Midland Rheumatology Society
Autumn Meeting 2018

Friday 9th November 2018
Grand Station, Wolverhampton, WV10 0BF
http://grandstation.co.uk

PROGRAMME

08.30  Coffee and Registration

09.20  Welcome and Introduction

09.30  The Shoulder – Orthopaedic Perspective
       Mr Tim McBride, Consultant in Hand and Upper Limb surgery, RWT

10.15  Clinical Papers (Oral Abstracts)
       1. Gout Attack Trajectories in A 3-Year Cohort Study In Primary Care.
          L Watson, J Belcher, CD Mallen, E Roddy
       2. Characteristics of Patients with Prevalent Giant Cell Arteritis in UK Primary Care.
          E Twomlow, JA Prior, SL Mackie, T Helliwell, et al
       3. Hypermobility Spectrum Disorder; Initial Feedback Following the Delivery of a
          Multidisciplinary Patient Education Group to Promote Long Term Self-Management.
          P Barnett, H Bleach
       4. Predisposition of RA Monocytes to a Pro-Inflammatory Phenotype through
          Downregulation of Mitochondrial Translocator Protein (TSPO).
          N Narayan, H Mandhair, T Sekine, A Sabokbar, PC Taylor

11.15  Coffee Break

11.45  Clinical Cases and Conundrums
       Host Team, RWT

12.30  Lunch and Poster Viewing

13.30  The Ashmolean Story: A History of the Museum in Seven Objects
       Tom Price, RWT

14.15  Emerging Translational Immunology of SpA
       Dennis McGonagle, Professor of Investigative Rheumatology, Leeds
15.00 **Clinical Papers (Oral Abstracts)**

5. **Benefit of Crithidia Tests in Diagnosing Connective Tissue Diseases.**  
   A Price, A Awan, P Gkargkoulas, K Sunmboye, S Shaffu

6. **Biosimilar Switch - Challenges in a Multi Ethnic Population.**  
   K Hall, A Moorthy

7. **An Audit of a Single Centre’s Adherence to the 2017 British Society for Rheumatology Guideline for the Management of Gout in Clinical Practice.**  
   J Powell, C Koutsianas, R Klocke

8. **Piloting an Epidemiological Study of the Prevalence of Behcets Disease in England.**  
   P Chandratre, J Chandan, M Hunjan, RD Situnayake

16.00 **Tea/Coffee**

16.15 **BSR Update**  
   Dr Caitlyn Dowson, MPFT and Keele University

16.20 **The BSRBR-RA – Lessons Learned and Future Directions**  
   Professor Kimme Hyrich, The University of Manchester

17.15 **AGM**

17.45 **Close**

18.00 **Drinks**

18.45 **Dinner**

This Meeting is Approved by Royal College of Physicians, London  
(6 CPD points applied for)

The meeting is kindly supported by Pfizer, Sanofi, Novartis, Chugai, Celgene, Amgen, Medac, Abbvie, UCB, Merck/MSD, Lilly, Amgen, Sobi and Nordic Pharma.

Industry sponsors have provided funding for an exhibition stand/space at this educational meeting and have had no control over the agenda, speaker choice or content of the meeting. In accordance with the ABPI code of practice, the funding obtained is solely for the Midland Rheumatology Society Meeting educational agenda and is not a contribution to the costs aligned to recreational activities and evening dinner.
Clinical Papers
GOUT ATTACK TRAJECTORIES IN A 3-YEAR COHORT STUDY IN PRIMARY CARE

Presenting: Lorraine Watson, Keele University
L Watson, J Belcher, CD Mallen and E Roddy, Keele University

Introduction
Gout affects 2.5% of adults in the UK but is often poorly managed. Whilst the hallmark of gout is recurrent sudden-onset attacks of acute joint pain and swelling, little is known about the pattern (trajectory) of attacks over time. We aimed to derive gout attack trajectories and to determine which patients are at most risk of frequent attacks.

Method
People with gout registered with 20 general practices in the West Midlands self-reported the number of gout attacks experienced at 5 time-points (baseline, 6, 12, 24 and 36 months) by completing a postal questionnaire.

Latent class growth analysis (LCGA) was used to identify distinct classes of gout attack trajectories. Comorbidities, medications, socio-demographic and gout-specific characteristics of members of gout attack trajectory classes were compared.

