Abstract AB0499 – Table 1. Variables at baseline

VARIABLES	MTX	MTX+MTDX	p-value
Disease duration (yy), m±SD	4.91±1.70	4.69±1.80	ns
AST (U/l), m±SD	13.18±3.19	18.46±7.15	ns
ALT (U/l), m±SD	17.09±6.35	20.23±7.96	ns
VAS Pain, m±SD	23.64±19.76	27.31±20.17	ns
DAS28, m±SD	3.6±0.91	3.72±0.87	ns
HAQ, m±SD	0.61±0.47	0.68±0.37	ns
MTX (mg), m±SD	12.27±2.61	12.69±2.59	ns
GC (mg), m±SD	3.41±2.80	4.04±2.61	ns

SD: standard deviation; ns: not significant; AST: aspartate amino transaminase; ALT: alanine amino transaminase; MTX: methotrexate; MTDX: Metadoxine; GC: glucocorticoids

Abstract AB0499 – Table 2. Comparison of Hepatic Functions between two groups

LIVER ENZYMES	MTX			MTX+MTDX		
	4a wk	12a wk	Δ	4a wk	12a wk	Δ
AST(U/l), m±SD	39,09	34,82	4,27	42,46	24,08	18,38
ALT(U/l), m±SD	46,82	40,73	6,09	43,92	24,69	19,23

AST: aspartate amino transferase; ALT: alanine amino transferase; MTX: Methotrexate; MTDX: Metadoxine;

Conclusions: This study showed the possible effect of MTDX in increasing the tolerance to the MTX without affecting its effectiveness. Its role may indeed have useful implications in patients who start the therapy with MTX or in those who develop hepatic toxicity during the treatment.

REFERENCE:

- [1] Fehér J, et al. The Beneficial Effect of Metadoxine in the Treatment of Fatty Liver Diseases. *Reviews* 2009;3(1):65–79.

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AB0500 EFFICACY AND SAFETY OF TOFACITINIB (TOF) IN PATIENTS WITH RHEUMATOID ARTHRITIS AT 52 WEEKS IN CLINICAL PRACTICE

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Objectives: There are few long-term experience of TOF for Rheumatoid arthritis (RA) patients in clinical use. We evaluated 52 and 104 weeks efficacy and safety of TOF in patients with rheumatoid arthritis in clinical practice.

Methods: We enrolled 77 RA patients started to treat with TOF between December 2013 and November 2016 in our hospital. All patients received 5 mg of TOF twice daily. We evaluated clinical disease activity in composite measures (including Disease Activity Score 28(DAS28) -Erythrocyte (-ESR), - C-reactive protein (-CRP), Simple Disease activity Index (SDAI) and Clinical Disease Activity Index (CDAI)) every three months and adverse events (AEs) during 52 and 104 weeks after treatment with TOF. We estimated the drug survival rate with Kaplan-Meier survival analysis.

Results: The mean age of patients was 66.3 years and the duration of disease was 15.4 years. Fifty-four (74.0%) patients have positive rheumatoid factor (RF) and 59 (78.7%) patients have positive anti-citrullinated protein antibodies (ACPA). Twenty-three patients were biologic-naïve and fifty-four patients have ever been treated with biologic DMARDs of whose mean number is 2.6 prior to TOF. Regarding the last biologic DMARDs: 14 patients have treat with TNF inhibitor (Infliximab, etanercept, adalimumab, golimumab, certolizumab-pegol), 30 patients with tocilizumab and 10 patients with abatacept. Twenty-three (29.9%) patients were treated with TOF without methotrexate (MTX). Disease activity at TOF start with measured with DAS28-ESR, DAS28-CRP, SDAI and CDAI were 5.15, 4.07, 23.3 and 21.5 respectively. The Drug survival rate at 24 weeks is 84.4% and that at 52 weeks is 73.8%. Twenty-seven patients have been treated with tofacitinib over 104 weeks. Twelve patients was stopped to treat within initial 24 week, including due to adverse events (n=5) and lack of efficacy (n=7). Analysed by last observation continued forward (LOCF) method, the mean of DAS-ESR decreased to 3.52 at 24 week and 3.59 at 52 week. CDAI decreased from 21.5 to 7.94 at 24 week and

7.93 at 52 week. Sixteen (20.8%) patients were remission as which defined less than 2.6 in DAS-ESR and 13 (16.9%) were low disease activity (LDA) as which defined less than 3.2 in DAS-ESR. In 23 patients without MTX, 6 (26.0%) and 5 (21.7%) have achieved remission and LDA at 52 W respectively. The adverse events due to which the patients had to be stopped to treat with TOF occurred in 20.6% of patients in initial 52 weeks. Infection was the most frequent AE to TOF, especially herpes zoster (7 patients). Six patients experienced herpes zoster within 6 month after treat with TOF. All of them could restart to treatment of TOF. Two solid tumours were discovered within 6 months after treatment, both of them had been removed by surgery and has not recurred.

