Supplementary Online Content

Piotrowicz E, Pencina MJ, Opolski G, et al. Effects of a 9-week hybrid comprehensive telerehabilitation program on long-term outcomes in patients with heart failure: a randomized clinical trial. *JAMA Cardiol*. Published online November 17, 2019. doi:10.1001/jamacardio.2019.5006

eFigure 6. Kaplan-Meier Probability of All-cause Mortality or All-cause Hospitalization in Patients Randomized to the HCTR vs. UC groups

eFigure 7. Secondary Outcomes by Site

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. TELEREH-HF Inclusion and Exclusion Criteria[27]

Inclusion Criteria
Patients eligible for the trial had to meet the following criteria of randomization, i.e. patients needed to: - be of either sex with any aetiology of left ventricular systolic heart failure as defined in the ESC guidelines - have a LVEF ≤ 40% on echocardiography - belong to NYHA class I, II or III - have had a hospitalization incident within 6 months prior to randomization - be stable clinically (a patient does not need intravenous medication or has not had therapy modified for at least 7 days) - have no contraindications to undergo cardiopulmonary exercise test - be able to exercise using the new model of hybrid telerehabilitation
Exclusion Criteria
None of the following condition may exist at randomisation: - NYHA class IV - unstable angina - unstable clinical status - a history of acute coronary syndrome within the last forty days in patients with LVEF ≤ 35% - percutaneous angioplasty within the last 2 weeks - coronary artery bypass grafting within the last 3 months - initiation of CRT-P or CRT-D or ICD or PM within the last six weeks - lack of ICD, CRT-P or CRT-D or PM therapy despite the indications for implantation according to ESC guidelines - intracardiac thrombus - rest heart rate >90/min - tachypnoe >20 breaths per minute - symptomatic and/or exercise-induced cardiac arrhythmia or conduction disturbances - acute myocarditis and/or pericarditis - valvular or congenital heart disease requiring surgical treatment - hypertrophic cardiomyopathy - severe pulmonary disease - uncontrolled hypertension - anemia (hemoglobin <11.0 g/dL) - physical disability related to severe musculoskeletal or neurological problems - recent embolism - thrombophlebitis - acute or chronic inflammatory disease - acute or chronic decompensated non-cardiac diseases (thyreotoxicosis, uncontrolled diabetes) - active malignant neoplastic diseases with survival prognosis below 2 – 5 years - orthotropic heart transplant in anamnesis - presence of an implanted left ventricular assist device or biventricular assist device - aortic aneurysm - severe psychiatric disorder - patient's refusal to participate

ESC - European Society of Cardiology, LVEF - left ventricular ejection fraction, NYHA - New York Heart Association, CRT-P - cardiac resynchronization therapy, CRT-D - cardiac resynchronization therapy and implantable cardioverter-defibrilator, ICD - implantable cardioverter-defibrilator, PM - pacemaker

eTable 2. TELEREH-HF Methods – Telerehabilitation Set, Telesupervised Exercise Training, Education

Telerehabilitation set
The EHO mini device was able to record ECG and transmit them via a mobile phone network to the monitoring center. An EHO mini device has training sessions preprogrammed for each patient (defined exercise duration, breaks, timing of ECG recording). The moments of automatic ECG registration were preset and coordinated with the exercise training .The planned training sessions were executed with the device indicating what needed to be done with sound (bleeps) and light signals (colors emitting diodes). The timing of automatic ECG recordings corresponded to peak exercise.[27]
Telesupervised exercise training
Before beginning a training session, patients answer a series of questions regarding their present condition: fatigue, dyspnea, blood pressure, body mass, and medication taken. Patients then transmitted resting ECG data to the monitoring center. Before giving permission to start the training session, the medical staff also analyzed data sent from the remote monitoring of CIEDs. If no contraindications were identified , patients were given permission to start the training session (the consent procedure).[27] The system was used to monitor and control the training in any place where the patient elected to exercise. If the training session was completed uneventfully, the patient would transmit the ECG recording to the monitoring center immediately after the end of every training session. The ECG were analyzed at the monitoring center, and the safety, efficacy, and accuracy of a tailored patient's rehabilitation program were assessed. Telephone contact was also used for psychological support.[27]
Education
Patients were taught how to self-evaluate, how to measure HR, blood pressure, body mass, how to performed exercise training, how to evaluate the level of perceived exertion according to the Borg scale and how to operate a TR set. Education also encompassed smoking cessation, lipid management, nutritional counselling, vocational and psychosocial support.[27]

eTable 3. TELEREH-HF Exercise Training Model.[27]

Type of exercise training	Exercise prescription
Aerobic endurance training	**Devices:** Nordic walking poles **Training session** consists of: 1.Warm-up: breathing and light resistance exercises using poles for Nordic walking; duration 5–10 min 2.Interval Nordic walking training **Intensity:** 40-70% of heart rate reserve, perceived exertion level—score of 11-12 on the Borg scale **Duration:** start at 10 min/session/day[a] 15 min/session/day[b] 20 min/session/day[c] gradually increased to 30–45 min/session/day 3.Cool down: relaxation, breathing exercise; duration 5 min **Frequency:** 1 session/day
Respiratory muscle training	**Devices:** Train Air software - during the initial stage at the hospital Threshold Inspiratory Muscle Trainer - during the basic stage at home **Intensity:** start at 30% of the maximal inspiratory mouth pressure (PI_{max}) and readjusted to a maximum of 60% (if possible) **Duration:** minimum 5-10 minutes/day maximum 20-30 minutes/day; **Frequency:** 3-5 times/ throughout the day
Resistance and strength training	**Devices:** Thera Band - yellow color **Intensity:** 5-10 repetitions of each of the seven exercises **Duration:** gradually increased 5-10-15 minutes/day **Frequency:** 1 session/ day

Duration of aerobic endurance training depended on the functional capacity in baseline cardiopulmonary exercise test:
[a]baseline peak VO2 below 10 mL/kg/min.
[b]baseline peak VO2 10–18 mL/kg/min.
[c]baseline peak VO2 over 18 mL/kg/min.

