dose of MTX ($\geq 15\text{mg/wk}$) (HM-group). A multinomial logistic regression model was used to test the association between MTX start dose and EULAR response at 6 months, with adjustments (see table) (relative risk ratio (RRR), 95% CI). The model was clustered by centre to account for the prescribing preferences of individual centres.

Results: 810 patients were included in this study: 171/810 (21%) starting low dose MTX and 639/810 (79%) starting high dose MTX. Patients in the HM-group had significantly lower physician and patient VAS scores and less functional disability compared to those in the LM-group (table). These patients were also less likely to be prescribed concomitant (nbDMARDs) (17% vs. 10%). DAS28 score at 6 months was significantly lower for patients in the HM-group.

A fully adjusted multinomial logistic regression model, clustered by centre, showed that being in the high dose MTX group does not affect the odds of having a moderate response rather than no response, but does increase the odds of having a good response (RRR: 2.65 (95% CI 1.37, 5.14)).

Conclusions: Patients with RA starting MTX on a higher dose have increased odds of having a good EULAR response compared to non-response at 6 months.

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OP0226 SUSTAINED EFFECTIVENESS OF METHOTREXATE WITH STEP-DOWN GLUCOCORTICOID REMISSION INDUCTION (COBRA SLIM) FOR EARLY RHEUMATOID ARTHRITIS IN A TREAT-TO-TARGET SETTING: 2-YEAR RESULTS OF THE CARERA TRIAL

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Background: The CareRA trial showed that remission induction with MTX and a moderate-dose of Glucocorticoids (GC) (COBRA Slim) in a treat-to-target setting is effective and safe in early Rheumatoid Arthritis (eRA) patients. This strategy showed equally high remission rates at 52 weeks (W), a favourable safety profile compared to DMARD combinations and GC and very few patients had to start biologicals.

Objectives: To compare the outcome of different intensive combination treatment strategies in high-risk patients of the CareRA trial at W104, focussing on persistent disease control.

Methods: CareRA is a two-year prospective investigator-initiated pragmatic multicentre RCT; csDMARD naïve eRA patients were stratified into a high- or low-risk group based on classical prognostic markers (presence of erosions, RF, anti-CCP and DAS28-CRP). High-risk patients (n=289) were randomized to 1/3 arms: 1) COBRA Classic (n=98): Methotrexate (MTX)+Sulphasalazine+60mg prednisone tapered weekly to 7.5mg daily from W7; 2) COBRA Slim (n=98): MTX+30mg prednisone tapered to 5 mg daily from W6; 3) COBRA Avant-Garde (n=93): MTX+Leflunomide+30mg prednisone tapered to 5 mg daily from W6. From W28, GCs were tapered in all patients and stopped at W34. A predefined treat-to-target approach was applied until W52 and afterwards treatment was at the discretion of the rheumatologist. From W40, DMARD monotherapy was aimed for. From W28 onwards patients were evaluated every 3 months till W104. Efficacy measures were proportions of DAS28-CRP remission, good EULAR response, clinically meaningful HAQ response, HAQ=0 (ITT analysis). Adverse events related to therapy (AEs) were registered. Missing data were imputed by last observation carried forward.

Results: Remission rates at W104 in high-risk patients were 65.3%, 73.5% and 73.1% in the Classic, Slim and Avant-Garde group respectively (p=0.369). Also, other efficacy outcomes did not differ between groups (see table). From the high-risk patients that were in remission at year 1, 54.7%, 67.8% and 70.2% in the Classic, Slim and Avant-Garde group respectively, stayed in remission at

	COBRA classic N=98	COBRA slim (high-risk) N=98	COBRA Avant-Garde N=93	p-value
DAS28-CRP change BL-w104	2.6±1.4	2.6±1.3	2.6±1.6	0.966
DAS28-CRP change w52-w104	0.0±1.0	0.2±1.0	0.3±1.1	0.112
DAS28 Remission w52	65.3%	60.2%	61.3%	0.741
DAS28 Remission w104	65.3%	73.5%	73.1%	0.369
Good EULAR response	78.6%	81.6%	78.5%	0.826
Clinically meaningful HAQ change	70.4%	62.2%	70.7%	0.363
HAQ = 0	39.8%	37.8%	38.7%	0.958

DAS28-CRP= 28 Joint disease activity score calculated with C-reactive protein; remission = DAS28-CRP <2.6; low disease activity = DAS-CRP ≤3.2; good EULAR response = low disease activity with a DAS28-CRP change >1.2; HAQ= health assessment questionnaire; clinically meaningful HAQ change = HAQ change >0.22.

every three-monthly evaluation until w104. Also DAS28-CRP scores remained relatively stable during the second year in these groups. In high-risk patients, the total numbers of AEs reported as related to study therapy, were 209 in 72 Classic patients, 164 in 69 Slim patients and 208 in 74 Avant-Garde patients (p=0.029). Serious AEs were reported in 3 Classic, 4 Slim and 3 Avant-Garde patients. Biologicals were started in 44 high-risk patients (15.2%), of which 7 receiving 2 different biologicals and 2 receiving 3 different ones. Biologicals were administered in 18 Classic, 11 Slim and 15 Avant-Garde patients.

