Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

T12	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	42.0	0.000	0.000	1.000	0.000
	64.0	.032	0.000	1.000	0.032
	93.5	.097	0.000	1.000	0.097
	103.0	.129	.059	0.941	0.070
	106.5	.194	.059	0.941	0.135
	109.5	.194	.118	0.882	0.076
	110.5	.226	.118	0.882	0.108
	114.0	.258	.118	0.882	0.140
	118.0	.290	.118	0.882	0.173
	120.0	.355	.118	0.882	0.237
	122.5	.387	.118	0.882	0.269
	125.0	.387	.176	0.824	0.211
	126.5	.419	.176	0.824	0.243
	129.5	.484	.176	0.824	0.307
	132.5	.516	.176	0.824	0.340
	133.5	.548	.176	0.824	0.372
	138.0	.581	.176	0.824	0.404
	142.5	.613	.176	0.824	0.436
	144.0	.613	.235	0.765	0.378
	146.5	.645	.235	0.765	0.410
	149.0	.677	.235	0.765	0.442
	152.0	.710	.235	0.765	0.474
	156.0	.742	.235	0.765	0.507
	159.0	.774	.235	0.765	0.539
	163.0	.774	.294	0.706	0.480
	167.0	.806	.294	0.706	0.512
	168.5	.806	.353	0.647	0.454
	171.5	.839	.412	0.588	0.427
	176.0	.839	.471	0.529	0.368
	179.5	.871	.471	0.529	0.400
	183.5	.903	.529	0.471	0.374
	194.5	.903	.588	0.412	0.315
	204.0	.903	.706	0.294	0.197
	207.5	.935	.706	0.294	0.230
	214.0	.935	.824	0.176	0.112
	222.0	.935	.882	0.118	0.053
	232.0	.935	.941	0.059	-0.006
	246.5	.935	1.000	0.000	-0.065
	267.5	.968	1.000	0.000	-0.032
	281.0	1.000	1.000	0.000	0.000

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

L1	Value equal or lower than	Sensitivity	1 - Specificity	Specificity	Youden J stat
	-1	0	0	1	0
	41	0.032	0	1	0.032
	84	0.065	0	1	0.065
	88	0.097	0	1	0.097
	91	0.129	0	1	0.129
	97.5	0.161	0	1	0.161
	104	0.194	0	1	0.194
	105.5	0.226	0	1	0.226
	108.5	0.226	0.118	0.882	0.108
	111.5	0.29	0.118	0.882	0.172
	113	0.323	0.118	0.882	0.205
	115.5	0.355	0.176	0.824	0.179
	118.5	0.387	0.176	0.824	0.211
	121	0.419	0.176	0.824	0.243
	124.5	0.452	0.176	0.824	0.276
	128	0.484	0.176	0.824	0.308
	129.5	0.516	0.176	0.824	0.34
	130.5	0.548	0.176	0.824	0.372
	134	0.581	0.176	0.824	0.405
	139.5	0.677	0.176	0.824	0.501
	142.5	0.71	0.176	0.824	0.534
	146.5	0.71	0.235	0.765	0.475
	150.5	0.742	0.235	0.765	0.507
	154	0.774	0.235	0.765	0.539
	157.5	0.774	0.294	0.706	0.48
	159.5	0.806	0.294	0.706	0.512
	162	0.839	0.294	0.706	0.545
	168	0.871	0.294	0.706	0.577
	175	0.871	0.353	0.647	0.518
	178.5	0.871	0.412	0.588	0.459
	180.5	0.871	0.471	0.529	0.4
	184.5	0.871	0.529	0.471	0.342
	190.5	0.903	0.529	0.471	0.374
	193.5	0.903	0.588	0.412	0.315
	196.5	0.903	0.706	0.294	0.197
	200	0.903	0.765	0.235	0.138
	203.5	0.903	0.824	0.176	0.079
	207	0.935	0.824	0.176	0.111
	213.5	0.935	0.882	0.118	0.053
	232.5	0.935	0.941	0.059	-0.006
	255.5	0.968	0.941	0.059	0.027
	269.5	0.968	1	0	-0.032
	275	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

