

# CytoSorb Therapy

Decision support for septic & vasoplegic shock patients



# CytoSorb Therapy - Initiation

Patient's condition

Stable

Unstable

Shock

Refractory septic / vasoplegic shock

⚡ Diagnosis

Best results achieved when CytoSorb begun within 24 hrs.

MAP normal

MAP low  
< 65 mmHg

Vasopressors  
start

*Sepsis bundle  
Catecholamine-/  
Volume therapy*

*Arterial line, Central  
Venous Catheter,  
Antibiotics,  
Source control*

Vasopressors  
continue

Lactate  
> 2mmol/l

*Differentiated volume-/  
Catecholamine therapy*

*Adv. hemodyn. monitoring*

*Organ support  
(Ventilation, CRRT)*

**CytoSorb?**  
*(early use in anticipation  
of ongoing deterioration)*

Vasopressors  
NE > 0.3 ug/kg/min  
Capillary leak  
e.g. ELWI > 10 ml/kg

Lactate further  
elevated/increasing

IL-6 (>500 pg/ml)  
PCT (> 3uG/l)  
*if measured*

*Extracorp. circuit  
available/indicated*

- CRRT
- ECMO
- Hemoperfusion

➤ Start  
CytoSorb



Risk: MODS / Mortality

Therapeutic target: Shock reversal



# CytoSorb Therapy - Initiation

Time since start of CytoSorb Therapy

0 hrs.

12 hrs.

24 hrs.

Day 2,3,...

## Beginning of hemodynamic stabilization

Norepinephrine dose / lactate ↓↓

➤ Continue monitoring

## Ongoing instability

Decrease of NE dose by less than 20% in the last 12 hrs

➤ Consider new adsorber

## Sufficient stabilization

Decrease of NE dose by more than 90% from baseline

End CytoSorb Therapy

## Insufficient stabilization

Decrease of NE dose by less than 90% of baseline and lactate > 2.0 mmol/l

➤ Consider new adsorber

Re-evaluate every 12 to 24 hrs.

Ongoing (hemodynamic) instability despite 2 adsorbers in 24 hrs.

Consider ending CytoSorb Therapy



Adequate source control?

This chart is based on clinical data and best practice gained with CytoSorb 300 and is not transferable to any other blood purification device

# Potential Indications for CytoSorbs Therapy in the Intensive Care Unit:

- Refractory septic shock
- Vasoplegic shock e.g. postoperatively, with ECMO therapy
- Toxic shock syndrome
- Necrotizing fasciitis
- Meningococcal sepsis
- Hemophagocytic lymphphistiocytosis (HLH)
- Pancreatitis
- Burns
- Trauma
- Liver failure (removal of bilirubin)
- Rhabdomyolysis (removal of myoglobin)

Visit <http://literature.cytosorb.com>  
for an overview of all references

## CytoSorbents Europe GmbH

Müggelseedamm 131  
12587 Berlin | Germany

T +49 30 65 49 91 45  
F +49 30 65 49 91 46  
support@cytosorbents.com

## Armaghan Salamat Kish Co.

Unit 49, Jam Tower, No.5,  
Bidar St., Elahiyeh, Tehran | Iran.

T +98 21 49 20 50 00  
F +98 21 43 85 84 85  
www.arsak.co

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