

**Supplementary Table S1.** Adjusted mean values for health-related outcomes, work productivity and activity impairment (WPAI), and healthcare resource utilisation (HRU) among respondents with osteoarthritis: UK <sup>a</sup>

	Mild pain Rx-untreated (n=218) (mean ± SE)	Mild pain Rx-treated (n=250) (mean ± SE)	Moderate/severe pain Rx-untreated (n=337) (mean ± SE)	Moderate/severe pain Rx-treated (n=346) (mean ± SE)
<b>Health-related quality of life</b>				
MCS	43.67 ± 0.88	43.47 ± 0.82	42.34 ± 0.77	39.73 ± 0.76 <sup>*†</sup>
PCS	45.95 ± 0.75	38.80 ± 0.70 <sup>*</sup>	39.07 ± 0.66 <sup>*</sup>	31.98 ± 0.65 <sup>*†</sup>
SF-12 Bodily Pain	45.29 ± 0.75	37.79 ± 0.70 <sup>*</sup>	37.70 ± 0.66 <sup>*</sup>	30.28 ± 0.65 <sup>*†</sup>
SF-12 General Health	42.21 ± 0.80	37.58 ± 0.74 <sup>*</sup>	38.34 ± 0.70 <sup>*</sup>	33.53 ± 0.69 <sup>*†</sup>
SF-12 Mental Health	42.64 ± 0.87	42.01 ± 0.81	40.77 ± 0.76 <sup>*</sup>	39.22 ± 0.75 <sup>*†</sup>
SF-12 Physical Functioning	45.97 ± 0.80	41.22 ± 0.75 <sup>*</sup>	40.27 ± 0.70 <sup>*</sup>	33.93 ± 0.70 <sup>*†</sup>
SF-12 Role Emotional	45.11 ± 0.98	42.97 ± 0.92 <sup>*</sup>	41.41 ± 0.86 <sup>*</sup>	35.58 ± 0.85 <sup>*†</sup>
SF-12 Role Physical	45.73 ± 0.76	40.14 ± 0.71 <sup>*</sup>	39.95 ± 0.67 <sup>*</sup>	33.43 ± 0.66 <sup>*†</sup>
SF-12 Social Functioning	45.22 ± 0.84	43.17 ± 0.79 <sup>*</sup>	41.99 ± 0.74 <sup>*</sup>	35.25 ± 0.73 <sup>*†</sup>
SF-12 Vitality	44.22 ± 0.81	39.97 ± 0.75 <sup>*</sup>	40.95 ± 0.71 <sup>*</sup>	38.52 ± 0.70 <sup>*†</sup>
<b>Health utility</b>				
SF-6D Health state utility score	0.68 ± 0.01	0.62 ± 0.01 <sup>*</sup>	0.61 ± 0.01 <sup>*</sup>	0.53 ± 0.01 <sup>*†</sup>
EQ-5D-5L	0.64 ± 0.02	0.56 ± 0.02 <sup>*</sup>	0.54 ± 0.02 <sup>*</sup>	0.34 ± 0.02 <sup>*†</sup>
<b>Health status</b>				
EQ-VAS	64.75 ± 1.84	55.11 ± 1.71 <sup>*</sup>	54.39 ± 1.61 <sup>*</sup>	39.59 ± 1.59 <sup>*†</sup>
<b>Work productivity and activity impairment</b>				
Absenteeism (%)	13.32 ± 2.86	25.85 ± 5.15 <sup>*</sup>	12.77 ± 2.25 <sup>#</sup>	41.46 ± 7.53 <sup>*†</sup>
Presenteeism (%)	17.06 ± 3.34	37.07 ± 6.85 <sup>*</sup>	45.71 ± 7.16 <sup>*</sup>	64.56 ± 11.76 <sup>*#</sup>
Total work productivity impairment (%)	23.70 ± 4.42	46.04 ± 8.14 <sup>*</sup>	51.54 ± 7.75 <sup>*</sup>	75.47 ± 12.77 <sup>*†</sup>
Total activity impairment (%)	28.56 ± 2.80	48.66 ± 4.45 <sup>*</sup>	49.85 ± 4.27 <sup>*</sup>	69.23 ± 5.89 <sup>*†</sup>
<b>Total visits</b>				
Healthcare professional	6.14 ± 0.65	7.54 ± 0.73 <sup>*</sup>	6.25 ± 0.57 <sup>#</sup>	8.16 ± 0.74 <sup>*†</sup>
Primary care physician	1.93 ± 0.23	2.80 ± 0.30 <sup>*</sup>	2.10 ± 0.22 <sup>#</sup>	3.02 ± 0.30 <sup>*†</sup>
ER/urgent care	0.25 ± 0.06	0.35 ± 0.07	0.24 ± 0.05	0.43 ± 0.07 <sup>*†</sup>
Hospitalisations	0.16 ± 0.04	0.15 ± 0.04	0.18 ± 0.04	0.25 ± 0.05 <sup>#</sup>
<b>Ever visited</b>				
Healthcare professional	0.93 ± 0.03	0.97 ± 0.02	0.93 ± 0.03	0.98 ± 0.01 <sup>†</sup>
Primary care physician	0.62 ± 0.06	0.83 ± 0.04 <sup>*</sup>	0.76 ± 0.04 <sup>*</sup>	0.86 ± 0.03 <sup>*†</sup>
ER/urgent care	0.15 ± 0.04	0.23 ± 0.04	0.16 ± 0.03	0.21 ± 0.04
Hospitalisations	0.11 ± 0.03	0.13 ± 0.03	0.12 ± 0.03	0.21 ± 0.04 <sup>*†</sup>