L2	Value equal or lower than	Sensitivity	1 - Specificity	Specificity	Youden J stat
	29	0	0	1	0
	50.5	0.032	0	1	0.032
	72	0.065	0	1	0.065
	76.5	0.097	0	1	0.097
	87.5	0.161	0	1	0.161
	96	0.194	0	1	0.194
	97.5	0.194	0.118	0.882	0.076
	101	0.226	0.118	0.882	0.108
	106	0.258	0.118	0.882	0.14
	111	0.323	0.118	0.882	0.205
	116.5	0.387	0.118	0.882	0.269
	119.5	0.452	0.118	0.882	0.334
	120.5	0.516	0.118	0.882	0.398
	121.5	0.581	0.118	0.882	0.463
	123.5	0.613	0.118	0.882	0.495
	127.5	0.645	0.118	0.882	0.527
	131	0.645	0.176	0.824	0.469
	135	0.677	0.176	0.824	0.501
	144	0.71	0.176	0.824	0.534
	152	0.774	0.176	0.824	0.598
	156.5	0.774	0.235	0.765	0.539
	159.5	0.806	0.235	0.765	0.571
	163	0.806	0.294	0.706	0.512
	168	0.839	0.294	0.706	0.545
	171.5	0.839	0.353	0.647	0.486
	177.5	0.839	0.412	0.588	0.427
	183.5	0.839	0.471	0.529	0.368
	186	0.871	0.471	0.529	0.4
	187.5	0.903	0.471	0.529	0.432
	189	0.903	0.529	0.471	0.374
	191	0.903	0.588	0.412	0.315
	192.5	0.903	0.647	0.353	0.256
	193.5	0.903	0.706	0.294	0.197
	195.5	0.935	0.706	0.294	0.229
	200	0.935	0.765	0.235	0.17
	206	0.935	0.824	0.176	0.111
	210	0.935	0.882	0.118	0.053
	211.5	0.935	0.941	0.059	-0.006
	228	0.935	1	0	-0.065
	249.5	0.968	1	0	-0.032
	256	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

L3	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	29	0	0	1	0
	46.5	0.032	0	1	0.032
	71.5	0.097	0	1	0.097
	81.5	0.129	0	1	0.129
	83.5	0.161	0	1	0.161
	85.5	0.194	0	1	0.194
	87.5	0.194	0.059	0.941	0.135
	89.5	0.226	0.059	0.941	0.167
	94.5	0.226	0.118	0.882	0.108
	100.5	0.258	0.118	0.882	0.14
	105	0.29	0.118	0.882	0.172
	109	0.323	0.118	0.882	0.205
	111.5	0.387	0.118	0.882	0.269
	112.5	0.419	0.118	0.882	0.301
	114	0.484	0.118	0.882	0.366
	115.5	0.516	0.118	0.882	0.398
	116.5	0.516	0.176	0.824	0.34
	120	0.548	0.176	0.824	0.372
	123.5	0.581	0.176	0.824	0.405
	124.5	0.613	0.176	0.824	0.437
	129.5	0.645	0.176	0.824	0.469
	134.5	0.677	0.176	0.824	0.501
	136.5	0.71	0.176	0.824	0.534
	140	0.742	0.176	0.824	0.566
	144.5	0.774	0.176	0.824	0.598
	148.5	0.839	0.176	0.824	0.663
	151	0.839	0.235	0.765	0.604
	153	0.839	0.294	0.706	0.545
	157	0.839	0.353	0.647	0.486
	160.5	0.839	0.412	0.588	0.427
	162	0.871	0.412	0.588	0.459
	165	0.871	0.471	0.529	0.4
	172.5	0.871	0.529	0.471	0.342
	183	0.903	0.529	0.471	0.374
	189.5	0.903	0.588	0.412	0.315
	191.5	0.903	0.647	0.353	0.256
	192.5	0.903	0.706	0.294	0.197
	193.5	0.903	0.765	0.235	0.138
	195	0.903	0.824	0.176	0.079
	198	0.935	0.824	0.176	0.111
	207	0.935	0.882	0.118	0.053
	216	0.935	0.941	0.059	-0.006
	225	0.935	1	0	-0.065
	238	0.968	1	0	-0.032
	245	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

