

Table S1: Ongoing Trials in Cardiogenic Shock

NCT No	Title	n	Status	Study type	Intervention	Primary outcome measures	Expected completion date
Medical treatment trials in CS							
NCT04325035	The Safety and Efficacy of Istaroxime for Pre-Cardiogenic Shock (SEISMiC)	60	R	RCT MC	Istaroxime versus placebo	Change from baseline in systolic blood pressure (SBP)	September 30, 2021
NCT04642768	Treatment With the Ketone Body 3-hydroxybutyrate in patients with CS (KETO-SHOCK1)	12	R	RCT SC	3-hydroxybutyrate treatment versus placebo	Cardiac output (l/min) area under curve	December 2022
NCT04020263	Effect of Early Use of Levosimendan Versus Placebo on Top of a Conventional Strategy of Inotrope Use on a Combined Morbidity-mortality Endpoint in Patients with CS (LevoHeartShock)	610	nyR	RCT MC	Patients with cardiogenic shock treated with levosimendan versus placebo in addition to the conventional strategy	Proportion of all-cause 30-day mortality Proportion of extracorporeal life support implantation Proportion of dialysis	June 1, 2024
Mechanical circulatory support trials in CS							
NCT04369573	Study on Early Intra-aortic Balloon Pump Placement in Acute Decompensated Heart Failure Complicated by CS (Altshock-2)	200	R	RCT MC	Early IABP implantation versus standard care	Survival or bridge to heart transplant/LVAD	April 1, 2023
NCT04886180	Evaluation of Oxiris Membrane as a Treatment for Ischemia-reperfusion Syndrome in CS treated with Extracorporeal Life Support (ECMO/ECLS: A Randomized Pilot Study (ECMORIX))	40	R	RCT SC	Addition of an Oxiris membrane to the ECLS circuit versus Prismaflex membrane	Plasma concentration of lipopolysaccharides	June 2024

NCT04451798	Acute Impact of the Impella CP Assist Device in patients with CS on the Patients Hemodynamic (JenaMACS)	20	R	RCT SC	Assessment of acute hemodynamic effects following implantation of the IMPELLA CP cardiac support device	Hemodynamic parameters due to PA catheterization at day 1 Echocardiographic parameters of left and right heart function on day 1	March 2022
NCT03729765	Hemoperfusion in Extracorporeal Membrane Oxygenation (ECMO) Patients	60	R	RCT SC	V-A ECMO with hemoperfusion versus V-A ECMO alone	Change of plasma interleukin (IL)-6 level on day 3	July 5, 2021
NCT03549923	Evaluation of Early CRRT Interventions in Patients With ECMO(ELITE)	550	R	RCT SC	Evaluation of simultaneous CRRT and ECMO versus conventional CRRT indication and Evaluation of continuous esmolol infusion versus placebo	All-cause 30-day mortality	April 2022
CS trials with other topics							
NCT03141255	Cardiogenic Shock Intravascular Cooling Trial (CHILL-SHOCK)	20	R	RCT SC	Therapeutic hypothermia 32-34°C versus standard care	Episodes of arrhythmia Bleeding Bloodstream infection Hypokalemia	July 2021
NCT04419480	Hemodynamic Monitoring to Prevent Adverse Events following CS trial (HALO-Shock)	40	R	RCT SC	CardioMEMS implant group cs Non-CardioMEMS implant group	Hierarchical endpoint at 6 months, including death (or mortality-equivalent including left ventricular assist device implantation or heart transplantation), recurrent cardiovascular hospitalization,	September 1, 2022

						health-related quality of life change from baseline, change in log-transformed NT-proBNP level from enrollment to 6 months	
NCT04682483	Cardiogenic Shock Working Group Registry (CSWG)	5000	R	Coh MC		30-day mortality rate and after 1 year	June 1, 2025

Coh = prospective cohort analysis; CRRT = continuous renal replacement therapy; CS = cardiogenic shock; LVAD = left ventricular assist device; MC = multicenter; nyR = not yet recruiting; PA = pulmonary artery; RCT - randomized controlled trial; R = recruiting; SC = single center.