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.

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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.

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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.

Results: A total of 100 questionnaires were given out, with return rate of 98%. Female:male ratio was 3.8:1, mean age 55±17. Most patients were treated for RA (24%), Psoriatic arthritis (20%), Ankylosing spondylitis (14%) and others, see figure 1. Regarding immunosuppression 16% were on biologics and 78% on DMARDs. Most were on methotrexate (26%), Prednisolone (16%), hydroxychloroquine (12%), sulfasalazine (12%) whereas biologics were <10 % each (see figure 1).

With regards to vaccination for influenza, overall 47% had received the vaccine (see table 1). Of those who did not take the vaccine 35% had an allergy or did not believe it was effective, but 65% were not offered the vaccine. A total of 52% commented that a health professional had discussed influenza vaccination with them, 42% mentioned that this was never discussed and 6% were unsure. In RA population uptake was 48% compared to 44% 10 years ago ($p=0.81$).

Regarding pneumovax 29% commented that a health professional had discussed pneumococcal vaccination and only 28% had received the vaccine. Of those who did not take the vaccine 12% had an allergy or did not believe it was effective, and 83% were not aware that the vaccine existed or were not offered the vaccine. In RA population uptake was 61% compared to 62% 10 years ago ($p=0.62$).

RA patients had better vaccination than psoriatic patients for influenza ($p=0.03$), but not pneumovax ($p=0.52$).

UPTAKE OF VACCINE	Influenza vaccination	Pneumonia vaccination
All patients -2017	47%	28%
RA patients- 2007	62%	44%
RA patients- 2017	16/23 (61%)	11/23 (48%)
Psoriatic Arthritis	6/18 (33%)	6/18 (33%)
Prednisolone	10/14 (71%)	9/14 (64%)
Methotrexate	14/22 (63%)	11/19 (58%)

Conclusions: Although this is a small audit conducted in a routine rheumatology clinic in the UK, it is of concern that with increased patient education seen in the last 10 years, vaccination for influenza and pneumococcus has not improved. Perhaps healthcare professionals are not discussing this with the patients sufficiently. Further patient and healthcare involvement is required to reverse the declining trend and protect our patients.

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FRI0618 CONCORDANCE WITH LATEST GUIDELINES FOR DMARD SCREENING AND MONITORING IN SECONDARY CARE

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Background: DMARDs need to be prescribed safely. Screening and monitoring for toxicity is essential when using these medications. The British Society of

Rheumatology (BSR) has recently published guidance on screening and monitoring of non-biologic DMARDs.

Objectives: The aim of this audit was to assess current practice on synthetic DMARD screening and monitoring within our rheumatology department, in a secondary care setting, using the BSR 2017 guidelines as the standard of care.

Methods: 81 consecutive adult patients who were started on synthetic DMARDs in 2016 were recruited. The data required was collected from case notes and isoft clinical manager after obtaining data protection clearance. DMARDs included Hydroxychloroquine (HCQ), Methotrexate (MTX), Sulfasalazine (SSA), Azathioprine (AZA) and Leflunomide (Lef). Baseline screening was assessed by checking for documentation of height, weight, baseline blood tests including virology and documentation of known lung disease and smoking with the relevant investigations when necessary. Specialist nurse referral and content of consultation was assessed for discussion regarding fertility/pregnancy when relevant, intercurrent illnesses and vaccinations. Drug-specific screening and monitoring included folic acid prescription (FA) for MTX, TPMT testing for AZA, ophthalmic review for HCQ as well as weight and blood pressure (BP) monitoring for Lef. Finally all patients were checked for regular blood monitoring at weeks 2,4,6 and every 3 months thereafter with the exception of SSA & HCQ monotherapy. Calibri (Body)

Results: Weight and height were not documented in 50.6% and 66.7% of patients respectively. Baseline blood tests were present in all but 1 patient with the exception of virology. The latter was present in 6.2% of cases only. Smoking status was assessed in 92.6% of cases. CXR and pulmonary function tests were warranted for 9 patients but were only done in 4 cases. 98.8% of patients were referred to the specialist nurse for DMARD education. Discussion on fertility and pregnancy, where applicable, was discussed in 95% of cases, vaccinations in 97.5% of cases and advice regarding management of intercurrent illnesses in 2.5% of cases. Drug monitoring at 2, 4 and 6 weeks was done in 33.3%, 90.1% and 80.2% of cases respectively. BP and weight were checked for all patients on Lef whilst blood monitoring for SSA monotherapy persisted after 1 year in 80% of cases. Drug specific recommendations including FA prescription, TPMT testing and ophthalmic reviews were done in all patients.

Conclusions: This audit showed a high level of concordance with the BSR monitoring guidelines for synthetic DMARDs. Aspects that require improvement have been highlighted. By ensuring that there is proper documentation of all aspects pertaining to the work-up prior to starting a patient on a DMARD, one can then introduce screening and monitoring schedules targeted at the prevention and early detection of adverse treatment outcomes.

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FRI0619 PREDICTORS AND TEMPORAL TREND OF SEASONAL INFLUENZA VACCINATION IN AUTO-IMMUNE RHEUMATIC DISEASES IN THE UK: A NATIONWIDE PROSPECTIVE COHORT STUDY

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Background: Autoimmune rheumatic diseases (AIRDs) are associated with an increased risk of influenza and its complications which may be compounded by the use of potent disease modifying anti-rheumatic drugs (DMARDs). In the United Kingdom, seasonal influenza vaccination (SIV) is recommended for people older than 65 years, and for those at a higher risk of influenza due to underlying diseases or immunosuppressive treatment. Understanding SIV uptake in AIRD patients on DMARDs could identify subsets who need targeted effort to optimise SIV uptake in this group.

Objectives: To [1] examine temporal trends in uptake of SIV; [2] explore disease and demographic factors associated with receiving the SIV; and [3] calculate the proportion of people with AIRDs who are vaccinated in time before the seasonal flu virus circulates.

Methods: 32,751 people with AIRDs prescribed DMARDs between 2006 and 2016 were identified from the Clinical Practice Research Datalink (CPRD). CPRD is one of the world's largest prospective databases of primary care records, and includes primary-care medical, prescription and immunisation data on 8% of the UK population at any one time. The proportion of eligible cases vaccinated between 01/September of one year and 31/March of the next year (flu-season) was calculated and stratified by age, presence of additional indications for vaccination, AIRD type, and number of DMARDs prescribed. We used Joinpoint regression analysis to determine the temporal trend in SIV uptake while Poisson regression with robust error variance was used to examine the univariate and multivariate association between age, sex, AIRD type, additional indication for being vaccinated, total number of different DMARDs prescribed in the 12-month period with receiving SIV. The analysis was conducted in the open source Joinpoint regression software and Stata-MP.