

**Supplementary Table S1.** Demographic data for patients with RA in the combined RA cohort.

Characteristic	Alcohol intake in UK units/week <sup>†</sup>				
	0 (n=17331)	1–7 (n=8012)	8–14 (n=2821)	15–20 (n=1091)	>21 (n=1065)
Sex, female %	77.3	70.9	54.0	32.2	21.7
Age, median	62.6	60.6	59.3	59.1	58.2
Body Mass Index, kg/m <sup>2</sup>	27.1	26.6	26.4	26.8	27.2
Current smoking, %	22.0	29.1	33.7	35.7	35.0
Townsend Deprivation Index	2.8	2.4	2.4	2.4	2.6

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

\*n: number of patients in each group; RA: rheumatoid arthritis; UK: United Kingdom.

**Supplementary Table S2.** Demographic data for patients with RA exposed to MTX.

Characteristic	Alcohol intake in UK units/week <sup>†</sup>				
	0 (n=8784)	1–7 (n=4130)	8–14 (n=1394)	15–20 (n=498)	>21 (n=460)
Sex, female %	78.2	71.9	55.5	31.9	23.0
Age, median	60.4	59.3	58.2	58.7	57.8
Body Mass Index, kg/m <sup>2</sup>	27.3	26.6	26.3	27.0	27.0
Current smoking, %	23.5	19.2	25.3	30.5	37.4
Townsend Deprivation Index	2.7	2.4	2.4	2.4	2.5

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

\*n: number of patients in each group; RA: rheumatoid arthritis; UK: United Kingdom.

**Supplementary Table S3.** Demographic data for patients with RA taking only non-MTX DMARDs.

Characteristic	Alcohol intake in UK units/week <sup>†</sup>				
	0 (n=3418)	1–7 (n=1500)	8–14 (n=546)	15–20 (n=240)	>21 (n = 233)
Sex, female %	75.8	68.3	51.1	33.8	21.0
Age, median	63.2	61.0	59.0	59.1	58.6
Body Mass Index, kg/m <sup>2</sup>	27.1	26.5	26.4	26.7	27.4
Current smoking, %	25.1	21.3	26.7	28.8	35.6
Townsend Deprivation Index	2.8	2.4	2.4	2.4	2.6

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

\*n: number of patients in each group; DMARDs: disease-modifying anti-rheumatic drugs; MTX: methotrexate; RA: rheumatoid arthritis; UK: United Kingdom.

**Supplementary Table S4.** Secondary analysis of the relation of alcohol use to all-cause mortality in the combined RA cohort additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	17331	3757	1.00 (Reference)	1.00 (Reference)
1-7	8012	1423	0.82 (0.77 – 0.87)	0.81 (0.76 – 0.86)
8-14	2821	431	0.84 (0.76 – 0.92)	0.75 (0.68 – 0.83)
15-21	1091	185	1.02 (0.88 – 1.19)	0.85 (0.73 – 0.99)
>21	1065	198	1.34 (1.16 – 1.54)	1.00 (0.86 – 1.16)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

**Supplementary Table S5.** Secondary analysis of the relation of alcohol use to all-cause mortality in patients with RA exposed to MTX additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	8784	1445	1.00 (Reference)	1.00 (Reference)
1-7	4130	623	0.90 (0.82 – 0.99)	0.91 (0.83 – 1.00)
8-14	1394	149	0.75 (0.64 – 0.89)	0.69 (0.58 – 0.82)
15-21	498	65	0.94 (0.73 – 1.20)	0.81 (0.63 – 1.05)
>21	460	72	1.34 (1.05 – 1.70)	1.05 (0.82 – 1.34)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

\*CI: confidence interval; HR: hazard ratio; MTX: methotrexate; n: number of patients in each group; RA: rheumatoid arthritis.

