Abstract FRI0214 – Table 1. Key Endpoints at Wk 52

Endpoints	Sirukumab 50 mg q4w			Sirukumab 100 mg q2w		
	Placebo to 50 mg q4w (n=124)	50 mg q4w (n=235)	Combined 50 mg q4w (n=359)	Placebo to 100 mg q2w (n=123)	100 mg q2w (n=241)	Combined 100 mg q2w (n=364)
ACR20 response, n (%)	68 (54.8)	127 (54.0)	195 (54.3)	71 (57.7)	145 (60.2)	216 (59.3)
ACR50 response, n (%)	41 (33.1)	74 (31.5)	115 (32.0)	38 (30.9)	77 (32.0)	115 (31.6)
HAQ-DI change from baseline, mean (SD)	-0.30 (0.55)	-0.39 (0.58)	-0.36 (0.57)	-0.43 (0.51)	-0.43 (0.60)	-0.43 (0.57)
DAS28 (CRP) <2.6, n (%)	36 (29.0)	63 (26.8)	99 (27.6)	42 (34.1)	71 (29.5)	113 (31.0)
SF-36 summary scores						
PCS change from baseline, mean (SD)	4.47 (7.70)	6.33 (7.23)	5.69 (7.44)	5.45 (7.22)	5.98 (7.25)	5.80 (7.24)
MCS change from baseline, mean (SD)	3.64 (8.48)	5.19 (10.84)	4.65 (10.10)	5.60 (10.62)	4.46 (10.45)	4.85 (10.51)

Janssen Research & Development, LLC, Employee of: Janssen Research & Development, LLC, R. Kurrasch Shareholder of: GlaxoSmithKline, Employee of: GlaxoSmithKline, P. Tak Shareholder of: GlaxoSmithKline, Employee of: GlaxoSmithKline, S. Popik Shareholder of: Janssen Research & Development, LLC, Employee of: Janssen Research & Development, LLC
DOI: 10.1136/annrheumdis-2017-eular.6486

FRI0215 COMPARATIVE EFFICACY AND RETENTION RATE OF TOCILIZUMAB AND TNF INHIBITORS USED IN COMBINATION WITH METHOTREXATE AS FIRST-LINE BIOLOGIC THERAPY IN RHEUMATOID ARTHRITIS: DATA FROM A MULTICENTRE OBSERVATIONAL REGISTRY

E.G. Favalli[1], M. Biggioggero[1], P. Sarzi Puttini[2], F. Atzeni[2], E. Fusaro[3], V. Grosso[4], R. Pellerito[5], R. Gorla[6], C. Bazzani[6], A. Marchesoni[1], R. Caporali[4]. *[1]Department of Rheumatology, Gaetano Pini Institute; [2]Rheumatology Unit, University Hospital L. Sacco, Milano; [3]Rheumatology, Azienda Ospedaliera Universitaria Città; della Salute e della Scienza, Torino; [4]Rheumatology, University of Pavia, IRCCS Policlinico San Matteo Foundation, Pavia; [5]Rheumatology, Ospedale Mauriziano, Torino; [6]Rheumatology Unit, Spedali Civili, Brescia, Italy*

Background: Despite a demonstrated superiority of interleukin-6 over tumour necrosis factor (TNF) blockade when used as monotherapy, the choice of the first biologic agent (bDMARD) for treating rheumatoid arthritis (RA) in combination with methotrexate (MTX) is still a challenge for rheumatologist.
Objectives: To retrospectively evaluate in a multicentre observational cohort of Northern Italy (the LORHEN registry) the 6- and 12-month comparative drug survival and remission rate of tocilizumab (TCZ) and TNF inhibitors (TNFis) used as first bDMARD in combination with MTX.
Methods: All RA patients treated with TCZ or a TNFi as first-line bDMARD with at least 12-month follow-up were selected from the LORHEN registry. The analysis was limited to the period from January 2009 to May 2016 and to patients receiving either TCZ or TNFi in combination with MTX, excluding bDMARD monotherapy. Six- and 12-month clinical remission rate was defined as achievement of disease activity score 28 calculated by using erythrosedimentation rate (DAS28-ESR) <2.6. Drug persistence was calculated by Kaplan-Meier method. The comparison between treatment subgroups was performed by a chi-square test for remission data and by a log-rank test for drug survival. Moreover, DAS28-ESR remission rate has been corrected for drug discontinuation by using the LUNDEX formula [(1)].
Results: The overall study population included 591 patients (female 77.3%, mean age [± standard deviation, SD] 54.2±13.2 years, mean disease duration [±SD] 7.4±7.7 years, positive rheumatoid factor 67.5%, positive anti-citrullinated peptide antibodies 77.6%, mean baseline DAS28-ESR 5.1±1.2) treated with TCZ (n=61) or TNFis (n=530; infliximab 43, adalimumab 163, etanercept 195, golimumab 60, certolizumab pegol 69). Baseline characteristics were similar in the two groups, with the exception of mean age (TCZ 58.2 vs TNFis 53.7 years; p=0.021). No significant differences (p=0.361) emerged in the 6- (TCZ 88% vs TNFis 84.3%; p=0.752) and 12-month (TCZ 76.4% vs TNFis 71.5%;) retention rate. Clinical remission was achieved in overall 35.7% patients at 6 months (TCZ 59% vs TNFis 33%; p<0.001) and in 36.8% patients at 12 months (TCZ 58.8% vs TNFis 34.5%; p<0.001). Similar trends were observed after correction by LUNDEX formula at 6 (TCZ 51.9% vs TNFis 27.8%) and 12 months (TCZ 44.9% vs TNFis 24.6%).
Conclusions: Despite a similar 1-year retention rate, the proportion of patients achieving DAS28-ESR remission was significantly higher in TCZ+MTX treated group compared with TNFis+MTX, suggesting a deeper clinical response in patients receiving IL6 blockade.
References:
[1] Kristensen LE, et al. Arthritis Rheum 2006;54:600–6.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.4771

