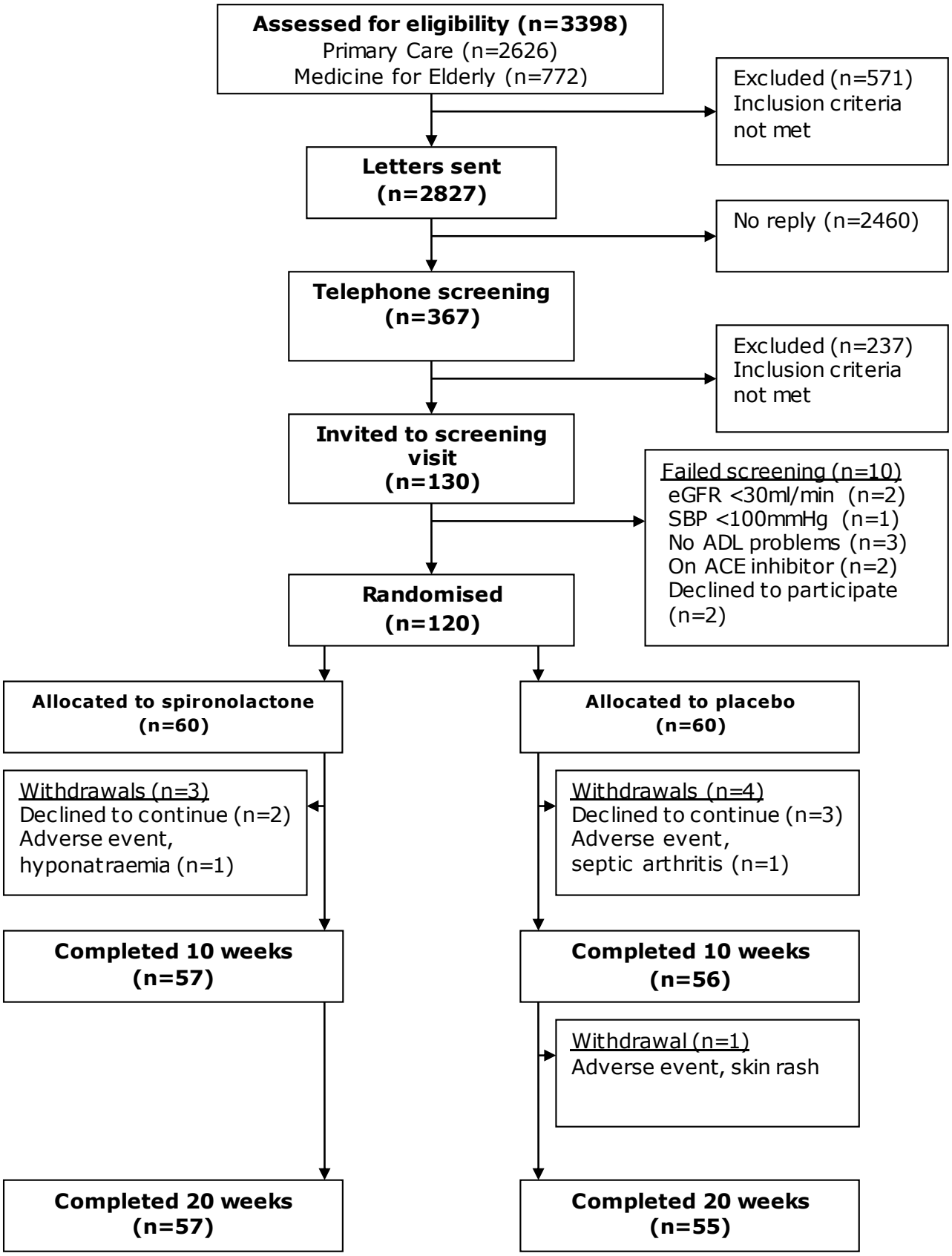
Participant Flow

CONSORT diagram – Participant flow through the study



Baseline Characteristics

	Spironolactone (n=60)	**Placebo (n=60)**
Mean age (yrs) (SD)	75.1 (5.6)	74.2 (6.5)
Male sex	31 (52.5%)	34 (56.7%)
Weight (Kg)	78.2 (14.0)	77.0 (18.7)
Height (cms)	168 (7)	165 (10)
MMSE (median ,IQR)	29 (2)	29 (2)
Walking aid		
None	37 (62.7%)	46 (76.7%)
1 stick	17 (28.8%)	11 (18.3%)
2 sticks	2 (3.4%)	1 (1.7%)
Zimmer frame	2 (3.4%)	0
Triwheel walker	1 (1.7%)	2 (3.3%)
Past Medical History		
Hypertension	19 (32.2%)	16 (26.7%)
Ischaemic Heart Disease	8 (13.6%)	7 (11.6%)
Peripheral Vascular Disease	3 (5.1%)	2 (3.3%)
Myocardial Infarction	2 (3.4%)	1 (1.7%)
Diabetes Mellitus	5 (8.5%)	7 (11.7%)
COPD	10 (16.9%)	13 (21.7%)
Stroke / TIA	5 (8.5%)	4 (6.7%)
Parkinson's Disease	6 (10.2%)	1 (1.7%)
Osteoarthritis	24 (40.7%)	30 (50.0%)
Drug History		
Loop diuretics	3 (5%)	3 (5%)
Thiazide diuretics	8 (13.3%)	11 (18.3%)
Aspirin	17 (28.3%)	18 (30.0%)
Statins	15 (25.0%)	9 (15.0%)
Calcium channel blockers	10 (16.7%)	6 (10.0%)
Beta blockers	3 (5.0%)	5 (8.3%)

