and visit count improved the selection of RA patients from a 67% to 90% accuracy. The combination of these variables provides a widely applicable algorithm, as they are broadly registered in Rheumatology clinics.
Subsequent replications are ongoing.
Disclosure of Interest: None declared
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THU0636 INFLUENZA AND MENINGOCOCCAL C VACCINATIONS IN A COHORT OF PATIENTS WITH AUTOIMMUNE RHEUMATIC DISEASES: ADHERENCE, SAFETY AND IMMUNOGENICITY

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Background: The EULAR recommendations for vaccination in adult patients with autoimmune rheumatic diseases strongly recommend inactivated influenza vaccination.Insufficient data are available about safety and efficacy of meningococcal C vaccination.In 2015–2016,after an increased incidence of meningitidis C infections in our country,the health care system has promoted a free meningococcal vaccination campaign
Objectives: To evaluate the adherence to the EULAR recommendations for influenza vaccination and to the meningococcal C vaccination campaign in a cohort of patients with autoimmune rheumatic diseases and to assess their safety.The efficacy in term of immune response to meningococcal C vaccination has been also evaluated
Methods: Consecutive in- and out-patients seen at our unit from February to December 2016 were enrolled in the study.Using a questionnaire created *ad hoc* the following data were collected:the percentage of patients who underwent influenza and/or meningococcal C vaccinations in the previous 12 months,the occurrence of adverse events and of disease flares after vaccinations,according with the report from the patients and with the rheumatologist clinical evaluation.Seroconvertion rates in patients and healthy controls were assessed using ELISA kits for human anti-meningococcal ACWY IgG antibodies.Antibody titres were expressed in U/ml and according with kit reference value were classified in absent,low,medium and high titre
Results: 286 patients (91% female) (143 SLE, 68 RA,60 Scleroderma,11 Sjögren Syndrome,3 Behcet disease and 1 Dermatomyositis) were included in the analysis.The mean age at evaluation was 52.9±16.1 years,mean disease duration was 15.3±10 years.The 53.1% of patients was taking steroids,at an average dose of 4.2 mg of 6-metilprednisolone/day,134/286 (46.9%) patients were on immunosuppressive therapies,of which 49/134 (36.6%) on biologic agents.The 19.9% (57/286) of patients underwent influenza vaccinations and the 13.3% (38/286) meningococcal C vaccination,8 patients underwent both vaccinations.No disease flares were observed after vaccination;seven patients reported non-specific adverse events after influenza (fever,discomfort,nausea,arthralgia) and 2 patients after meningococcal C vaccination (fever,rash at the injection site,discomfort).Seroconversion after meningococcal vaccination was analysed in 27 patients and 9 healthy subjects,no statistically significant differences in terms of antibody response to meningococcal vaccination were observed between these two groups.Treatment (steroids and immunosuppressive drugs) did not influence antibody titres
Conclusions: These data highlight the poor adherence to international recommendations on influenza vaccination in patients with autoimmune rheumatic disease at our Unit.The adherence to the meningococcal C vaccination campaign conducted in our country in 2015–2016 was also low.Our data confirm the safety of these vaccination and show that the immune response elicited by meningococcal C vaccination is comparable to healthy controls and is not influence by therapy
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Disclosure of Interest: None declared
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THU0637 PATIENT'S AND RHEUMATOLOGIST'S PERSPECTIVES ON THE FOLLOW-UP INTERVAL AS A TOOL FOR OPTIMIZED OUTPATIENT TREATMENT

