Supplementary material for Spoendlin J. et al. Oral and inhaled glucocorticoid use and risk of Achilles or biceps tendon rupture: A population-based case-control study, *Annals of Medicine*, 2015;47:492–8.

Supplementary Table 1: The association of oral glucocorticoid use and Achilles or biceps tendon rupture stratified by gender and age

	Cases (n=8202)	%	Controls (n=32808)	%	OR crude	(95% CI)	OR adj.*	(95% CI)
Women	2422		9688					
No oral GC use	1859	76.8	8225	84.9	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	83	3.4	194	2.0	1.97	(1.51-2.57)	1.65	(1.24-2.19)
New oral GC use								
Current use (stratified by time since treatment start)								
<1 month	7	0.3	9	0.1	3.48	(1.29-9.37)	2.91	(1.03-8.23)
1-3 months	15	0.6	31	0.3	2.22	(1.18-4.16)	2.09	(1.08-4.04)
3-6 months	18	0.7	24	0.3	3.39	(1.84-6.27)	3.30	(1.74-6.25)
6 months–1.5 years	32	1.3	44	0.5	3.38	(2.13-5.37)	2.94	(1.80-4.80)
1.5-5 years	51	2.1	83	0.9	2.82	(1.98-4.01)	2.25	(1.54-3.30)
≥5 years	69	2.9	132	1.4	2.58	(1.89-3.51)	2.09	(1.49-2.94)
Recent use (180-364 days)	43	1.8	115	1.2	1.76	(1.23-2.51)	1.35	(0.93-1.97)
Past use (≥365 days)	245	10.1	831	8.6	1.37	(1.17-1.60)	1.25	(1.06-1.47)
Men	5780		23120					
No oral GC use	4998	86.5	20751	89.8	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	134	2.3	378	1.6	1.48	(1.21-1.81)	1.38	(1.12-1.69)
New oral GC use								
Current use (stratified by time since treatment start)								
<1 month	11	0.2	9	0.0	5.06	(2.09-12.22)	4.69	(1.89-11.63)
1-3 months	18	0.3	26	0.1	2.93	(1.59-5.38)	2.77	(1.49-5.13)
3-6 months	31	0.5	63	0.3	2.09	(1.36-3.22)	1.85	(1.19-2.87)
6 months–1.5 years	33	0.6	45	0.2	3.18	(2.01-5.02)	2.72	(1.70-4.37)
1.5-5 years	50	0.9	113	0.5	1.86	(1.33-2.59)	1.60	(1.13-2.28)
≥5 years	70	1.2	155	0.7	1.97	(1.47-2.63)	1.70	(1.26-2.31)
Recent use (180-364 days)	62	1.1	196	0.9	1.32	(0.99-1.77)	1.26	(0.94-1.69)
Past use (≥365 days)	373	6.5	1384	6.0	1.14	(1.01-1.28)	1.07	(0.95-1.21)
<65 years	5175		20561					
No oral GC use	4585	88.6	18763	91.3	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	106	2.1	316	1.5	1.39	(1.11-1.74)	1.32	(1.05-1.67)
New oral GC use								
Current use (stratified by time since treatment start)								
<1 month	8	0.2	9	0.0	3.57	(1.30-9.86)	3.37	(1.20-9.47)
1-3 months	13	0.3	27	0.1	1.81	(0.91-3.60)	1.74	(0.87-3.46)
3-6 months	11	0.2	44	0.2	0.96	(0.48-1.92)	0.89	(0.44-1.79)
6 months–1.5 years	20	0.4	27	0.1	2.37	(1.27-4.42)	2.17	(1.14-4.15)
2-5 years	26	0.5	47	0.2	2.12	(1.30-3.46)	1.93	(1.17-3.19)
≥5 years	35	0.7	93	0.5	1.58	(1.06-2.36)	1.52	(1.01-2.30)
Recent use (180-364 days)	55	1.1	143	0.7	1.60	(1.17-2.20)	1.58	(1.14-2.18)
Past use (≥364 days)	316	6.1	1092	5.3	1.19	(1.04-1.35)	1.16	(1.02-1.33)
≥65 years	2735		11190					
No oral GC use	2005	73.3	9241	82.6	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	108	4.0	239	2.1	2.08	(1.65-2.64)	1.76	(1.36-2.26)
New oral GC use								
Current use (stratified by time since treatment start)								
<1 month	9	0.3	9	0.1	5.01	(1.93-13.02)	4.68	(1.71-12770)
1-3 months	19	0.7	30	0.3	2.92	(1.62-5.26)	2.68	(1.45-4.95)
3-6 months	38	1.4	42	0.4	4.08	(2.62-6.34)	3.66	(2.30-5.83)
6 months–1.5 years	45	1.7	62	0.6	3.37	(2.28-4.98)	3.02	(1.99-4.60)
1.5-5 years	73	2.7	147	1.3	2.26	(1.70-3.00)	1.85	(1.36-2.53)
≥5 years	104	3.8	193	1.7	2.68	(2.08-3.45)	2.13	(1.61-2.82)
Recent use (180-364 days)	49	1.8	163	1.5	1.41	(1.02-1.94)	1.14	(0.82-1.60)
Past use (≥365 days)	285	10.4	1064	9.5	1.26	(1.09-1.45)	1.12	(0.96-1.30)

OR = Odds ratio, CI = confidence interval, GC = glucocorticoids.

