Supplementary Table 1: Prostate MRI imaging protocol
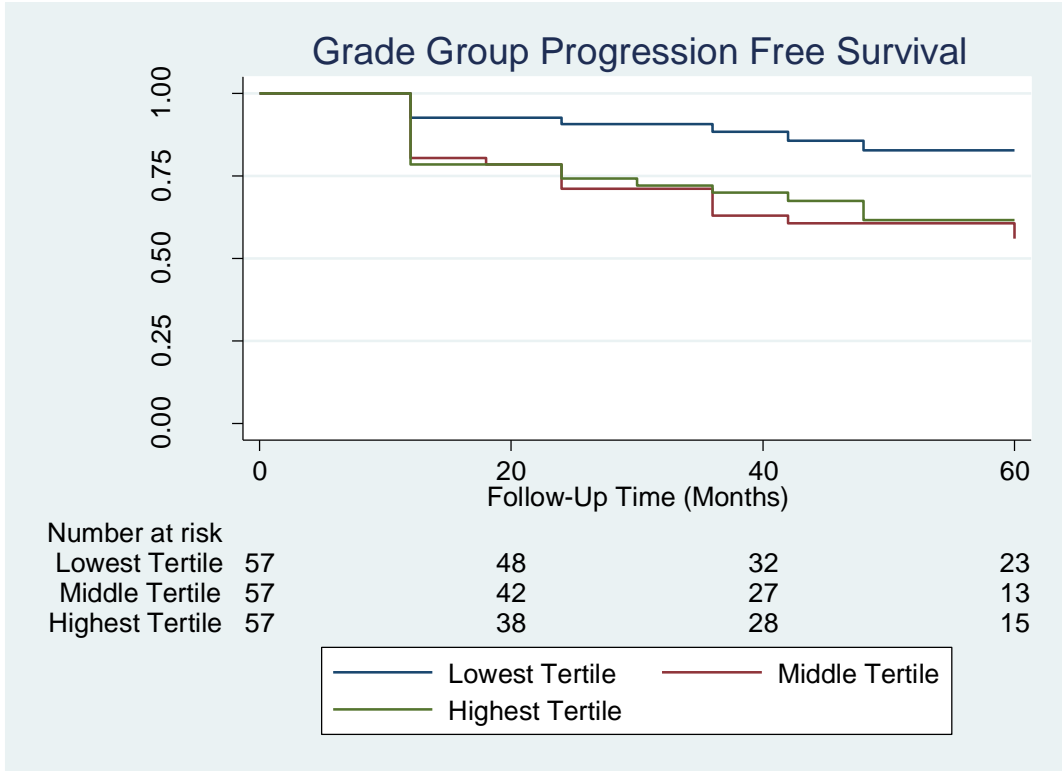
	3 Plane Localizer	Small FOV T2 (3-plane)	Small FOV Axial T1	Small FOV Axial DWI	Whole pelvis Axial T1 Pre-Contrast	Whole pelvis Axial DWI	Small FOV Axial 3D DCE
Pulse Sequence	Gradient Echo	FSE-XL/NPW, EDR, TRF	FSE-XL/NPW, EDR, TRF	Spin Echo/EDR, EPI	FSE-XL/NPW, EDR, TRF	Spin Echo/EDR, EPI	SPGR/ EDR, Fast, multi-phase
TR (msec)	4.768	4000.0	660.0	8000	660	11000	3.7
TE (msec)	1.252	140.0	9	78	9	64	1.7
Flip Angle (°)	30	90	90	-	90	-	25
BW (Khz)		25.00	19.23	245	20	240	42
FOV (cm)	40	14	14	14	24	38	26
Slice Thickness (mm)	5	3	3	3	6	5	1.5
Spacing (mm)	2	4	4	4	6	5	0
Frequency Direction	Unswap	Ax/Sg – A/P Co – S/I	A/P	R/L	A/P	R/L	R/L
Matrix	256x128	256 x 224	256 x 224	128 x 96	256 x 192	160 x 96	160 x 128
NEX	2	4.00	4.00	2	2	2	1
Echo Train Length	1	18	3	1	3	1	1

Abbreviations: FSE= fast spin echo; SPGR= spoiled gradient echo; EPI= echo-planar-imaging; NPW = no phase-wrap; TRF = Tailored radio frequency; EDR = extended dynamic range; TR= repetition time; TE= echo time; BW=bandwidths; FOV=field of view; ETL = echo train length; NEX = number of excitations; Co = coronal; Ax/Sg = axial/sagittal; A/P = anterior/posterior; R/L = right/left; S/I = superior/inferior.

Supplementary Table 2: Gleason grade group progression status by normalized fat measurements

Fat measurement	Progressor	Non-Progressor	P-value
Total calculated peri-prostatic fat volume* (mean, STD)	1.11 (0.26)	0.99 (0.27)	0.01
Distance from pubic symphysis to prostate* (mean,STD)	0.048 (0.057)	0.046 (0.065)	0.88
Subcutaneous fat measurement* (mean, STD)	1.02 (0.51)	0.99 (0.60)	0.78

Supplementary Figure 1: Kaplan-Meier analysis of Gleason grade group survival by normalized pubic symphysis-based peri-prostatic fat measurement

Grade Group Progression Free Survival

Number at risk
Lowest Tertile   57   48   32   23
Middle Tertile   57   42   27   13
Highest Tertile 57   38   28   15

Lowest Tertile   Middle Tertile
Highest Tertile

Supplementary Figure 2: Kaplan-Meier analysis of Gleason grade group survival by normalized subcutaneous fat measurement