

Additional file 3. Descriptive characteristics and univariable analysis: 'moderate-severe OA'

	Pattern of knee OA				Binary logistic regression†					
	NONE/MILD	ISO-PF	ISO-TF	COMB	ISO-PF vs No- mild	ISO-TF vs No- mild	COMB vs No- mild	ISO-TF vs ISO-PF	COMB vs ISO-PF	COMB vs ISO-TF
	n=453	n=99	n=123	n=70	p	p	P	P	p	p
Age, years: mean (SD)	62.7 (7.1)	69.4 (9.0)	69.1 (8.3)	68.9 (7.8)	<0.001	<0.001	<0.001	0.645	0.581	0.866
Female gender	255 (56)	63 (64)	53 (43)	36 (51)	0.135	0.018	0.564	0.002	0.103	0.270
BMI, kg/m ² : mean (SD)	28.9 (4.9)	30.2 (4.9)	30.6 (5.4)	32.0 (6.4)	<0.001	<0.001	<0.001	0.462	0.028	0.152
1 st degree relative with arthritis	290 (64)	51 (52)	70 (57)	43 (61)	0.168	0.987	0.973	0.223	0.239	0.810
Clinical hand OA	78 (17)	21 (21)	21 (17)	12 (17)	0.858	0.270	0.570	0.955	0.762	0.752
Previous menisectomy	7 (2)	1 (1)	13 (11)	5 (7)	-	-	-	-	-	-
Contralateral TKR	2 (<1)	4 (4)	4 (3)	2 (3)	-	-	-	-	-	-
Time since onset										
1-5 yrs	163 (36)	34 (34)	37 (31)	23 (33)						
5-10 yrs	91 (20)	19 (19)	25 (20)	15 (21)						
>10 yrs	126 (28)	40 (40)	55 (45)	26 (37)	0.003	0.001	0.086	0.995	0.928	0.754
Gradual onset	305 (67)	67 (68)	92 (75)	53 (76)	0.816	0.164	0.276	0.390	0.502	0.867
Onset following injury	57 (13)	9 (9)	24 (20)	17 (24)	0.462	0.067	0.011	0.026	0.006	0.459
Whole leg pain	59 (13)	9 (9)	12 (10)	8 (11)	0.227	0.368	0.647	0.674	0.902	0.918
Pain days in past 6mo										
31-89	114 (25)	21 (21)	32 (26)	25 (36)						
90+	92 (20)	37 (37)	47 (38)	25 (36)	0.020	0.007	0.008	0.504	0.128	0.491
Frequent symptoms‡	171 (38)	54 (55)	73 (59)	42 (60)	0.013	0.001	0.007	0.543	0.664	0.916
Bilateral knee pain	330 (73)	83 (86)	89 (72)	57 (81)	0.043	0.389	0.475	0.022	0.452	0.218
Current pain intensity, 0-10NRS§	2.7 (2.5)	4.2 (2.8)	4.0 (2.9)	4.7 (2.9)	<0.001	0.007	<0.001	0.363	0.486	0.184
Pain walking on flat*	129 (31)	41 (44)	72 (62)	44 (65)	0.152	<0.001	<0.001	0.021	0.021	0.756
Incident pain	299 (66)	70 (71)	86 (70)	47 (67)	0.276	0.770	0.944	0.547	0.522	0.754
Duration of morning stiffness										
≤30 mins	244 (54)	63 (64)	76 (62)	47 (67)						
>30 mins	25 (6)	6 (6)	7 (6)	4 (6)	0.469	0.375	0.168	0.942	0.630	0.890
Stiffness on waking*	153 (36)	47 (52)	70 (60)	46 (67)	0.123	<0.001	0.001	0.308	0.136	0.422
Inactivity gelling	337 (74)	83 (84)	104 (85)	63 (90)	0.191	0.118	0.021	0.933	0.152	0.326
Swollen in past month	115 (25)	46 (47)	56 (46)	39 (56)	0.002	<0.001	<0.001	0.568	0.121	0.217
Dramatic swelling ever	49 (11)	26 (26)	16 (13)	22 (31)	<0.001	0.413	<0.001	0.007	0.513	0.001
Locking	48 (11)	9 (9)	18 (15)	14 (20)	0.777	0.283	0.031	0.132	0.027	0.425
Giving way	128 (28)	41 (41)	37 (30)	28 (40)	0.052	0.757	0.254	0.083	0.882	0.242
Significant interference with daily activities§	92 (20)	34 (34)	43 (35)	30 (43)	0.048	0.037	0.005	0.875	0.435	0.509
Difficulty descending stairs	132 (31)	54 (58)	71 (61)	46 (68)	0.001	<0.001	<0.001	0.494	0.266	0.619
Intercondylar gap>0cm	88 (20)	11 (11)	48 (39)	14 (20)	0.444	<0.001	0.235	<0.001	0.066	0.024

