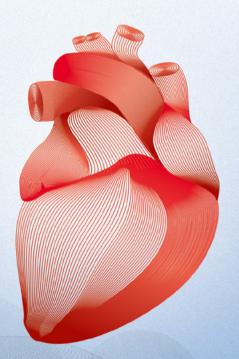


CytoSorb Therapy

Decision support in cardiac surgery use

- Postoperative
- Intraoperative



Postoperative Initiation

Postoperative Continuation

Postoperative hemodynamic instability

Vasopressors $NE > 0.3 \mu g/kg/min$ Capillary leakage

Lactate further elevated/increasing

IL-6 (> 500 pg/ml)PCT (> $3 \mu g/l$) if measured

Differentiated volume-/ catecholamine therapy

Advanced hemodynamic monitoring

Organ support (Ventilation, CRRT)

CytoSorb Therapy? (early use in anticipation of ongoing deterioration or as continuation of intraoperative use)

Rapid stabilization

Vasopressor need rapidly declining / no longer needed

No further excessive volume requirements

Lactate levels normalizing

No hemodynamic stabilization achieved or even further clinical deterioration

Beginning of hemodynamic stabilization

NE 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

End CytoSorb Therapy

Insufficient stabilization

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

➤ Consider new adsorber

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

Consider ending CytoSorb Therapy

Re-evaluate

every 12 to

24 hrs.

0 hrs.

12-24 hrs.

Day 2,3, ...

Adequate causative therapy?

Refractory vasoplegic / septic shock

Extracorpororeal circuit indicated / available

(CRRT, Hemoperfusion, ECMO)

> Start CytoSorb Therapy

Recovery

cytoSorh

REGAIN

6-24 hrs.

➤ Early start within 6-24 hrs. is recommended for best results

0 hrs.



Intraoperative Initiation

The intraoperative use of CytoSorb Therapy should be considered if one or more of the following aspects is given:

Goal: Reduce risk of systemic hyperinflammation

➤ Complex intervention with expected long CPB time (> 120 min)

?

- Combination procedure
- Redo procedure
- ➤ Acute, infective endocarditis requiring valve replacement



➤ Heart transplant surgery



➤ Aortic dissection



➤ High patient comorbidity and/or pre-existing liver/renal dysfunction



➤ Increased risk for the development of intra- & postoperative, hyperinflammatory based complications



Goal: Reduce risk of bleeding complications

➤ Urgent or emergent cardic surgery in patients treated with ticagrelor and/or rivaroxaban



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T +49 30 65 49 91 45 F +49 30 65 49 91 46 support@cytosorbents.com This decision guidance is non-binding and cannot replace the therapy decisions of the treating physician, who is in all cases responsible for the development and implementation of an adequate diagnostic and therapeutic plan for each individual patient.

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