L4	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	2	0	0	1	0
	36	0.032	0	1	0.032
	69.5	0.065	0	1	0.065
	71	0.097	0	1	0.097
	72.5	0.129	0	1	0.129
	77.5	0.161	0	1	0.161
	82.5	0.194	0	1	0.194
	88	0.226	0	1	0.226
	94.5	0.258	0	1	0.258
	96.5	0.323	0	1	0.323
	100.5	0.323	0.059	0.941	0.264
	104.5	0.355	0.059	0.941	0.296
	107.5	0.419	0.059	0.941	0.36
	112.5	0.452	0.118	0.882	0.334
	116	0.516	0.118	0.882	0.398
	120	0.548	0.118	0.882	0.43
	124.5	0.581	0.118	0.882	0.463
	128	0.613	0.118	0.882	0.495
	130.5	0.613	0.176	0.824	0.437
	132.5	0.645	0.176	0.824	0.469
	135.5	0.677	0.176	0.824	0.501
	137.5	0.71	0.176	0.824	0.534
	142.5	0.742	0.176	0.824	0.566
	148.5	0.774	0.235	0.765	0.539
	152	0.806	0.235	0.765	0.571
	157	0.806	0.294	0.706	0.512
	164	0.806	0.353	0.647	0.453
	170	0.839	0.353	0.647	0.486
	173.5	0.903	0.412	0.588	0.491
	179	0.903	0.471	0.529	0.432
	184	0.903	0.529	0.471	0.374
	187	0.903	0.588	0.412	0.315
	194.5	0.903	0.647	0.353	0.256
	201	0.903	0.706	0.294	0.197
	204.5	0.935	0.765	0.235	0.17
	210	0.935	0.824	0.176	0.111
	215	0.935	0.882	0.118	0.053
	222.5	0.935	0.941	0.059	-0.006
	233	0.935	1	0	-0.065
	252	0.968	1	0	-0.032
	267	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

L5	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J Stat
	22	0	0	1	0
	46	0.032	0	1	0.032
	71	0.065	0	1	0.065
	73.5	0.065	0.059	0.941	0.006
	78	0.097	0.059	0.941	0.038
	83	0.129	0.059	0.941	0.07
	87.5	0.161	0.059	0.941	0.102
	93	0.194	0.059	0.941	0.135
	97	0.226	0.059	0.941	0.167
	100	0.258	0.059	0.941	0.199
	102	0.29	0.059	0.941	0.231
	103.5	0.323	0.059	0.941	0.264
	104.5	0.323	0.118	0.882	0.205
	105.5	0.355	0.118	0.882	0.237
	107	0.387	0.118	0.882	0.269
	109	0.419	0.118	0.882	0.301
	111.5	0.484	0.118	0.882	0.366
	116	0.516	0.118	0.882	0.398
	121	0.548	0.118	0.882	0.43
	127.5	0.581	0.118	0.882	0.463
	133	0.613	0.118	0.882	0.495
	136.5	0.645	0.118	0.882	0.527
	140.5	0.645	0.176	0.824	0.469
	142.5	0.677	0.176	0.824	0.501
	144	0.71	0.176	0.824	0.534
	150	0.742	0.176	0.824	0.566
	157	0.774	0.176	0.824	0.598
	160	0.774	0.235	0.765	0.539
	162	0.774	0.294	0.706	0.48
	164	0.774	0.353	0.647	0.421
	167.5	0.774	0.412	0.588	0.362
	171	0.806	0.412	0.588	0.394
	175	0.806	0.471	0.529	0.335
	178.5	0.806	0.529	0.471	0.277
	180.5	0.839	0.529	0.471	0.31
	183	0.839	0.588	0.412	0.251
	188.5	0.839	0.647	0.353	0.192
	197	0.871	0.647	0.353	0.224
	202	0.903	0.647	0.353	0.256
	203.5	0.903	0.706	0.294	0.197
	206	0.903	0.765	0.235	0.138
	208.5	0.903	0.824	0.176	0.079
	211	0.903	0.882	0.118	0.021
	214	0.935	0.882	0.118	0.053
	218	0.935	0.941	0.059	-0.006
	222.5	0.935	1	0	-0.065
	242	0.968	1	0	-0.032
	261	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