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Background: Scientific progress and better disease awareness constantly lead to increasing patient numbers in rheumatology which requires optimization of patient care.
Objectives: The aim of this study was to evaluate and to optimize the procedures of patient care in an university-based outpatient rheumatology setting in Berlin, Germany.
Methods: One hundred patients with rheumatoid arthritis (80 women, 20 men, mean age 61.2 years, mean disease duration 12.9 years) were independently assessed both by a rheumatologist and via patient-reported self-assessment questionnaires. Current follow-up interval (usually 3 months), patient's perspective on follow-up intervals, signs of disease activity as well as individual patient concerns were recorded. Satisfaction with follow-up intervals was grouped into three categories: too early, just right/optimal, too late.
Results: Based on the physicians perspective, 46 patients presented at the optimal time point, 51 too early, and three too late. The patients reported the category "just right" in 82 cases, too early follow-up in 10 cases and too late in 8 cases. Of note, 51% (42 individuals) of all patients with self-reported satisfactory follow-up interval were judged to visit the out-patient department too early by the expert rheumatologist. When taking into account the follow-up interval and optimal satisfactory levels, 62% of patients were concluded to visit the department too early in those revisited after 3–4 months (n=65), and in 12% of those who were seen again after 5–6 months (n=17). 82% of patients in the latter group were judged to revisit just right by the physician.
Conclusions: There was a high proportion of overlap in the views on the satisfaction with follow-up intervals between physicians and patients. Especially in patients who were seen every 3–4 months, a high proportion was deemed to could have come later to the out-patient care unit from a purely medical point of view. Here we see a way to stretch the interval to 5–6 months without risking a long-term deterioration in patient care. However, this measure should be flanked by patient education and good collaboration with the general practitioners.
Acknowledgements: We thank AbbVie for financial support in the development of measures to optimize out-patient management in patients with rheumatoid arthritis. The sponsor did not influence the scientific results.
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THU0638 PREVALENCE AND DIRECT HEALTHCARE COSTS OF UPPER GASTROINTESTINAL (UGI) ADVERSE EVENTS IN ASIAN RHEUMATIC PATIENTS ON LONG-TERM NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

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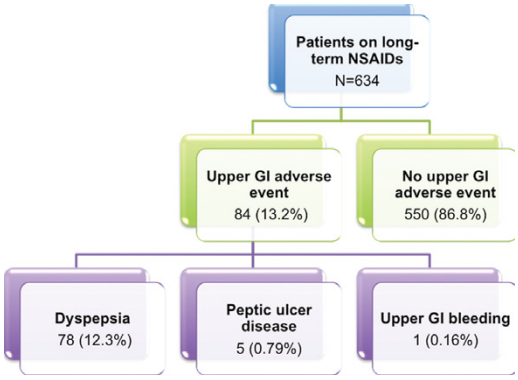
Background: NSAIDs are frequently used in patients with rheumatoid arthritis (RA) and osteoarthritis (OA). NSAID-induced UGI adverse events are well described in the Western population but data is lacking in Asian patients.
Objectives: To describe the prevalence and direct healthcare costs of NSAID-induced UGI adverse events in a large cohort of RA and OA patients in Malaysia.
Methods: A retrospective cohort study of RA and/or OA patients who received long-term NSAIDs (minimum 4 weeks prescription of any NSAID) between 2010 and 2013 was conducted in 4 large tertiary care centres with rheumatology units in Malaysia. Electronic clinical records and pharmacy prescriptions were reviewed. Resource use data was collected in patients who developed UGI adverse events within the 24 months follow up period. Unit costs were estimated by combining top down (general overheads for hospital services) and bottom up (activity-based costing for clinic visits, hospitalisation, diagnostic investigations, medications) approaches.
Results: 634 patients were included in the final analysis with mean age 53.4±12.5 years, 90% female, diagnosis of RA in 60%, OA in 10% and both RA and OA in 30%. 45% and 8% of patients were on concomitant prednisone and aspirin respectively. 89% of patients had no previous upper GI disease. 59% and 41% of patients were grouped under non-selective and COX-2 inhibitor respectively. 84 (13.2%) patients developed UGI adverse events (Figure 1), consisting of 78 (12.3%) patients with dyspepsia, 5 (0.79%) with peptic ulcer disease (PUD) and 1 (0.16%) with upper GI bleeding (UGIB). The total direct cost was RM37,352 (USD 11,419) with a mean cost of RM447±535 (USD 137±163) per patient (Table 1). The largest cost components were pharmacotherapy (34%), oesophagoduodenoscopies (OGD) (23%) and outpatient visits (18%). The mean cost of dyspepsia was RM409±513 (USD 125±157) per patient. The mean cost of PUD and UGIB was approximately double (RM806±579) (USD 246±177) and quadruple (RM1,602) (USD 490) of dyspepsia respectively.

