Methods: The Dutch Arthritis Foundation started its campaign on World Arthritis Day: 'Grow awareness, plant a bulb'. To 'grow understanding', we created two special tulip bulb fields, one online and one offline, for participants to plant the special 'Anita Witzier' tulip bulb. Anita Witzier is a well-known Dutch television host who suffers from rheumatoid arthritis. She has been ambassador for the Dutch Arthritis Foundation since 2001.

With the help from 70% of all local RMD patient organisations and a number of garden centres, we handed out a total of 15 000 bags of tulip bulbs across the Netherlands. The campaign kick-off was on World Arthritis Day. The event, held on a tulip breeder's field, hosted presentations about incomprehension, and served to share real-life stories.

We also developed a website where people could plant bulbs digitally. Every week, participants receive a video, cartoon, update or article with information about RMDs. The campaign will run until 21 May 2018 when the (real-life) tulips will bloom in our RMD field. All participants can then visit the field to pick a bunch of flowers.

Results: The campaign received a great deal of national media attention on WorldArthritisDay, and featured on television programmes, in newspapers and on online platforms. 8000 people have since signed up for the online tulip field, sharing the information with others in their network. The campaign site drew 68 000 visitors between 12Oct and 31Oct tober. The campaign also resonated with people on Facebook. In October, our campaign posts reached 1,869,000 visitors, with more than 65 000 interactions (respond, share, like, watch video, conversion to campaign site).

Conclusions: Raising awareness for incomprehension can be difficult. A creative approach can help to kickstart a public debate. Responses generally show that people with RMDs appreciate this complicated subject being put on the map.

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OP0296

THE RISK OF DELIBERATE SELF-HARM IN RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS: A POPULATION-BASED COHORT STUDY

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Background: Inflammatory arthritis is associated with the development of mental health disorders. However, there is limited data on the risk of serious mental health outcomes following a rheumatoid arthritis (RA) or ankylosing spondylitis (AS) diagnosis.

Objectives: To estimate the risk of deliberate self-harm in patients with ankylosing spondylitis or rheumatoid arthritis compared with the general population.

Methods: We evaluated population-based cohorts of RA (n=53,240) and AS (n=13,964), each matched 1:4 by age, sex, and calendar year (at diagnosis) with non-IA comparator cohorts in Ontario, Canada. Individuals with a history of mental illness or prior episode of deliberate self-harm were excluded. The outcome was a first emergency room presentation for deliberate self-harm, subsequent to RA or AS diagnosis, between April 1, 2002 and March 31, 2016. We estimated hazard ratios (HR) and 95% confidence intervals (95% CI) for RA and AS, separately, versus the comparator groups, adjusting for demographic, clinical and health service utilisation variables.

Results: Individuals with AS were more likely to deliberately self-harm (incidence rate [IR] of 6.79/10,000 person years [PY] compared to 3.19/10,000 PY in comparators, with an adjusted HR 1.82 (95% CI: 1.26 to 2.62). Deliberate self-harm was also increased for individuals with RA (IR 3.51/10,000 PY) compared to comparators (IR 2.45/10,000 PY) only before (HR 1.43, 95% CI: 1.16 to 1.75), but not after covariate adjustment (HR 1.09, 95% CI: 0.88 to 1.36). The most frequent method of self-harm was poisoning (64% of attempts in AS, 81% in RA) or self-mutilation (36% in AS, 18% in RA).

Conclusions: There is a significantly increased rate of self-harm attempt in inflammatory arthritis and the risk is particularly elevated following a diagnosis of AS. These findings highlight the need for routine evaluation of self-harm behaviour as part of the management of chronic inflammatory arthritis. Understanding the mechanisms contributing to deliberate self-harm attempts will help tailor preventive strategies to reduce morbidity associated with this serious mental health outcome.

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FRIDAY, 15 JUNE 2018

More money or more education and collaboration?_

OP0297

DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS IS INFLUENCED BY COUNTRIES' SOCIOECONOMICS: RESULTS FROM THE METEOR REGISTRY

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Background: The treatment and prognosis of rheumatoid arthritis (RA) patients have improved tremendously, but patients across the world may not benefit similarly. One of the potentially critical factors may be poorer access to expensive biologic (b)DMARDs.

Objectives: To investigate daily practice data regarding bDMARD-use in different countries worldwide and assess if a lower country's socioeconomic status (SES) is associated with worse clinical outcomes and lower usage of bDMARDs.