eTable 4. Safety of Hybrid Comprehensive Telerehabilitation

Assessment of adverse events	
assessment of adverse events - during exercise training session	6 (1.56%)
assessment of adverse events - immediately after training session (up to 1 hour)	4 (1.04%)
assessment of adverse events - without connection to training session	34 (8.85%)
during exercise training session	
angina symptoms	0
dyspnoea – tachypnoe > 20 breaths/min.	3 (0.78%)
syncope	1 (0.26%)
decrease in New York Heart Association class	0
weight gain of at least 1.8 kilograms during the course of 1-3 days	1 (0.26%)
exercise-induced hypotension	0
supraventricular tachycardia, atrial flutter/atrial fibrillation	0
complex ventricular arrhythmia	1 (0.26%)
second-degree and third-degree atrioventricular block	0
resting heart rate >100 beats per minute	1 (0.26%)
signs and symptoms of heart failure	0
necessity for urgent hospitalization	0
death	0
other adverse events	1 (0.26%)
immediately after training session (up to 1 hour)	
angina symptoms	0
dyspnoea – tachypnoe > 20 breaths/min	1 (0.26%)
syncope	1 (0.26%)
decrease in New York Heart Association class	0
weight gain of at least 1.8 kilograms during the course of 1-3 days	0
exercise-induced hypotension	0
supraventricular tyachycardia, atrial flutter/atrial fibrillation	0
complex ventricular arrhythmia	1 (0.26%)
second-degree and third-degree atrioventricular block	0
resting heart rate >100 beats per minute	0
signs and symptoms of heart failure	0
necessity for urgent hospitalization	0
death	0
other adverse events	1 (0.26%)
without connection to training session	
angina	2 (0.52%)
dyspnoea – tachypnoe > 20 breaths/min	5 (1.30%)
syncope	1 (0.26%)
decrease in New York Heart Association class	3 (0.78%)

weight gain of at least 1.8 kilograms during the course of 1-3 days	7 (1.82%)
exercise-induced hypotension	0
supraventricular tyachycardia, atrial flutter/atrial fibrillation	8 (2.08%)
complex ventricular arrhythmia	5 (1.30%)
second-degree and third-degree atrioventricular block	0
resting heart rate >100 beats per minute	2 (0.52%)
signs and symptoms of heart failure	2 (0.52%)
necessity for urgent hospitalization	7 (1.82)
death	0
other adverse events	9 (2.34)

eTable 5. Baseline Characteristics by Sites

	Site 1	Site 2	Site 3	Site 4	Site 5	P
Males. n (%)	201 (91.4%)	161 (90.4%)	160 (87.4%)	124 (83.2%)	107 (89.2%)	0.1449
Age (years). mean ± SD	59.0 ± 10.8	63.0 ± 9.5	64.3 ± 11.6	64.0 ± 9.1	62.7 ± 10.1	**<0.0001**
Left Ventricular Ejection Fraction (%). mean ± SD	30.0 ± 7.8	30.4 ± 7.0	30.5 ± 7.0	31.8 ± 5.7	30.8 ± 7.0	0.168
Body Mass Index (kg/m^2). mean ± SD	29.4 ± 5.0	29.3 ± 4.6	28.8 ± 10.6	28.7 ± 4.8	29.0 ± 5.0	0.778
Atrial fibrillation or atrial flutter. n (%)	32 (14.5%)	46 (25.8%)	30 (16.4%)	27 (18.1%)	24 (20%)	0.055
Etiology of heart failure, n (%)						
Ischaemic	134 (60.9%)	113 (63.5%)	129 (70.5%)	98 (65.8%)	81 (67.5%)	0.333
Non-ischeamic	86 (39.1%)	65 (36.5%)	54 (29.5%)	51 (34.2%)	39 (32.5%)	
Past medical history, n (%)						
Myocardial infarction	126 (57.3%)	97 (54.5%)	112 (61.2%)	86 (57.7%)	72 (60.0%)	0.751
Angioplasty	103 (46.8%)	78 (43.8%)	89 (48.6%)	64 (42.9%)	62 (51.7%)	0.575
Coronary artery bypass grafting	37 (16.8%)	19 (10.7%)	39 (21.3%)	20 (13.4%)	25 (20.8%)	**0.038**
Valve surgery	15 (6.8%)	14 (7.9%)	18 (9.8%)	9 (6.0%)	8 (6.7%)	0.701
Hypertension	115 (52.3%)	116 (65.2%)	122 (66.7%)	103 (69.1%)	78 (65.0%)	**0.0050**
Stroke	8 (3.6%)	9 (5.1%)	25 (13.7%)	11 (7.4%)	8 (6.7%)	**0.0020**
Diabetes	70 (31.8%)	65 (36.5%)	46 (25.1%)	60 (40.3%)	50 (41.7%)	**0.0110**
Chronic kidney disease	36 (16.4%)	27 (15.2%)	28 (15.3%)	27 (18.1%)	31 (25.8%)	0.122/0.049
Hyperlipidemia	111 (50.5%)	86 (48.3%)	68 (37.2%)	80 (53.7%)	51 (42.5%)	**0.018**
Functional status, n (%)						
NYHA I n (%)	26 (11,8%)	24 (13.5%)	40 (21.9%)	12 (8.0%)	2 (1.7%)	**<0.0001**
NYHA II n (%)	164 (74,6%)	115 (64.6%)	119 (65.0%)	91 (61.1%)	88 (73.3%)	
NYHA III n (%)	30 (13.6%)	39 (21.9%)	24 (13.1%)	46 (30.9%)	30 (25.0%)	
Treatment, n (%)						
Beta-blocker	215 (97.7%)	176 (98.9%)	175 (95.6%)	141 (94.6%)	118 (98.3%)	0.113
ACEI/ARB	213 (96.8%)	170 (95.5%)	160 (87.4%)	136 (91.3%)	114 (95.0%)	**0.002**