Avg	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	21	0	0	1	0
	49	0.032	0	1	0.032
	78	0.065	0	1	0.065
	82	0.097	0	1	0.097
	87	0.129	0	1	0.129
	91	0.161	0	1	0.161
	93	0.194	0	1	0.194
	96	0.194	0.059	0.941	0.135
	100	0.226	0.059	0.941	0.167
	102.5	0.258	0.059	0.941	0.199
	106.5	0.258	0.118	0.882	0.14
	111	0.29	0.118	0.882	0.172
	112.5	0.323	0.118	0.882	0.205
	115	0.355	0.118	0.882	0.237
	118	0.419	0.118	0.882	0.301
	120	0.452	0.118	0.882	0.334
	121.5	0.516	0.118	0.882	0.398
	122.5	0.548	0.118	0.882	0.43
	124	0.581	0.118	0.882	0.463
	125.5	0.613	0.118	0.882	0.495
	126.5	0.613	0.176	0.824	0.437
	129	0.645	0.176	0.824	0.469
	137.5	0.677	0.176	0.824	0.501
	145.5	0.71	0.176	0.824	0.534
	149	0.742	0.176	0.824	0.566
	154	0.774	0.176	0.824	0.598
	159.5	0.806	0.235	0.765	0.571
	162.5	0.806	0.294	0.706	0.512
	164.5	0.839	0.294	0.706	0.545
	167	0.839	0.353	0.647	0.486
	169.5	0.839	0.412	0.588	0.427
	172	0.839	0.471	0.529	0.368
	174	0.871	0.471	0.529	0.4
	180.5	0.871	0.529	0.471	0.342
	187.75	0.871	0.588	0.412	0.283
	189.75	0.903	0.588	0.412	0.315
	192	0.935	0.588	0.412	0.347
	196	0.935	0.647	0.353	0.288
	200	0.935	0.706	0.294	0.229
	203	0.935	0.765	0.235	0.17
	204.5	0.935	0.824	0.176	0.111
	211	0.935	0.882	0.118	0.053
	222.5	0.935	0.941	0.059	-0.006
	234	0.935	1	0	-0.065
	251.5	0.968	1	0	-0.032
	264	1	1	0	0

Table S1: Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of low BMD.

T12	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	42	0	0	1	0
	64	0	0.024	0.976	-0.024
	93.5	0	0.071	0.929	-0.071
	103	0.167	0.095	0.905	0.072
	106.5	0.167	0.143	0.857	0.024
	109.5	0.167	0.167	0.833	0
	110.5	0.167	0.19	0.81	-0.023
	114	0.333	0.19	0.81	0.143
	118	0.333	0.214	0.786	0.119
	120	0.333	0.262	0.738	0.071
	122.5	0.333	0.286	0.714	0.047
	125	0.333	0.31	0.69	0.023
	126.5	0.333	0.333	0.667	0
	129.5	0.5	0.357	0.643	0.143
	132.5	0.667	0.357	0.643	0.31
	133.5	0.667	0.381	0.619	0.286
	138	0.667	0.405	0.595	0.262
	142.5	0.833	0.405	0.595	0.428
	144	0.833	0.429	0.571	0.404
	146.5	1	0.429	0.571	0.571
	149	1	0.452	0.548	0.548
	152	1	0.476	0.524	0.524
	156	1	0.5	0.5	0.5
	159	1	0.524	0.476	0.476
	163	1	0.548	0.452	0.452
	167	1	0.571	0.429	0.429
	168.5	1	0.595	0.405	0.405
	171.5	1	0.643	0.357	0.357
	176	1	0.667	0.333	0.333
	179.5	1	0.69	0.31	0.31
	183.5	1	0.738	0.262	0.262
	194.5	1	0.762	0.238	0.238
	204	1	0.81	0.19	0.19
	207.5	1	0.833	0.167	0.167
	214	1	0.881	0.119	0.119
	222	1	0.905	0.095	0.095
	232	1	0.929	0.071	0.071
	246.5	1	0.952	0.048	0.048
	267.5	1	0.976	0.024	0.024
	281	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