Conclusions: All groups showed persistently high remission rates 2 years after remission induction with csDMARDs and GCs in a treat to target setting. COBRA Slim showed comparable efficacy with less adverse events compared to DMARD combinations with moderate or high GC induction dosages. In almost 70% of COBRA Slim patients achieving remission at year 1, this was maintained throughout the second year.

Disclosure of Interest: None declared

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OP0227 REMISSION INDUCTION WITH METHOTREXATE STEP-UP THERAPY VERSUS COMBINATION OF HYDROXYCHLOROQUINE, METHOTREXATE AND TRIAMCINOLONE: 3 YEAR RESULTS

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Background: The effectiveness of treat to target (T2T) in RA is widely accepted, but there is no consensus regarding the best initial treatment in early rheumatoid arthritis¹. Therefore, it is important to evaluate the results of such strategies in real life cohorts^{2,3}.

Objectives: Compare the effectiveness of step-up methotrexate (MTX) monotherapy and combination of hydroxychloroquine (HCQ), methotrexate and intramuscular injection of triamcinolone 80–120mg as initial treatment in early RA.

Methods: Historical cohorts of patients treated with MTX monotherapy (disease onset 2006–2011, N=297) and combination therapy (2012–2016, N=156) were compared. In both cohorts a b-DMARD was advised when no remission was reached within 6 months or in case of sustained activity thereafter. Baseline characteristics and disease activity (DAS28) measurements (N=4956, average 4.1/year) in the first 3 years of follow-up were available. The primary outcome measure was the proportion of patients having reached at least one DAS28 <2.6 (remission) during follow-up. Secondary outcomes were sustained remission over 36 months and time to first b-DMARD.

Results: Three patients did not start MTX, and 11 and 2 patients in the step-up and combination cohorts respectively did not have complete follow-up (Table). Within 12 months, more patients on combination treatment reached remission (88.2% vs 72.2%). In the second year these changed to 86.5% and 82.0% respectively. Combination treatment resulted in a higher percentage of DAS measurements below 2.6 over 3 years, reflecting sustained remission (Figure). A b-DMARD was started within 24 months in 20.6% of patients on monotherapy versus 14.1% on combination treatment, with an equal mean time to first b-DMARD of 12 vs 11 months after start of initial treatment.

Table 1

Table	MTX monotherapy (N=297)	MTX with HCQ and steroids (N=156)
Female, N (%)	180 (60.6)	101 (64.7)
Age (y), mean (SD, range)	59.5 (14.3, 18–89)	58.8 (12.9, 19–86)
Rheumatoid factor (N, %)	183 (61.6)	112 (71.8)
ACPA (N, %)	157 (65.3)	111 (71.2)
Follow-up (months) (range)	81 (8–132)	42 (11–62)
End of follow-up <3 yrs		
Death	4 (1.3%)	1 (0.6%)
Remission	4 (1.3%)	1 (0.6%)
Did not start MTX/Other	5 (1.7%)	1 (0.6%)
Any remission (DAS28 <2.6)		
First year	72.2%	88.2%
Second year	82.0%	86.5%
Third year	85.9%	87.0%
Start b-DMARD therapy		
First year	32 (10.8%)	17 (10.9%)
Second year	29 (9.8%)	5 (3.2%)
Third year	8 (2.7%)	5/104 (4.8%)

Conclusions: Combination treatment results in more remissions in the first year of treatment. In the second and third year the remission percentage on monotherapy comes close to combination treatment, at the cost of a 6% higher proportion of patients stepping up to biologicals. Overall, the combination of MTX with HCQ and triamcinolone results in more sustained remissions.

