

Table 1 Characteristics of the sample: cases and controls

Characteristic	RA cases (n=3577)	Controls (n=14287)
Age (Mean (SD))	58.8 (14.5)	58.8 (14.5)
Female gender (n (%))	2389 (66.8)	9548 (66.8)
Smoking status (n (%))		
Current smoker	807 (22.6)	2553 (18.2)
Previous smoker	1171 (32.8)	3708 (26.4)
Never smoker	1598 (44.7)	7766 (55.4)

Table 2 Associations of RA with [joint-articular](#) symptoms in preceding time periods

Sign/symptom	Cases, n (%)	Controls, n (%)	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)
0 to 1 months before index date				
Shoulder problems	61 (1.71)	47 (0.33)	5.26 (3.59, 7.72)	3.28 (2.14, 5.05)
Neck problems	29 (0.81)	28 (0.20)	4.14 (2.46, 6.96)	2.44 (1.36, 4.4)
Foot problems	51 (1.43)	36 (0.25)	5.88 (3.81, 9.09)	3.46 (2.13, 5.62)
Hand problems	220 (6.15)	12 (0.08)	87.51 (46.43, 164.92)	61.07 (31.58, 118.10)
Jaw pain	5 (0.14)	^b	6.67 (1.59, 27.9)	1.92 (0.41, 9.12)
Frozen shoulder	6 (0.17)	^b	6.00 (1.69, 21.26)	4.97 (1.16, 21.32)
Joint symptoms	955 (26.70)	251 (1.76)	21.16 (17.98, 24.90)	14.82 (12.48, 17.60)
Palindromic				
rheumatism	^b	0 (0.00)	NE	NE
0 to 6 months before index date				
Shoulder problems	276 (7.76)	244 (1.71)	4.70 (3.94, 5.61)	3.37 (2.79, 4.06)
Neck problems	123 (3.44)	146 (1.02)	3.44 (2.70, 4.39)	2.35 (1.80, 3.06)
Foot problems	165 (4.61)	153 (1.07)	4.52 (3.61, 5.67)	3.43 (2.69, 4.38)
Hand problems	436 (12.19)	48 (0.34)	44.14 (31.80, 61.25)	39.10 (27.80, 55.00)
Jaw pain	13 (0.36)	15 (0.1)	3.47 (1.65, 7.29)	3.82 (1.65, 8.86)
Frozen shoulder	36 (1.01)	20 (0.14)	7.20 (4.17, 12.44)	5.13 (2.85, 9.24)
Joint symptoms	1857 (51.92)	1173 (8.21)	12.85 (11.59, 14.25)	10.29 (9.25, 11.45)
Palindromic				
rheumatism	9 (0.25)	0 (0.00)	NE	NE

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^a Adjusted rate number of consultations in time period; ^b cell count <5. Data with-held to avoid de-anonymising data

Table 3 Associations of RA with non-articular signs/symptoms in preceding time periods

Sign/symptom	Cases, n (%)	Controls, n (%)	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)
0 to 1 months before index date				
Fatigue	22 (0.62)	42 (0.29)	2.10 (1.25, 3.51)	0.74 (0.41, 1.34)
Falls	^b	^b	1.33 (0.14, 12.82)	1.35 (0.10, 18.86)
Altered sensations	8 (0.22)	9 (0.06)	3.56 (1.37, 9.22)	1.92 (0.69, 5.33)
Occurred postnatally	5 (0.14)	10 (0.07)	2.00 (0.68, 5.85)	0.74 (0.21, 2.62)
Psychological problems	23 (0.64)	68 (0.48)	1.36 (0.84, 2.18)	0.63 (0.37, 1.08)
Flu-like illness	7 (0.2)	13 (0.09)	1.85 (0.70, 4.86)	1.14 (0.39, 3.30)
Morning stiffness	14 (0.39)	0 (0.00)	NE	NE
Unintentional weight loss	5 (0.14)	7 (0.05)	2.86 (0.91, 90)	1.04 (0.29, 3.72)
Physical functioning				
problems	^b	5 (0.03)	2.40 (0.57, 10.04)	1.37 (0.19, 9.94)
Cramps	^b	11 (0.08)	1.45 (0.46, 4.57)	0.93 (0.28, 3.13)
Weakness	^b	5 (0.03)	1.60 (0.31, 8.25)	0.42 (0.06, 2.88)
Sleep problems	^b	8 (0.06)	1.50 (0.40, 5.65)	0.43 (0.09, 2.01)
Muscle pain	26 (0.73)	6 (0.04)	17.33 (7.13, 42.11)	13.83 (5.11, 37.42)
Restless legs	^b	^b	4.00 (0.25, 63.95)	1.48 (0.07, 30.54)
Carpal tunnel syndrome	21 (0.59)	14 (0.1)	6.00 (3.05, 11.80)	2.96 (1.38, 6.34)
0 to 6 months before index date				
Fatigue	92 (2.57)	234 (1.64)	1.59 (1.24, 2.03)	1.00 (0.76, 1.30)
Falls	5 (0.14)	21 (0.15)	0.94 (0.32, 2.78)	0.34 (0.10, 1.12)
Altered sensations	44 (1.23)	68 (0.48)	2.63 (1.79, 3.87)	1.53 (1.00, 2.34)
Occurred postnatally	20 (0.56)	52 (0.36)	1.57 (0.93, 2.67)	0.88 (0.50, 1.55)

Psychological problems	110 (3.08)	324 (2.27)	1.38 (1.11, 1.73)	0.72 (0.56, 0.92)
Flu-like illness	26 (0.73)	75 (0.52)	1.34 (0.85, 2.12)	0.77 (0.46, 1.26)
Morning stiffness	20 (0.56)	^b	26.67 (7.92, 89.74)	17.18 (4.88, 60.43)
Unintentional weight loss	26 (0.73)	30 (0.21)	3.47 (2.05, 5.86)	1.87 (1.04, 3.36)
Physical functioning				
problems	14 (0.39)	22 (0.15)	2.55 (1.30, 4.97)	0.90 (0.42, 1.94)
Cramps	22 (0.62)	44 (0.31)	2.01 (1.20, 3.37)	1.43 (0.82, 2.50)
Weakness	13 (0.36)	17 (0.12)	3.14 (1.51, 6.55)	1.74 (0.76, 4.00)
Sleep problems	7 (0.2)	36 (0.25)	0.77 (0.33, 1.76)	0.47 (0.19, 1.16)
Muscle pain	55 (1.54)	33 (0.23)	6.67 (4.33, 10.26)	4.52 (2.83, 7.24)
Restless legs	8 (0.22)	11 (0.08)	3.03 (1.19, 7.73)	1.08 (0.38, 3.06)
Carpal tunnel syndrome	77 (2.15)	37 (0.26)	8.5 (5.72, 12.62)	7.20 (4.66, 11.13)

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