L1	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	-1	0	0	1	0
	41	0	0.024	0.976	-0.024
	84	0	0.048	0.952	-0.048
	88	0	0.071	0.929	-0.071
	91	0	0.095	0.905	-0.095
	97.5	0	0.119	0.881	-0.119
	104	0.167	0.119	0.881	0.048
	105.5	0.333	0.119	0.881	0.214
	108.5	0.333	0.167	0.833	0.166
	111.5	0.5	0.19	0.81	0.31
	113	0.667	0.19	0.81	0.477
	115.5	0.667	0.238	0.762	0.429
	118.5	0.667	0.262	0.738	0.405
	121	0.833	0.262	0.738	0.571
	124.5	0.833	0.286	0.714	0.547
	128	0.833	0.31	0.69	0.523
	129.5	0.833	0.333	0.667	0.5
	130.5	0.833	0.357	0.643	0.476
	134	1	0.357	0.643	0.643
	139.5	1	0.429	0.571	0.571
	142.5	1	0.452	0.548	0.548
	146.5	1	0.476	0.524	0.524
	150.5	1	0.5	0.5	0.5
	154	1	0.524	0.476	0.476
	157.5	1	0.548	0.452	0.452
	159.5	1	0.571	0.429	0.429
	162	1	0.595	0.405	0.405
	168	1	0.619	0.381	0.381
	175	1	0.643	0.357	0.357
	178.5	1	0.667	0.333	0.333
	180.5	1	0.69	0.31	0.31
	184.5	1	0.714	0.286	0.286
	190.5	1	0.738	0.262	0.262
	193.5	1	0.762	0.238	0.238
	196.5	1	0.81	0.19	0.19
	200	1	0.833	0.167	0.167
	203.5	1	0.857	0.143	0.143
	207	1	0.881	0.119	0.119
	213.5	1	0.905	0.095	0.095
	232.5	1	0.929	0.071	0.071
	255.5	1	0.952	0.048	0.048
	269.5	1	0.976	0.024	0.024
	275	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

L2	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	29	0	0	1	0
	50.5	0	0.024	0.976	-0.024
	72	0.167	0.024	0.976	0.143
	76.5	0.167	0.048	0.952	0.119
	87.5	0.167	0.095	0.905	0.072
	96	0.167	0.119	0.881	0.048
	97.5	0.167	0.167	0.833	0
	101	0.333	0.167	0.833	0.166
	106	0.333	0.19	0.81	0.143
	111	0.5	0.214	0.786	0.286
	116.5	0.667	0.238	0.762	0.429
	119.5	0.667	0.286	0.714	0.381
	120.5	0.667	0.333	0.667	0.334
	121.5	0.833	0.357	0.643	0.476
	123.5	0.833	0.381	0.619	0.452
	127.5	0.833	0.405	0.595	0.428
	131	0.833	0.429	0.571	0.404
	135	0.833	0.452	0.548	0.381
	144	0.833	0.476	0.524	0.357
	152	1	0.5	0.5	0.5
	156.5	1	0.524	0.476	0.476
	159.5	1	0.548	0.452	0.452
	163	1	0.571	0.429	0.429
	168	1	0.595	0.405	0.405
	171.5	1	0.619	0.381	0.381
	177.5	1	0.643	0.357	0.357
	183.5	1	0.667	0.333	0.333
	186	1	0.69	0.31	0.31
	187.5	1	0.714	0.286	0.286
	189	1	0.738	0.262	0.262
	191	1	0.762	0.238	0.238
	192.5	1	0.786	0.214	0.214
	193.5	1	0.81	0.19	0.19
	195.5	1	0.833	0.167	0.167
	200	1	0.857	0.143	0.143
	206	1	0.881	0.119	0.119
	210	1	0.905	0.095	0.095
	211.5	1	0.929	0.071	0.071
	228	1	0.952	0.048	0.048
	249.5	1	0.976	0.024	0.024
	256	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