Methods: Data on disease activity and drug use from countries that contributed ≥100 RA patients after 1–1–2000 were extracted from the daily practice, observational METEOR database. Missing data were imputed using multi-variate normal imputation (30 cycles). Gross domestic product (GDP) per capita in international dollar (Int\$) was used as indicator of SES. Per country average DAS28 and the proportion of patients in DAS28-remission (DAS28 <2.6) were calculated by taking the average of all patients at the last available visit. Univariable logistic regression analyses were performed to assess associations between GDP, bDMARD use and disease outcomes at a country level.

Results: In total, 20,379 patients were included from 12 countries: United States, Mexico, South-Africa, Japan, Brazil, United Kingdom, Spain, Ireland, Portugal, France, India and the Netherlands. The number of patients ever using a bDMARD varied between 0.9% (South-Africa) and 75% (Ireland). The proportion of patients in remission at the final visit varied between 2% (India) and 39% (Netherlands).

Patients in countries with a higher GDP per capita had a lower average DAS28 and consequently, a higher proportion of them were in DAS28-remission: β (95% CI) -0.32 (-0.41; -0.021) lower DAS28 and an additional 4.2% (0.14; 8.26) of patients in DAS28-remission for every 10,000 Int\$ additional GDP.

To underscore the assumption that the association between SES and DAS28 is mediated by bDMARD use, we assessed whether SES was associated with bDMARD use per country. Indeed, a higher GDP per capita was associated with a higher proportion of patients using a bDMARD: β (95% CI) 11.2 (4.82; 17.5), indicating an additional 11% of patients using a bDMARD per 10,000 Int\$ increase in GDP per capita. Furthermore, DAS28 was β (95% CI) -0.14 (-0.28; -0.0054) lower and 2.8% (-0.13; 5.8) more patients achieved DAS28-remission per 10% increase in proportion of patients using a bDMARD, figure 1.

Abstract OP0297 – Table 1 Associated between 'GDP per capita (Int\$)', '% bDMARD use' and 'disease activity'.

Conclusions: RA patients in countries with a lower SES had worse disease activity. Although patients in countries with a lower SES less often used bDMARDs, the effect of bDMARD use on disease activity was smaller than expected, indicating that other factors than access to bDMARDs may contribute to the effectiveness of RA treatment.

Disclosure of Interest: None declared

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OP0298

THE COMPARATIVE EFFECTIVENESS OF CYCLING TUMOURNECROSIS FACTOR INHIBITOR (TNFI) VERSUS SWAPPING TO A NONTNFI ON PATIENT-REPORTED FUNCTIONAL ABILITY OF PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Data on patient-reported functional ability to evaluate the optimal strategy for patients who have failed to first TNFi is scarce. Patient-reported outcomes are a critical component of assessing whether clinicians are improving the wellbeing of patients.

Objectives: We conducted a systematic review and meta-analysis to evaluate the comparative effectiveness of two strategies, cycling versus swapping, on patient-reported functional ability and other patient-reported outcomes.

Methods: Four electronic databases were searched (MEDLINE, EMBASE, Cochrane Library, and Web of Sciences). Sources of grey literature (unpublished records) were searched through clinicaltrials.gov and other websites. The selection process, risk of bias assessment, and data extraction were performed by two independent reviewers. We included controlled trials evaluating patient-reported outcomes in patients either cycling to a second TNFi or swapping to a targeted drug with an alternative mechanism of action. Other outcomes reported included pain, patient global assessment, fatigue, and quality of life.

Results: We included 13 studies reporting data on 4394 patients. The reported cycling strategies were adalimumab, certolizumab, etanercept, golimumab, or infliximab; swapping strategies were abatacept, rituximab, tocilizumab, or tofacitinib. For the individual comparisons, TNFi versus disease modifying antirheumatic drug (DMARD), there was a statistically significant increase in functional ability from baseline to 14 weeks, favouring those patients receiving the cycling strategy (Mean Difference (MD) -0.20, 95% CI: -0.34 to -0.06; scores ranging from 0 to 3). Differences favouring cycling when compared to a DMARD were also observed for pain, fatigue, and patient global assessment. Similarly, when comparing nonTNFi versus DMARD, there was a statistically significant increase in functional ability from baseline to 24 weeks, favouring those patients receiving the swapping strategy (MD -0.31, 95% CI: -0.35 to -0.27; scores ranging from 0 to 3). Differences favouring cycling when compared to a DMARD were also observed for pain, sleep, fatigue, patient global, and quality of life (SF-36 physical and mental components). Three RCTs directly compared the two strategies. There was no statistically significant differences in the functional disability reported between those patients assigned to the cycling strategy compared with those assigned to the swapping strategy at 12, 24, 36 or 52 weeks (MD at 52 weeks -0.05, 95% CI: -0.18 to 0.09; score ranging from 0-3).

Conclusions: Although evidence from previous reports suggest that swapping may be more effective than cycling when evaluating some clinical outcomes our results suggest that with the current evidence both strategies are equally effective in improving functional disability and other patient-reported outcomes.