Digoxin	30 (13.6%)	29 (16.3%)	15 (8.2%)	20 (13.4%)	10 (8.3%)	0.099
Loop diuretics	173 (78.6%)	131 (73.6%)	143 (78.1%)	106 (71.1%)	97 (80.8%)	0.258
Spironolactone/eplerenone	190 (86.4%)	163 (91,6%)	125 (68,3%)	118 (79,2%)	103 (85,8%)	**<0.0001**
Aspirin/clopidogrel	123 (55.9%)	85 (47.7%)	108 (59.0%)	103 (69.1%)	66 (55%)	**0.003**
Anticoagulants	80 (36.4%)	65 (36.5%)	63 (34.4%)	25 (16.8%)	20 (16.7%)	**<0.0001**
NOAC	25 (11.4%)	22 (12.4%)	31 (16.9%)	27 (18.1%)	28 (23.3%)	**0.029**
Statins	179 (81.4%)	146 (82.0%)	142 (77.6%)	129 (86.6%)	100 (83.3%)	0.320
CIEDs	183 (83.2%)	157 (88.2%)	131 (71.6%)	105 (70.5%)	106 (88.3%)	**<0.0001**
Implantable cardioverter-defibrillator	122 (66.7%)	78 (49.7%)	90 (68.7%)	69 (65.7%)	72 (67.9%)	**0.002**
CRT-P	2 (1.1%)	3 (1.9%)	1 (0.8%)	1 (0.9%)	1 (0.9%)	
CRT-D	58 (31.7%)	75 (47.8%)	35 (26.7%)	35 (33.3%)	33 (31.1%)	
Remote monitoring CIEDs	80 (43.7%)	119 (75.8%)	33 (25.3%)	0 (0%)	43 (40.6%)	**p<0,0001**

SD, Standard Deviation; NYHA, New York Heart Association class; ACEI angiotensin converting enzyme inhibitors, ARB angiotensin receptor blockers, CIEDs cardiovascular implantable electronic devices, NOAC non vitamin K antagonist oral anticoagulants, CRT-P cardiac resynchronization therapy, CRT-D cardiac resynchronization therapy and cardioverter-defibrillator.

eTable 6. Days Alive and Out of Hospital

	HCTR group	UC group
Mean number of days of follow-up	715.8	726.3
Median number of days of follow-up	793.0	793.0
Mean number of days alive out of hospital	700.9	711.5
Median number of days alive out of hospital	775.0	776.0
Mean %DAOH	91.9	92.8
Median %DAOH	99.6	99.6

DAOH - Days alive and out of hospital; HCTR-hybrid comprehensive telerehabilitation; UC-usual care

eTable 7. Days Alive and Out of Hospital Depending on Cardiovascular Implantable Electronic Devices

	HCTR group			UC group			p_3-value HCTR vs UC	
	With CIEDs N=335	Without CIEDs N=90	p_1	With CIEDs N=347	Without CIEDs N=78	p_2	With CIEDs	Without CIEDs
Mean %DAOH	91.6	92.8	0.007	91.7	98.1	0.006	0.706	0.966
Median %DAOH	99.4	100.0		99.5	99.9			

HCTR - hybrid comprehensive telerehabilitation; UC - usual care; CIEDs - cardiovascular implantable electronic devices; DAOH – days alive and out of hospital; p_1, p_2-value – significance level for within group differences; p_3-value – significance level for between group differences

eTable 8. Primary Outcome Analysis – Percent Days Alive and Out of Hospital in 26 months from Randomization– by Important Baseline Characteristic

All-cause hospitalization	P ($DAOH_{HCTR} > DAOH_{UC}$)	P_1 - value for heterogeneity
Age > median	0.517 [0.463 - 0.572]	0.770
Age ≤ median	0.494 [0.442 - 0.546]	
Women	0.419 [0.309 - 0.530]	0.739
Men	0.503 [0.463 - 0.543]	
NYHA I or II	0.517 [0.475 - 0.558]	0.557
NYHA III or IV	0.489 [0.401-0.577]	
peakVO_2 > median	0.521 [0.469 - 0.573]	0.572
peakVO_2 ≤ median	0.499 [0.445 - 0.553]	
Site 1	0.523 [0.449 – 0.598]	0.768
Site 2	0.460 [0.376 – 0.543]	
Site 3	0.582 [0.500 – 0.665]	
Site 4	0.475 [0.389 – 0.561]	
Site 5	0.382 [0.291 – 0.474]	
With CIEDs	0.492 [0.450 - 0.534]	0.747
Without CIEDs	0.502 [0.421 - 0.583]	

DAOH-days alive and out of hospital, HCTR-hybrid cardiac telerehabilitation; UC-usual care;
NYHA – New York Heart Association; peak VO_2 – peak oxygen consumption;
P ($DAOH_{HCTR} > DAOH_{UC}$) - probability that HCTR extends %DAOH vs. usual care;
P_1 – value – assessment of heterogeneity of treatment in stratum

eTable 9. Subgroup Analyses: time-to-event Outcomes from Randomization through End of Follow-up

Outcome	HCTR group N=425		UC group N=425		Hazard ratio 95% Wald CL	P-value for heterogeneity
	N (%)	Event rate at 26month	N (%)	Event rate at 26month		
All-cause mortality						
Age > median	33 (15.5)	15.8	30 (15.0)	14.7	1.032 [0.629, 1.692]	0.898
Age ≤ median	21 (9.9)	9.1	22 (9.8)	10.4	0.981 [0.535-1.80]	
Women	7 (14.6)	14.6	3 (6.1)	6.4	2.48 [0.642, 9.607]	0.174
Men	47 (12.5)	12.2	49 (13.0)	13.2	0.942 [0.630, 1.408]	
NYHA I or II	36 (10.4)	10.3	31 (9.3)	9.3	1.097 [0.676, 1.779]	0.854
NYHA III	18 (23.1)	22.4	21 (23.1)	24.3	1.023 [0.545,1.921]	
peak VO_2> median	14 (6.6)	6.6	11 (5.5)	5.5	1.222 [0.555, 2.693]	0.677
peak VO_2≤ median	39 (18.6)	18.1	40 (18.2)	18.6	1.008 [0.647, 1.572]	
All-cause hospitalization						
Age > median	128 (60.1)	63.7	119 (59.5)	63.5	0.986 [0.768;1.266]	0.540
Age ≤ median	104 (49.1)	52.3	126 (56.0)	58.0	0.884 [0.682; 1.147]	
Women	29 (60.4)	64.9	26 (53.1)	56.5	1.300 [0.766-2.209]	0.198
Men	203 (58.8)	57.2	219 (58.2)	61.0	0.902 [0.745 – 1.092]	
NYHA I or II	181 (52.2)	54.4	179 (53.6)	56.4	0.973 [0.792 -1.197]	0.759
NYHA III	51 (65.4)	76.2	66 (72.5)	76.2	0.917 [0.637 -1.322]	
peak VO_2 > median	98 (46.2)	48.2	95 (47.3)	49.1	0.963 [0.726-1.278]	0.932
peak VO_2 ≤ median	133 (63.3)	68.1	148 (67.3)	70.8	0.955 [0.756;1.207]	