EQ-5D-5L: 5-Level Euro Quality of Life-5 Dimensions; EQ-VAS: EuroQol-Visual Analogue Scales; ER: emergency room; MCS: mental component summary score; PCS: physical component summary score; Rx: prescription; SE: standard error; SF-6D: Short Form 6-dimension; SF-12: Medical Outcomes Study 12-Item Short Form Survey Instrument version 2.

Higher scores on the HAQ, MPQ, absenteeism, presenteeism, work productivity impairment, and activity impairment denote a worse quality of life. Higher scores on the MCS, PCS, SF-12 parameters, health state utility score, EQ-5D-5L, and EQ-VAS denote a better quality of life.

<sup>a</sup> Generalised linear models specifying a normal distribution and identity function were used with normally distributed outcome variables whereas models specifying a negative binomial distribution and log-link function were used with highly positively skewed outcome variables such as work productivity and activity impairment. Covariates included: age, sex, marital status, education, income, employment status, smoking status, alcohol use, exercise, body mass index, CCI, anxiety diagnosis, depression diagnosis, insomnia diagnosis, diagnosed with sleep difficulties, and country of residence. Estimated means are based on models with interaction term of OA group by country.

<sup>\*</sup>  $p < 0.05$ : comparison between mild pain untreated with prescription medications and all other groups.

<sup>#</sup>  $p < 0.05$ : comparison between mild pain treated with prescription medications and moderate/severe pain treated/untreated with prescription medications.

<sup>†</sup>  $p < 0.05$ : comparison between moderate/severe pain untreated with prescription medications and moderate/severe pain treated with prescription medications.

**Supplementary Table S2.** Adjusted mean values for health-related outcomes, work productivity and activity impairment (WPAI), and healthcare resource utilisation (HRU) among respondents with osteoarthritis: France <sup>a</sup>

