Supplementary Table 1: Components of the Frailty Index (42 items)

SI.			Sco
N	Component	Cut off / Sub-component	re
o.			
1.	Diastolic blood pressure – mmHg	>90	1
2.	Pulse pressure – mmHg	>55	1
3.	Systolic blood pressure - mmHg	<90/>140	1
4.	Body Mass Index – kg/m ²	≥25/<30	0.5
	sea, mese mest ng, m	<18.8/≥30	1
	oratory measures		
5.	Albumin- gm/L	<35/>55	1
6.	BUN – mmol/L	<3/>7.5	1
7.	Calcium – mmol/L	<2.2/>2.7	1
8.	Creatinine – umol/L	<40/>150	1
9.	HDL Cholesterol – mmol/L	<0.4/>1.5	1
1	Potassium – mmol/L	<3.5/>6	1
0.			
1	RBC count – X10 ⁹ /L	<3.5/>5.5	1
1.			
1	Sodium – mmol/L	<135/>145	1
2.			
1	Total Cholesterol – mmol/L	<3.5/>7	1
3.			
1	Uric acid – umol/L	Males - <200/>430	1
4.		Farral 1 (440/1200)	4
1		Females - <140/ >360	1
1 5.	Haemoglobin – gm/L	Males - <130/>175	1
Э.		Females - <120/>155	1
1		remaies - <120/>133	1
6.	Platelet count - X10 ⁹ /L	<150/>400	1
1			
1 7.	WBC count – X10 ⁹ /L	<4/>12	1
7.			
Con	norbidities		
1			
8.	Atrial Fibrillation		1
1			
9.	Hypertension		1
2	Myocardial Infarction		1

0.		
2	PCI or CABG	1
1.	PCI OI CABG	1
2	Unstable angina	1
2.	Officiable angina	1
2	Peripheral arterial disease	1
3.	refipileral afterial disease	1
2	Stroke	1
4.	SHORE	1
2	Diabetes	1
5.	Diabetes	1
2	Cancer	1
6.	Califer	1
2	COPD	1
7.	COPD	1

Quality of life measures – Kansas City cardiomyopathy questionnaire (all responses with respect to the two weeks prior to questioning)

Mobility

	•		
		Dressing yourself:	
		Not at all limited	0
		Limited for other reasons or did	0.2
2		not do the activity	0.2
8.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
		Extremely limited	1
		Showering/bathing:	
		Not at all limited	0
		Limited for other reasons or did	0.2
2	Limited activities due to heart failure	not do the activity	0.2
9.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
		Extremely limited	1
		Walking 1 block on level ground:	
		Not at all limited	0
3		Limited for other reasons or did	0.2
0.		not do the activity	0.2
U.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8

		Extremely limited	1
		Doing yardwork, housework, or	
		carrying groceries:	
		Not at all limited	0
		Limited for other reasons or did	
3		not do the activity	0.2
1.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
		Extremely limited	1
		Climbing a flight of stairs without	
		stopping:	
		Not at all limited	0
		Limited for other reasons or did	
3		not do the activity	0.2
2.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
		Extremely limited	1
		Hurrying or jogging:	
		Not at all limited	0
		Limited for other reasons or did	
3		not do the activity	0.2
3.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
		Extremely limited	1
Mei	nory and cognitive abilities	,	
	, , , , , , , , , , , , , , , , , , , ,	Completely sure	0
		, , , , , , , , , , , , , , , , , , ,	0.2
		Mostly sure	5
3	Are you sure you know what to do or whom to call if your heart failure	somewhat sure	0.5
4.	gets worse		0.7
		Not very sure	5
		Not at all sure	1
		Completely understand	0
		completely understand	0.2
		Mostly understand	5
3	How well do you understand what things you can do to keep your heart	Somewhat understand	0.5
5.	failure symptoms from getting worse		0.7
		Do not understand very well	5
		Do not understand at all	1

