecular Adsorbent Recirculating System

Clinical application:

Clinical application: Hyperbilirubinemia (such as siltation / refractory itching) Acute exacerbation of chronic liver disease, acute / fulminant hepatic failure.

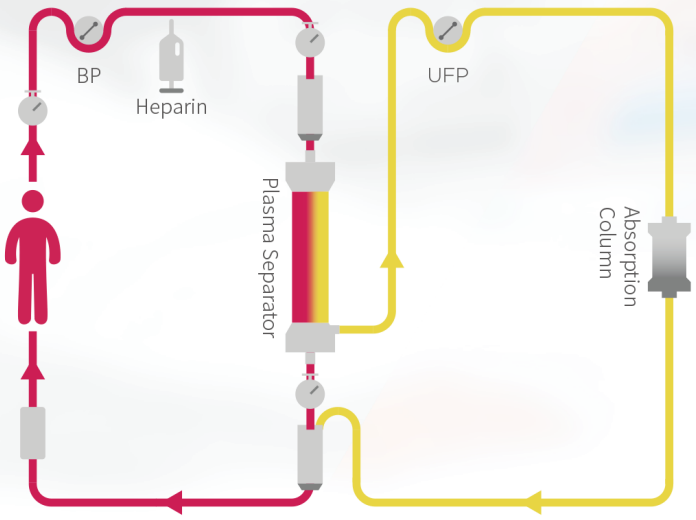


PDF

Plasma Diafiltration

Clinical Application:

Abiotic artificial liver blood purification treatment, suitable for patients with liver failure and renal failure, electrolyte imbalance.



PA

Plasma Adsorption

Clinical application:

immune system disease of kidney and rheumatism
nervous system disease
hematological Disease
hepatic failure
graft-versus-host disease
severe drug or toxin poisoning
other diseases: DCM(dilated cardiomyopathy)、β2-microglobulin

Technical Parameter

Basic Information

Dimension	Height 1720 mm/Width 635 mm/Thickness 578 mm
Weight	About 75Kg
Electrical Parameters	
Voltage	~110/220V
Frequency	50/60Hz
Power	500VA
Backup Battery Capacity	2×12V/4Ah

Pressure Monitoring

Venous Pressure Monitoring(Vp)	-500mmHg ～ +700mmHg	Accuracy:±5mmHg
Arterial Pressure Monitoring(Ap)	-500mmHg ～ +700mmHg	Accuracy:±5mmHg
Transmembrane Pressure Monitoring(Tmp)	-500mmHg ～ +700mmHg	Accuracy:±5mmHg
Primary Membrane External Pressure Monitoring (Pm1)	-500mmHg ～ +700mmHg	Accuracy:±5mmHg
Secondary Membrane Pressure Monitoring(Pm2)	-500mmHg ～ +700mmHg	Accuracy:±5mmHg

Liquid Balance Control

Scale Number	4	
Rehydration Scale	0kg ～ 30kg	Accuracy: ±5g or ±0.1%
Waste Liquid Scale	0kg ～ 30kg	Accuracy: ±5g or ±0.1%
Auxiliary Rehydration Scale I	0kg ～ 12kg	Accuracy: ±5g or ±0.1%
Auxiliary Rehydration Scale I	0kg ～ 12kg	Accuracy: ±5g or ±0.1%

Flow Monitoring

Blood pump flow(BP)	0mL/min，30mL/min ～ 600mL/min Accuracy: set value±10%
LP1	0mL/min，1mL/min ～250mL/min Accuracy: ±0.1mL/min or ±5% of set value
Waste Liquid Pump Flow(UFP)	0mL/min，1mL/min ～250mL/min Accuracy: ±0.1mL/min or ±5% of set value
LP2	0mL/min，1mL/min ～250mL/min Accuracy: ±0.1mL/min or ±5% of set value
Function Pump Flow(FP)	0mL/min，1mL/min ～250mL/min Accuracy: ±0.1mL/min or ±5% of set value
Infusion pump flow	
Flow Adjustable Range	0mL/h ～ 10 mL/h
Error Range	±0.2mL /h or ±5%
Rapid Injection Flow	10mL/h ～2000mL/h
Syringe Specification	10mL / 20mL / 30mL / 50mL
Dehydration Error	⩽ ±20mL/h
Liquid Balance Control	⩽ 100mL

Substitution fluid flow temperature control

Control Range	33°C～ 40°C
Accuracy	Control error ±1° C

Safety Monitoring

Blood Leakage Monitoring	⩽ 0.35mL/min (HCT 32%)
Air Monitoring	>0.02mL bubbles

Note: The above parameters are SWS-5000 series,Specific parameters are subject to the operating manual.