	Mild pain R- untreated (n=73) (mean ± SE)	Mild pain Rx-treated (n=110) (mean ± SE)	Moderate/ severe pain Rx-untreated (n=183) (mean ± SE)	Moderate/ severe pain Rx-treated (n=137) (mean ± SE)
<b>Health-related quality of life</b>				
MCS	39.15 ± 1.21	38.56 ± 1.05	38.77 ± 0.88	37.60 ± 0.98
PCS	46.60 ± 1.04	39.26 ± 0.91*	41.81 ± 0.76*#	37.54 ± 0.85*†
SF-12 Bodily Pain	42.59 ± 1.04	35.44 ± 0.90*	37.86 ± 0.75*#	33.14 ± 0.84*#†
SF-12 General Health	43.87 ± 1.10	38.81 ± 0.96*	40.28 ± 0.80*	37.81 ± 0.89*†
SF-12 Mental Health	40.14 ± 1.20	39.48 ± 1.05	39.65 ± 0.87	38.34 ± 0.98
SF-12 Physical Functioning	47.26 ± 1.11	41.93 ± 0.97*	43.14 ± 0.80*	39.56 ± 0.90*#†
SF-12 Role Emotional	39.43 ± 1.36	36.04 ± 1.18*	37.39 ± 0.99	35.37 ± 1.11*
SF-12 Role Physical	43.13 ± 1.06	36.55 ± 0.92*	40.02 ± 0.77*#	36.49 ± 0.86*†
SF-12 Social Functioning	41.03 ± 1.16	37.21 ± 1.01*	38.67 ± 0.84	35.87 ± 0.95*†
SF-12 Vitality	44.27 ± 1.12	41.82 ± 0.97	42.26 ± 0.81	39.50 ± 0.91*#†
<b>Health utility</b>				
SF-6D Health state utility score	0.63 ± 0.01	0.57 ± 0.01*	0.60 ± 0.01*#	0.56 ± 0.01*†
EQ-5D-5L	0.62 ± 0.02	0.42 ± 0.02*	0.48 ± 0.02*#	0.34 ± 0.02*#†
<b>Health status</b>				
EQ-VAS	62.46 ± 2.54	50.70 ± 2.21*	52.30 ± 1.84*	43.29 ± 2.06*#†
<b>Work productivity and activity impairment</b>				
Absenteeism (%)	1.33 ± 0.61	29.78 ± 7.97*	28.16 ± 6.03*	87.29 ± 22.06*#†
Presenteeism (%)	19.97 ± 5.43	48.56 ± 11.86*	41.47 ± 8.46*	56.10 ± 13.88*
Total work productivity impairment (%)	22.21 ± 5.93	58.56 ± 13.36*	54.20 ± 10.50*	77.35 ± 17.49*
Total activity impairment (%)	31.98 ± 4.34	59.27 ± 6.98*	47.93 ± 4.66*	62.53 ± 6.83*†
<b>Total visits</b>				
Healthcare professional	7.80 ± 1.12	11.77 ± 1.46*	8.87 ± 0.91#	12.36 ± 1.41*†
Primary care physician	2.83 ± 0.45	3.53 ± 0.48	3.10 ± 0.35	3.79 ± 0.47
ER/urgent care	0.28 ± 0.10	0.43 ± 0.11	0.22 ± 0.06	0.37 ± 0.09
Hospitalisations	0.13 ± 0.06	0.42 ± 0.11*	0.23 ± 0.06	0.35 ± 0.09*
<b>Ever visited</b>				
Healthcare professional	0.94 ± 0.03	0.99 ± 0.01	0.98 ± 0.01	1.00 ± 0.00
Primary care physician	0.88 ± 0.04	0.94 ± 0.03	0.86 ± 0.03	0.97 ± 0.02†
ER/urgent care	0.16 ± 0.06	0.26 ± 0.06	0.15 ± 0.04	0.19 ± 0.05
Hospitalisations	0.12 ± 0.05	0.25 ± 0.06	0.17 ± 0.04	0.24 ± 0.05

EQ-5D-5L: 5-Level Euro Quality of Life-5 Dimensions; EQ-VAS: EuroQol-Visual Analogue Scales; ER: emergency room; MCS: mental component summary score; PCS: physical component summary score; Rx: prescription; SE: standard error; SF-6D: Short Form 6-dimension; SF-12: Medical Outcomes Study 12-Item Short Form Survey Instrument version 2.

Higher scores on the HAQ, MPQ, absenteeism, presenteeism, work productivity impairment, and activity impairment denote a worse quality of life. Higher scores on the MCS, PCS, SF-12 parameters, health state utility score, EQ-5D-5L, and EQ-VAS denote a better quality of life.

<sup>a</sup> Generalised linear models specifying a normal distribution and identity function were used with normally distributed outcome variables whereas models specifying a negative binomial distribution and log-link function were used with highly positively skewed outcome variables such as work productivity and activity impairment. Covariates included: age, sex, marital status, education, income, employment status, smoking status, alcohol use, exercise, body mass index, CCI, anxiety diagnosis, depression diagnosis, insomnia diagnosis, diagnosed with sleep difficulties, and country of residence. Estimated means are based on models with interaction term of OA group by country.