Bronchodilators	3 (5.0%)	5 (8.3%)
Inhaled steroids	4 (2.7%)	4 (2.7%)
Total no. of medications (median, IQR)	5 (3)	5 (3)
Systolic BP (mmHg)	152 (22)	147 (18)
Diastolic BP (mmHg)	83 (9)	80 (10)
Blood results		
Potassium (mmol/L)	4.3 (0.4)	4.4 (0.4)
Sodium (mmol/L)	140.1 (2.9)	140.1 (3.0)
Urea (mmol/L)	5.9 (1.5)	6.2 (1.7)
Creatinine (umol/L)	73.0 (15.2)	72.7 (13.9)
eGFR (ml/min)	88.4 (17.5)	87.2 (15.8)
Magnesium (mmol/L)	0.88 (0.1)	0.87 (0.1)
BNP (pg/ml) (median, IQR)	24.8 (26.8)	24.5 (26.7)
Aldosterone (pg/ml) (median, IQR)	84 (67)	105 (94)
Outcome measures		
Six-minute distance (m)	335.9 (119.9)	345.2 (101.8)
Timed-Get-Up and Go test (s)	13.1 (6.2)	13.5 (5.1)
ISWT (m)	219.5 (130.7)	241.3 (138.7)
FLP total score	807 (198)	773 (180)
EuroQol EQ-5D	0.59 (0.2)	0.67 (0.2)
EuroQol EQ-VAS	72.7 (16.7)	72.4 (15.3)
HADS-D score	4.8 (3.0)	3.8 (2.5)
HADS-A score	4.2 (3.4)	4.7 (3.4)
SIMD decile		
1-3	20 (33.9%)	22 (36.7%)
4-6	19 (32.2%)	14 (23.3%)
7-10	20 (33.9%)	24 (40.0%)
SIMD (Median, IQR)	5 (4)	6 (5)

SIMD: Scottish Index of Multiple Deprivation. MMSE: Mini-mental state examination

eGFR: Estimated glomerular filtration rate. BNP: B-type natriuretic peptide

COPD: Chronic obstructive pulmonary disease. TIA: Transient Ischaemic attack

ISWT: Incremental shuttle walk test. FLP: Functional Limitations Profile. HADS: Hospital Anxiety and Depression Score

Outcome Measures

Outcome measure	Time	Spironolactone	Placebo	Difference between groups (95% CI)	P value
6MWD (m)	10 weeks	27.4	27.5	-0.1 (-22.9, 22.7)	0.99
	20 weeks*	**30.5**	**33.7**	**-3.2 (-28.9, 22.5)**	**0.81**
TGUG (s)	10 weeks	-1.4	-1.2	-0.2 (-1.3, 0.9)	0.72
	20 weeks	-1.3	-1.3	0.04 (-1.3, 1.3)	0.95
ISWT (m)	10 weeks	13.9	17.6	-3.7 (-21.4, 27.5)	0.72
	20 weeks	25.4	22.4	3.1 (-21.4, 27.5)	0.81
FLP total score	10 weeks	-16	-17	1 (-45, 47)	0.97
	20 weeks	-14	-22	8 (-49, 64)	0.78
EuroQol EQ-5D	10 weeks	0.05	0.01	0.04 (-0.03, 0.11)	0.22
	20 weeks	0.11	0.01	0.10 (0.03, 0.18)	0.006
EuroQol EQ-VAS	10 weeks	4.2	2.8	1.5 (-4.3, 7.2)	0.62
	20 weeks	-0.3	1.6	-1.9 (-8.3, 4.5)	0.55
HADS-D score	10 weeks	-1.11	-0.25	-0.84 (-1.58, -0.09)	0.03
	20 weeks	-0.23	-0.04	-0.20 (-0.97, 0.58)	0.62
HADS-A score	10 weeks	-0.11	-0.23	0.12 (-0.83, 1.09)	0.80
	20 weeks	0.33	-0.45	0.78 (-0.17, 1.69)	0.11

Bold = Primary outcome

6MWD: Six minute walk distance. TGUG: Timed get up and go. FLP: Functional Limitations Profile. HADS: Hospital Anxiety and Depression score

Adverse events

Adverse events	Spironolactone	Placebo
Number of participants with at least one adverse event	8/60 (13%)	8/60 (13%)
Serious adverse events - Hospitalisation	0	2 Hip Arthroplasty (1) Septic Arthritis (1)
Adverse events Rash	1	1
Abdominal discomfort	1	0
Hyponatraemia	2	0
Dizziness	0	1
Fall	0	1
Hypotension	1	0
Gynaecomastia	1	0
Rise in potassium >5.0mmol/L but <5.5mmol/L	2*	3*
Serious hyperkalaemia Potassium >5.5mmol/L	0	0

* Patients remained in the study on a lower dose of spironolactone/placebo.