Mood vulnerabilities

	, a valification of the contract of the contra		
		Completely satisfied	0
		Mostly satisfied	0.2
3	How would you feel if you had to spend rest of life with heart failure the	Somewhat satisfied	5 0.5
6.	way it is right now	Joinewhat Satisfied	0.7
		Mostly dissatisfied	5
		Completely dissatisfied	1
		I never felt that way	0
			0.2
3	How often have you felt discouraged or down in dumps because of your	I have rarely felt that way	5
э 7.	heart failure	I have occasionally felt that way	0.5
7.	Treat failure	I have felt that way most of the	0.7
		time	5
		I have felt that way all the time	1
Fun	ctional abilities		
		It has not limited my enjoyment	0
		of life at all	0.3
		It has slightly limited my enjoyment of life	0.2 5
3		It has moderately limited my	J
8.	How much has heart failure limited enjoyment of life	enjoyment of life	0.5
0.		It has limited my enjoyment of	0.7
		life quite a bit	5
		It has extremely limited my	
		enjoyment of life	1
		Hobbies, recreational activities:	
		Did not limit at all	0
		Does not apply or did not do for	0.2
3		other reasons	0.2
9.		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8
	How does heart failure affect lifestyle	Extremely limited	1
		Working or doing household	
		chores:	
		Did not limit at all	0
4		Does not apply or did not do for	0.2
0.		other reasons	<u> </u>
		Slightly limited	0.4
		Moderately limited	0.6
		Quite a bit limited	0.8

	Extremely limited	1
	Visiting family or friends out of	
	your home:	
	Did not limit at all	0
4	Does not apply or did not do for	0.2
	other reasons	0.2
1.	Slightly limited	0.4
	Moderately limited	0.6
	Quite a bit limited	0.8
	Extremely limited	1
	Intimate relationships with loved	
	ones:	
	Did not limit at all	0
4	Does not apply or did not do for	0.2
2.	other reasons	0.2
2.	Slightly limited	0.4
	Moderately limited	0.6
	Quite a bit limited	0.8
	Extremely limited	1

BUN – Blood urea nitrogen, HDL – High density lipoprotein, WBC – White blood cell, PCI – Primary coronary intervention, CABG – Coronary artery bypass graft, COPD – Chronic obstructive pulmonary disease, BMI – Body mass index.

Supplementary Table 2: State of Health Score (EQ-5D-3L) (PARADIGM-HF only) – no. (%)

	FI Class 1	FI Class 2	FI Class 3	p-value for trend
	n=2836	n=2663	n=1972	
	(≤0.210)	(0.211 – 0.310)	(≥0.311)	
Mobility				<0.001
I have no problems in walking about	2305 (81.4)	1374 (51.7)	451 (22.9)	
I have some problems in walking about	524 (18.5)	1280 (48.1)	1506 (76.6)	
I am confined to bed	1 (0.1)	5 (0.2)	10 (0.5)	
Self-care				<0.001
I have no problems with self-care	2745 (97.0)	2280 (85.7)	1172 (59.6)	
I have some problems washing or dressing myself	84 (3.0)	370 (13.9)	776 (39.5)	
I am unable to wash or dress myself	1 (0.0)	9 (0.3)	19 (1.0)	
Usual activities				<0.001
I have no problems with performing my usual activities	2371 (83.8)	1409 (53.0)	481 (24.5)	
I have some problems with performing my usual activities	450 (15.9)	1216 (45.7)	1344 (68.3)	
I am unable to perform my usual activities	9 (0.3)	33 (1.2)	142 (7.2)	
Pain/ Discomfort				<0.001
I have no pain or discomfort	2095 (74.0)	1433 (53.9)	617 (31.4)	
I have moderate pain or discomfort	716 (25.3)	1188 (44.7)	1255 (63.8)	
I have extreme pain or discomfort	19 (0.7)	37 (1.4)	95 (4.8)	
Anxiety/ Depression				<0.001
I am not anxious or depressed	2300	1750 (65.8)	912 (46.4)	

	(81.3)			
I am moderately anxious or depressed	505 (17.8)	882 (33.2)	970 (49.3)	
I am extremely anxious or depressed	25 (0.9)	27 (1.0)	85 (4.3)	
Overall Score – mean (SD)	75.1 ±	66.1 ± 18.0	56.0 ±	<<0.001
Overali Score – mean (SD)	18.9	00.1 ± 16.0	17.9	<<0.001

