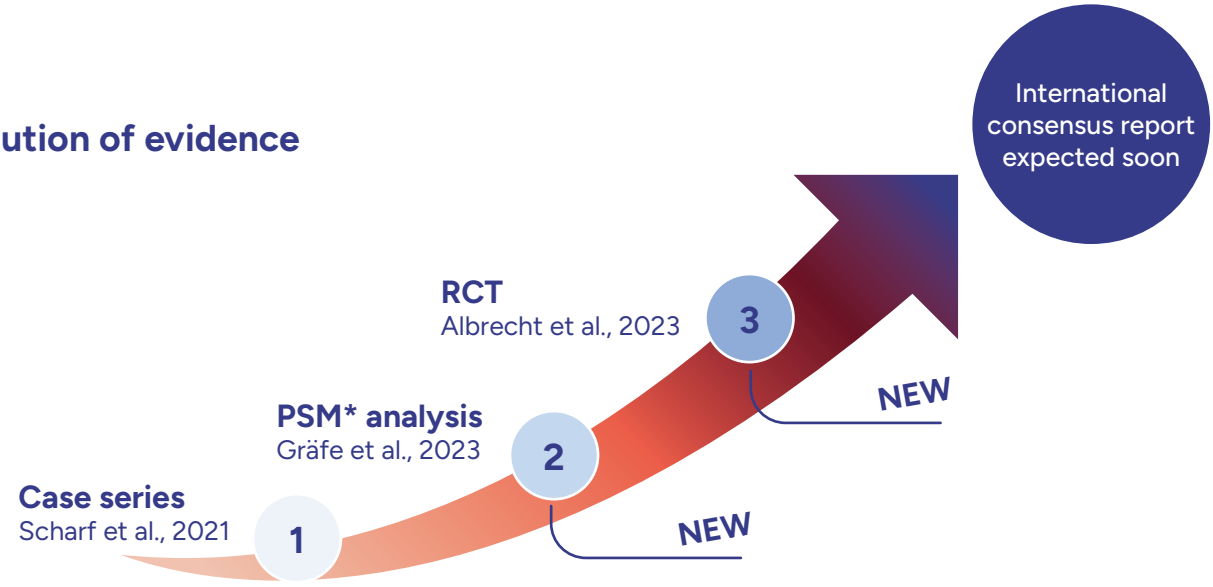
The role of CytoSorb® Therapy in rhabdomyolysis

A major break down of skeletal muscle triggered by various factors such as e.g. trauma or infection, called rhabdomyolysis, leads to an excessive release of the muscle protein myoglobin. This carries the risk of acute kidney injury. Use of CytoSorb® enables the rapid reduction of the myoglobin level to improve the recovery of renal function.

Evolution of evidence



* Propensity Score Matched

Key study facts

	1 Scharf et al., Crit Care 2021; 25(1):41	2 Gräfe et al., Ren Fail 2023; 45(2):2259231	3 Albrecht et al., Blood Purif 2024; 53(2):88-95
Title	Blood purification with a cytokine adsorber for the elimination of myoglobin in critically ill patients with severe rhabdomyolysis.	The effect of CytoSorb® application on kidney recovery in critically ill patients with severe rhabdomyolysis: a propensity score matching analysis.	Rapid and Effective Elimination of Myoglobin with CytoSorb® Hemoadsorber in Patients with Severe Rhabdomyolysis
Aim	Patients with severe rhabdomyolysis (various etiologies), median myoglobin for whole gp >25,000 ng/ml, put on renal replacement with CytoSorb® and myoglobin levels measured pre and post adsorber.	Patients with severe rhabdomyolysis (various etiologies), myoglobin 27,218 ng/ml, put on renal replacement with CytoSorb® compared to matched pairs (myoglobin 26,872 ng/ml) without CytoSorb®	Patients with severe rhabdomyolysis (myoglobin > 30,000 µg/l or myoglobin > 10,000 µg/l plus GFR < 40 ml/min), received continuous veno-venous hemodiafiltration (CVVHD) with a high cut-off hemofilter (EMIC®2) using high blood and dialysate flows for 48 h with or without CytoSorb®.
Patients	43	70 (35 v 35)	8 (4 v 4)
Type of study	Case series	Propensity score matched pairs	RCT