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OP0299

COST-EFFECTIVENESS OF TAPERING TNF BLOCKERS VERSUS CONVENTIONAL SYNTHETIC DMARDS IN RHEUMATOID ARTHRITIS: FIRST YEAR RESULTS OF THE RANDOMISED CONTROLLED TARA-STUDY

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Background: Current guidelines recommend to consider tapering treatment in rheumatoid arthritis (RA) patients who are in sustained remission, but the optimal approach to de-escalate conventional synthetic and biological DMARDs (respectively csDMARDs and bDMARDs) remains unknown. The benefits of tapering are a decreased risk of long-term adverse events and a reduction of health care costs, especially when bDMARDs are tapered. However, tapering treatment may lead to more transient or persistent disease flares, which have a direct impact on patients' lives and societal costs.

Objectives: The aim of this study is to evaluate the difference in cost-effectiveness of tapering csDMARD or anti-TNF therapy during one year of follow-up.

Methods: The TARA trial is a multicenter single-blinded randomised controlled trial. Included were RA patients that used a combination of csDMARDs and anti-TNF and who were at least for 3 months in sustained remission, defined as a DAS2.4 and a swollen joint count (SJC) ≤1. Patients were randomised into

gradual tapering csDMARDs followed by the TNF blocker or vice versa. Medication was tapered in three steps over the course of 6 months. Gradual tapering was done by cutting the dosage into half, a quarter and thereafter it was stopped. Data on QALYs (measured with the Dutch EuroQol [EQ5D]), direct, and indirect costs were used to calculate the Incremental Cost Effectiveness Ratio (ICER). Direct costs comprises costs for treatment and medical consumption, while indirect costs comprises costs due to loss of productivity (i.e. sick leave and unemployment).

Results: A total of 187 patients were randomly assigned to tapering csDMARDs (n=93) or tapering anti-TNF (n=94). Patients had an average symptom duration of 6.7 years and were predominantly female (66%) with an average age of 56.4 years (figure 1A). Average QALYs (SD), over 1 year, for tapering csDMARDs or anti-TNF were, respectively, 0.82 (0.1) and 0.83 (0.1) (figure 1B). One year after inclusion a none significant difference in cumulative flare ratio of 9% was observed (overall flare ratio 36%). Patients in the anti-TNF tapering group had lower costs per QALY (SD) (€11 390 (6809)) compared to patients in the csDMARD tapering group (€21 804 (8329)). The difference in costs per QALY were mainly determined by the medication costs (figure 1B). The Incremental Cost Effectiveness Ratio (ICER, 95% CI) between tapering csDMARDs and anti-TNF was €31 922 (-€920572, €984416) (figure 1C). Tapering anti-TNF was >95% cost-effective across all willingness-to-pay thresholds compared to tapering csDMARDs (figure 1D).

Abstract OP0299 – Figure 1 Summary of economic evaluation. (A) baseline characteristics and results after 12 months of follow-up of both tapering groups. (B) total costs per QALY after 1 year of follow-up. (C) cost effectiveness plane of costs of tapering csDMARDs minus costs for tapering anti-TNF. (D) acceptability curves for tapering csDMARDs and tapering anti-TNF. Abbreviations: AUC; area under the curve, csDMARDs; conventional synthetic DMARDs, EQ-5D; Dutch EuroQol, QALY; quality adjusted life year, WTP; willingness to pay.

Conclusions: Tapering anti-TNF is more cost-effective compared to tapering csDMARDs. Therefore, in RA patients who are in sustained remission we advise to taper anti-TNF first, but before tapering therapy rheumatologist should take the risk of a disease flare and patient's wishes into account.

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OP0300

REDUCING AVOIDABLE BIOLOGIC DRUG WASTAGE THROUGH COLLABORATION BETWEEN PATIENTS AND CARE PROVIDERS: THE LEEDS SPONDYLOARTHRITIS SERVICE EXPERIENCE

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Background: The Leeds rheumatology department manages a cohort of approximately 4,000 patients with inflammatory arthritis receiving biologic therapies with an estimated annual cost of £15,000,000. Of these, approximately 1,000 have axial Spondyloarthritis or Psoriatic arthritis (SpA). Biologic drug wastage with self-injectable drugs can occur when patients have no further use for their existing stockpile of drug (typically occurring when receiving further stock around the time of stopping, pausing or switching drugs). Wastage is recorded by home-delivery companies on receiving returned 'unusable' stock. With intravenous drugs, wastage occurs when patients don't attend infusions. Reducing risk of self-injectable wastage has been achieved (1) but reducing self-injectable and intravenous biologic wastage has not.