Supplementary Table 3: Biomarkers (PARADIGM-HF only)

	FI Class 1	FI Class 2	FI Class 3	p-value for	Missin
				trend	g
	n=2836	n=2663	n=1972		
	(≤0.210)	(0.211 - 0.310)	(≥0.311)		
HbA1C – no (%)				<0.001	67
Prediabetes (6-6.4)	700 (32.4)	612 (36.6)	402 (40.9)		
Undiagnosed Diabetes	200 (10 0)	202 (15 2)	.=0 (4.5.4)		
(>6.4)	299 (13.8)	282 (16.8)	158 (16.1)		
			1885 (1037 –		
NT-proBNP (pg/ml)	1364 (817 – 2736)	1653 (906 – 3204)	3961)	<0.001	14
BNP (pg/ml)	66 (41 – 121)	73 (45 – 132)	82 (49 – 149)	<0.001	55
6. 7	, ,	,	,		
MMP2 (ng/mL)	128 (113 - 148)	136 (116 - 159)	138 (120 - 162)	<0.001	6130
MMP9 (ng/mL)	62 (39 - 132)	64 (41 - 124)	63 (37 - 126)	0.562	6131
hsTropT (ng/L)	14 (9 - 20)	16 (11 - 24)	21 (13 - 31)	<0.001	5919
(1387 (1020 -	1645 (1148 -	2035 (1440 -		
GDF 15 (ng/L)	1914)	2287)	3038)	<0.001	5991
KIM-1 (pg/mL)	108 (74 - 159)	133 (91 - 189)	154 (101 - 233)	<0.001	5986
ST2 (ng/mL)	31 (25 - 39)	32 (26 - 41)	34 (27 - 45)	<0.001	5948
TIMP 1 (ng/mL)	116 (99 - 141)	124 (105 - 147)	136 (114 - 165)	<0.001	6115
Galectin – 3 (ng/mL)	16 (13 - 19)	17 (14 - 21)	19 (15 - 23)	<0.001	5920

All values presented as median (IQR) except where indicated.

HbA1c is randomization.

BNP and NTproBNP are screening values.

Remaining biomarkers are from visit 2 (after screening).

Supplementary Table 4: Immunization and lifestyle management history (PARADIGM-HF only) – no. (%)

	FI Class 1	FI Class 2	FI Class 3	p-value for trend
	n=2836	n=2663	n=1972	
	(≤0.210)	(0.211 - 0.310)	(≥0.311)	
Influenza vaccination in past 12 months	557 (19.6)	603 (22.6)	526 (26.7)	<0.001
Pneumococcal Vaccination in past 12 months	155 (5.5)	161 (6.0)	144 (7.3)	0.010
Patient been prescribed an exercise regimen	532 (18.8)	456 (17.1)	385 (19.5)	0.658
Patient enrolled in structured disease	410 (14 7)	461 (17.2)	252 (17.0)	0.002
management program	418 (14.7)	461 (17.3)	352 (17.8)	0.003

Supplementary Table 5a: Clinical outcomes according to age and FI in patients with HFrEF