Results
1164 participants were included in the analysis; mean age 65.6 years (SD 12.5), 972 (84%) male. LCGA identified six latent classes: ‘frequent and persistent’ (n=95), ‘frequent then improving’ (n=14), ‘gradually worsening’ (n=276), ‘moderately frequent’ (n=287), ‘moderately frequent then improving’ (n=143) and ‘infrequent’ (n=349). The ‘infrequent’ class had the highest proportion of class members reporting allopurinol use at baseline (73%) and the lowest mean serum urate level (377µmol/L). The ‘gradually worsening’ class had the highest mean serum urate level (480µmol/L) at baseline. The ‘frequent and persistent’ class had the highest proportion of class members classified as obese (41.1%) and ‘most deprived’ (45.3%). Further characteristics of class members will be presented.

Discussion
For the first-time, distinct gout attack trajectories have been identified. Our findings support the use of urate-lowering therapy to reduce gout attack frequency. Better understanding of which patients are at most risk of frequent gout attacks will help to target interventions and improve patient care.
CHARACTERISTICS OF PATIENTS WITH PREVALENT GIANT CELL ARTERITIS IN UK PRIMARY CARE

E Twomlow¹, JA Prior¹, SL Mackie²,³, T Helliwell¹, SL Hider¹,⁴, J Belcher¹, J Liddle¹,⁵ & CD Mallen¹

¹Research Institute for Primary Care and Health Sciences, Keele University, UK
²Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, UK
³NIHR Leeds Musculoskeletal Biomedical Research Unit, Leeds, UK
⁴Haywood Academic Rheumatology Centre, Haywood Hospital, Stoke-on-Trent, Staffordshire, UK
⁵Institute of Health and Society, Newcastle University, UK.

Background: Giant cell arteritis (GCA) is a rare but serious condition affecting older people. Prompt diagnosis, particularly in primary care, remains challenging due to patients presenting with symptoms such as headache which are common in the general population. Furthermore, when GCA is suspected or diagnosed, there are marked variations in management approaches and referral pathways chosen by GPs. Due to the continued variation in the GCA diagnosis and management in primary care, our aim was to characterise a prevalent population of patients with GCA, with specific objectives to examine their general health, symptoms experienced before diagnosis and currently, treatments used and their side effects and comorbidities.

Methods: This is a secondary analysis of a cross-sectional survey. 564 patients with GCA aged over 50 years from 300 UK general practices were identified and sent a questionnaire survey. These patients were identified from a Read coded diagnosis of GCA in the three years prior to baseline survey (1st January 2012 – 1st January 2015). The survey included questions on demographic information, current and previous symptoms, treatment options, medication side effects and comorbidities and general physical and mental health (SF-12). Descriptive statistics were used to characterise the sample population. Comparisons were made between responders and non-responders and also between genders.

Results: After exclusions, 318 patients responded to the survey (adjusted response rate: 60%). There were no significant differences in age or gender of responders and non-responders. Mean age of responders was 73.7 (standard deviation (SD) 8.15) and approximately two-thirds were female. The mean duration of GCA was 2.68 (SD 3.54) years. Data in this prevalent sample suggested that male participants reported better general physical health with a SF-12 Physical Component Summary (PCS) of 41.5 vs 38.1, but the Mental Component Summary (MCS) was equivalent between genders (46.7 vs 45.9). The proportion of “classic” GCA symptoms in the sample e.g. headache and scalp tenderness, were lower at the point of survey compared with pre-diagnosis. As expected, 96% of patients had used the first-line treatment of prednisolone and 70% were still taking it. Use of symptom targeted medication such as pain relief were lower at point of survey, but use of preventative medications such as bone protection was higher. There was a high degree of reported steroid-related side effects with over half reporting change in face shape, disturbed sleep, easy bruising and weight gain. 35% of participants (predominantly women) classified themselves as having used or would like to use an alternative therapy, such as acupuncture. The most common comorbidities reported were cardiovascular with 52% reporting hypercholesterolemia and 40% reporting hypertension. 31% had also been diagnosed with the associated condition of polymyalgia rheumatica (PMR).