HCTR- hybrid comprehensive telerehabilitation; UC – usual care; NYHA – New York Heart Association; peak VO_2 – peak oxygen consumption

eTable 10. Subgroup Analyses: Time-to Event Outcomes from Randomization through End of Follow-up Depending on Cardiovascular Implantable Electronic Devices, Usual Care as a Reference Group

Outcome	With CIEDs		Without CIEDs	
	Hazard ratio 95% Wald CL	P	Hazard ratio 95% Wald CL	P
All-cause mortality	0.91 [0.60-1.37]	0.643	3.04 [0.84-11.0]	0.075
Cardiovascular mortality	0.85 [0.52-1.40]	0.527	3.22 [0.67-15.49]	0.123
All-cause hospitalization	0.98 [0.80 – 1.19]	0.826	0.83 [0.52 – 1.30]	0.413
Cardiovascular hospitalization	0.93 [0.73 – 1.18]	0.550	0.59 [0.31 – 1.12]	0.106
Heart failure hospitalization	0.97 [0.72 – 1.30]	0.832	1.42 [0.66 – 3.03]	0.364
All-cause mortality or all-cause hospitalization	1.00 [0.83 – 1.22]	0.967	0.85 [0.55 – 1.32]	0.470
All-cause mortality or cardiovascular hospitalization	0.95 [0.76 – 1.18]	0.651	0.85 [0.49 – 1.46]	0.556
All-cause mortality or heart failure hospitalization	1.03 [0.79 – 1.34]	0.807	1.55 [0.78 – 3.08]	0.206
Cardiovascular mortality or heart failure hospitalization	1.03 [0.78 – 1.36]	0.810	1.45 [0.71 – 3.00]	0.307

CIEDs - cardiovascular implantable electronic devices

eTable 11. Change from Baseline to 9 weeks in Continuous Outcomes in Hybrid Comprehensive Telerehabilitation Group and Usual Care Group by Cardiovascular Implantable Electronic Devices

Parameter	With CIEDs				Without CIEDs				
	Baseline	9th week	Difference	p^1	Baseline	9th week	Difference	p^2	$p^{3,}$
Hybrid Comprehensive Telerehabilitation Group									
Cardiopulmonary exercise test time (s)	371 ±170	414 ±179	+43.6 ±83.3	**<0.0001**	430 ±220	478 ±221	+48.5 ±97.7	**<0.0001**	0.668
peak VO_2 (ml/kg/min)	16.3 ± 5.6	17.3 ± 5.8	0.95 ± 3.00	**<0.0001**	19.2 ± 6.91	20.2 ±7.04	1.00 ± 3.99	**0.022**	0.904
% predicted peak VO_2	53.2 ±18.3	56.1 ±19.0	+2.88 ±11.6	**<0.0001**	66.0 ±24.5	69.5 ±24.7	3.5 ±15.0	**0.031**	0.673
Distance in six-minute walking test (m)	413 ±96	444 ±102	+31.1 ±56.7	**<0.0001**	442 ±112	472 ±131	+29.6 ±57.5	**<0.0001**	0.845
RER	0.96 ±0.14	0.98 ±0.12	0.02 ±0.13	**0.003**	0.97 ±0.15	1.00 ±0.12	0.03 ±0.12	**0.027**	0.665
SF-36 (score)	88.9 ±12.3	90.8 ±12.6	1.9 ±9.1	**0.0001**	92.9 ±13.1	92.7 ±13.5	-0.15 ±12.0	0.910	0.135
Usual Care Group									
Cardiopulmonary exercise test time (s)	361 ±179	377 ±176	15.5 ±84.2	**0.0007**	427 ±201	449 ±201	+21.8 ±91.6	**0.039**	0.553
peak VO_2 (ml/kg/min)	16.1 ± 5.7	16.2 ± 5.7	0.09 ± 3.23	0.587	18.7 ± 7.0	18.6 ±6.53	-0.14 ± 4.09	0.755	0.630
% predicted peak VO_2	52.8 ±19.7	52.2 ±20.0	-0.61 ±11.4	0.321	61.1 ±25.4	61.3 ±25.3	0.18 ±13.6	0.907	0.664
Distance in six-minute walking test (m)	405 ±101	425 ±107	+20.2 ±54.3	**<0.0001**	428 ±91.4	459 ±103	+31.3 ±45.9	**<0.0001**	0.095
RER	0.97 ±0.13	0.97 ±0.13	0.00 ±0.13	0.956	0.98 ±0.12	0.99 ±0.12	0.01 ±0.12	0.532	0.625
SF-36 (score)	88.3 ±13.8	88.2 ±14.19	-0.09 ±8.5	0.847	90.9 ±15.1	91.9 ±15.3	0.98 ±7.6	0.280	0.315

CIEDs - cardiovascular implantable electronic devices; peak VO_2 – peak oxygen consumption; RER - respiratory exchange ratio; SF-36 Medical Outcome Survey Short Form 36 questionnaire; Data presented are mean values ± standard deviation; p_1, p_2-value – significance level for within group differences (deltas) in improvement of outcomes; p_3-value – significance level for between group differences (deltas) in improvement of outcomes,

eTable 12. P value for Change from Baseline to 9 weeks in Continuous Outcomes in Hybrid Comprehensive Telerehabilitation Group versus Usual Care Group by Cardiovascular Implantable Electronic Devices

	P for ∆ between HCTR and UC			
	With CIEDs		**Without CIEDs**	
	Difference	**p**	**Difference**	p
Cardiopulmonary exercise test time (s)	**28.1 ± 83.7**	**<0.0001**	26.7 ± **94.9**	0.073
peak VO_2 (ml/kg/min)	**0.85 ± 3.1**	**0.0004**	1.14 ± **4.04**	0.071
% predicted peak VO_2	**3.49 ± 11.5**	**<0.0001**	3.32 ± **14.4**	0.138
Distance in six-minute walking test (m)	**10.9 ± 55.5**	**0.011**	- 1.8 ± **58.4**	0.841
RER	**0.02 ± 0.13**	**0.035**	0.02 ± **0.12**	0.271
SF-36 (score)	**2.0 ± 8.8**	**0.003**	-1.13 ± **1.03**	0.487