Conclusions: Our study shows that TOF can be much effective clinically and have longer-lasting effectiveness. In our patients, herpes zoster was almost as frequent as reported in the phase III trials in Japan and we could retreat almost of them with TOF.

Disclosure of Interest: None declared

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AB0501 ADVERSE EVENTS WITH TREATMENT REGIMENS OF RHEUMATOID ARTHRITIS (RA) REPORTED BY PATIENTS APPLYING SMART SYSTEM OF DISEASE MANAGEMENT (SSDM) MOBILE TOOLS: A COHORT STUDY OF RA PATIENTS IN CHINA

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Background: Hepatic, hematologic and other adverse events (AE) during treatment in RA patients are unavoidable. And monitoring AE in long-term treatment is quite necessary as a part of chronic disease management. SSDM is a smart mobile tool to help patients upload their therapeutic regimens, lab test records and report AEs. Our previous study showed that patients in China can master the application of SSDM after training.

Objectives: To determine and compare the incidence of adverse events during treatment of RA with different therapeutic regimens, focusing on mono and combination therapy.

Methods: The SSDM includes interfaces of both physicians' and patients' application. Patients were educated to enter the data of lab test records and treatment regimens once a month, all data can be synchronised automatically to the authorised physicians' mobile tool, which formed a large patient reported database. The rheumatologists can also adjust treatment regimens base on patients' profile.

Results: From Aug 2014 to Jan 2018, a total of 7048 RA patients from 480 centres in China were entered in the cohort study. These patients contributed more than 12 600 patient-years (PY) of total followup. The mean age was 48.98 ±16.08 (18 to 99) years and the median disease duration was 23.27 months. The treatment regimens include mono or combination of leflunomide(LEF), MTX, hydroxychloroquine (HCQ), sulfasalazine(SSZ), glucocorticoid(GC), biologic DMARD, Tripterygium wilfordii, meloxicam, celecoxib, iguratimod, etc. In this database the five most common treatment regimens is LEF monotherapy (3801 PY), MTX monotherapy (1321 PY), LEF +MTX (1086 PY), HCQ monotherapy (715 PY), LEF +HCQ (576 PY). The incidence rate of hepatic events was lower for LEF monotherapy (35 events/1000 PY) than MTX (52 events/1000 PY) and LEF +MTX combination therapy (115 events/1000 PY) (p<0.01). The incidence rate of leukopenia was lower for LEF monotherapy (42 events/1000 PY) and MTX monotherapy (39 events/1000 PY) than LEF +MTX combination therapy (84 events/1000 PY) (p<0.01).

Conclusions: The findings show that mono or combination of csDMARDs are the most commonly used drugs in Chinese RA patients. And AEs may be well described in this patient report database because of the large sample sizes and empowering patient themselves. RA patients can get better safety in the long-term treatment via SSDM.

Disclosure of Interest: None declared

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AB0502

DRUG SURVIVAL ANALYSIS OF TOFACITINIB IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The drug survival rate of tofacitinib in patients with Rheumatoid Arthritis (RA) has not been reported so far.

Objectives: To determine the tofacitinib drug survival rate and the factors that may affect it in patients with RA from a single rheumatology clinic.

Methods: We have retrospectively analysed the track records of RA patients to whom tofacitinib was prescribed between June 2014 to December 2017. Descriptive analysis includes sex, duration of disease, autoantibody association, smoking, major trauma exposure, initiation in DMARD/Anti-TNF resistant patients, monotherapy/use in combination with DMARD. According to the duration of the disease, the patients were grouped as early (0–4 year), established (5–10 year), and late RA (>10 year).

Drug survival was estimated using Kaplan-Meier survival analysis, and the independent variables that may affect the discontinuation were investigated by log-rank test and modelled by Backward Stepwise Cox regression analysis.

Tofacitinib was prescribed to patients who were resistant to at least three different types of csDMARDs. Low-dose Steroid (below 10 mg) and NSAID drugs were used as needed.

Results: During the study period, 192 (163 F, 85%) patients were prescribed tofacitinib in our clinic. Median age was 56^{21–81} years, the median age at onset was 45^{6–72} years, and median disease duration was 10^{1–40} years. In this study, the ratio of RF and anti-CCP positivity were 63% and 60%, respectively. 33% of patients were seronegative. The patients with a smoking history were 26%, and exposure to major trauma was 16%. 15% of patients were early, 31% established, and 54% late RA.

Tofacitinib was prescribed in 92 (48%) bio-naïve and 100 (52%) bio-experienced patients. It was used as monotherapy in 112 (58%) and in combination with csDMARDs 80 (42%).

The drug survival rates in Kaplan Meier analysis were 77% at 3rd, 69% at 6th, 62% at 12th, 54% at 18th and 49% at 24th, 49% at 30th months. Tofacitinib was discontinued in 51 (27%) patients due to no response and in 22 (11%) patients due to side effects. None of the independent variables in regression analysis showed a relationship to tofacitinib discontinuation ($p > 0.05$). During the follow-up period, one patient had breast cancer, and one had recurrent pneumonia. There were no tuberculosis or shingles cases reported. Two patients died from pulmonary thromboembolism.