\*  $p < 0.05$ : comparison between mild pain untreated with prescription medications and all other groups.

#  $p < 0.05$ : comparison between mild pain treated with prescription medications and moderate/severe pain treated/untreated with prescription medications.

†  $p < 0.05$ : comparison between moderate/severe pain untreated with prescription medications and moderate/severe pain treated with prescription medications.

**Supplementary Table S3.** Adjusted mean values for health-related outcomes, work productivity and activity impairment (WPAI), and healthcare resource utilisation (HRU) among respondents with osteoarthritis: Germany<sup>a</sup>

	Mild pain Rx-untreated (n=59) (mean ± SE)	Mild pain Rx-treated (n=68) (mean ± SE)	Moderate/severe pain Rx-untreated (n=124) (mean ± SE)	Moderate/severe pain Rx-treated (n=91) (mean ± SE)
<b>Health-related quality of life</b>				
MCS	41.07 ± 1.34	43.17 ± 1.27	40.15 ± 0.99 <sup>#</sup>	40.27 ± 1.10
PCS	41.39 ± 1.16	36.30 ± 1.10*	39.59 ± 0.86 <sup>#</sup>	33.78 ± 0.95* <sup>#†</sup>
SF-12 Bodily Pain	39.12 ± 1.15	33.64 ± 1.09*	35.97 ± 0.85*	30.23 ± 0.95* <sup>#†</sup>
SF-12 General Health	39.35 ± 1.22	36.82 ± 1.16	38.04 ± 0.90	34.70 ± 1.00* <sup>†</sup>
SF-12 Mental Health	41.64 ± 1.33	41.80 ± 1.26	39.21 ± 0.99	38.41 ± 1.10* <sup>#</sup>
SF-12 Physical Functioning	43.35 ± 1.23	40.44 ± 1.17	42.70 ± 0.91	36.87 ± 1.01* <sup>#†</sup>
SF-12 Role Emotional	39.07 ± 1.51	39.90 ± 1.43	38.18 ± 1.12	36.24 ± 1.24 <sup>#</sup>
SF-12 Role Physical	40.35 ± 1.17	36.44 ± 1.11*	37.61 ± 0.87*	34.26 ± 0.96* <sup>†</sup>
SF-12 Social Functioning	40.99 ± 1.29	39.49 ± 1.22	40.35 ± 0.95	37.51 ± 1.06* <sup>†</sup>
SF-12 Vitality	43.11 ± 1.24	44.54 ± 1.17	43.09 ± 0.92	42.02 ± 1.02
<b>Health utility</b>				
SF-6D Health state utility score	0.60 ± 0.02	0.58 ± 0.01	0.59 ± 0.01	0.53 ± 0.01* <sup>#†</sup>
EQ-5D-5L	0.71 ± 0.03	0.63 ± 0.03*	0.67 ± 0.02	0.53 ± 0.02* <sup>#†</sup>
<b>Health status</b>				
EQ-VAS	58.50 ± 2.81	49.15 ± 2.67*	51.44 ± 2.08*	41.22 ± 2.31* <sup>#†</sup>
<b>Work productivity and activity impairment</b>				
Absenteeism (%)	12.98 ± 3.48	67.45 ± 18.89*	64.65 ± 14.38*	113.23 ± 26.39* <sup>†</sup>
Presenteeism (%)	25.80 ± 6.41	48.42 ± 12.40	57.51 ± 11.59*	50.95 ± 12.85*
Total work productivity impairment (%)	30.19 ± 7.32	62.56 ± 15.63*	74.75 ± 14.54*	80.15 ± 16.99*
Total activity impairment (%)	39.05 ± 5.86	53.37 ± 7.53	50.60 ± 5.58	68.24 ± 8.40* <sup>†</sup>
<b>Total visits</b>				
Healthcare professional	8.98 ± 1.43	14.93 ± 2.17*	10.66 ± 1.24	14.30 ± 1.84*
Primary care physician	2.38 ± 0.44	4.23 ± 0.68*	2.74 ± 0.36 <sup>#</sup>	3.76 ± 0.53*
ER/urgent care	0.15 ± 0.07	0.34 ± 0.10	0.28 ± 0.08	0.26 ± 0.07
Hospitalisations	0.07 ± 0.04	0.21 ± 0.08	0.19 ± 0.06	0.17 ± 0.06
<b>Ever visited</b>				
Healthcare professional	0.96 ± 0.03	1.00 ± 0.00	0.93 ± 0.03 <sup>#</sup>	0.99 ± 0.01
Primary care physician	0.73 ± 0.07	0.89 ± 0.05	0.78 ± 0.05	0.82 ± 0.05
ER/urgent care	0.13 ± 0.06	0.18 ± 0.06	0.19 ± 0.05	0.21 ± 0.05
Hospitalisations	0.05 ± 0.03	0.17 ± 0.06*	0.16 ± 0.04*	0.15 ± 0.05*