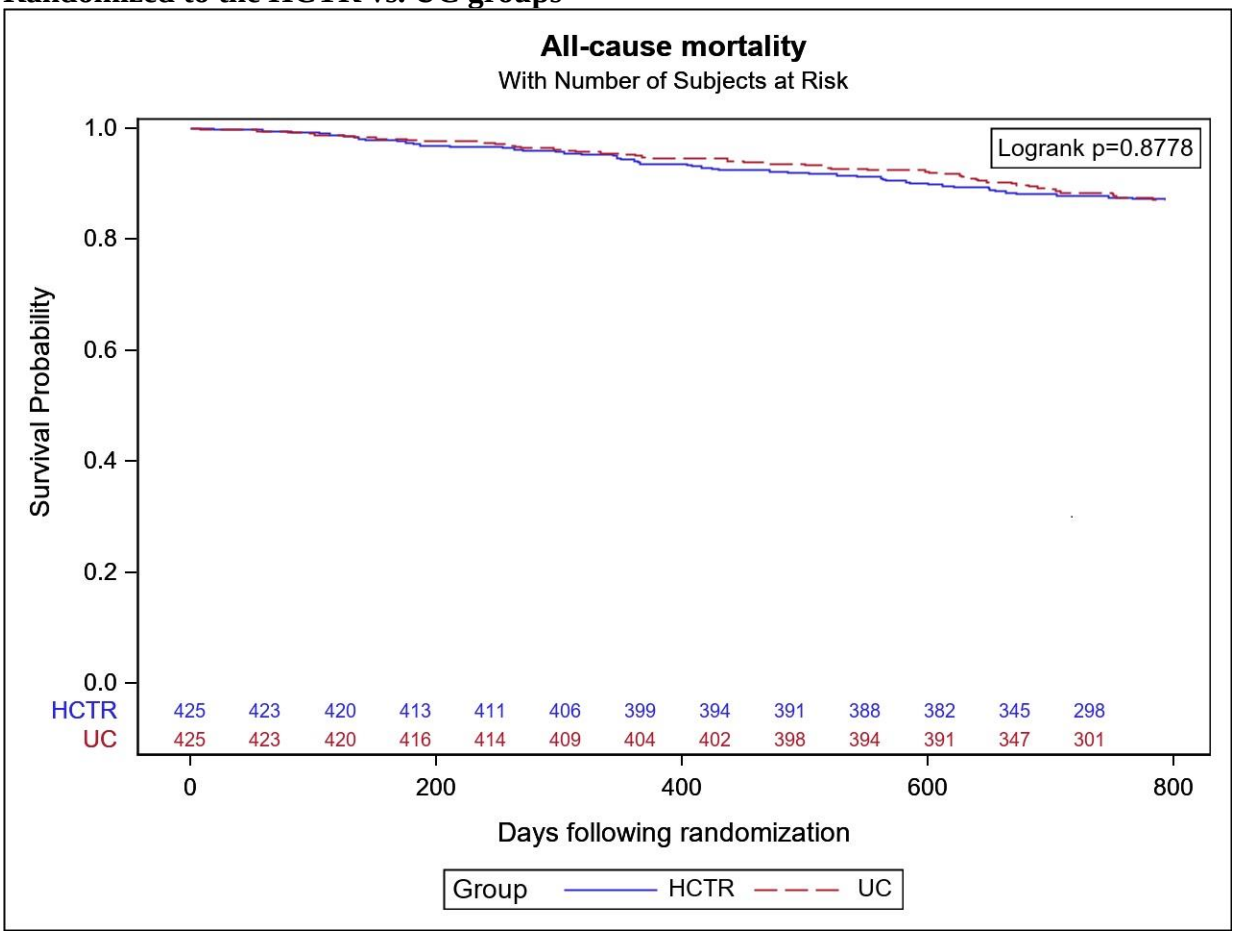
HCTR - hybrid comprehensive telerehabilitation; UC - usual care; CIEDs - cardiovascular implantable electronic devices; peak VO_2 – peak oxygen consumption; RER - respiratory exchange ratio; SF-36 Medical Outcome Survey Short Form 36 questionnaire; Data presented are mean values ± standard deviation; p-value – significance level

eTable 13. Change in Distribution of NYHA Class from Baseline to week 9th

	HCTR		UC	
	baseline	9th week	baseline	9th week
I	54 (12.7%)	102 (24.0%)	50 (11.8%)	61 (14.35%)
II	293 (68.9%)	255 (60.0%)	284 (66.8%)	267 (62.8%)
III	78 (18.4%)	68 (16.0%)	91 (21.4%)	95 (22.35%)
IV	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.5%)