FRI0216 RESULTS OF A LONGITUDINAL REVIEW OF PULMONARY FUNCTION AND SAFETY DATA IN A PHASE IIB CLINICAL PROGRAMME TESTING GRANULOCYTE-MACROPHAGE COLONY-STIMULATING FACTOR (GM–CSF) RECEPTOR ANTAGONIST MAVRILIMUMAB FOR TREATMENT OF RHEUMATOID ARTHRITIS (RA)

G. Burmester[1], M.A. Michaels[2], D. Close[3], A. Godwood[3], K. Middleton[3], P. Miranda[4], J. Vencovský[5], J. Kremer[6], I.B. McInnes[7], M. Albulescu^[3], M. Weinblatt^[8]. *[1]Charité – University Medicine Berlin, Berlin, Germany; [2]MedImmune, Gaithersburg, United States; [3]MedImmune, Cambridge, United Kingdom; [4]Centro de Estudios Reumatológicos, Santiago, Chile; [5]Institute of Rheumatology, Prague, Czech Republic; [6]The Albany Medical College, Albany, United States; [7]University of Glasgow, Glasgow, United Kingdom; [8]Brigham and Women's Hospital, Boston, United States*

Background: RA is associated with pulmonary comorbidity and lung function decline over time, but longitudinal assessment of pulmonary abnormalities in the context of RA treatment needs further characterisation. Mavrilimumab, an investigational human monoclonal antibody, inhibits GM-CSF by binding to the GM-CSF receptor α subunit.
Objectives: To investigate the pulmonary safety of mavrilimumab because of the theoretical risk of inhibiting alveolar macrophage function and causing pulmonary alveolar proteinosis (PAP).
Methods: Pulmonary monitoring included standardised serial pulmonary function testing (spirometry and diffusing capacity of lung carbon monoxide [DLCO]), chest X-rays, assessments of dyspnoea and pulmonary adverse events (AEs) in two randomised, double-blind studies (NCT01706926; NCT01715896) where patients (pts) with moderate to severe RA received mavrilimumab 30, 100 or 150 mg every other week (eow), or placebo and mavrilimumab 100 mg eow or golimumab 50 mg every 4 weeks, respectively. Eligible pts transferred to the open-label extension study (NCT01712399) and received mavrilimumab 100 mg eow. All studies excluded pts with clinically significant uncontrolled pulmonary disease. An Independent Pulmonary Evaluation Committee (IPEC), blinded to treatment, adjudicated pulmonary AEs and lung function abnormalities.
Results: Mavrilimumab was received by 442 pts with cumulative safety data exposure of approximately 900 pt-yrs and a median (range) exposure time of 2.5 (0.1–3.3) yrs. Baseline (BL) characteristics are shown (Table). Mean dyspnoea (Table), forced expiratory volume in 1 second (FEV_1), forced vital capacity (FVC) and DLCO were mostly maintained within 5% of BL values for pts treated with mavrilimumab during the clinical programme. Clinically relevant decreases in predicted FEV_1 and FVC (>20% from BL and <80% predicted) were demonstrated by ≤6.2% of pts at any visit (Table); decreases were mostly transient with no apparent trends. Overall, 83 pts (9.24/100 pt-yrs) reported ≥1 pulmonary AE; bronchitis was reported most frequently (34 pts [3.78/100 pt-yrs]); one AE was considered serious and treatment-related (acute bronchitis). The reported pulmonary AE rate was generally stable over time. No suspected or confirmed PAP cases were found by IPEC and no pulmonary-related deaths were reported.
Conclusions: We believe this is the most comprehensive longitudinal study of pulmonary function in a clinical RA programme. The BL pulmonary function profile indicates that this is not a normal population from a pulmonary health perspective. Mavrilimumab was not associated with substantial decline in pulmonary function or PAP in pts treated up to 3.3 years; its acceptable safety profile advocates initiation of Phase III studies with mavrilimumab. Further studies are now required to fully characterise pulmonary function over time in RA.
Acknowledgements: Funded by MedImmune. Medical writing support: R Plant, QXV Comms, an Ashfield company, funded by MedImmune.
^Senior author.
Disclosure of Interest: G. Burmester Consultant for: MedImmune, M. Michaels Employee of: MedImmune, D. Close Employee of: MedImmune, A. Godwood Shareholder of: AstraZeneca, Employee of: MedImmune, K. Middleton Employee of: MedImmune (contracted employment at time of study), P. Miranda Grant/research support from: Amgen, Medimmune, Janssen, Pfizer, Celltrion, Abbott, Sanofi, Actelion, Merck & Co, Boehringer, BMS, Consultant for: Pfizer [Etanecept: Fee less than USD5000], J. Vencovský Consultant for: Pfizer, Elli Lilly, MSD, Novartis, Speakers bureau: Biogen, Pfizer, MSD, Abbvie, Novartis, Boehringer, UCB, BMS, J. Kremer Shareholder of: Corrona, Grant/research support from: Abbvie, Amgen, Genentech, Lilly, Pfizer, Consultant for: Abbvie, Amgen, BMS, Genentech, Lilly, Pfizer, Employee of: Corrona, I. McInnes Grant/research support from: MedImmune [The University of Glasgow is a charity registered in