,	FI Class 1	FI Class 2	FI Class 3
	n=4882	n=4770	n=3613
	(≤0.210)	(0.211 – 0.310)	(≥0.311)
<u>18 – 60 years</u>			
Primary outcome – ever	nt 8.9 (8.2 – 9.7)	11.6 (10.6 – 12.8)	15.1 (13.6 – 16.9)
rate	3.3 (8.2 3.7)	11.0 (20.0 12.0)	25.2 (25.6 26.5)
– sHR	1.00 (ref.)	1.33 (1.17 – 1.52)	1.76 (1.51 – 2.05)
5	2.00 ()	<0.001	<0.001
HF hospitalization – eve	nt 5.0 (5.9 – 7.5)	6.6 (5.9 – 7.5)	9.4 (8.2 – 10.8)
rate	,	,	
– sHF	1.00 (ref.)	1.24 (1.04 – 1.47)	1.64 (1.36 – 1.99)
	, ,	0.014	<0.001
Cardiovascular death –	5.3 (4.8 – 5.9)	6.4 (5.7 – 7.3)	8.3 (7.2 – 9.5)
event rate			
– sHR	1.00 (ref.)	1.33 (1.12 – 1.57)	1.84 (1.52 – 2.23)
		0.001	<0.001
All-cause death – event	rate 6.0 (5.4 – 6.7)	7.2 (6.4 – 8.0)	9.6 (8.4 – 10.9)
- HR	1.00 (ref.)	1.29 (1.10 – 1.51)	1.85 (1.55 – 2.21)
		0.002	<0.001
64 70			
61 – 70 years	n+		
Primary outcome – ever	8.2 (7.3 – 9.1)	11.9 (10.8 – 13.0)	16.1 (14.6 – 17.7)
rate		1 40 /1 20 1 71	2.04/1.75 2.27)
– sHR	1.00 (ref.)	1.48 (1.28 – 1.71) <0.001	2.04 (1.75 – 2.37) <0.001
HF hospitalization – eve	int	\0.001	\0.001
rate	4.8 (4.2 – 5.5)	7.1 (6.3 – 8.0)	9.7 (8.5 – 11.0)
rate		1.42 (1.18 – 1.70)	1.87 (1.54 – 2.28)
– sHF	1.00 (ref.)	<0.001	<0.001
Cardiovascular death –		(0.001	10.001
event rate	4.6 (4.0 – 5.3)	6.6 (5.9 – 7.4)	9.3 (8.3 – 10.5)
		1.48 (1.23 – 1.78)	2.20 (1.81 – 2.67)
– sHR	1.00 (ref.)	<0.001	<0.001
All-cause death – event	rate 5.8 (5.1 – 6.5)	8.1 (7.3 – 9.0)	11.3 (10.1 – 12.6)
	(1.47 (1.25 – 1.74)	2.15 (1.81 – 2.56)
- HR	1.00 (ref.)	<0.001	<0.001

71 - 96 years

Primary outcome – event rate		9.6 (8.5 – 10.8)	11.4 (10.4 – 12.5)	19.2 (17.7 – 20.8)
	– sHR	1.00 (ref.)	1.20 (1.03 – 1.40) 0.018	1.99 (1.71 – 2.31) <0.001
HF hospitalization – event rate		5.2 (4.4 – 6.2)	6.2 (5.5 – 7.1)	11.3 (10.1 – 12.5)
	– sHR	1.00 (ref.)	1.13 (0.92 – 1.40) 0.233	1.87 (1.53 – 2.29) <0.001
Cardiovascular o	death –	6.1 (5.2 – 7.0)	7.3 (6.5 – 8.2)	11.8 (10.7 – 13.0)
	– sHR	1.00 (ref.)	1.26 (1.05 – 1.52) 0.014	2.07 (1.73 – 2.49) <0.001
All-cause death	– event rate	7.6 (6.7 – 8.7)	9.3 (8.4 – 10.3)	14.8 (13.5 – 16.1)
	- HR	1.00 (ref.)	1.30 (1.10 – 1.53) 0.002	2.17 (1.84 – 2.55) <0.001

Supplementary Table 5b: Clinical outcomes according to age and FI in patients with HFrEF (≥60 years)

		FI Class 1	FI Class 2	FI Class 3
		n=2836	n=3369	n=2878
		(<=0.210)	(0.211 – 0.310)	(>=0.311)
<u>60 – 66 years</u>				
Primary outcome rate	– event	8.2 (7.3 – 9.3)	11.5 (10.3 – 12.8)	15.3 (13.7 – 17.2)
	– sHR	1.00 (ref.)	1.44 (1.22 – 1.70) <0.001	1.98 (1.66 – 2.37) <0.001
HF hospitalization rate	n – event	4.7 (4.0 – 5.5)	6.5 (5.6 – 7.5)	9.5 (8.2 – 11.0)
	– sHR	1.00 (ref.)	1.32 (1.06 – 1.65) 0.012	1.90 (1.51 – 2.38) <0.001
Cardiovascular de event rate	eath –	4.8 (4.1 – 5.6)	6.4 (5.6 – 7.4)	8.8 (7.6 – 10.2)
	– sHR	1.00 (ref.)	1.44 (1.16 – 1.79) 0.001	2.09 (1.66 – 2.63) <0.001
All-cause death –	event rate	5.7 (4.9 – 6.5)	7.8 (6.8 – 8.9)	10.4 (9.1 – 11.8)
	- HR	1.00 (ref.)	1.48 (1.22 – 1.80)	2.08 (1.69 – 2.56)
			<0.001	<0.001

