

## Additional file 2: Outcomes, specific variables and assessments

Outcomes	Specific variables	Assessments
<b>CLINICAL OUTCOMES</b>		
<b>Body composition</b>		
	Lean Mass (LM) – primary outcome	DXA
	Fat Mass (FM)	DXA
	Total Body Mass (TBM)	DXA
	Body Mass Index (BMI)	Weight and height
<b>The haematological and biochemical parameters</b>	Haemoglobin(g/l), Hematocrits(ratio), Leucocytes (10 <sup>9</sup> /l), Thrombocytes (10 <sup>9</sup> /l), Glucose (mmol/l), Urea (mmol/l), Sodium (mmol/l), Potassium (mmol/l), Calcium (mmol/l), ALAT, Total Cholesterol (mmol/l), LDL Cholesterol (mmol/l), HDL Cholesterol (mmol/l), Triglyceride (mmol/l), Testosterone (nmol/l), Oestrogen (nmol/l), LH (nmol/l), FSH (nmol/l), SHBG (nmol/l), Albumin (g/l), Bilirubin (μmol/l), Total Protein (g/l), CRP(mg/l), Insulin (mIU/l), PSA (ug/l).	
<b>Physical functioning</b>		
	Muscle strength	10-m Usual Walk Test (s) 10-m Fast Walk Test (s) Maximal voluntary contraction (MVC) of isometric knee extension (Nm) Maximal voluntary contraction (MVC) of isometric knee flexion (Nm) 1RM on leg press (kg) Handgrip strength (kg)
	Cardio-respiratory fitness	The Single Stage Treadmill Walking Test (VO <sub>2</sub> max in ml.kg <sup>-1</sup> .min <sup>-1</sup> )
<b>Psycho-social functioning</b>		
	Symptoms of ADAM	Aging Males' Symptom (AMS) Scale
	HRQoL	SF-36
Muscle cellular outcomes		
<b>Muscle fibre size</b>	Muscle fibre cross sectional area (primary cellular outcome)	Cross sections of muscle biopsies
<b>Regulators of muscle fibre size</b>		
Number of myonuclei per muscle fibre		Number of myonuclei per muscle fibre
Number of satellite cells per muscle fibre		Cross sections of muscle biopsies

Number of satellite cells and myonuclei positive for androgen receptors		Cross sections of muscle biopsies
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DXA - Dual-energy X-ray Absorptiometry, LDL - Low Density Lipoprotein, HDL - High Density Lipoprotein, LH - Luteinizing Hormone, FSH - Follicle Stimulating Hormone, SHBG - Sex Hormone-Binding Globulin, CRP - C- Reactive Protein, PSA - Prostate Specific Antigen, ADAM – androgen deficiency in aging male, HRQoL – Health-Related Quality of Life.