* adjusted for smoking, obesity, alcohol consumption, diabetes, gout, chronic kidney disease, osteoarthritis, infectious arthritis, osteoporosis, rheumatoid arthritis, lupus, polymyalgia rheumatica, inflammatory bowel disease, vasculitis, concomitant use of fluoroquinolones, hormone replacement therapy, statins, locally injected GC.

Supplementary Table 2: The association of oral or inhaled glucocorticoid use and Achilles tendon rupture only

	Cases (n=5027)	(%)	Controls (n=20108)	(%)	OR crude	95% CI	OR adj.*	95% CI
Oral GC								
No oral GC use	4331	86.2	18106	90.0	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	121	2.4	323	1.6	1.60	(1.29-1.98)	1.45	(1.17-1.81)
New oral GC use								
Current use (stratified by time since treatment start)								
<1 month	8	0.2	8	0.0	4.07	(1.53-10.84)	3.38	(1.24-9.18)
1-3 months	19	0.4	28	0.1	2.89	(1.60-5.21)	2.58	(1.42-4.69)
3-6 months	31	0.6	53	0.3	2.49	(1.59-3.88)	2.15	(1.36-3.39)
6 months-1.5 years	33	0.7	37	0.2	3.89	(2.42-6.25)	2.76	(1.68-4.54)
1.5-5 years	58	1.2	88	0.4	2.83	(2.03-3.95)	2.30	(1.62-3.26)
≥5 years	60	1.2	115	0.6	2.37	(1.71-3.28)	1.94	(1.38-2.74)
Recent (180-364 days)	52	1.0	167	0.8	1.35	(0.98-1.84)	1.22	(0.89-1.68)
Past (≥365 days)	314	6.3	1183	5.9	1.14	(1.00-1.30)	1.09	(0.95-1.24)
Inhaled GC								
No inhaled GC use	4329	86.1	17847	88.8	1.00	(ref.)	1.00	(ref.)
Prevalent inhaled GC use	264	5.3	751	3.7	1.46	(1.26-1.69)	1.23	(1.06-1.43)
New inhaled GC use								
Timing and duration								
Current use, 1-9 prescriptions	67	1.3	198	1.0	1.41	(1.06-1.86)	1.26	(0.95-1.68)
Current use, 10-39 prescriptions	73	1.5	218	1.1	1.39	(1.06-1.81)	1.20	(0.91-1.58)
Current use, ≥40 prescriptions	18	0.4	69	0.3	1.08	(0.64-1.83)	1.02	(0.60-1.73)
Past use	276	5.5	1025	5.1	1.12	(0.97-1.28)	1.02	(0.88-1.18)

OR = Odds ratio, CI = confidence interval, ATR = Achilles tendon rupture, GC = Glucocorticoids

* adjusted for smoking, obesity, alcohol consumption, diabetes, gout, chronic kidney disease, osteoarthritis, infectious arthritis, osteoporosis, rheumatoid arthritis, lupus, polymyalgia rheumatica, inflammatory bowel disease, vasculitis, concomitant use of fluoroquinolones, hormone replacement therapy, statins, fibrates, and locally injected GC (additionally for oral GC use for inhaled GC).

Supplementary Table 3: The association of oral or inhaled glucocorticoid use and biceps tendon rupture only

