contents have been discussed in a previous abstract. The survey was completed upon request and in the presence of the reference clinician throughout the last quarter of 2017. The survey assessed three areas: therapeutic and hygienic-dietetic adherence, the perception of personalized follow-up and overall practical utility. In parallel, the number of annual attacks of patients using ReumaApp-Gota and the relative annual reduction of the uric acid level in peripheral blood were determined. In the case of patients using ReumaApp-AR, the demand for unscheduled visits due to flares of RA and the relative reduction of DAS28 were evaluated. In both cases, their results were compared with cohorts of patients who had not used any of the applications (35 of the drop group and 29 of the AR group).

Results: Users of ReumAPP-Gota: Improvement in adherence 25/65, personalized follow-up is perceived 56/65, has utility in day-to-day 52/65. Users of ReumAPP-AR: Improve adherence 31/35, personalized follow-up is perceived 30/35, has utility in day to day 29/35. The number of annual gout attacks in patients users of the APP was 1.32 OF 0.45 and that of non-users was 1.27 OF 0.52 ($P=0.848$), the relative annual reduction of patients with gout users of the APP was 36.6 OF 6.6 % and that of non-users 33.7 of 11.2% ($P=0.106$). The number of urgent visits in a year of patients with RA users of the APP was 0.55 of 0.12 and that of the non-users group 0.83 of 0.29 ($P<0.001$). The relative reduction of the DAS28 of patients using the APP was 34.9 of 5.9% and of the non-users was 31 of 7.7% ($P<0.025$).

Conclusions: Although the use of applications for smartphones seems to generate a greater sense of medical vigilance on the part of patients and is globally considered useful, its impact on the therapeutic adherence in patients with gout is low and is reflected in the objective results of reduction of plasma uric acid figures and the number of annual attacks. In the case of patients with RA the use of the application significantly reduces the need for urgent visits, most likely because it allows the clinician to contact the patient priorly when certain parameters entered exceed certain margins. But on the other hand the relative reduction of DAS28 may be due to the fact that patients not users of the application are usually older than those who accept its use.

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FRI0614 PHYSICIAN-PATIENT INTERACTIONS IN AFRICAN AMERICAN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: African American (AA) patients with systemic lupus erythematosus (SLE) are at high risk for poor outcomes. Patient characteristics and disease severity influence physician-patient interactions, which in turn can impact outcomes.

Objectives: Examine the relationships between physician-patient interactions and demographics, disease activity, and depression in AA SLE patients.

Methods: The Georgians Organized Against Lupus (GOAL) is a population-based cohort of patients with a documented diagnosis of SLE. We conducted a cross-sectional analysis of patient-reported data among 698 AA participants (out of 863 GOAL participants). We assessed patients reports of physician-patient interactions (communication, patient-centered decision making, and physician interpersonal style) through the Interpersonal Processes of Care survey (IPC-29), disease activity through the Systemic Lupus Activity Questionnaire, and depression through the Patient Health Questionnaire-9. We used non-parametric tests to assess IPC-29 by demographics, linear trend test to assess demographic-adjusted scores of IPC-29 by disease activity and depression, and multivariate logistic regression to assess the association of disease activity and depression with suboptimal IPC scores.

Results: Lowest IPC-29 scores were for patient-centered decision making, specifically for the "asked patient" subdomain (how often doctors assessed patients' problems to follow recommendations and treatment) in women compared with men (mean score 3.1±1.4 and 3.6±1.4, respectively; $p=0.02$). Scores for the "assumed socioeconomic level" subdomain (how often doctors make assumptions about a patient's socioeconomic level) in the interpersonal style domain were higher (worse) in patients aged 18–34 (mean score 1.6±0.9), compared to those aged 35–55 (mean score 1.5±0.9; $p=0.03$). Patients with higher educational attainment ($\geq$ college) reported poorer mean scores for most communication and interpersonal style scales than those with $\leq$ high-school. We found significant linear trends of poorer scores for all communication scales across more severe

disease activity and depression, and poorer scores for all interpersonal style scales across more severe disease activity. Neither disease activity nor depression was associated with worse patient-centered decision-making. In multivariate models depression was associated with suboptimal quality of communication (OR 1.2; 95% CI 1.04–1.4) and interpersonal style (OR 1.1; 95% CI 1.0–1.3); and disease activity increased the odds of suboptimal communication (OR 1.1; 95% CI 1.0–1.3).

