Supplemental Table 1: Devices Under Investigation for the Treatment of HFpEF and Clinical Trials

Device category	Physiological target	Study Type	Primary Endpoints	RCT identifier	RCT status	Reference
Atrial shunts	Elevated LA pressure	Interventional, Est. Size: 150	Incidence of and time-to cardiovascular mortality or first non-fatal, ischemic stroke (12 months) -Total rate per patient year of HF admissions (~24 months) -Improvement in baseline KCCQ score (12 months)	NCT04632160	Not yet recruiting	88–97
		Observational, Est. Size: 100	-Device serious adverse events (30 days) -Improvement in KCCQ score, NYHA classification and EQ5D score (12 months)	NCT03191656	Recruiting	
		Interventional, Est. Size: 608	-Incidence of and time-to cardiovascular mortality or first non-fatal, ischemic stroke (12 months) -Total rate per patient year of HF admissions (~24 months) -Improvement in baseline KCCQ score (12 months)	NCT03088033	Recruiting	
		Interventional, Act. Size: 44	-Peri-procedural and post implant serios adverse events such as cardiovascular death or event, embolic stroke, kidney dysfunction (1 month) -Change in PCWP in supine exercise (1 month)	NCT02600234	Active	
		Interventional, Act. Size: 64	-Major adverse cardiac and cerebrovascular events (6 months)	NCT01913613	Completed	
		Interventional, Act. Size: 11	-Device serious adverse events (30 days)	NCT01570517	Completed	
		Interventional, Est. Size: 20	-Device and non-device associated major adverse cardiac and neurological events (6 months) -Percentage of patients successfully implanted with study device (3 months) -Percentage of patients implanted with right to left interatrial flow	NCT03838445	Recruiting	102–106
		Interventional, Est. Size: 500	-Device associated major adverse cardiac and neurological events (30 days) -Hierarchical composite of death, heart transplant or LVAD implantation, HF hospitalizations, and change in 6MWT	NCT03499236	Recruiting	

		Interventional, Act. Size: 16	-Device associated major adverse cardiac and neurological events (3 months)	NCT01965015	Completed	
		Interventional, Est. Size: 230	-Change in 6MWT (12 months)	NCT03751748	Not yet recruiting	111–115
		Observational, Est. Size: 100	- Device serious adverse events (12 moths)	NCT04405583	Recruiting	
		Interventional, Est. Size: 30	- Incidence of Serious Adverse Device Effects (~3 moths)	NCT03030274	Recruiting	
		Interventional, Est. Size: 30	- Incidence of Serious Adverse Device Effects (~3 moths)	NCT03022851	Recruiting	
		Interventional, Est. Size: 40	- Incidence of device associated major adverse cardiac, cerebrovascular, or renal events (30 days)	NCT03523416	Recruiting	116,117
LV expanders	Diminished LV compliance	Interventional, Act. Size: 19	- Number of any adverse cardiac event (36 months)	NCT01347125	Terminated	120,121
		Interventional, Est. Size: 10	- Number of participants with all-cause mortality and serious adverse events (6 months) - Incidence of successful implant surgical procedure (~24 hours)	NCT02499601	Recruiting	122–124
Stimulators	Low baroreflex sensitivity	Observational, Est. Size: 70	-Changes in office cuff systolic blood pressure (6 months)	NCT02876042	Recruiting	130
	Diminished diastolic function	Interventional, Est. Size: 60	- Change in KCCQ score (24 weeks)	NCT03240237	Recruiting	145
	Mechanical desynchrony	Interventional, Est. Size: 10	- Change in diastolic reserve index (after 12 weeks of rate responsive pacing and again after 12 weeks of biventricular pacing) - Change in systolic reserve index (after 12 weeks of rate responsive pacing and again after 12 weeks of biventricular pacing)	NCT03338374	Recruiting	158,160–164,172
		Interventional, Est. Size: 20	- Change in MLHFQ score (~5 months) - Percent change in NTproBNP (~5 months)	NCT04546555	Recruiting	
		Interventional, Est. Size: 30	- Oxygen consumption at ventilatory anaerobic threshold (~4 weeks)	NCT02145351	Recruiting	
		Interventional, Act. Size: 22	-Number of adverse events while the Fusion Pacing download is active vs. inactive (~8 months) -Percentage of time the Fusion Pacing is active throughout a four-month follow-up period	NCT01045291	Completed	

		Interventional	N/R	NCT01618981	Completed	
MCS	Diminished cardiac output	-Clinical studies for the MCS devices mentioned are yet to be conducted" and have that centred across the columns and rows potentially				23 176,177 178–182 87 87

Reference numbers refer to the reference numbers in the main article.

6MWT= 6-minute walk test;
EQ5D = EuroQol five dimensional;
KCCQ= Kansas City Cardiomyopathy Questionnaire;
LVAD= Left ventricular assist device;
MLHFQ= Minnesota Living with Heart Failure Questionnaire;
NTproBNP= N-terminal pro-brain natriuretic peptide;
PCWP= Pulmonary capillary wedge pressure;
N/R= Not Reported