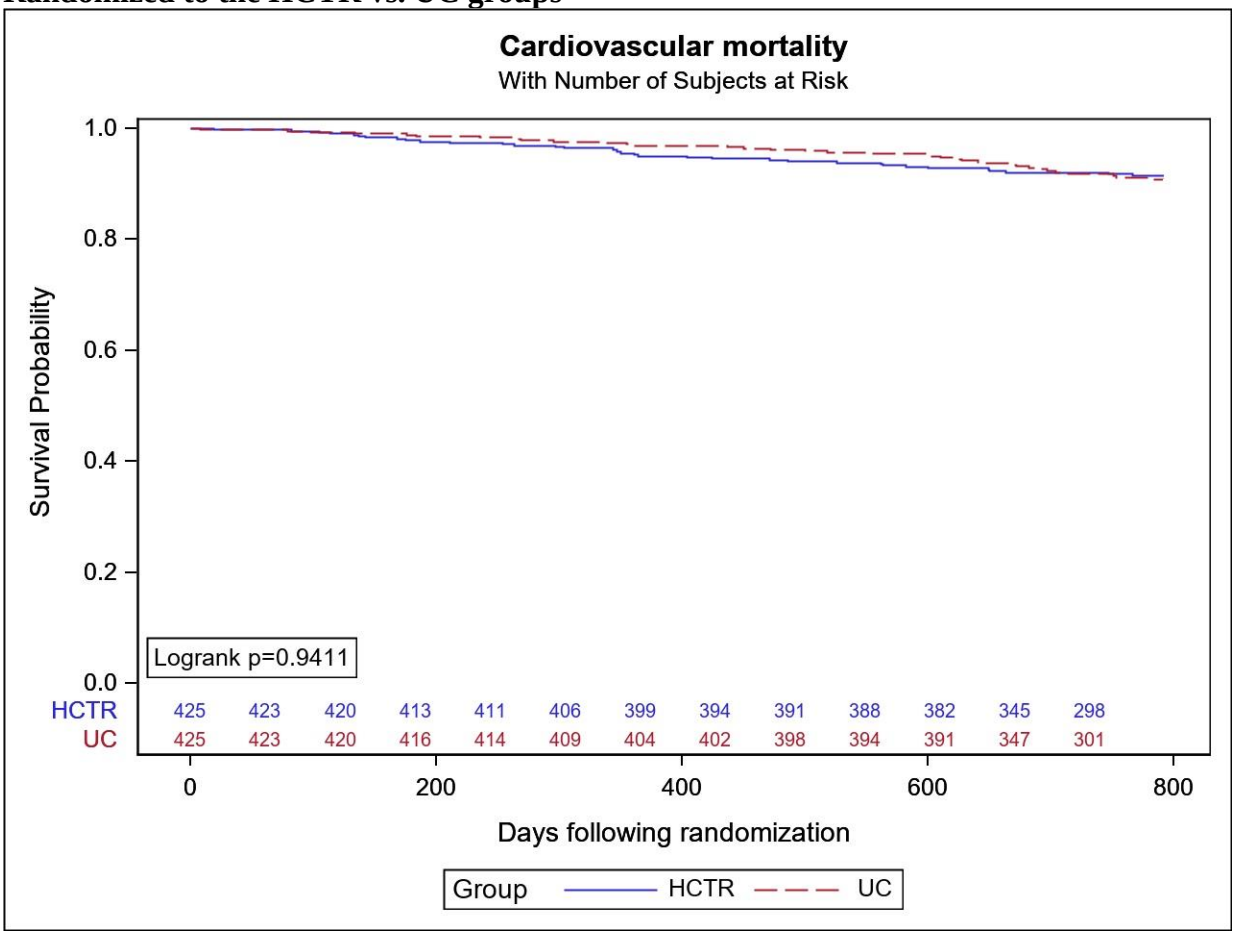
HCTR- hybrid comprehensive telerehabilitation; UC – usual care; NYHA – New York Heart Association

eFigure 1. Kaplan-Meier Probability of All-cause Mortality-free Survival in Patients Randomized to the HCTR vs. UC groups



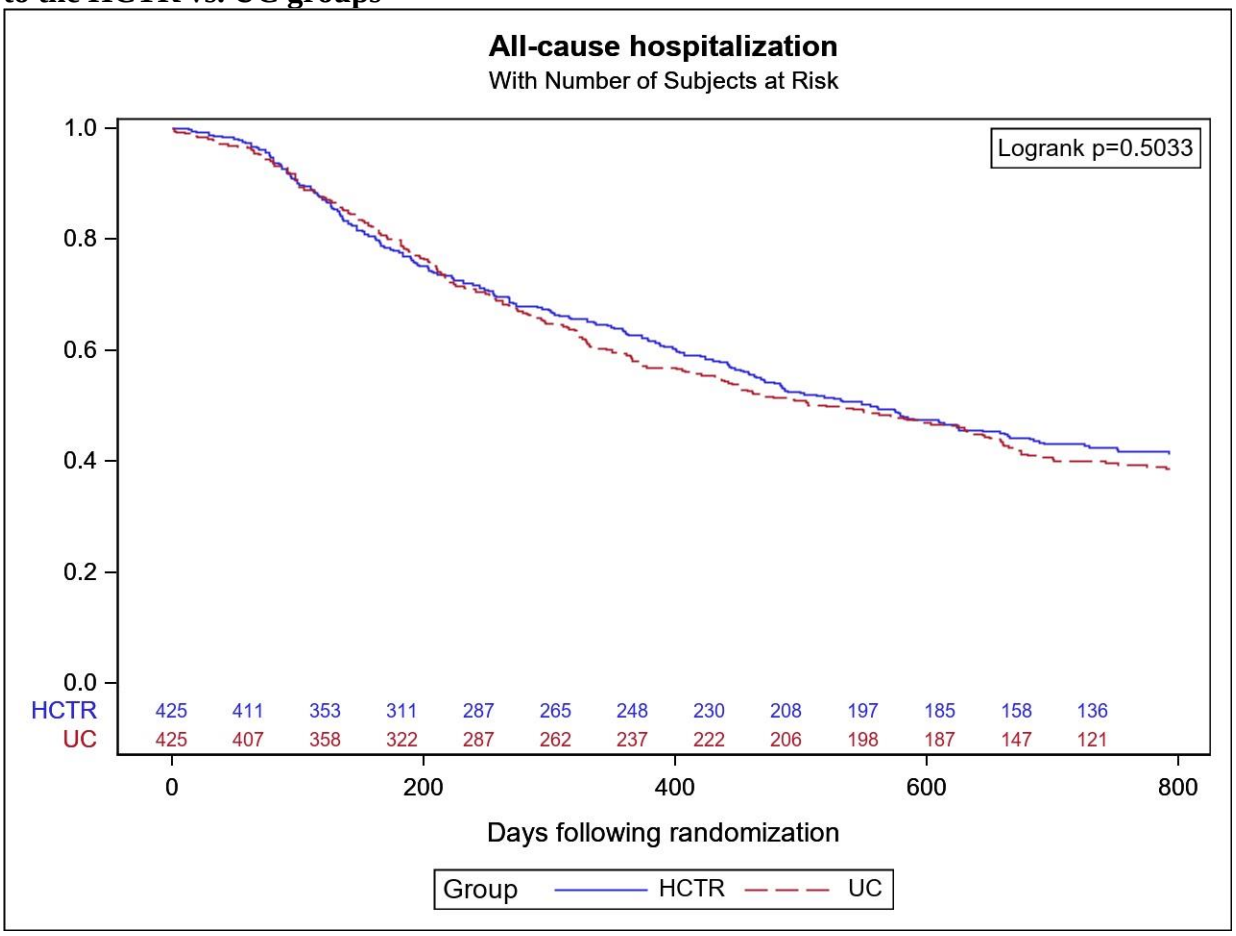
HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 2. Kaplan-Meier Probability of Cardiovascular Mortality-free Survival in Patients Randomized to the HCTR vs. UC groups