Healthcare resource	Mean cost per patient in RM (USD)			
	Dyspepsia (n=78)	PUD (n=5)	UGIB (n=1)	All patients with UGI adverse events (n=84)
Outpatient visits	77 (23)	146 (45)	146 (45)	82 (25)
Emergency Dept visits	28 (9)	0	146 (45)	28 (9)
Inpatient stay	46 (14)	136 (41)	679 (207)	59 (18)
OGD	85 (26)	253 (77)	211 (65)	103 (32)
Blood tests	4 (1)	32 (10)	57 (17)	6 (2)
Radiology	8 (3)	0	0	8 (3)
Blood transfusion	4 (1)	56 (17)	280 (86)	10 (3)
Pharmacotherapy	150 (46)	183 (56)	84 (26)	151 (46)
Mean cost per patient in RM ±SD (USD)	409 ±513 (125±157)	806±579 (246±177)	1602 (490)	447±535 (137±163)

Conclusions: The low prevalence of UGI adverse events in Malaysian rheuma-



tology patients suggests judicious use of NSAIDs in tertiary care setting resulting in a low cost implication for the management of these events.

Disclosure of Interest: None declared

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THU0639 RHEUMATOLOGICAL MEDICATION USE IN PREGNANCY, PLANNING PREGNANCY, AND BREASTFEEDING AT MOTHERSAFE DURING THE YEARS 2010 TO 2015

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Background: MotherSafe is a free, statewide, phone based counselling service for the general public and healthcare professionals concerned about exposures during pregnancy, pregnancy planning and breastfeeding (1). Obstetric drug information services such as MotherSafe are important in guiding decision-making in pregnancy, breastfeeding and planning of future pregnancies, and are increasingly used worldwide by both patients and healthcare providers (1, 2). At MotherSafe, phone advice is provided by trained telephone counsellors who are generally pharmacists. Data from each phone call is entered onto an electronic document. Some patients are then referred onto the MotherSafe clinic for specialised counselling by a clinical geneticist.

Objectives: To analyse data including patient and medication characteristics and trends from phone calls made to MotherSafe regarding disease modifying antirheumatic drugs (DMARDs) and biologic DMARDs (bDMARDs) from January 2010 to December 2015 inclusive.

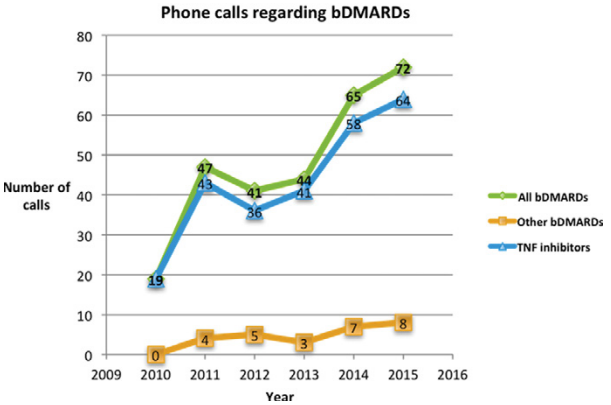
Methods: Retrospective study of phone calls made to MotherSafe from January 2010 to December 2015 regarding conventional DMARDs and biologic DMARDs. SPSS software facilitated statistical analysis.

Results: A total of 135,115 phone calls were made to MotherSafe from 2010–2015 with 2611 (1.93%) phone calls pertaining to DMARDs and bDMARDs.

Of these 2611 phone calls, 65.4% were made by patients and 13.5% by general practitioners. Most phone calls were made in metropolitan New South Wales (69.3%). 43% of phone calls were concerning exposures during breastfeeding, followed by exposures during pregnancy (32.9%), exposures whilst planning pregnancy (17.7%) and paternal exposures (2.9%). Where a specific diagnosis was given, inflammatory bowel disease was the most common indication (18.4%), followed by rheumatoid arthritis (8.2%). Corticosteroids were the most common medication exposure (37.3%), followed by azathioprine (18.8%), sulfasalazine (11.2%) and methotrexate (8.5%).