Primary outcome – event rate	8.7 (7.6 – 10.0)	12.0 (10.7 – 13.4)	16.6 (14.9 – 18.6)
– sHR	1.00 (ref.)	1.39 (1.17 – 1.66) <0.001	1.93 (1.61 – 2.31) <0.001
HF hospitalization – event rate	5.0 (4.1 – 5.9)	7.2 (6.3 – 8.3)	9.9 (8.6 – 11.5)
– sHR	1.00 (ref.)	1.43 (1.14 – 1.79) 0.002	1.86 (1.47 – 2.37) <0.001
Cardiovascular death – event rate	5.1 (4.3 – 6.0)	6.6 (5.7 – 7.6)	10.1 (8.8 – 11.6)
– sHR	1.00 (ref.)	1.35 (1.08 – 1.69) 0.008	2.12 (1.70 – 2.66) <0.001
All-cause death – event rate	e 6.5 (5.6 – 7.6)	8.1 (7.1 – 9.1)	12.5 (11.0 – 14.1)
- HR	1.00 (ref.)	1.29 (1.06 – 1.57) 0.012	2.11 (1.72 – 2.58) <0.001
74 – 96 years			
Primary outcome – event rate	9.3 (8.0 – 10.9)	11.4 (10.1 – 12.7)	20.5 (18.7 – 22.5)
– sHR			
	1.00 (ref.)	1.22 (1.00 – 1.48) 0.045	2.14 (1.78 – 2.58) <0.001
HF hospitalization – event rate	1.00 (ref.) 5.0 (4.1 – 6.2)		
-		0.045	<0.001
rate	5.0 (4.1 – 6.2)	0.045 6.2 (5.3 – 7.2) 1.15 (0.88 – 1.49)	<0.001 11.8 (10.4 – 13.3) 1.95 (1.52 – 2.51)
rate - sHR Cardiovascular death -	5.0 (4.1 – 6.2) 1.00 (ref.)	0.045 6.2 (5.3 – 7.2) 1.15 (0.88 – 1.49) 0.304	<0.001 11.8 (10.4 – 13.3) 1.95 (1.52 – 2.51) <0.001
rate - sHR Cardiovascular death – event rate	5.0 (4.1 – 6.2) 1.00 (ref.) 6.2 (5.2 – 7.4) 1.00 (ref.)	0.045 6.2 (5.3 – 7.2) 1.15 (0.88 – 1.49) 0.304 7.7 (6.7 – 8.7) 1.28 (1.02 – 1.61)	<0.001 11.8 (10.4 – 13.3) 1.95 (1.52 – 2.51) <0.001 12.5 (11.2 – 14.0) 2.12 (1.70 – 2.64)

All events are reported as event rates per 100 patient years (95% confidence interval).

 $\label{lem:all shrs} \textbf{All sHRs reported are only adjusted for randomized treatment and region at baseline.}$

Age is categorized by tertiles of age.

Supplementary Table 6: Clinical Outcomes according to frailty in patients aged ≥60 years