Conclusions: Treatment of GCA with prednisolone is effective and patients with prevalent GCA report fewer GCA symptoms post diagnosis. However, general patient health, including physical and mental aspects continue to be affected in this group with frequent reporting of glucocorticoid side effects and related comorbidities. Prevention of adverse events continues to be a major issue for patients and clinicians. Patients’ pursuit of alternative treatment methods suggests continued difficulties several years after diagnosis and highlights the need to improve the general health of patients with GCA and to educate clinicians on the particular challenges for these patients.
HYPERMOBILITY SPECTRUM DISORDER: INITIAL FEEDBACK FOLLOWING THE DELIVERY OF A MULTIDISCIPLINARY PATIENT EDUCATION GROUP TO PROMOTE LONG TERM SELF-MANAGEMENT

Philippa Barnett¹ & Helen Bleach²
1-Rheumatology Physiotherapist, 2- Rheumatology Occupational therapist
The Royal Wolverhampton Trust (RWT), Wolverhampton

Background and Purpose

Hypermobility Spectrum Disorder (HSD) includes the conditions previously known as Joint Hypermobility Syndrome and Ehlers Danlos Syndrome-Hypermobility type. Their prevalence within rheumatology and musculoskeletal clinics across the UK ranges from 30%-60%. Despite being widely used across healthcare settings, evidence supporting the optimum provision of physiotherapy and occupational therapy services in the management of hypermobility is still lacking. However, it has been recognised that a holistic and long-term self-management approach is beneficial.

High referral rates for patients with HSD within our trust prompted us to develop a group approach to its management. This was planned to enable the delivery of a comprehensive education programme that would enhance and improve the efficiency of the treatment currently offered.

Methods & Intervention

The “Hypermobility Self-Management Group” was designed to run over 6 sessions with both educational and practical components including exercise, posture, pain relief, fatigue management, pacing, relaxation and joint protection. Referral pathways and objectives were established. We collectively planned and agreed on the content that would be delivered by an occupational therapist and physiotherapist. Outcome measures included the Musculoskeletal Health Questionnaire (MSK-HQ) and a unique self-reported questionnaire (SRQ). The SRQ was specifically written for the group to assess knowledge levels and confidence to self-manage. These were assessed pre and post 6 group sessions. Patients were identified from the existing physiotherapy patient database to participate in the group, each invited to attend via letter. The group was conducted as a pilot intervention to determine its vitality as a service.

Outcomes

Eleven patients participated in the first and second groups (18 invited, 7 cancelled or failed to attend). Initial results from these patients were encouraging. There were overall improvements in all outcomes with the exception of the patients’ perceived ability to carry out their normal activities of daily living (ADL). This could be because ability to perform ADLs may take more time to change than the duration of the programme. Patient feedback was positive, supporting the patient education group approach. Consequently, further groups are planned with minor changes to its delivery.

Conclusion

Initial outcomes following the pilot delivery of a multi-disciplinary hypermobility self-management group at RWT are encouraging and support its use in clinical practice. Ongoing evaluation of the group is necessary however to ensure outcomes are optimised and patients receive the most effective and efficient service.
PREDISPOSITION OF RA MONOCYTES TO A PRO-INFLAMMATORY PHENOTYPE THROUGH DOWNREGULATION OF MITOCHONDRIAL TRANSLOCATOR PROTEIN (TSPO)

Nehal Narayan$^{1,2}$, Harpreet Mandhair$^2$, Takuya Sekine$^2$, Afsie Sabokbar$^2$ and Peter C Taylor$^2$

$^1$Queen Elizabeth Hospital Birmingham
$^2$Nuffield Dept of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford

The importance of cholesterol in the pathogenesis of inflammation has long been recognised. The translocator protein is an 18kDa mitochondrial transporter, increasingly thought to play a critical role in cholesterol efflux in macrophages. Recent data indicates that macrophages engineered to over-express TSPO, exhibit increased cholesterol efflux, and reduced ability to form a pro-inflammatory (‘M1’) phenotype, in response to activation by pro-inflammatory stimuli, such as lipopolysaccharide (LPS).

