

CytoSorbents

SIRS and Sepsis



REGAIN CONTROL

Stabilization of hemodynamics and organ functions

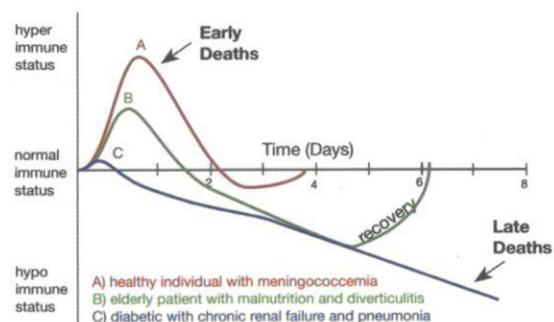
- Improvement of hemodynamic stability
- Reduction of catecholamine need
- Positive impact on capillary leak syndrome and fluid balance
- Prevention and limitation of inflammation induced organ failure



Modulation of the immune response

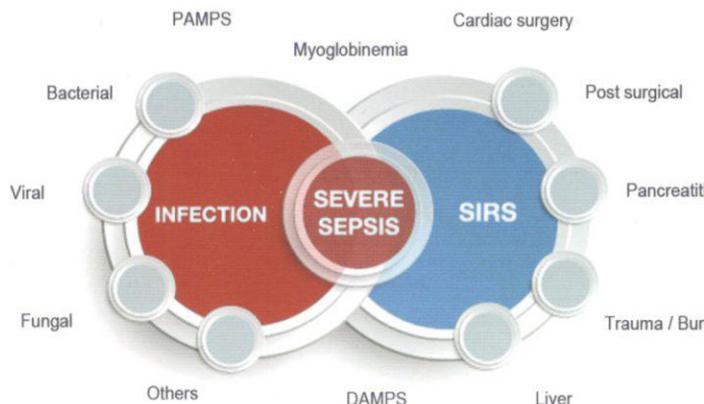
- Effective reduction of excessive cytokine levels
- Decreased de novo synthesis of inflammatory mediators
- Controlled attenuation of the overshooting immune response
- Re-targeting of the cellular immune defense to the focus of infection

Types of immunologic response in sepsis



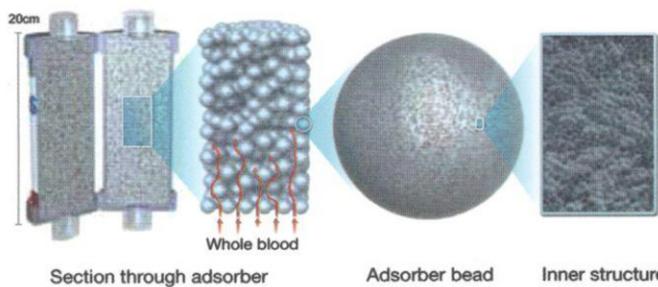
Unique extracorporeal therapy

- Safe and easy to use whole blood perfusion
- Easy to combine with CPB or routine renal replacement therapies (RRT) within minutes
- Stand-alone hemoperfusion setup possible
- Quick and sustained reduction of excessive cytokine levels and removal of myoglobin, bilirubin and free hemoglobin
- Use of standard anticoagulation (heparin or citrate)
- Excellent hemo- and biocompatibility (fulfills ISO 10993)