Additional file 3. continued

	NONE/MILD	Pattern of knee OA			Binary logistic regression†					
		ISO-PF	ISO-TF	COMB	ISO-PF vs No- mild	ISO-TF vs No- mild	COMB vs No- mild	ISO-TF vs ISO-PF	COMB vs ISO-PF	COMB vs ISO-TF
	n=453	n=99	n=123	n=70	<i>P</i>	<i>p</i>	<i>P</i>	<i>p</i>	<i>p</i>	<i>p</i>
Intermalleolar gap>0cm	130 (29)	46 (47)	29 (24)	26 (37)	0.009	0.335	0.285	0.001	0.161	0.137
PFJ compression test										
Glide pain	88 (20)	25 (25)	23 (19)	14 (20)						
Compression pain	115 (25)	44 (44)	41 (33)	20 (29)	0.001	0.371	0.985	0.065	0.020	0.419
Knee effusion										
Mild	85 (19)	31 (31)	42 (34)	22 (31)						
Moderate/gross	23 (5)	19 (19)	25 (20)	20 (29)	<0.001	<0.001	<0.001	0.803	0.199	0.427
Fixed flexion deformity	21 (5)	7 (7)	35 (29)	27 (39)	0.533	<0.001	<0.001	<0.001	<0.001	0.114
Bony enlargement										
Possible	126 (28)	30 (31)	45 (37)	21 (30)						
Definite	41 (9)	16 (17)	35 (29)	29 (41)	0.279	<0.001	<0.001	0.013	<0.001	0.074
Mediolateral instability										
Possible	139 (31)	23 (24)	39 (32)	12 (17)						
Definite	93 (21)	23 (24)	39 (32)	35 (50)	0.231	0.105	<0.001	0.007	<0.001	0.014
Knee extensor strength, mmHg										
201-299	140 (31)	16 (16)	31 (26)	12 (17)						
141-200	111 (25)	26 (26)	34 (28)	22 (31)						
0-140	90 (20)	46 (47)	27 (22)	21 (30)	0.001	0.358	0.030	0.011	0.301	0.578
Knee flexor strength, mmHg										
141-184	120 (27)	16 (16)	31 (26)	17 (24)						
101-139	99 (22)	30 (30)	23 (19)	19 (27)						
0-100	110 (24)	39 (39)	34 (28)	19 (27)	0.071	0.732	0.883	0.166	0.559	0.659
Coarse crepitus										
Possible	74 (14)	20 (20)	28 (23)	15 (21)						
Definite	60 (13)	33 (33)	39 (32)	28 (40)	<0.001	<0.001	<0.001	0.868	0.603	0.464
Knee flexion ROM, degrees:										
mean (SD)	134.4 (11.1)	130.0 (12.5)	124.8 (13.9)	120.3 (15.9)	0.355	<0.001	<0.001	0.001	<0.001	0.090
TF joint line tenderness	216 (48)	58 (59)	66 (54)	36 (51)	0.561	0.625	0.487	0.956	0.463	0.423
Multiple tender points	67 (15)	26 (26)	16 (13)	46 (19)	0.098	0.374	0.968	0.025	0.158	0.559
Single-leg standing balance, secs										
10-29	117 (26)	19 (19)	23 (19)	10 (15)						
4-9	120 (27)	29 (30)	34 (28)	20 (29)						
0-3	69 (15)	35 (36)	42 (34)	27 (39)	0.117	0.139	0.049	0.965	0.905	0.878

†from binary logistic regression, adjusted for age, gender, and body mass index; ‡ pain, aching or stiffness on most days in past month; * item from WOMAC LK3.0, dichotomised at moderate or worse; § item from Chronic Pain Grade