	FI Class 1	FI Class 2	FI Class 3
	n=2836	n=3369	n=2787
	(≤0.210)	(0.211 – 0.310)	(≥0.311)
Primary Outcome			
Events – no (%)	633 (22.3)	937 (27.8)	1038 (37.2)
Event rate per 100 pt. years (CI)	8.7 (8.0 - 9.4)	11.6 (10.9 - 12.4)	17.6 (16.6 - 18.8)
Unadjusted sHR	1.00 (ref)	1.37 (1.24 - 1.51)	2.08 (1.88 - 2.31)
ondajusted sint	1.00 (101)	<0.001	<0.001
Adjusted sHR	1.00 (ref)	1.30 (1.17 - 1.44)	1.85 (1.66 - 2.07)
Aujusteu siin	1.00 (161)	<0.001	<0.001
HF Hospitalization			
Events – no (%)	356 (12.6)	536 (15.9)	616 (22.1)
Event rate per 100 pt. years	4.9 (4.4 - 5.4)	6.6 (6.1 - 7.2)	10.5 (9.7 - 11.3)
Event rate per 100 pt. years	(1.33 (1.17 - 1.53)	2.01 (1.75 - 2.30)
Unadjusted sHR	1.00 (ref)	<0.001	<0.001
		1.29 (1.12 - 1.48)	1.88 (1.62 - 2.17)
Adjusted sHR	1.00 (ref)	<0.001	<0.001
		10.002	10.002
CV Death			
Events – no (%)	405 (14.3)	603 (17.9)	705 (25.3)
Event rate per 100 pt. years	5.2 (4.7 - 5.8)	6.9 (6.3 - 7.4)	10.6 (9.8 - 11.4)
Line divisted aLID	1 00 (===f)	1.39 (1.22 - 1.57)	2.21 (1.94 - 2.51)
Unadjusted sHR	1.00 (ref)	<0.001	<0.001
Adiose de LID	4.00 (== 5)	1.30 (1.14 - 1.48)	1.85 (1.61 - 2.13)
Adjusted sHR	1.00 (ref)	<0.001	<0.001
All-cause Death	502 (47.7)	752 (22.2)	000 (24.2)
Events – no (%)	503 (17.7)	752 (22.3)	869 (31.2)
Event rate per 100 pt. years	6.5 (6.0 - 7.1)	8.6 (8.0 - 9.2)	13.1 (12.2 - 14.0)
Unadjusted HR	1.00 (ref)	1.41 (1.25 - 1.58)	2.26 (2.01 - 2.53)
		<0.001	<0.001
Adjusted HR	1.00 (ref)	1.31 (1.17 - 1.48)	1.92 (1.70 - 2.18)
		<0.001	<0.001
Fall in KCCQ clinical summary score ≥5 at			
12 months			
No. (%)	950 (34.5)	1179 (36.4)	980 (37.4)
		1.33 (1.18 - 1.49)	1.88 (1.60 - 2.20)
Adjusted OR1	1.00 (ref.)	<0.001	<0.001

Adjusted OR2 1.00 (ref.) 1.24 (1.10 - 1.40) 1.70 (1.44 - 2.00) 0.001 <0.001

Sub-distribution hazard ratios reported as sHR (95% confidence interval) [hazard ratio for all-cause death]

Event rates per 100 patient years with 95% confidence interval

All sHRs adjusted for region and randomized treatment at baseline

Adjusted sHRs additionally adjusted for: sex, age, heart rate, NT-proBNP, NYHA class I/II vs. II/IV, duration of heart failure and ejection fraction.

Heart failure hospitalization additionally adjusted for previous hospitalization for heart failure.

Odds ratio reported as OR (95% confidence interval)

ORs adjusted for region and randomized treatment at baseline

Adjusted OR1 additionally adjusted for: KCCQ clinical summary score at baseline

Adjusted OR2 additionally adjusted for: sex, age, heart rate, NT-proBNP, NYHA class and ejection fraction.

Supplementary Table 7: Clinical Outcomes according to every 0.010 increase in the Frailty Index score

	Unadjusted sHR	Adjusted sHR
Primary Outcome	1.032 (1.028 – 1.036) <0.001	1.026 (1.022 – 1.030) <0.001
HF Hospitalization	1.030 (1.025 – 1.034) <0.001	1.025 (1.020 – 1.030) <0.001
CV Death	1.034 (1.029 – 1.038) <0.001	1.025 (1.020 – 1.030) <0.001
All-cause Death	1.035 (1.031 – 1.039) <0.001	1.026 (1.022 – 1.030) <0.001

Sub-distribution hazard ratios reported as sHR (95% confidence interval) [hazard ratio for all-cause death]

All sHRs adjusted for region and randomized treatment at baseline

Adjusted sHRs additionally adjusted for: sex, age, heart rate, NT-proBNP, NYHA class I/II vs. II/IV, duration of heart failure and ejection fraction.