	Cases (n=3175)	%	Controls (n=12700)	%	OR crude	(95% CI)	OR adj.*	(95% CI)
Oral GC								
No oral GC use	2526	79.6	10870	85.6	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	96	3.0	249	2.0	1.69	(1.33-2.15)	1.50	(1.16-1.94)
New oral GC use								
Current (stratified by time since treatment start)								
<1 month	10	0.3	10	0.1	4.36	(1.81-10.50)	4.00	(1.57-10.21)
1-3 months	14	0.4	29	0.2	2.16	(1.13-4.14)	2.17	(1.09-4.30)
3-6 months	18	0.6	34	0.3	2.33	(1.32-4.14)	2.05	(1.12-3.76)
6 months-1.5 years	32	1.0	52	0.4	2.78	(1.78-4.35)	2.74	(1.70-4.42)
1.5-5 years	43	1.4	108	0.9	1.75	(1.22-2.49)	1.52	(1.03-2.25)
≥5 years	79	2.5	172	1.4	2.12	(1.61-2.80)	1.85	(1.37-2.50)
Recent use (180-364 days)	53	1.7	144	1.1	1.60	(1.17-2.20)	1.50	(1.08-2.09)
Past use (≥365 days)	304	9.6	1032	8.1	1.30	(1.14-1.50)	1.20	(1.04-1.39)
Inhaled GC								
No inhaled GC use	2660	83.8	11098	87.4	1.00	(ref.)	1.00	(ref.)
Prevalent inhaled GC use	164	5.2	432	3.4	1.60	(1.33-1.93)	1.44	(1.18-1.75)
New inhaled GC use								
Timing and duration								
Current use, 1-9 prescriptions	34	1.1	126	1.0	1.13	(0.77-1.65)	1.00	(0.67-1.48)
Current use, 10-39 prescriptions	56	1.8	191	1.5	1.23	(0.91-1.67)	1.15	(0.84-1.58)
Current use, ≥40 prescriptions	37	1.2	121	1.0	1.30	(0.89-1.89)	1.08	(0.73-1.60)
Past use	224	7.1	732	5.8	1.29	(1.10-1.51)	1.14	(0.96-1.34)

OR = Odds ratio, CI = confidence interval, BTR = biceps tendon rupture, GC = Glucocorticoids.

* adjusted for smoking, obesity, alcohol consumption, diabetes, gout, chronic kidney disease, osteoarthritis, infectious arthritis, osteoporosis, rheumatoid arthritis, lupus, polymyalgia rheumatica.

Supplementary Table 4: The association of oral or inhaled glucocorticoid use and Achilles or biceps tendon rupture in patients with a diagnostic imaging work up or a specialist referral within 90 days prior to tendon rupture

	Cases (n=2736)	%	Controls (n=10944)	%	OR crude	(95% CI)	OR adj.*	(95% CI)
Oral GC								
No oral GC use	2250	82.2	9643	88.1	1.00	(ref.)	1.00	(ref.)
Prevalent oral GC use	85	3.1	178	1.6	2.10	(1.61-2.74)	1.96	(1.49-2.59)
New oral GC use								
Current (stratified by time since treatment start)								
<1 month	6	0.2	9	0.1	2.79	(0.99-7.84)	2.62	(0.91-7.60)
1-3 months	14	0.5	14	0.1	4.56	(2.16-9.61)	4.31	(2.02-9.17)
3-6 months	15	0.6	35	0.3	1.88	(1.03-3.46)	1.82	(0.97-3.39)
6 months–1.5 years	20	0.7	29	0.3	3.28	(1.84-5.87)	3.19	(1.74-5.88)
1.5-5 years	30	1.1	48	0.4	2.82	(1.78-4.47)	2.64	(1.60-4.25)
≥5 years	55	2.0	97	0.9	2.75	(1.94-3.91)	2.40	(1.64-3.50)
Recent use (180-364 days)	35	1.3	97	0.9	1.62	(1.10-2.40)	1.46	(0.98-2.19)
Past (≥365 days)	226	8.3	794	7.3	1.27	(1.08-1.49)	1.21	(1.03-1.43)
Inhaled GC								
No inhaled GC use	2272	83.0	9629	88.0	1.00	(ref.)	1.00	(ref.)
Prevalent inhaled GC use	177	6.5	388	3.6	1.95	(1.62-2.35)	1.83	(1.51-2.21)
New inhaled GC use								
<i>Timing and duration</i>								
Current use, 1-9 prescriptions	35	1.3	93	0.9	1.59	(1.07-2.35)	1.49	(1.00-2.23)
Current use, 10-39 prescriptions	37	1.4	115	1.1	1.37	(0.95-1.99)	1.37	(0.94-2.00)
Current use, ≥40 prescriptions	12	0.4	58	0.5	0.88	(0.47-1.64)	0.87	(0.46-1.65)
Past use	203	7.4	661	6.0	1.32	(1.11-1.56)	1.24	(1.04-1.47)

OR = Odds ratio, CI = confidence interval, GC = glucocorticoids.

* adjusted for smoking, obesity, alcohol consumption, diabetes, gout, chronic kidney disease, osteoarthritis, infectious arthritis, osteoporosis, rheumatoid arthritis, lupus, polymyalgia rheumatica, inflammatory bowel disease, vasculitis, concomitant use of fluoroquinolones, hormone replacement therapy, statins, fibrates, and locally injected GC (additionally for oral GC use for inhaled GC).