Each Model Treatment Mode Contrast

Treatment Mode	SWS-5000 (full function)	SWS-5000 (professional)	SWS-5000A	SWS-5000B
Citriate anticoagulation	✓	✓	✓	×
Substitution Fluid Double Channel Input	✓	✓	✓	×
CVVH - Continuous Veno-Venous Hemofiltration	✓	✓	✓	✓
CVVHD - Continuous Veno-Venous Hemodialysis	✓	✓	✓	✓
CVVHDF - Continuous Veno-Venous Hemodiafiltration	✓	✓	✓	×
SCUF -Slow Continuous Ultrafiltration	✓	✓	✓	✓
HP - Hemoperfusion	✓	✓	✓	✓
PE - Plasma Exchange	✓	✓	✓	✓
PA - Plasma Adsorption	✓	✓	✓	✓
CPFA - Continuous Plasma Filtration And Adsorption	✓	✓	○	×
FPSA - Fractional Plasma Separation And Absorption	✓	○	○	×
MARS - Molecular Absorbent Recycling System	✓	○	○	×
SPAD - Single Pass Albumin Dialysis	✓	○	○	×
DFPP - Double Filtration Plasmapheresis	✓	○	○	×
RAD - Repeated Pass Albumin Dialysis	✓	○	○	×
PDF - Plasmadiafiltration	✓	○	○	×

Hemodialisis

Vanir 6

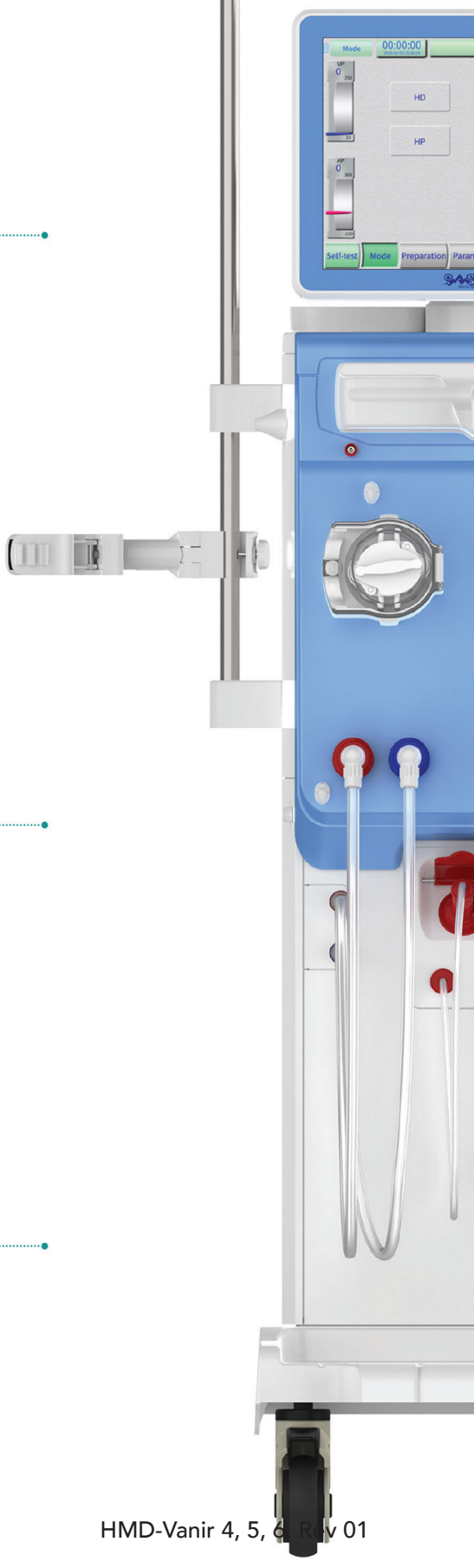
www.hosmed-inc.com

New Generation Machine

Keep Dialysis Safe

Treatment Safety is Guaranteed

- The integrated design of the air detector, the venous clamp and blood recognition adopting the ultrasonic and optical sensor, which monitor the tiny bubble and identify the blood.
- * Online noninvasive BPM: Monitor heart rate and blood pressure changes of patients, communicate with the machine in real time, and ensure the safety of the treatment process.
- Advanced balance volume feedback control system ensures the accuracy of the UF.
- The dialysate mixing feedback control system ensures the accuracy of the dialysate ion.



Safe Self-test

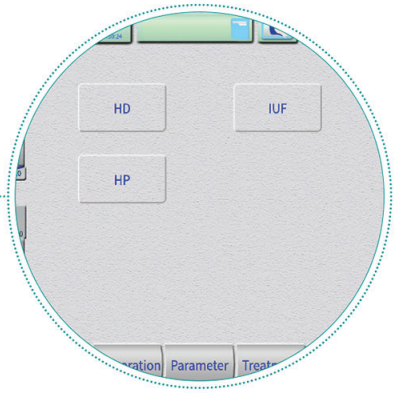
- Independent control of hydraulic, blood circuit and monitoring systems to guarantee treatment safety.
- More than ten mandatory self-test items:
  Balance system, fluid mixing system, UF system, Blood circuit system...
- Balance system real-time leak detection to ensure accuracy ultra-filtration.

Saving Cost

- Central Supply Concentrate interface: It is suitable for centralized control in large dialysis centers, eliminating manual handling, eliminating secondary pollution of concentrates,efficient management and controllable quality.
- Online prime and reinfusion: Using online substitution fluid to prime and reinfuse, without bag-type saline, fully automatic operation.