Conclusions: We found that drug survival rates of tofacitinib in RA patients were 77% at 3rd month, 69% at 6th month, 62% at 12th month, 54% at 18th month and 49% at 24th month, 49% at 30th months. The main cause of discontinuation of the drug was inefficiency and the loss of efficiency. We could not find any link between the predetermined independent variables and the drug discontinuation. This result raises questions about why the drug loses its efficacy in some patients in time, and how this could be preventable.

Acknowledgements: One of the theories of autoimmunity is that Damage-Associated Molecular Patterns (DAMPs) may give rise to autoimmune inflammation. We were curious about how many of patients suffered from major trauma, which was defined as accidents terminated with fractures and dislocations or falls from a height of at least three metres.

Disclosure of Interest: None declared

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SLE, Sjögren's and APS – treatment

AB0503

THERAPEUTIC STRATEGY AND SHORT-TERM OUTCOME IN NEUROPSYCHIATRIC SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The treatment of neuropsychiatric systemic lupus erythematosus (NPSLE) is extremely challenging and only a few clinical trials have been performed to establish optimal management.

Objectives: To describe the therapeutic approach and the short-term outcome of a multi-centre cohort of patients with NPSLE, enrolled at the time of the first NP event.

Methods: This is a retrospective cohort study. All NP events were defined according to American College of Rheumatology (ACR) case definition and divided into 3 clusters: central/diffuse (C/D), central/focal (C/F) and peripheral (P). A validated attribution algorithm was used to determine the attribution of all NP events. Demographic variables, global SLE disease activity Index 2000 (SLEDAI-2K), cumulative organ damage (SLICC/ACR Damage Index (SDI)) and treatment adopted for NP manifestations were collected. The clinical outcome of all NP events was determined by a physician-completed seven-point Likert scale (1=patient demise, 2=much worse, 3=worse, 4=no change, 5=improved, 6=much improved, 7=resolved). The relationship between the variables of interest and the outcome was analysed by crude and adjusted logistic models and reported as Odds Ratio (OR) and 95% confidence intervals (95% CI).

Results: 461 SLE patients with at least one NP event were included. 91.8% of patients were female, mean (SD) age 35.4 (13.6) years. 19.7% (91) of events were observed at diagnosis of SLE, 13.4% (62) before and 66.8% (308) after the diagnosis. 111 events (24.1%) were C/F, 286 (62%) C/D and 64 (13.9%) P. 198 (42.95%) of all NP events were attributed to SLE. The overall probability of immunosuppressive therapy was 28.4% (95% CI 24.3–32.8), 38.7% (95% CI 29.6–48.5) in C/F, 21.3% (95% CI 16.7–26.5) in C/D and 42.2% (95% CI 16.7–26.5) in P manifestations. The probability of immunosuppressive therapy was 47.9% (95% CI 40.8–55.2) in attributed events. The one-year outcome was available in 355 patients. Physician assessment indicated resolution (76 patients) or improvement (150 patients) in 49% (226/461) of cases. The crude and adjusted OR of attributed NP events and immunosuppressants on a favourable outcome is illustrated in Figure 1. The multivariable logistic regression analysis was done adjusting for age at diagnosis of SLE [OR 0.96, 0.94–0.98] $p = 0.001$, female gender [OR 0.97, 0.33–2.7] $p = 0.959$, SDI [0.85, 0.68–1.08] $p = 0.202$, SLEDAI-2K [1.06, 1.01–1.11] $p = 0.008$ and type of event [F/C [REF], C/D [0.37, 0.16–0.83] $p = 0.016$, P [0.54, 0.21–1.42] $p = 0.215$].

Abstract AB0503 – Figure 1. Crude and adjusted OR of attributed NP events and induction immunosuppression (IS, Figure 1A) or start/increase IS (Figure 1B) on a favourable outcome

Conclusions: In our study, the therapeutic immunosuppressive approach was mostly used in attributed, C/F and P manifestations. In patients treated with immunosuppressants, the favourable outcome was lower in C/D phenotype.

Disclosure of Interest: None declared

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AB0504

EFFICACY OF PROLONGED MAINTENANCE MONOTHERAPY WITH RITUXIMAB IN PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME: THREE-YEAR FOLLOW-UP

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Background: There are currently no effective systemic therapies of primary Sjögren's syndrome (pSS); however, open label series have suggested that rituximab may be beneficial for systemic and glandular manifestations.

Objectives: To estimate clinical efficacy and safety of prolonged maintenance B-cell targeted monotherapy for pSS.

Methods: 25 with pSS ACR-EULAR criteria, 2016 were included in this research. Indications for treatment were significant immunological activity (high titres of rheumatoid factor (RF) and anti-nuclear antibodies) and/or hypergammaglobulinemia in 20 patients, parotid enlargement (lymphoma was excluded) – 5, arthritis – 3, lymphadenopathy – 3, severe keratoconjunctivitis sicca in 7, of them corneal