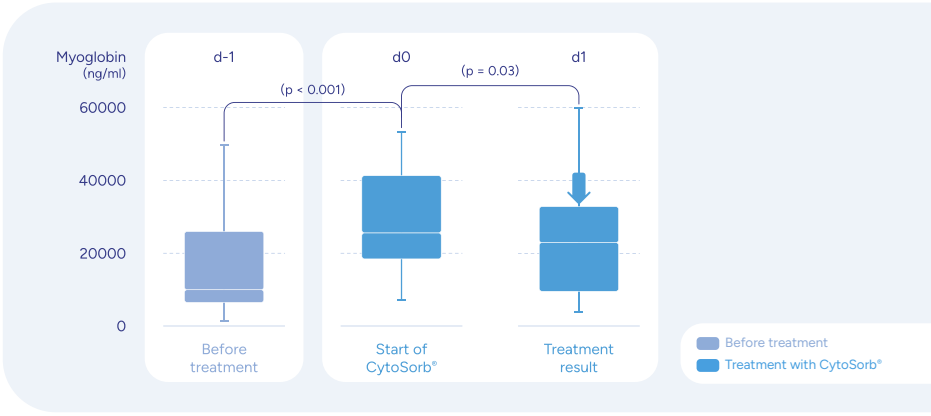
CytoSorbents™

Key study outcomes

1 **Scharf et al.,**
Crit Care 2021; 25(1):41

Significant reduction of myoglobin in patients with severe rhabdomyolysis

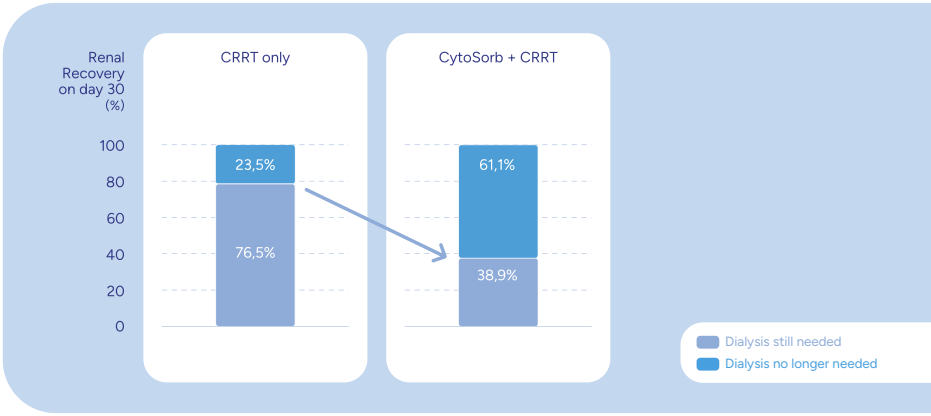
Rapid myoglobin reduction



2 **Grafe et al.,**
Ren Fail 2023; 45(2):2259231

CytoSorb® might positively affect renal recovery in patients with severe rhabodomyolysis

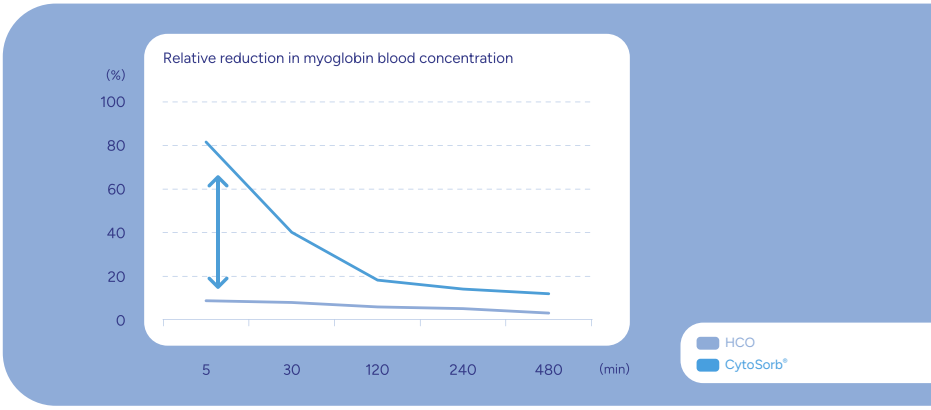
Support of renal recovery



3 **Albrecht et al.,**
Blood Purif 2024; 53(2):88-95

Much better efficacy of CytoSorb® in myoglobin elimination compared to a high cut-off hemofilter

Superior to HCO hemofilter



Conclusion

Latest evolution of evidence confirms safe and effective use of CytoSorb® in rhabdomyolysis patients.

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