

Supplementary table 1. Likelihood (OR, 95% CI) of new radiographic vertebral fracture (Δ SQ grade \geq 1) by sex hormone level, among men without a radiographic vertebral fracture at baseline

	Q1	Q2	Q3	Q4		Per SD increase
SHBG	< 35.7 nmol/liter	\geq 35.7—<46.5 nmol/liter	\geq 46.5—<59.3 nmol/liter	\geq 59.3 nmol/liter	p trend	SD=19.78
N with outcome	5 (2.1) in 242	5 (2.0) in 247	13 (6.0) in 217	13 (6.7) in 194		
Minimally Adjusted	0.45 (0.15, 1.36)	0.37 (0.12, 1.07)	1.00 (0.44, 2.27)	1.0 (ref)	0.047	1.43 (1.04, 1.97)
Multivariate Adjusted	0.48 (0.15, 1.49)	0.35 (0.12, 1.05)	1.03 (0.45, 2.36)	1.0 (ref)	0.058	1.40 (1.00, 1.96)
Multivariate Adjusted + BMD	0.48 (0.15, 1.52)	0.37 (0.12, 1.10)	1.01 (0.43, 2.34)	1.0 (ref)	0.071	1.35 (0.96, 1.91)
E2	< 17.2 pg/ml	\geq 17.2—<21.7 pg/ml	\geq 21.7—<26.9 pg/ml	\geq 26.9 pg/ml		SD=7.83
N with outcome	8 (3.9) in 203	10 (4.1) in 245	9 (4.0) in 224	9 (4.0) in 228		
Minimally Adjusted	1.21 (0.44, 3.28)	1.37 (0.53, 3.52)	1.12 (0.43, 2.94)	1.0 (ref)	0.619	1.04 (0.75, 1.42)
Multivariate Adjusted	1.23 (0.45, 3.38)	1.46 (0.56, 3.81)	1.17 (0.44, 3.11)	1.0 (ref)	0.579	1.01 (0.74, 1.38)
Multivariate Adjusted + BMD	1.12 (0.41, 3.11)	1.42 (0.54, 3.73)	1.15 (0.43, 3.06)	1.0 (ref)	0.709	1.04 (0.76, 1.42)
T	< 298.0 ng/dl	\geq 298.0—<388.0 ng/dl	\geq 388.0—<488.0 ng/dl	\geq 488.0 ng/dl		SD=160.9
N with outcome	9 (4.1) in 218	11 (4.7) in 234	8 (3.6) in 224	8 (3.6) in 224		

Minimally Adjusted	1.26 (0.47, 3.40)	1.44 (0.56, 3.72)	1.05 (0.38, 2.88)	1.0 (ref)	0.517	0.98 (0.69, 1.39)
Multivariate Adjusted	1.32 (0.46, 3.76)	1.47 (0.55, 3.90)	1.05 (0.37, 2.94)	1.0 (ref)	0.478	0.96 (0.67, 1.38)
Multivariate Adjusted + BMD	1.40 (0.48, 4.07)	1.55 (0.58, 4.17)	1.07 (0.38, 3.02)	1.0 (ref)	0.406	0.94 (0.65, 1.35)
BioE	< 11.3 pg/ml	≥11.3—<14.0 pg/ml	≥14.0—<17.0 pg/ml	≥ 17.0 pg/ml		SD=4.79
N with outcome	12 (5.9) in 202	4 (1.7) in 231	10 (4.4) in 227	10 (4.2) in 240		
Minimally Adjusted	1.44 (0.59, 3.51)	0.41 (0.12, 1.36)	1.06 (0.42, 2.63)	1.0 (ref)	0.754	0.91 (0.65, 1.28)
Multivariate Adjusted	1.50 (0.60, 3.71)	0.43 (0.13, 1.43)	1.20 (0.47, 3.06)	1.0 (ref)	0.728	0.91 (0.65, 1.27)
Multivariate Adjusted + BMD	1.31 (0.52, 3.32)	0.39 (0.12, 1.31)	1.15 (0.45, 2.96)	1.0 (ref)	0.956	0.95 (0.67, 1.34)
BioT	< 165.4 ng/dl	≥165.4—<201.5 ng/dl	≥201.5—<241.9 ng/dl	≥ 241.9 ng/dl		SD=64.81
N with outcome	13 (6.4) in 202	7 (3.2) in 219	10 (4.3) in 234	6 (2.5) in 245		
Minimally Adjusted	2.35 (0.85, 6.51)	1.36 (0.44, 4.21)	1.64 (0.57, 4.66)	1.0 (ref)	0.135	0.73 (0.51, 1.06)
Multivariate Adjusted	2.47 (0.84, 7.28)	1.42 (0.45, 4.48)	1.65 (0.57, 4.75)	1.0 (ref)	0.132	0.72 (0.49, 1.05)
Multivariate Adjusted + BMD	2.58 (0.87, 7.66)	1.50 (0.47, 4.75)	1.71 (0.59, 4.96)	1.0 (ref)	0.117	0.71 (0.49, 1.04)