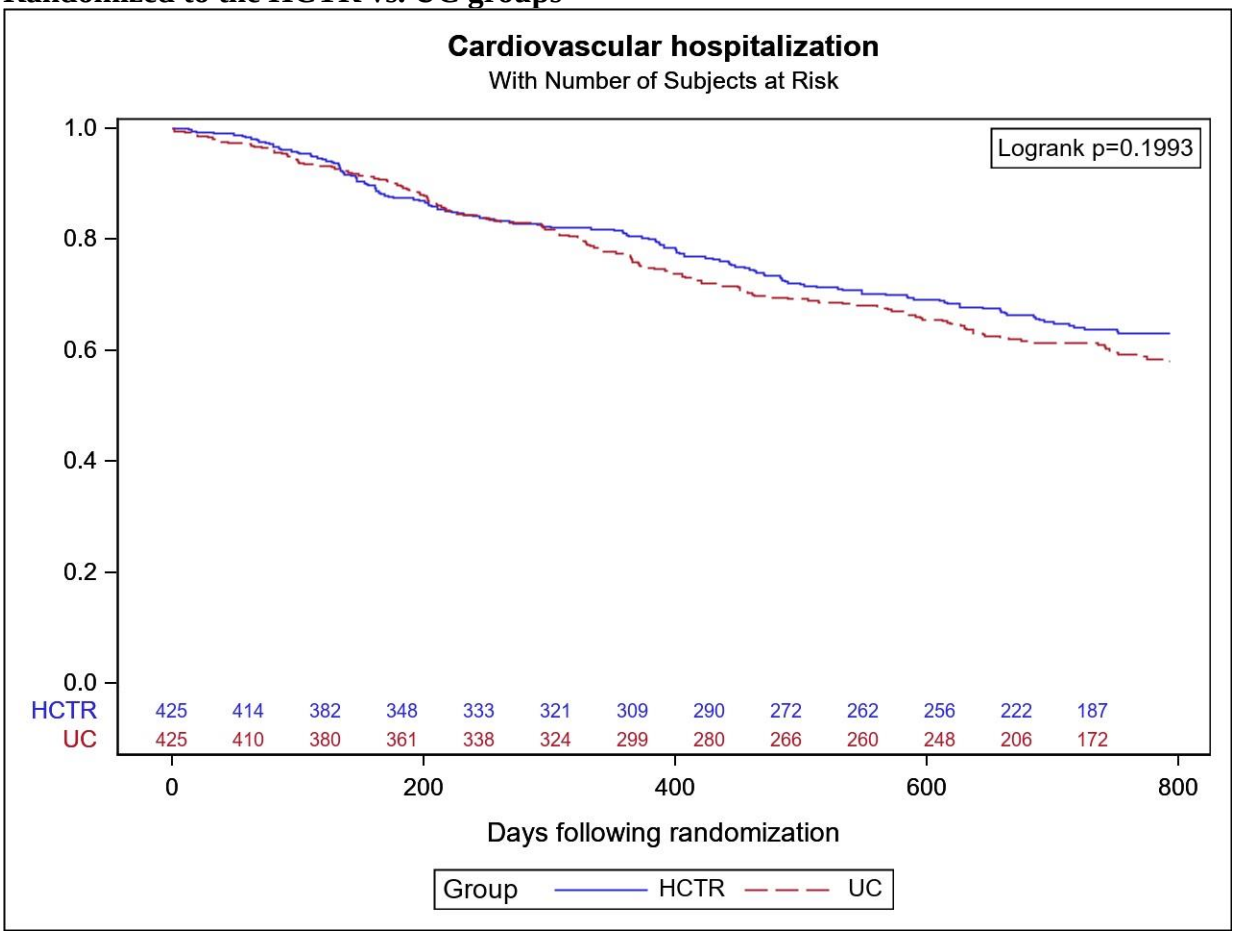
HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 3. Kaplan-Meier Probability of All-cause Hospitalization in Patients Randomized to the HCTR vs. UC groups