L3	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	29	0	0	1	0
	46.5	0	0.024	0.976	-0.024
	71.5	0	0.071	0.929	-0.071
	81.5	0	0.095	0.905	-0.095
	83.5	0	0.119	0.881	-0.119
	85.5	0	0.143	0.857	-0.143
	87.5	0	0.167	0.833	-0.167
	89.5	0.167	0.167	0.833	0
	94.5	0.167	0.19	0.81	-0.023
	100.5	0.333	0.19	0.81	0.143
	105	0.5	0.19	0.81	0.31
	109	0.5	0.214	0.786	0.286
	111.5	0.5	0.262	0.738	0.238
	112.5	0.5	0.286	0.714	0.214
	114	0.5	0.333	0.667	0.167
	115.5	0.5	0.357	0.643	0.143
	116.5	0.5	0.381	0.619	0.119
	120	0.667	0.381	0.619	0.286
	123.5	0.667	0.405	0.595	0.262
	124.5	0.667	0.429	0.571	0.238
	129.5	0.833	0.429	0.571	0.404
	134.5	1	0.429	0.571	0.571
	136.5	1	0.452	0.548	0.548
	140	1	0.476	0.524	0.524
	144.5	1	0.5	0.5	0.5
	148.5	1	0.548	0.452	0.452
	151	1	0.571	0.429	0.429
	153	1	0.595	0.405	0.405
	157	1	0.619	0.381	0.381
	160.5	1	0.643	0.357	0.357
	162	1	0.667	0.333	0.333
	165	1	0.69	0.31	0.31
	172.5	1	0.714	0.286	0.286
	183	1	0.738	0.262	0.262
	189.5	1	0.762	0.238	0.238
	191.5	1	0.786	0.214	0.214
	192.5	1	0.81	0.19	0.19
	193.5	1	0.833	0.167	0.167
	195	1	0.857	0.143	0.143
	198	1	0.881	0.119	0.119
	207	1	0.905	0.095	0.095
	216	1	0.929	0.071	0.071
	225	1	0.952	0.048	0.048
	238	1	0.976	0.024	0.024
	245	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

L4	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	2	0	0	1	0
	36	0	0.024	0.976	-0.024
	69.5	0	0.048	0.952	-0.048
	71	0.167	0.048	0.952	0.119
	72.5	0.167	0.071	0.929	0.096
	77.5	0.167	0.095	0.905	0.072
	82.5	0.167	0.119	0.881	0.048
	88	0.167	0.143	0.857	0.024
	94.5	0.333	0.143	0.857	0.19
	96.5	0.5	0.167	0.833	0.333
	100.5	0.5	0.19	0.81	0.31
	104.5	0.667	0.19	0.81	0.477
	107.5	0.667	0.238	0.762	0.429
	112.5	0.667	0.286	0.714	0.381
	116	0.833	0.31	0.69	0.523
	120	0.833	0.333	0.667	0.5
	124.5	0.833	0.357	0.643	0.476
	128	1	0.357	0.643	0.643
	130.5	1	0.381	0.619	0.619
	132.5	1	0.405	0.595	0.595
	135.5	1	0.429	0.571	0.571
	137.5	1	0.452	0.548	0.548
	142.5	1	0.476	0.524	0.524
	148.5	1	0.524	0.476	0.476
	152	1	0.548	0.452	0.452
	157	1	0.571	0.429	0.429
	164	1	0.595	0.405	0.405
	170	1	0.619	0.381	0.381
	173.5	1	0.69	0.31	0.31
	179	1	0.714	0.286	0.286
	184	1	0.738	0.262	0.262
	187	1	0.762	0.238	0.238
	194.5	1	0.786	0.214	0.214
	201	1	0.81	0.19	0.19
	204.5	1	0.857	0.143	0.143
	210	1	0.881	0.119	0.119
	215	1	0.905	0.095	0.095
	222.5	1	0.929	0.071	0.071
	233	1	0.952	0.048	0.048
	252	1	0.976	0.024	0.024
	267	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

