Never and previous smokers had higher odds of remission at 1 year's follow-up compared to current smokers. In adjusted Cox regression analyses, baseline smoking was associated with shorter time to start of first bDMARD (Table 2).

Table 2. Impact of baseline smoking status on treatment outcomes

	Comparison	Odds Ratio (95% CI)	p
DAS28-remission 1 yr, yes vs. no*	Never vs. current smoker	1.43 (1.27;1.62)	<0.001
	Previous vs. current	1.14 (0.99;1.30)	0.07
CDAI remission 1 yr, yes vs. no*	Never vs. current	1.53 (1.34;1.75)	<0.001
	Previous vs. current	1.29 (1.11;1.50)	<0.001
Start of bDMARD during follow-up**	Comparison	Hazard Ratio (95% CI)	p
	Never vs current smoker	0.85 (0.76;0.96)	0.006
	Previous vs. current	1.05 (0.93;1.19)	0.4

*Logistic regression analyses (adjusted for gender and age)

** Cox regression analyses (adjusted for gender and age)

Conclusion: In this observational study of >8000 patients with RA starting a first csDMARD, current smoking was associated with lower odds of achieving remission on methotrexate and higher chance of having started bDMARD compared to never smokers. Seropositivity may be an intermediate variable. Further analyses are planned to study impact of comorbidities and other confounding factors.

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CARDIO- AND CEREBROVASCULAR RISK WITH CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS (CSDMARDS) IN RHEUMATOID ARTHRITIS (RA): A REAL-WORLD COMPARATIVE ASSESSMENT

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Background: RA is associated with an increased cardiovascular (CV) risk. csDMARDs are first-line treatments for RA and can mitigate this risk, but limited data exist on their CV effects. Previous trials have reported protective effects for methotrexate (MTX) and hydroxychloroquine (HCQ), but no similar data exist on sulfasalazine (SSZ) or leflunomide (LEF).

Objectives: To assess the comparative effect of csDMARDs on the risk of myocardial infarction (MI) and stroke in RA patients

Methods: Data from 6 claims/electronic health records databases across Germany, US, and UK, all mapped to the Observational Medical Outcomes Partnership (OMOP) common data model. A cohort study was conducted including patients ≥18 years old, with first RA diagnosis in 2005-2019,

initiating csDMARD monotherapy with MTX, HCQ, SSZ, or LEF. Those with a prior diagnosis of other inflammatory arthritis or <1 year prior follow-up were excluded. Patients were followed until first outcome, death, loss of or 5 years follow-up. Propensity score stratification was used, and hazard ratios (HR) estimated for HCQ, SSZ and LEF compared to MTX in each dataset using Cox regression. HR were calibrated (cHR) for residual confounding using negative control outcomes. Estimates were pooled where I² for heterogeneity <0.4. Intention to treat and an on treatment analyses are reported.

Results: 145,248 patients were included (MTX: 73,996, HCQ: 49,752, SSZ: 12,256, LEF: 9,244). Pooled rates of MI and stroke for MTX were 7.64 and 10.26 per 1,000 person years respectively. Detailed estimate cHRs are shown in Figure 1 for the intention to treat analysis. MI risk with SSZ and LEF was comparable to MTX. Risk of stroke was similar between LEF and MTX, but reduced for HCQ and SSZ compared to MTX, with pooled cHR (95% CI) 0.86 (0.78 to 0.95) and 0.71 (0.52 to 0.98) for HCQ and SSZ respectively. Similar results were found for "on treatment" analyses.

Figure 1. Calibrated hazard ratios (cHRs) for MI and stroke

Conclusion: Overall, all four csDMARDs had similar effects on MI risk. HCQ and SSZ use were associated with a decreased risk of stroke compared to MTX. The observed differences may be attributable to differential effects on the atherosclerotic process, differential disease control, or both.

Database estimates not reported where adequate covariate balance not attained. Meta-analysis results not reported where I²>0.4. MEDICARE did not pass diagnostics for SSZ and LEF analyses. cHR: calibrated Hazard Ratio; CI: Confidence Interval; MTX: Methotrexate; HCQ: Hydroxychloroquine; SSZ: sulphasalazine; LEF: Leflunomide; THIN: The Health Improvement Network (UK); Optum: Optum de-identified Clinformatics Datamart (US); MDCR: Medicare (US); GERMANY: IQVIA Disease Analyzer EMR (Germany); CCAE: IBM MarketScan Commercial Claims and Encounters (US); AMBEMR: IQVIA Ambulatory EMR (US)

Database estimates not reported where adequate covariate balance not attained. Meta-analysis results not reported where I²>0.4. MEDICARE did not pass diagnostics for SSZ and LEF analyses. cHR: calibrated Hazard Ratio; CI: Confidence Interval; MTX: Methotrexate; HCQ: Hydroxychloroquine; SSZ: sulphasalazine; LEF: Leflunomide; THIN: The Health Improvement Network (UK); Optum: Optum de-identified Clinformatics Datamart (US); MDCR: Medicare (US); GERMANY: IQVIA Disease Analyzer EMR (Germany); CCAE: IBM MarketScan Commercial Claims and Encounters (US); AMBEMR: IQVIA Ambulatory EMR (US)

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