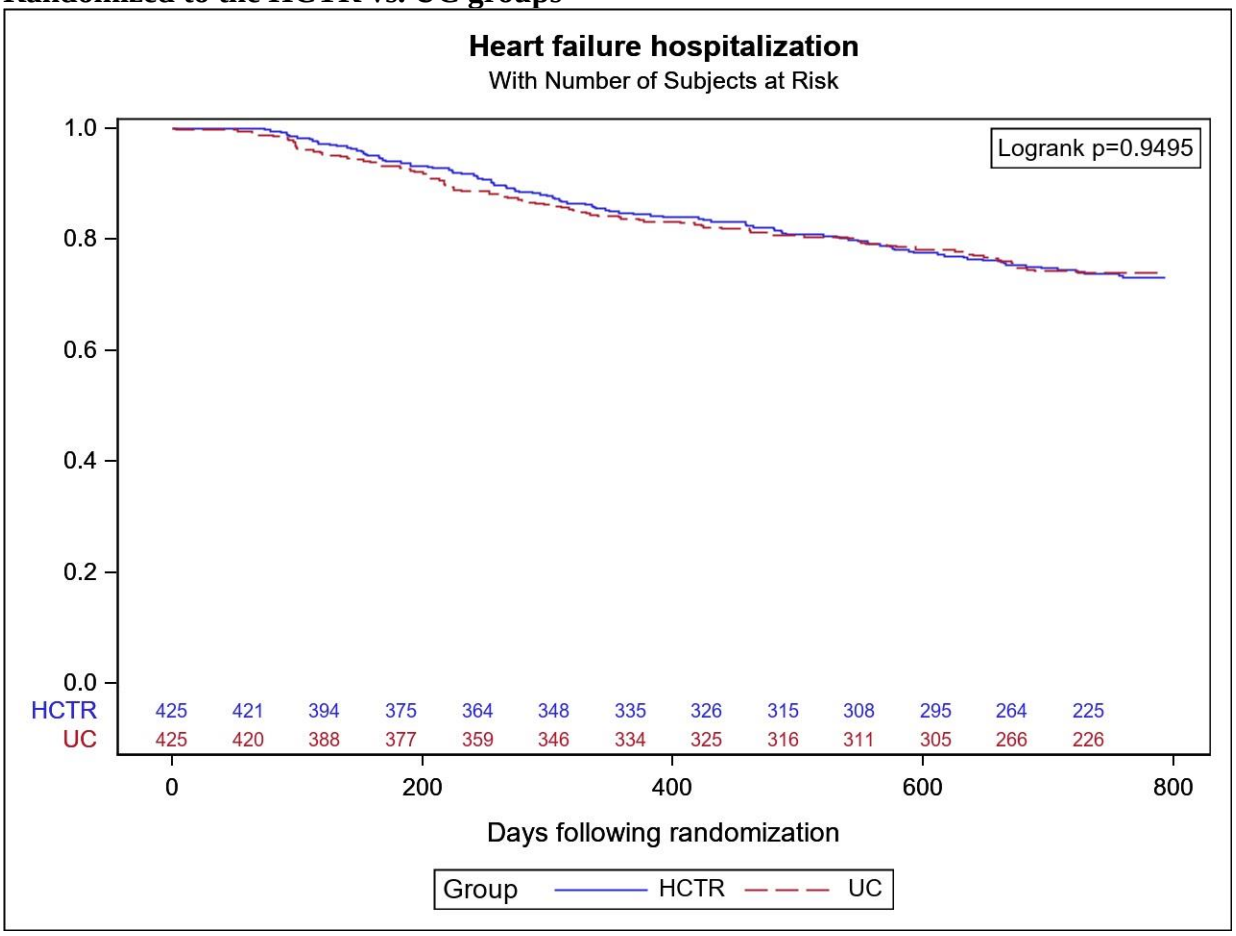
HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 4. Kaplan-Meier Probability of Cardiovascular Hospitalization in Patients Randomized to the HCTR vs. UC groups



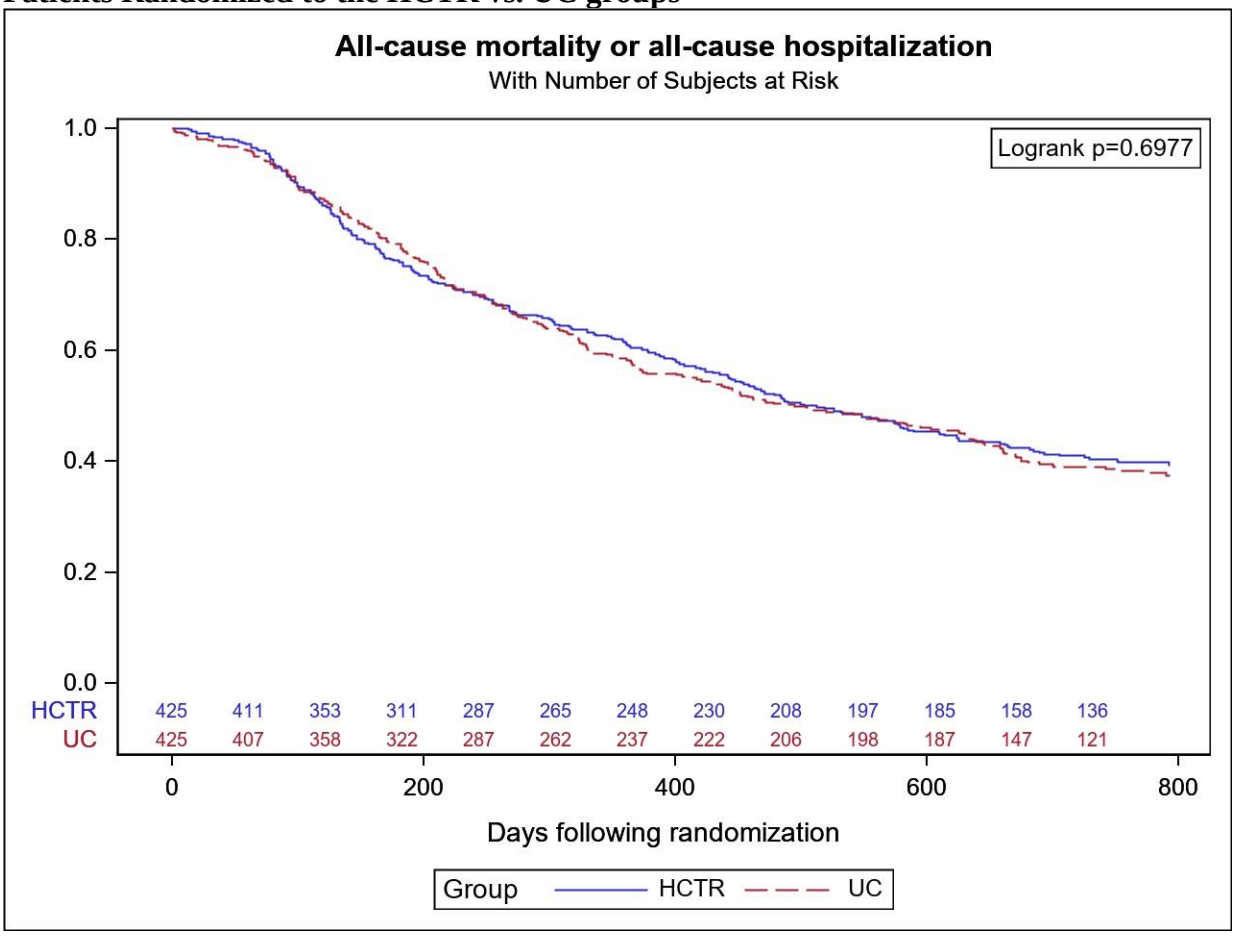
HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 5. Kaplan-Meier Probability of Heart Failure Hospitalization in Patients Randomized to the HCTR vs. UC groups



HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 6. Kaplan-Meier Probability of All-cause Mortality or All-cause Hospitalization in Patients Randomized to the HCTR vs. UC groups



HCTR- hybrid comprehensive telerehabilitation; UC – usual care

eFigure 7. Secondary Outcomes by Site