EQ-5D-5L: 5-Level Euro Quality of Life-5 Dimensions; EQ-VAS: EuroQol-Visual Analogue Scales; ER: emergency room; MCS: mental component summary score; PCS: physical component summary score; Rx: prescription; SE: standard error; SF-6D: Short Form 6-dimension; SF-12: Medical Outcomes Study 12-Item Short Form Survey Instrument version 2.

Higher scores on the HAQ, MPQ, absenteeism, presenteeism, work productivity impairment, and activity impairment denote a worse quality of life. Higher scores on the MCS, PCS, SF-12 parameters, health state utility score, EQ-5D-5L, and EQ-VAS denote a better quality of life.

<sup>a</sup>Generalised linear models specifying a normal distribution and identity function were used with normally distributed outcome variables whereas models specifying a negative binomial distribution and log-link function were used with highly positively skewed outcome variables such as work productivity and activity impairment. Covariates included: age, sex, marital status, education, income, employment status, smoking status, alcohol use, exercise, body mass index, CCI, anxiety diagnosis, depression diagnosis, insomnia diagnosis, diagnosed with sleep difficulties, and country of residence. Estimated means are based on models with interaction term of OA group by country.

\*  $p < 0.05$ : comparison between mild pain untreated with prescription medications and all other groups.

<sup>#</sup>  $p < 0.05$ : comparison between mild pain treated with prescription medications and moderate/severe pain treated/untreated with prescription medications.

<sup>†</sup>  $p < 0.05$ : comparison between moderate/severe pain untreated with prescription medications and moderate/severe pain treated with prescription medications.

**Supplementary Table S4.** Adjusted mean values for health-related outcomes, work productivity and activity impairment (WPAI), and healthcare resource utilisation (HRU) among respondents with osteoarthritis: Spain<sup>a</sup>

