



Clinical Evidence for CytoSorb Therapy in Antithrombotic Removal

Name	Title	Aim	Number of patients	Type of study	Outcome
Hassan et al., Annals of Thoracic and Cardiovascular Surgery 2022; epub	Hemoadsorption of Rivaroxaban and Ticagrelor during Acute Type A Aortic Dissection Operations	Compare use of CytoSorb used for removal of ticagrelor or rivaroxaban during emergency surgery for acute type A aortic dissections with historical control patients	10 versus 11	Retrospective Cohort Study	CytoSorb group had a significantly shorter operation time, postop 24-hour drainage volume was significantly lower and there were no re-thoracotomies (compared to two [18.9%] among historical controls). The control group also required significantly more platelet transfusions.
Røed-Undlien H et al., Journal of Cardiothoracic and Vascular Anesthesia 2022; epub	In-Vitro Apixaban Removal by Cytosorb Whole Blood Adsorber. An Experimental Study	Experimental study to test removal of apixaban via an in-vitro circuit with the CytoSorb adsorber connected.	N/A	In-vitro	Apixaban concentrations were effectively reduced and clotting time and thrombin generation assays normalized by the use of CytoSorb.
Javanbakht et al., Pharmcoecon Open 2020; 4(2): 307 - 19	Ticagrelor removal by CytoSorb® in patients requiring emergent or urgent cardiac surgery: A UK-based Cost-utility analysis	Evaluate the cost utility of intraoperative removal of ticagrelor using CytoSorb versus usual care among patients requiring emergent or urgent cardiac surgery in the UK	N/A	De novo analytic model	CytoSorb as an intraoperative intervention for patients receiving ticagrelor undergoing emergent or urgent cardiac surgery is a cost-saving strategy, yielding improvement in perioperative and postoperative outcomes and decreased health resource use
Hassan et al., Ann Thorac Surg 2019; 108(1): 45 - 51	CytoSorb adsorption during emergency cardiac operations in patients at high risk of bleeding	Compare clinical outcomes in emergency open heart surgery, patients on Ticagrelor or Rivaroxaban with or without CytoSorb	55	Retrospective observational study	Use of Cytosorb reduced bleeding complications, need for re-thoracotomies, need for blood products, shortened operation time, time in ICU & hospital stay