Most callers just received phone advice, especially if the call was just regarding breastfeeding exposures (73.4%). 383 callers (14.7%) were referred onto the MotherSafe clinic, which is run by a clinical geneticist.

bDMARDs made up 9.5% of calls with calls tending to increase over the years, but there was a slight decrease in 2012 and 2013 albeit with small numbers. TNF inhibitors still made up the majority of calls regarding bDMARDs.



Conclusions: This study evaluated the only obstetric medicine exposure information service in New South Wales, Australia. It is the first time that DMARDs and bDMARDs have been analysed for MotherSafe. There was a trend to increasing number of calls regarding bDMARDs over 2010 to 2015, which presumably reflects change in prescribing patterns. This study highlights the need for services like MotherSafe so patients and health care professionals can receive evidence based information and make choices about treatment in pregnancy.

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Disclosure of Interest: None declared

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THU0640 SECOND LINE TREATMENT PERSISTENCE AND COSTS AMONG PATIENTS WITH IMMUNE-MEDIATED RHEUMATIC DISEASES TREATED WITH SUBCUTANEOUS TNF-ALPHA INHIBITORS

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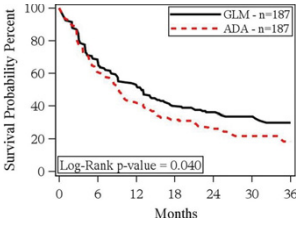
Background: For some patients with Immune Mediated Rheumatic Disease (IMRD) discontinuing 1st line treatment with a subcutaneous Tumor Necrosis Factor-alpha inhibitor (SC-TNFi), 2nd line treatment with another SC-TNFi may be appropriate.

Objectives: The primary objective of this study was to describe treatment persistence with 2nd line SC-TNFi stratified by agent in patients with IMRD in Sweden. The secondary objective was to explore the impact of non-persistence with a second SC-TNFi on health care costs.

Methods: We conducted a retrospective study on treatment persistence and health care costs using data from health registers. Adults (≥18 years old) previously treated with one SC-TNFi and subsequently prescribed a second SC-TNFi were identified through prescriptions for adalimumab (ADA), etanercept (ETA), certolizumab pegol (CZP) and golimumab (GLM) between 5/6/2010 and 12/31/2012. Prescriber specialty and department were used to exclude patients treated for diseases other than IMRD. Persistence up to 3 years was estimated using non-parametric survival analysis. Given differences in baseline characteristics, analyses were conducted on propensity score matched (PSM) cohorts. Matching was based on age, gender, index year, diagnosis, Charlson Comorbidity Index and non-biologic DMARD use. Non-treatment health care costs were captured 12 months pre and post initiation of 2nd line SC-TNFi treatment and stratified by persistence status at 6 months.

Results: In total, 845 patients were identified (ADA: 316, ETA: 202, CZP: 140, GLM: 187). PSM cohorts were generated as GLM vs ADA, GLM vs ETA and GLM vs CZP, with 187, 164, and 113 matched pairs, respectively. GLM exhibited statistically significant higher persistence than ADA over 3 years (Figure; p=0.040) and numerically, but not statistically significant, higher persistence than ETA and CZP at 12 and 24 months. Persistent and non-persistent patients had similar mean total cost 12 months pretreatment initiation (USD 5,185 vs USD 5,064, p=0.750). During the 12 months post treatment initiation, persistent patients had lower mean total costs (USD 4,377 vs USD 6,605), corresponding to a difference in difference of USD 2,228 (p<0.001).



Conclusions: In patients previously treated with a SC-TNFi, GLM exhibited significantly better persistence than ADA and numerically higher persistence than ETA and CZP at 12 and 24 months, findings that are similar to results observed in 1st line SC-TNFi patients[1]. Given the lower healthcare costs for persistent patients, the choice of 2nd line SC-TNFi among eligible patients may merit careful consideration given its impact on patients and payers.

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Disclosure of Interest: J. Dalén Consultant for: Merck & Co., Inc., Employee of: Mapi group, A. Svedbom Consultant for: Merck & Co., Inc., Employee of: Mapi group, C. Black Shareholder of: Merck & Co., Inc., Employee of: Merck & Co., Inc., S. Kachroo Shareholder of: Merck & Co., Inc., Employee of: Merck & Co., Inc.

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