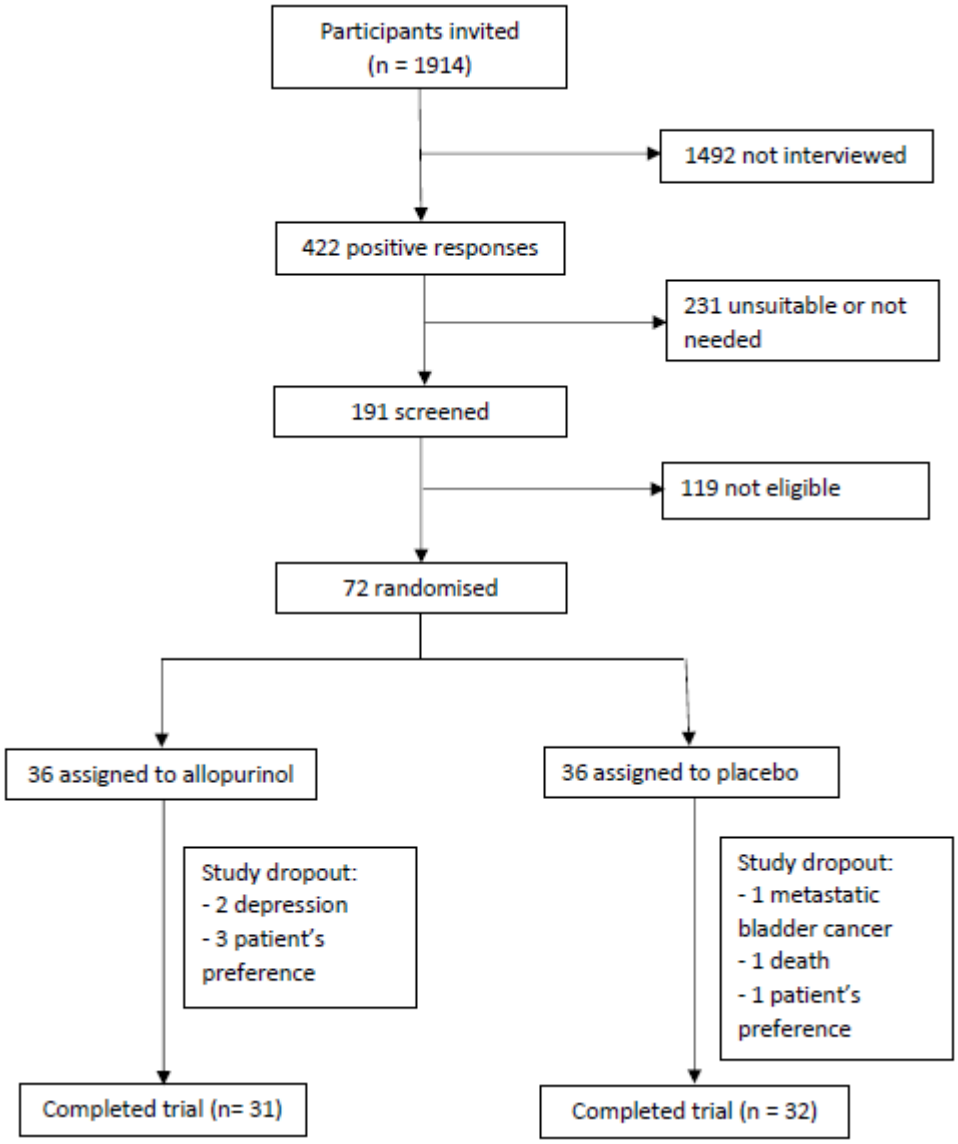
1. Participant Flow:



2. Baseline Characteristics:

	Allopurinol (n = 36)	**Placebo (n = 35)**	**p**
Age (years)	70 (5)	71 (6)	0.45
Male sex (%)	22 (61)	22 (63)	
Height (m)	1.65 (0.11)	1.68 (0.09)	0.29
Weight (kg)	80.2 (16.6)	82.7 (17.0)	0.54
BMI (kg/m^2)	29 (5)	29 (5)	0.98
Heart rate (bpm)	79 (14)	78 (13)	0.99
Systolic BP (mm Hg)	138 (16)	140 (19)	0.67
Diastolic BP (mm Hg)	76 (9)	75 (14)	0.93
mMRC dyspnoea scale	2.8 (1.3)	2.7 (1.2)	0.14
WHO Functional class	2.3 (0.8)	2.4 (0.7)	0.48
Smoking status • Current smoker • Ex-/non-smoker	 9 (25) 27 (75)	 8 (23) 27 (77)	
Pack-year history	46.9 (27.4)	50.3 (28.6)	0.61
Long-term oxygen	3 (8)	2 (6)	
SaO2 (%)	96 (3)	96 (3)	0.67
PAT (ms)	94.9 (9.6)	97.1 (12.1)	0.38
FEV_1 (L)	1.51 (0.68)	1.50 (0.67)	0.99
FEV_1 (% predicted)	62 (22)	59 (20)	0.53

3. Outcome Measures:

	Allopurinol (n = 36)	Placebo (n = 35)	p
Right ventricle			
Change in RVM (g)	1.85 (1.56)	0.97 (1.20)	0.66
Change in RVMI (g/m^2)	0.70 (0.75)	0.50 (0.60)	0.83
Change in RVESV (ml)	4.80 (2.49)	3.79 (2.83)	0.79
Change in RVESVI (ml/m^2)	1.91 (1.25)	1.73 (1.42)	0.92
Change in RVEDV (ml)	8.84 (4.23)	5.61 (4.26)	0.59
Change in RVEDVI (ml/m^2)	4.01 (2.16)	3.05 (2.15)	0.75
Change in RVSV (ml)	3.03 (3.15)	1.57 (2.73)	0.73
Change in RVSVI (ml/m^2)	1.42 (1.72)	1.09 (1.33)	0.88
Change in RVEF (%)	1.33 (2.42)	1.67 (1.72)	0.91
Left ventricle			
Change in LVM (g)	0.82 (3.16)	-1.95 (2.84)	0.52
Change in LVMI (g/m^2)	0.09 (1.48)	-1.11 (1.22)	0.53
Change in LVESV (ml)	1.26 (2.36)	2.95 (2.62)	0.63
Change in LVESVI (ml/m^2)	0.33 (1.18)	1.61 (1.33)	0.47
Change in LVEDV (ml)	7.24 (4.37)	3.83 (4.15)	0.57
Change in LVEDVI (ml/m^2)	3.36 (2.10)	1.90 (2.14)	0.63
Change in LVSV (ml)	5.83 (3.34)	0.40 (2.59)	0.20
Change in LVSVI (ml/m^2)	2.87 (1.73)	0.34 (1.38)	0.25
Change in LVEF (%)	2.96 (1.97)	-0.04 (1.27)	0.20

Primary outcome is highlighted.

4. Adverse Events:

A total of 179 adverse events were recorded:

- 99 AE's in placebo group
  - 5 AE's possible causality from IMP, all recovered
- 80 AE's in allopurinol group
  - 3 AE's possible causality from IMP from same participant (malaise x2, lethargy). All three adverse events recovered when IMP dose reduced.

There were 7 serious adverse events (SAE) in the allopurinol group:

- Infective exacerbation of COPD
- Pneumonia
- Left leg cellulitis
- Prostate cancer
- Acute encephalopathy – unclear cause, probable opiate intoxication
- Transient oesophageal obstruction
- Community acquired pneumonia

There were 15 SAE's in the placebo group:

- Dehydration and chest infection
- Bladder tumour
- Metastatic cancer
- Drug-induced syncope
- Non-specific abdominal pain
- Diverticular disease
- Fracture left neck of femur
- Rectal bleed due to diverticular disease
- Urinary tract infection
- Postural hypotension
- Rectus sheath haematoma
- Atrial flutter
- Syncope
- Death due to atherosclerosis
- Urinary retention