	Mild pain Rx-untreated (n=43960 (mean ± SE)	Mild pain Rx-treated (n=79) (mean ± SE)	Moderate/severe pain Rx-untreated (n=89) (mean ± SE)	Moderate/severe pain Rx-treated (n=64) (mean ± SE)
<b>Health-related quality of life</b>				
MCS	43.03 ± 1.34	41.88 ± 1.19	42.46 ± 1.13	39.97 ± 1.28
PCS	45.34 ± 1.15	41.15 ± 1.02*	41.39 ± 0.97*	36.64 ± 1.10* <sup>†</sup>
SF-12 Bodily Pain	45.00 ± 1.14	39.35 ± 1.02*	39.48 ± 0.97*	33.98 ± 1.10* <sup>†</sup>
SF-12 General Health	42.58 ± 1.21	39.63 ± 1.08*	39.74 ± 1.03*	36.69 ± 1.16* <sup>†</sup>
SF-12 Mental Health	43.95 ± 1.33	42.55 ± 1.18	42.38 ± 1.12	39.99 ± 1.27*
SF-12 Physical Functioning	45.80 ± 1.22	42.84 ± 1.09*	42.92 ± 1.04*	37.57 ± 1.17* <sup>†</sup>
SF-12 Role Emotional	40.76 ± 1.50	39.12 ± 1.33	39.40 ± 1.27	35.47 ± 1.44* <sup>†</sup>
SF-12 Role Physical	42.91 ± 1.17	40.12 ± 1.04*	40.54 ± 0.99	37.05 ± 1.12* <sup>†</sup>
SF-12 Social Functioning	42.59 ± 1.28	40.07 ± 1.14	41.56 ± 1.09	36.84 ± 1.23* <sup>†</sup>
SF-12 Vitality	48.07 ± 1.23	45.08 ± 1.09*	46.02 ± 1.04	43.48 ± 1.18*
<b>Health utility</b>				
SF-6D Health state utility score	0.65 ± 0.02	0.61 ± 0.01*	0.62 ± 0.01	0.55 ± 0.01* <sup>†</sup>
EQ-5D-5L	0.73 ± 0.03	0.64 ± 0.02*	0.63 ± 0.02*	0.48 ± 0.03* <sup>†</sup>
<b>Health status</b>				
EQ-VAS	62.93 ± 2.80	52.42 ± 2.49*	55.01 ± 2.37*	45.30 ± 2.68* <sup>†</sup>
<b>Work productivity and activity impairment</b>				
Absenteeism (%)	3.89 ± 1.21	35.63 ± 8.96*	8.24 ± 2.07 <sup>#</sup>	27.52 ± 7.74* <sup>†</sup>
Presenteeism (%)	17.35 ± 4.41	36.19 ± 8.92*	31.40 ± 7.68	60.70 ± 15.71*
Total work productivity impairment (%)	20.73 ± 5.25	54.83 ± 12.67*	39.56 ± 8.87*	65.94 ± 16.80*
Total activity impairment (%)	34.39 ± 5.14	47.06 ± 6.22	42.99 ± 5.37	58.17 ± 8.27*
<b>Total visits</b>				
Healthcare professional	7.33 ± 1.18	12.35 ± 1.69*	10.08 ± 1.33	11.30 ± 1.69*
Primary care physician	2.42 ± 0.43	4.17 ± 0.62*	3.03 ± 0.45	4.59 ± 0.73* <sup>†</sup>
ER/urgent care	0.73 ± 0.21	1.19 ± 0.26	1.01 ± 0.22	1.62 ± 0.36*
Hospitalisations	0.02 ± 0.03	0.16 ± 0.06*	0.08 ± 0.04	0.19 ± 0.07*
<b>Ever visited</b>				
Healthcare professional	0.95 ± 0.03	0.99 ± 0.02	0.95 ± 0.03	0.96 ± 0.03
Primary care physician	0.71 ± 0.07	0.87 ± 0.05	0.75 ± 0.06	0.88 ± 0.05*
ER/urgent care	0.39 ± 0.08	0.44 ± 0.07	0.36 ± 0.07	0.47 ± 0.08
Hospitalisations	0.03 ± 0.03	0.14 ± 0.05*	0.09 ± 0.04	0.17 ± 0.06*

EQ-5D-5L: 5-Level Euro Quality of Life-5 Dimensions; EQ-VAS: EuroQol-Visual Analogue Scales; ER: emergency room; MCS: mental component summary score; PCS: physical component summary score; Rx: prescription; SE: standard error; SF-6D: Short Form 6-dimension; SF-12: Medical Outcomes Study 12-Item Short Form Survey Instrument version 2.

Higher scores on the HAQ, MPQ, absenteeism, presenteeism, work productivity impairment, and activity impairment denote a worse quality of life. Higher scores on the MCS, PCS, SF-12 parameters, health state utility score, EQ-5D-5L, and EQ-VAS denote a better quality of life.

<sup>a</sup>Generalised linear models specifying a normal distribution and identity function were used with normally distributed outcome variables whereas models specifying a negative binomial distribution and log-link function were used with highly positively skewed outcome variables such as work productivity and activity impairment. Covariates included: age, sex, marital status, education, income, employment status, smoking status, alcohol use, exercise, body mass index, CCI, anxiety diagnosis, depression diagnosis, insomnia diagnosis, diagnosed with sleep difficulties, and country of residence. Estimated means are based on models with interaction term of OA group by country.

\*  $p < 0.05$ : Comparison between mild pain untreated with prescription medications and all other groups.

<sup>#</sup>  $p < 0.05$ : comparison between mild pain treated with prescription medications and moderate/severe pain treated/untreated with prescription medications.