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OP0228

OP0229 EFFECT OF BASELINE SERUM CRP LEVELS ON CLINICAL EFFICACY IN RHEUMATOID ARTHRITIS PATIENTS TREATED WITH FILGOTINIB: POST-HOC ANALYSIS FROM TWO PHASE 2B STUDIES

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Background: Filgotinib (GLPG0634, GS-6034) is an oral, selective JAK1 inhibitor that has shown a favorable safety and efficacy profile both as add-on to methotrexate (MTX) and as monotherapy in two 24-week placebo-controlled phase 2B studies in active rheumatoid arthritis (RA) patients with inadequate response to MTX (MTX-IR)^{1,2}.

Objectives: To assess effect of baseline serum CRP levels on clinical efficacy in MTX-IR RA patients treated with filgotinib.

Methods: Patients were randomized in a double blind manner to placebo (PBO) or one of 3 daily doses of filgotinib (50mg, 100mg or 200mg) for 24 weeks. In the DARWIN 1 study, filgotinib on the background of MTX was evaluated as once (QD) or twice daily treatment. In the DARWIN 2 study once-daily filgotinib was assessed as monotherapy. The inclusion criterion for CRP was amended during the studies and decreased over time from 13.5 mg/L to 6.3 mg/L. This post hoc analysis included patients treated with the selected Phase 3 filgotinib doses, 100mg and 200mg QD, and PBO. Efficacy outcomes were analyzed by baseline CRP level (low: ≤ 9 mg/L and high: > 9 mg/L, with 9mg/L as ULN).

Results: Baseline disease activity was high, with mean DAS28(CRP) scores of 5.6 and 5.7 in the low CRP subgroups for DARWIN 1 and DARWIN 2, respectively, and 6.3 in the high CRP subgroups for both studies. Mean CRP levels at baseline were elevated (16.3 - 35.3 mg/L). In both low and high CRP subgroups, patients on filgotinib 100mg or 200mg QD for 12 weeks showed efficacy over PBO, as measured by change from baseline in DAS28(CRP), CDAI and HAQ-DI, and ACR20 (Table 1). Despite slight numerical differences, baseline CRP level had no consistent effect on filgotinib efficacy, neither for endpoints including CRP (DAS28(CRP) or ACR20) nor for endpoints not including CRP (CDAI). Results were similar across both studies.

Table 1. Change from baseline in key efficacy parameters at Week 12 by CRP subgroup (mean (SE))

	DARWIN 1			DARWIN 2		
	PBO	Filgotinib 100mg QD	Filgotinib 200mg QD	PBO	Filgotinib 100mg QD	Filgotinib 200mg QD
Low CRP subgroup (≤ 9 mg/L)						
N	33	25	15	11	20	20
DAS28 (CRP)	-1.2 (0.30)	-2.2 (0.24)	-2.2 (0.32)	-0.9 (0.55)	-2.1 (0.33)	-2.3 (0.25)
CDAI	-18.3 (3.52)	-23.7 (2.66)	-25.1 (3.45)	-11.5 (6.19)	-25.8 (3.53)	-27.4 (3.05)
HAQ-DI	-0.21 (0.121)	-0.76 (0.133)	-0.64 (0.100)	-0.12 (0.163)	-0.74 (0.172)	-0.74 (0.158)
High CRP subgroup (> 9 mg/L)						
N	53	60	71	61	50	49
DAS28	-1.2 (0.15)	-2.3 (0.19)	-2.5 (0.15)	-1.0 (0.17)	-2.0 (0.19)	-2.3 (0.19)
CDAI	-15.6 (2.04)	-23.8 (2.08)	-25.5 (1.67)	-11.7 (1.94)	-23.3 (2.38)	-24.1 (2.12)
HAQ-DI	-0.49 (0.080)	-0.61 (0.087)	-0.78 (0.076)	-0.25 (0.074)	0.65 (0.081)	-0.74 (0.086)
ACR20 by subgroup, n (%)						
Low CRP	15 (45%)	19 (76%)	10 (67%)	2 (18%)	13 (65%)	16 (80%)
High CRP	23 (43%)	35 (58%)	49 (69%)	19 (31%)	33 (66%)	34 (69%)

Conclusions: Post hoc analysis of two Phase 2B studies in MTX-IR RA patients suggests that filgotinib treatment once daily at 100mg and 200mg both on the background of MTX and as monotherapy is consistently associated with improved clinical outcomes compared to placebo, regardless of baseline CRP levels.

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OP0230 THE EFFECTIVENESS OF ZOSTER VACCINE IN RA PATIENTS SUBSEQUENTLY TREATED WITH TOFACITINIB

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Background: Rheumatoid arthritis (RA) patients (pts) are at increased risk of herpes zoster (HZ). The most recent ACR guidelines of 2015 recommend vaccination in pts aged ≥ 50 years prior to starting biologic DMARDs or tofacitinib,¹