Conclusions: In AA patients with SLE, perceptions of physicians' communication, shared decision-making, and physicians' interpersonal style vary by sex and education. While disease activity and depression were associated with worse reports of physician-patient communication and interpersonal style, neither disease activity nor depression influenced shared-decision making. Our data suggest that in addition to standard of care treatment, AA SLE patients with active disease and depression might need provider-based interventions focused on communication and interpersonal style.

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FRI0615 NORMALISED TOXICITY TO PREGABALIN DID NOT INCREASE WITH CHANGES IN APPROVAL MECHANISM AND USE IN AUSTRALIA

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Background: Pregabalin is a potent antagonist of neuronal voltage-gated calcium channels used to treat neuropathic pain. Although first registered with the Therapeutic Goods Administration (TGA) in April 2005, rapid uptake of pregabalin in the Australian market only came after its listing on the Pharmaceutical Benefits Scheme (PBS) with a streamlined code on 1st March 2013 for the indication of neuropathic pain. Recently, there has been concern raised about the growing off-label use of pregabalin for chronic pain syndromes and the subsequent potential for undue adverse drug reactions (ADRs).¹

Objectives: The aim of this study was to measure how broadening access to pregabalin in Australia affected the rate of pregabalin-associated ADRs, and whether such an effect was disproportionate to the change in pregabalin prescription rates.

Methods: We extracted ADRs reported in the TGA Database of Adverse Event Notifications (DAEN) between 1st January 2009 and 18th October 2017, in which pregabalin was thought to have been causative. We also extracted calls to the Victorian Poisons Information Centre (VPIC) between 1st January 2009 and 31st December 2017 in which pregabalin was a reported exposure. For both databases, ADR rates were annualised, with the missing DAEN ADR reports between 19th October 2017 and 31st December 2017 imputed using a linear model based on year-to-date ADR rates. The annual ADR rates were normalised by dividing by the estimated number of pregabalin prescriptions filled (in millions), to obtain a normalised Toxicity Index (number of ADRs per million scripts). Because the data was annualised, the 1st January 2013 was used as the approximate starting date of PBS streamlined listing.

Results: The estimated number of pregabalin prescriptions filled in Australia increased over the study period from 155,336 in 2009 to 3,739,421 in 2017. A total of 886 ADRs were reported to VPIC over the study period, and 1056 reported to DAEN (1076 after extrapolation). The mean Toxicity Index (TI) for the VPIC database was 539 ADRs/million scripts before PBS streamlined listing, and 298 ADRs/million scripts after; there was no evidence that the TI had increased ($p=0.9$, one-tail t-test). Similarly, the TI for the DAEN database was 441 ADRs/million scripts prior to PBS streamlined listing, versus 85 ADRs/million after; there was no evidence that TI increased ($p=0.98$, one-tail t-test).

Conclusions: After adjusting for the total volume of scripts dispensed, the rate of ADRs involving pregabalin in both the VPIC and DAEN databases did not increase after a streamlined approval mechanism was adopted, leading to significantly increased use. These data do not support the emergence of undue adverse drug reactions from increased off-label use of pregabalin.

REFERENCE:

1. Goodman CW, Brett AS. Gabapentin and Pregabalin for Pain—Is Increased Prescribing a Cause for Concern? *New England Journal of Medicine* 2017;377(5):411–414. doi:10.1056/NEJMp1704633

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FRI0616 COST-EFFECTIVENESS OF SWAPPING STRATEGY FOR ESTABLISHED PSORIATIC ARTHRITIS AND IMMEDIATE VERSUS STANDARD SWAPPING STRATEGY FOR EARLY PSORIATIC ARTHRITIS

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Background: For patients with psoriatic arthritis (PsA) failing the first TNF-inhibitor, switching to biologic DMARDs [bDMARDs] with different mechanism of actions (swapping strategy) may be superior than switching to another anti-TNF (cycling strategy) [1,2].