<sup>†</sup>  $p < 0.05$ : comparison between moderate/severe pain untreated with prescription medications and moderate/severe pain treated with prescription medications.

**Supplementary Table S5.** Adjusted mean values for health-related outcomes, work productivity and activity impairment (WPAI), and healthcare resource utilisation (HRU) among respondents with osteoarthritis: Italy<sup>a</sup>

	Mild pain Rx-untreated (n=29) (mean ± SE)	Mild pain Rx-treated (n=31) (mean ± SE)	Moderate/severe pain Rx-untreated (n=44) (mean ± SE)	Moderate/severe pain Rx-treated (n=25) (mean ± SE)
<b>Health-related quality of life</b>				
MCS	39.20 ± 1.83	38.58 ± 1.75	36.81 ± 1.53	35.48 ± 1.93
PCS	42.90 ± 1.57	39.38 ± 1.51	42.36 ± 1.32	37.81 ± 1.66*†
SF-12 Bodily Pain	40.15 ± 1.56	35.88 ± 1.50*	36.25 ± 1.31*	33.64 ± 1.65*
SF-12 General Health	40.59 ± 1.66	36.27 ± 1.59*	38.68 ± 1.39	35.77 ± 1.75*
SF-12 Mental Health	39.77 ± 1.81	39.74 ± 1.74	38.02 ± 1.52	36.69 ± 1.91
SF-12 Physical Functioning	45.37 ± 1.67	42.79 ± 1.60	45.00 ± 1.40	39.06 ± 1.77*†
SF-12 Role Emotional	38.50 ± 2.05	36.43 ± 1.96	35.92 ± 1.72	33.41 ± 2.17
SF-12 Role Physical	38.38 ± 1.59	37.55 ± 1.53	39.77 ± 1.33	36.44 ± 1.68
SF-12 Social Functioning	37.40 ± 1.75	35.91 ± 1.68	36.44 ± 1.47	32.11 ± 1.85*
SF-12 Vitality	45.53 ± 1.68	43.52 ± 1.61	43.50 ± 1.41	41.34 ± 1.78
<b>Health utility</b>				
SF-6D Health state utility score	0.60 ± 0.02	0.56 ± 0.02	0.56 ± 0.02	0.51 ± 0.02*
EQ-5D-5L	0.71 ± 0.04	0.69 ± 0.04	0.72 ± 0.03	0.67 ± 0.04
<b>Health status</b>				
EQ-VAS	61.88 ± 3.82	49.36 ± 3.66*	56.02 ± 3.20	49.06 ± 4.04*
<b>Work productivity and activity impairment</b>				
Absenteeism (%)	48.85 ± 15.59	36.19 ± 11.30	21.21 ± 8.22	109.32 ± 37.86†
Presenteeism (%)	35.53 ± 10.93	53.62 ± 15.44	46.22 ± 15.00	73.31 ± 25.88
Total work productivity impairment (%)	46.38 ± 13.50	61.23 ± 17.46	51.92 ± 16.68	98.88 ± 31.96
Total activity impairment (%)	41.78 ± 8.50	55.70 ± 10.80	48.20 ± 8.22	73.37 ± 15.71
<b>Total visits</b>				
Healthcare professional	11.04 ± 2.37	12.52 ± 2.54	11.03 ± 1.97	13.14 ± 2.94
Primary care physician	3.52 ± 0.83	4.61 ± 1.00	3.92 ± 0.76	5.16 ± 1.23
ER/urgent care	0.24 ± 0.14	0.97 ± 0.34*	0.30 ± 0.13	0.23 ± 0.13 <sup>#</sup>
Hospitalisations	0.17 ± 0.11	0.29 ± 0.13	0.04 ± 0.04	0.35 ± 0.16
<b>Ever visited</b>				
Healthcare professional	0.97 ± 0.03	1.00 ± 0.00	0.98 ± 0.02	1.00 ± 0.00
Primary care physician	0.78 ± 0.09	0.77 ± 0.09	0.72 ± 0.09	1.00 ± 0.00*†
ER/urgent care	0.16 ± 0.09	0.34 ± 0.10	0.11 ± 0.06 <sup>#</sup>	0.16 ± 0.09
Hospitalisations	0.06 ± 0.06	0.28 ± 0.10*	0.04 ± 0.04 <sup>#</sup>	0.21 ± 0.10

EQ-5D-5L: 5-Level Euro Quality of Life-5 Dimensions; EQ-VAS: EuroQol-Visual Analogue Scales; ER: emergency room; MCS: mental component summary score; PCS: physical component summary score; Rx: prescription; SE: standard error; SF-6D: Short Form 6-dimension; SF-12: Medical Outcomes Study 12-Item Short Form Survey Instrument version 2.