L5	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	22	0	0	1	0
	46	0	0.024	0.976	-0.024
	71	0	0.048	0.952	-0.048
	73.5	0	0.071	0.929	-0.071
	78	0	0.095	0.905	-0.095
	83	0	0.119	0.881	-0.119
	87.5	0	0.143	0.857	-0.143
	93	0	0.167	0.833	-0.167
	97	0.167	0.167	0.833	0
	100	0.167	0.19	0.81	-0.023
	102	0.333	0.19	0.81	0.143
	103.5	0.333	0.214	0.786	0.119
	104.5	0.333	0.238	0.762	0.095
	105.5	0.333	0.262	0.738	0.071
	107	0.5	0.262	0.738	0.238
	109	0.667	0.262	0.738	0.405
	111.5	0.667	0.31	0.69	0.357
	116	0.667	0.333	0.667	0.334
	121	0.833	0.333	0.667	0.5
	127.5	0.833	0.357	0.643	0.476
	133	1	0.357	0.643	0.643
	136.5	1	0.381	0.619	0.619
	140.5	1	0.405	0.595	0.595
	142.5	1	0.429	0.571	0.571
	144	1	0.452	0.548	0.548
	150	1	0.476	0.524	0.524
	157	1	0.5	0.5	0.5
	160	1	0.524	0.476	0.476
	162	1	0.548	0.452	0.452
	164	1	0.571	0.429	0.429
	167.5	1	0.595	0.405	0.405
	171	1	0.619	0.381	0.381
	175	1	0.643	0.357	0.357
	178.5	1	0.667	0.333	0.333
	180.5	1	0.69	0.31	0.31
	183	1	0.714	0.286	0.286
	188.5	1	0.738	0.262	0.262
	197	1	0.762	0.238	0.238
	202	1	0.786	0.214	0.214
	203.5	1	0.81	0.19	0.19
	206	1	0.833	0.167	0.167
	208.5	1	0.857	0.143	0.143
	211	1	0.881	0.119	0.119
	214	1	0.905	0.095	0.095
	218	1	0.929	0.071	0.071
	222.5	1	0.952	0.048	0.048
	242	1	0.976	0.024	0.024
	261	1	1	0	0

Table S2. Threshold analysis to identify the statistically optimal CT-HU cut-off level for diagnosis of Osteoporosis.

Avg	Value equal or lower than	Sensitivity	1-Specificity	Specificity	Youden J stat
	21	0	0	1	0
	49	0	0.024	0.976	-0.024
	78	0	0.048	0.952	-0.048
	82	0	0.071	0.929	-0.071
	87	0	0.095	0.905	-0.095
	91	0	0.119	0.881	-0.119
	93	0.167	0.119	0.881	0.048
	96	0.167	0.143	0.857	0.024
	100	0.167	0.167	0.833	0
	102.5	0.333	0.167	0.833	0.166
	106.5	0.333	0.19	0.81	0.143
	111	0.5	0.19	0.81	0.31
	112.5	0.5	0.214	0.786	0.286
	115	0.5	0.238	0.762	0.262
	118	0.5	0.286	0.714	0.214
	120	0.5	0.31	0.69	0.19
	121.5	0.833	0.31	0.69	0.523
	122.5	0.833	0.333	0.667	0.5
	124	0.833	0.357	0.643	0.476
	125.5	0.833	0.381	0.619	0.452
	126.5	0.833	0.405	0.595	0.428
	129	1	0.405	0.595	0.595
	137.5	1	0.429	0.571	0.571
	145.5	1	0.452	0.548	0.548
	149	1	0.476	0.524	0.524
	154	1	0.5	0.5	0.5
	159.5	1	0.548	0.452	0.452
	162.5	1	0.571	0.429	0.429
	164.5	1	0.595	0.405	0.405
	167	1	0.619	0.381	0.381
	169.5	1	0.643	0.357	0.357
	172	1	0.667	0.333	0.333
	174	1	0.69	0.31	0.31
	180.5	1	0.714	0.286	0.286
	187.75	1	0.738	0.262	0.262
	189.75	1	0.762	0.238	0.238
	192	1	0.786	0.214	0.214
	196	1	0.81	0.19	0.19
	200	1	0.833	0.167	0.167
	203	1	0.857	0.143	0.143
	204.5	1	0.881	0.119	0.119
	211	1	0.905	0.095	0.095
	222.5	1	0.929	0.071	0.071
	234	1	0.952	0.048	0.048
	251.5	1	0.976	0.024	0.024
	264	1	1	0	0