Objectives: To evaluate the cost-effectiveness of 1) swapping strategy for established PsA and 2) immediate versus standard swapping strategy for early PsA from the Hong Kong (HK) societal perspective

Methods: Based on comparative effectiveness from network meta-analysis of randomized controlled trials and treatment-specific withdrawal and serious adverse event rate, a swapping York model with life time horizon was developed to evaluate swapping strategy relative to best supportive care (BSC) for PsA failing the first anti-TNF. Initial response to bDMARDs was determined using the Psoriatic Arthritis Response Criteria. The impact of biologics on the arthritis component of the disease is modelled via a change in the HAQ and the impact of the skin component measured using the Psoriasis Area and Severity Index. The model was specified for two hypothetical subpopulations including patients with 1) established PsA (age=47, HAQ=1.22, figure 1A) received five swapping strategies and 2) early PsA^[3] (age=40, HAQ=0.71, figure 1B) received immediate (start bDMARDs after diagnosis) or standard (initially given BSC and then start bDMARDs when HAQ increase to 1.22) use of the most cost-effective swapping strategy. Both subpopulations were further classified according to the level of concomitant psoriasis [mild to moderate psoriasis (MMP, PASI=0.73) or moderate to severe psoriasis (MSP, PASI=12.5)]. All five swapping strategies started with an anti-TNF (infliximab, adalimumab, etanercept, certolizumab or golimumab), followed by secukinumab 300 mg and then ustekinumab 45 mg. The cost-effectiveness of each strategy was determined using a willingness-to-pay (WTP) threshold of £32,356/ quality-adjusted life-year (QALY) (HK Gross Domestic Product per capita).

Results: For the base-case scenario, all five swapping strategies are cost-effective versus BSC strategy for established PsA, which are associated with greater QALY gain and lower treatment related direct costs, psoriasis cost and

productivity loss. In established PsA with MMP and MSP, etanercept swapping strategy is likely to be the most cost-effective strategy with an incremental cost £9,518.93 and £9,084.58 per QALY gained over BSC strategy respectively. For early PsA with MMP and MSP, the base-case results indicated that standard etanercept swapping strategy was cost-saving (£-50,635.74 and £-67,843.32) and more effective (1.20 and 1.32 QALYs); while immediate etanercept swapping strategy was costlier (£13294.95 and £8986.16), more effective (3.82 and 3.27 QALY), and had relative low ICER (£3482.36 and £2745.35 per QALY gained) relative to BSC strategy.

Conclusions: Swapping strategy showed favorable cost-effectiveness for established PsA as well as early PsA. The increased costs of biologic agents are offset by the gain in benefits from long-term HAQ reduction.

REFERENCES:

- [1] Merola JF, et al. *Semin Arthritis Rheum* 2017;47:29–37.
- [2] Cantini F, et al. *Semin Arthritis Rheum* 2017;47:183–192.
- [3] Kane D, et al. *Rheumatology (Oxford)* 2003;42:1460–8.

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FRI0617 UPTAKE ON FLU AND PNEUMONIA VACCINATION AT THE RHEUMATOLOGY CLINIC AT A UK DISTRICT GENERAL HOSPITAL- ARE WE BETTER THAN 10 YEARS AGO?

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Background: Patients with rheumatic diseases are at increased risk of contracting infection due to the disease itself or because of the use of immunomodulatory medication. EULAR has developed recommendations and supports vaccination against influenza and pneumococcal infections in immunocompromised patients¹. Despite convincing data regarding the efficacy of vaccination with the use of disease-modifying anti rheumatic drugs (DMARDs), previously published data from our trust in 2007 showed that uptake of vaccination was suboptimal especially in those aged <65 years².

Objectives: To establish the influenza or pneumococcal (pneumovax) vaccination uptake and explore reasons for reduced uptake in patients attending a rheumatology clinic.

Methods: Prospective audit of 100 patients attending the Rheumatology clinic in a UK district hospital using an anonymised survey during November to December 2017 and comparison with the data of 10 years ago.