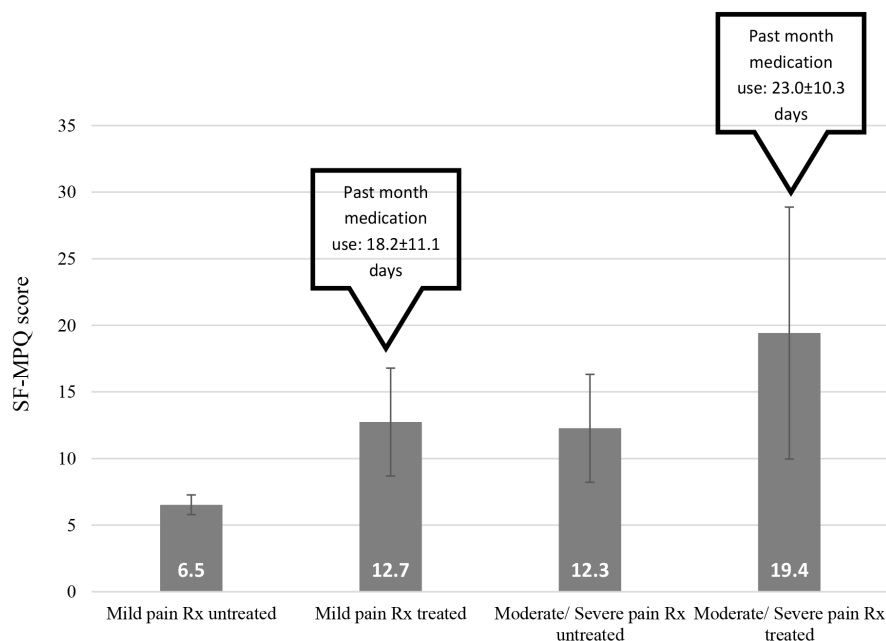
Higher scores on the HAQ, MPQ, absenteeism, presenteeism, work productivity impairment, and activity impairment denote a worse quality of life. Higher scores on the MCS, PCS, SF-12 parameters, health state utility score, EQ-5D-5L, and EQ-VAS denote a better quality of life.

<sup>a</sup> Generalised linear models specifying a normal distribution and identity function were used with normally distributed outcome variables whereas models specifying a negative binomial distribution and log-link function were used with highly positively skewed outcome variables such as work productivity and activity impairment. Covariates included: age, sex, marital status, education, income, employment status, smoking status, alcohol use, exercise, body mass index, CCI, anxiety diagnosis, depression diagnosis, insomnia diagnosis, diagnosed with sleep difficulties, and country of residence. Estimated means are based on models with interaction term of OA group by country.

\*  $p < 0.05$ : comparison between mild pain untreated with prescription medications and all other groups.

<sup>#</sup>  $p < 0.05$ : comparison between mild pain treated with prescription medications and moderate/severe pain treated/untreated with prescription medications.

†  $p < 0.05$ : comparison between moderate/severe pain untreated with prescription medications and moderate/severe pain treated with prescription medications.



**Supplementary Fig. S1.** Short Form-McGill Pain Questionnaire pain scores and medication use among respondents with osteoarthritis according to self-reported pain severity and prescription treatment status<sup>a</sup>

Rx: prescription; SF-MPQ: Short Form-McGill Pain Questionnaire.

<sup>a</sup> Error bars reflect  $\pm 1$  standard deviation from the mean value. Mean pain scores differed overall at  $p < 0.001$ . Main scores in the mild untreated group differed from those in the moderate/severe treated group at  $p < 0.05$ . Mean ( $\pm$ SD) number of days respondent used prescription medication to treat their osteoarthritis differed between treated groups at  $p < 0.001$ .