Heart failure hospitalization additionally adjusted for previous hospitalization for heart failure.

Odds ratio reported as OR (95% confidence interval)

ORs adjusted for region and randomized treatment at baseline

Adjusted OR1 additionally adjusted for: KCCQ clinical summary score at baseline

 $Adjusted\ OR2\ additionally\ adjusted\ for:\ sex,\ age,\ heart\ rate,\ NT-proBNP,\ NYHA\ class\ and\ ejection\ fraction.$

Supplementary Table 8: Number of hospitalizations in patients according to Frailty – no. (%)

	FI Class 1	FI Class 2	FI Class 3	p-value for trend
	n=4882	n=4770	n=3613	
	(≤0.210)	(0.211 - 0.310)	(≥0.311)	
HF Hospitalization				<0.001
0	4257 (87.2)	4011 (84.1)	2826 (78.2)	
1	429 (8.8)	484 (10.1)	476 (13.2)	
≥2	196 (4.0)	275 (5.8)	311 (8.6)	
CV Hospitalization				<0.001
0	3576 (73.2)	3165 (66.4)	2136 (59.1)	
1	780 (16.0)	905 (19.0)	775 (21.5)	
≥2	526 (10.8)	700 (14.7)	702 (19.4)	
Non-CV Hospitalization				<0.001
0	3794 (77.7)	3509 (73.6)	2455 (67.9)	
1	730 (15.0)	800 (16.8)	660 (18.3)	
≥2	358 (7.3)	461 (9.7)	498 (13.8)	
Non-CV Hospitalization				<0.001
0	2913 (59.7)	2502 (52.5)	1589 (44.0)	
1	1054 (21.6)	1069 (22.4)	861 (23.8)	
≥2	915 (18.7)	1199 (25.1)	1163 (32.2)	

Supplementary Table 9: Falls and Fractures

	FI Class 1	FI Class 2	FI Class 3
	n=4882	n=4770	n=3613
	(≤0.210)	(0.211 - 0.310)	(≥0.311)
Falls			
Events – no. (%)	52 (1.1)	95 (2.0)	92 (2.5)
Line divisted OD	1.00 (ref.)	1.76 (1.24 – 2.49)	2.07 (1.45 – 2.95)
Unadjusted OR		0.001	<0.001
Adition of OD	1.00 (ref.)	1.71 (1.19 - 2.45)	1.94 (1.32 - 2.85)
Adjusted OR		0.004	0.001
Fractures			
Events – no. (%)	116 (2.4)	158 (3.4)	157 (4.3)
	1.00 (ref.)	1.32 (1.03 – 1.69)	1.68 (1.30 – 2.17)
Unadjusted OR		0.030	<0.001
Adition of OD	4.00 (1.28 (0.99 - 1.65)	1.57 (1.19 - 2.07)
Adjusted OR	1.00 (ref.)	0.061	0.001

Odds ratio reported as OR (95% confidence interval)

All ORs adjusted for region and randomized treatment at baseline

Adjusted ORs additionally adjusted for: sex, age, heart rate, NT-proBNP, NYHA class, ejection fraction and duration of HF.

Supplementary Table 10: Adverse Events – no. (%)

	FI Class 1	FI Class 2	FI Class 3	p-value for trend
	n=4882	n=4770	n=3613	
	(≤0.210)	(0.211 - 0.310)	(≥0.311)	
Cough	573 (11.7)	482 (10.1)	391 (10.8)	0.126
Hypotension	520 (10.7)	578 (12.1)	510 (14.1)	<0.001
Hyperkalaemia	400 (8.2)	596 (12.5)	458 (12.7)	<0.001
Angioedema	11 (0.2)	12 (0.3)	9 (0.2)	0.813
Any adverse event leading to treatment withdrawal	662 (13.6)	784 (16.4)	728 (20.1)	<0.001