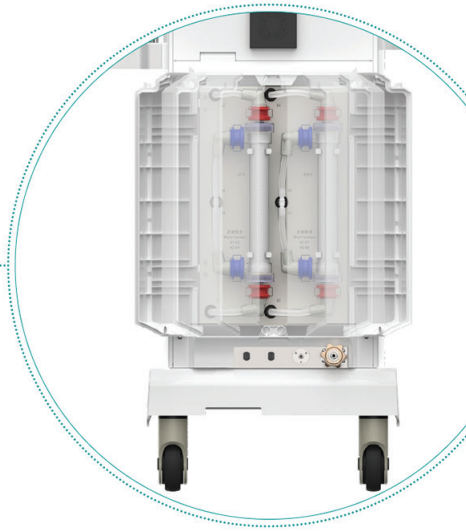
MARK: The * means optional part

Intelligent Design



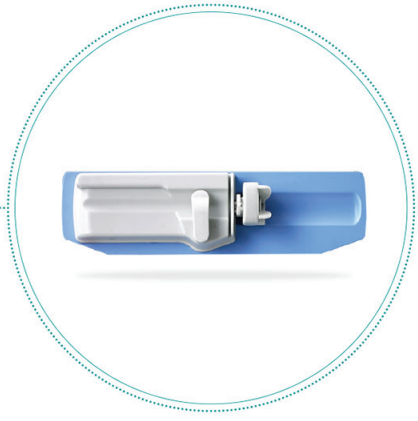
User-friendly Operation Design

- The user-friendly guided design, self-test, parameter setting, treatment, cleaning and disinfection on a variety of operations interface.
- Multi-level authority management: Different setting permissions for doctors, nurses and engineers to ensure that the machine is operated correctly and to ensure the safety of treatment.
- Rotating screen can be rotated around, with large field of vision, and easy to take tray items.



Easy Maintenance Design

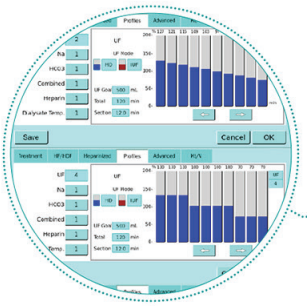
- The front panel self-locking design, which is easy to open and save maintenance time.
- The other panel adopt knobs and screws, which can be disassembled easily without instruments.
- The electronic module with card-style design, which is easy to disassemble and maintenance.
- Magnetic suction door design makes it easy to replace the double endotoxin filters.



Multi-function Upgrade

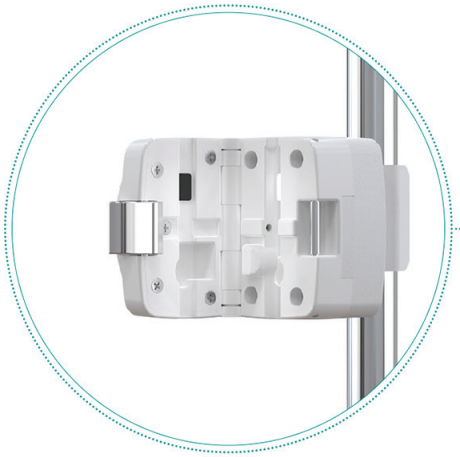
- Compatible with all brands of dialysis consumables, a variety of dialysate formula + customize formula, which adapt to various concentrate and disinfectant.
- Multi-functional Heparin Pump: Automatic identification of syringe model (for 10ml, 20ml, 30ml, 50ml syringe), heparin profile available.

Clinical Treatment Program



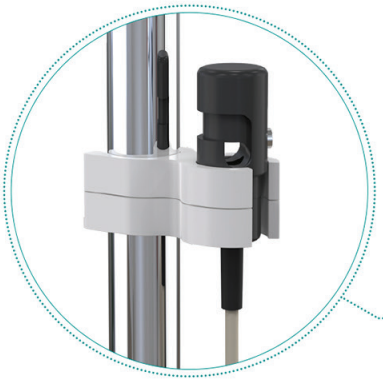
Multi-Treatment Profiles, Provide Customize Treatment

- Various Sodium Profile
- UF Rate Profile
- Bicarbonate Profile
- Heparin Flow Profile
- Dialysate Flow Profile
- Dialysate Temperature Profile



* BVM

- Blood volume changes can be accurately detected during treatment, effectively preventing hypotension caused by excessive water removal.



* OCM

- Real-time monitoring clearance efficiency of urea to ensure treatment sufficiency.

* BTM

- Monitor blood temperature of arterial outflow and venous inflow, maintain the balance of thermal energy of extracorporeal circulation, stabilize patient' s body temperature, and effectively reduce the complications during dialysis treatment.

* Bicart Holder

- Isolation of B concentration microbial contamination to ensure the purity of the dialysate and improve the quality of treatment.

HOSMED
Enhancing Life

3403 NW 82nd Avenue. Suite #102.
Doral, Florida 33122. USA
www.hosmed-inc.com