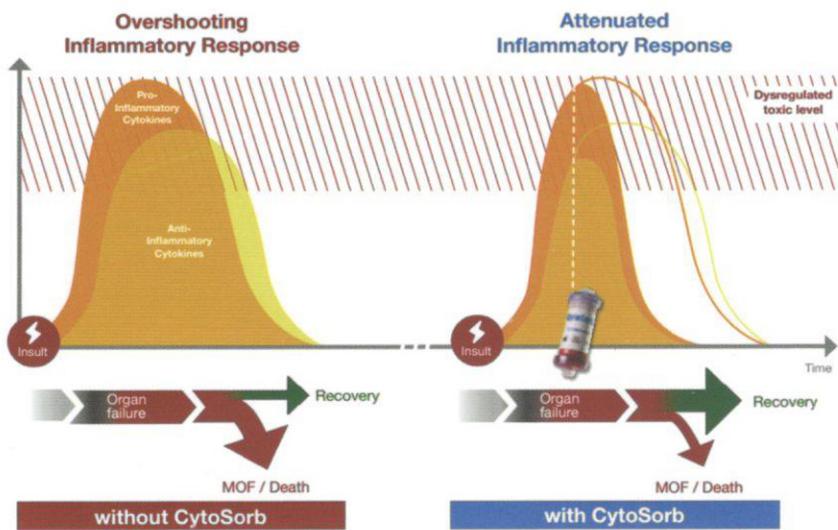
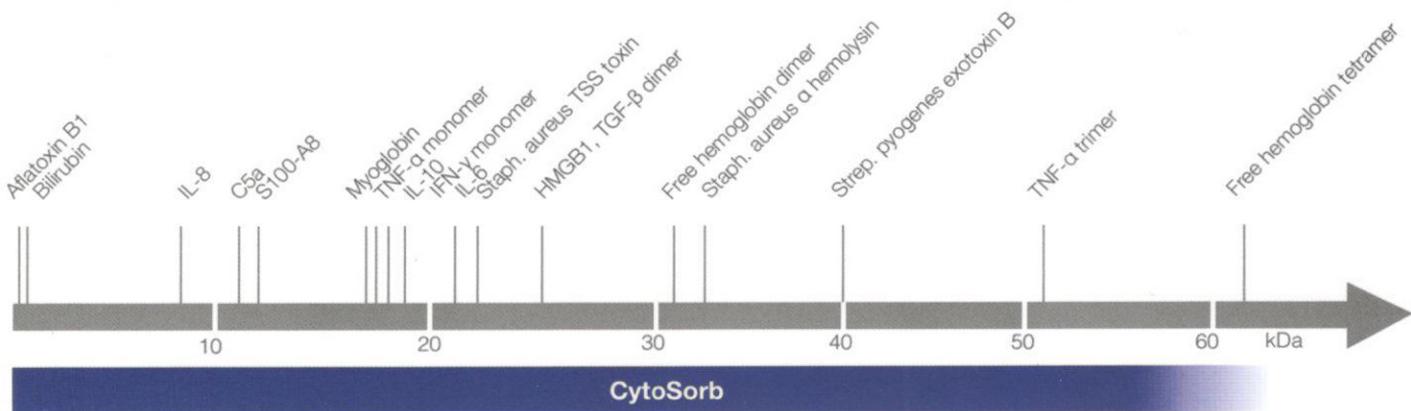
Proprietary polymer technology

- High-tech polymer
- Size selectivity < approx 55 kD
- Low flow resistance
- Highest bio- and hemocompatibility
- Most efficient removal of cytokines and other hydrophobic middle sized molecules

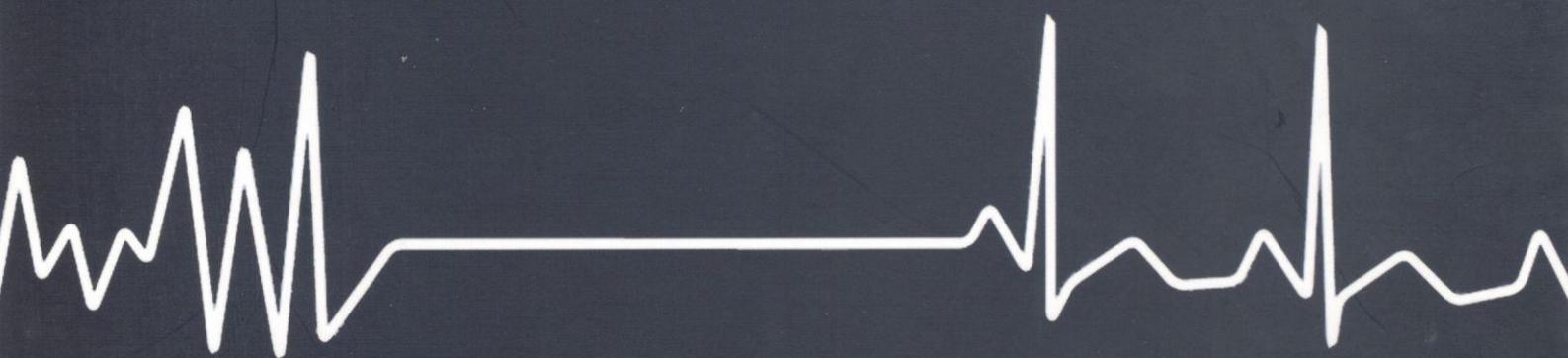


Broad adsorption spectrum

- Inflammatory mediators^(1,2,3,4,5)
- Metabolites (i.a. bilirubin)⁽⁹⁾
- Myoglobin^(4,10)
- DAMPS (Damage Associated Molecular Patterns)^(11,12)
- PAMPs (Pathogen Associated Molecular Patterns)
e.g. enterotoxins⁽¹¹⁾



Unique adjunctive therapy in cytokine storm



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