**Supplementary Table S6.** Secondary analysis of the relation of alcohol use to all-cause mortality in patients with RA exposed to only non-MTX DMARDs additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	3418	934	1.00 (Reference)	1.00 (Reference)
1-7	1500	299	0.72 (0.63 – 0.82)	0.71 (0.62 – 0.81)
8-14	546	99	0.75 (0.61 – 0.93)	0.66 (0.54 – 0.82)
15-21	240	45	0.87 (0.64 – 1.17)	0.72 (0.53 – 0.98)
>21	233	42	1.06 (0.78 – 1.44)	0.80 (0.58 – 1.09)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

\*CI: confidence interval; DMARDs: disease-modifying anti-rheumatic drugs; HR: hazard ratio; MTX: methotrexate; n: number of patients in each group; RA: rheumatoid arthritis.

**Supplementary Table S7.** Sub-group analysis comparing all-cause mortality in lifelong non-drinkers and past drinkers among patients with RA exposed to MTX.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
Non-drinker	6022	1109	1.00 (Reference)	1.00 (Reference)
Past drinker	2762	336	0.97 (0.86 – 1.10)	1.10 (0.97 – 1.25)
1-7	4130	623	0.88 (0.80 – 0.97)	0.91 (0.83 – 1.01)
8-14	1394	149	0.75 (0.63 – 0.89)	0.71 (0.60 – 0.84)
15-21	498	65	0.97 (0.75 – 1.24)	0.83 (0.64 – 1.07)
>21	460	72	1.33 (1.05 – 1.69)	1.10 (0.86 – 1.41)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, and Townsend deprivation index.

\*CI: confidence interval; HR: hazard ratio; MTX: methotrexate; n: number of patients in each group; RA: rheumatoid arthritis.

**Supplementary Table S8.** Secondary analysis of the relation of alcohol use to myocardial infarction risk in the combined RA cohort additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	16552	657	1.00 (Reference)	1.00 (Reference)
1-7	7674	270	0.84 (0.73 – 0.96)	0.83 (0.72 – 0.96)
8-14	2685	106	1.07 (0.87 – 1.31)	0.86 (0.70 – 1.06)
15-21	1032	29	0.77 (0.53 – 1.11)	0.52 (0.36 – 0.76)
>21	1024	36	1.05 (0.75 – 1.46)	0.60 (0.43 – 0.85)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

\*CI: confidence interval; HR: hazard ratio; n: number of patients in each group; RA: rheumatoid arthritis.

**Supplementary Table S9.** Secondary analysis of the relation of alcohol use to myocardial infarction risk in patients with RA exposed to MTX additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	8434	318	1.00 (Reference)	1.00 (Reference)
1-7	3965	144	0.89 (0.73 – 1.09)	0.90 (0.74– 1.10)
8-14	1331	59	1.25 (0.95 – 1.65)	0.99 (0.75 – 1.32)
15-21	473	13	0.74 (0.43 – 1.29)	0.49 (0.28 – 0.86)
>21	445	13	0.86 (0.50 – 1.50)	0.49 (0.28 – 0.87)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

\*CI: confidence interval; HR: hazard ratio; MTX: methotrexate; n: number of patients in each group; RA: rheumatoid arthritis.

**Supplementary Table S10.** Secondary analysis of the relation of alcohol use to myocardial infarction risk in patients with RA exposed to only non-MTX DMARDs additionally adjusting for hypertension, hyperlipidaemia, and diabetes status.

Alcohol intake (units/week) <sup>†</sup>	n	Events	Unadjusted HR (95% CI)	Adjusted HR <sup>‡</sup> (95% CI)
0	3256	153	1.00 (Reference)	1.00 (Reference)
1-7	1435	47	0.66 (0.48 – 0.92)	0.64 (0.46 – 0.89)
8-14	524	17	0.72 (0.43 – 1.18)	0.60 (0.36 – 1.00)
15-21	230	8	0.80 (0.39 – 1.64)	0.59 (0.28 – 1.21)
>21	227	10	1.20 (0.63 – 2.28)	0.78 (0.40 – 1.52)

<sup>†</sup>Units based on standard UK measures where 1 unit = 8g alcohol. By US standards, 7 UK units = 4 US drinks.

<sup>‡</sup>Adjusted for age, sex, BMI, smoking status, Townsend deprivation index, hypertension, hyperlipidaemia, and diabetes status.

\*CI: confidence interval; DMARDs: disease-modifying anti-rheumatic drugs; HR: hazard ratio; MTX: methotrexate; n: number of patients in each group; RA: rheumatoid arthritis.