In this study, we investigate the expression of TSPO in healthy and RA peripheral blood monocyte derived macrophages (MDM), differentiated in vitro, and activated to pro-inflammatory ‘M1’ (using LPS and IFN-γ), and reparative ‘M2’ (using IL-4, TGF-β or glucocorticoid) macrophage phenotypes in vitro. Using positive magnetic-activated cell sorting, we use peripheral blood mononuclear cells from 24 RA patients with active disease (as determined by clinical examination, and DAS28 CRP score), and 24 healthy controls, to isolate peripheral blood monocyte mRNA and protein, to ascertain any differences in TSPO expression at monocyte level.

Our data establishes that both healthy and RA peripheral blood monocyte derived macrophages (MDM) exhibit a statistically significant downregulation of TSPO at mRNA and protein level, when activated to a pro-inflammatory ‘M1’ macrophage phenotype, with no change in TSPO expression in MDM activated to a reparative ‘M2’ phenotype. Our mRNA data also suggests that M1 macrophages from both healthy and RA donors, exhibit a significant reduction in expression of key cell components promoting cholesterol efflux in macrophages, including CYP27A1, and ABCA1.

We further demonstrate a significant reduction, at both mRNA and protein level, in expression of TSPO between healthy and RA monocytes (mean fold change TSPO mRNA of 1.00 for healthy monocytes, and 0.47±0.24, p<0.001 for RA monocytes and mean TSPO optical densitometry of 1.01±0.10 for healthy monocytes and 0.85±0.02 p<0.05 for RA monocytes relative to β-actin).

Our findings indicate that pro-inflammatory activation of both healthy and RA monocyte-derived macrophages downregulates TSPO, and is also associated with a reduction in key components of the cholesterol efflux pathway, in keeping with pre-existing literature of TSPO silencing and over-expression in human macrophages. Furthermore, we demonstrate that RA peripheral blood monocytes themselves may have a predisposition to a pro-inflammatory phenotype through downregulation of TSPO expression, which could contribute to the pathogenic environment of the inflamed joint.
BENEFIT OF CRITHIDIA TESTS IN DIAGNOSING CONNECTIVE TISSUE DISEASES

University Hospitals of Leicester NHS Trust

Background
The diagnosis of systemic lupus erythematosus (SLE) relies on autoantibody testing, including double stranded DNA (dsDNA), the testing of which has evolved over time from the FARR assay through to ELISA/ELiA. dsDNA assays can pick up non-specific single stranded DNA as false positives and can give occasional false negative results. To evaluate the implications of this we analysed our hospital's use of crithidia testing as a confirmatory assay of dsDNA results.

Methods
All crithidia tests for an 8 months from January 2017 to August 2017 were reviewed and results of ANA, ENA, dsDNA and complement collected. Data were collected regarding referral to rheumatology and where possible rheumatology clinic letters were reviewed regarding final diagnosis.

Results
One hundred and four crithidia tests were undertaken of which 91 were negative and 13 positive. Sixteen of the 104 patients were ANA negative, 18 ANA 1:100, 70 ANA >/=1:400, and 14 patients had a positive ENA. Positive crithidiads had a dsDNA range from 2 to 333 and negative crithidia from <1 to 131 however positive crithidiads were more likely to have higher dsDNA and ANA titres. Of the 65 patients seen by rheumatology 4 did not have available notes for analysis. Ten of the 13 crithidia positive patients were seen by rheumatology, 6 diagnosed as SLE, 1 as TNF induced lupus, 1 MCTD, 1 RA and 1 had no clinical evidence of autoimmune disease. 88 patients were dsDNA positive (cut off of >/=9) of whom 11 were also crithidia positive. Of the 13 positive crithidia results, 2 had a negative dsDNA level, one of whom was ANA 1:400 Ro positive and diagnosed with RA, the other was diagnosed as TNF induced lupus. Of the crithidia negative patients the median dsDNA level was 20, a range of diagnoses were made including 5 patients with SLE who had a positive Ro or La, 3 patients with SLE who were ENA negative, 4 UCTD, 2 MCTD, 2 with GCA/PMR, 3 with RA and 5 with inflammatory arthropathy. Twenty patients were documented as having no evidence of connective tissue disorders (CTDs), others remain under assessment.

Conclusion
We have shown a significant number of patients using our ELiA assay are dsDNA positive and crithidia negative. In patients with crithidia positivity autoimmune disease is more likely to be diagnosed. Crithidia testing appears to influence whether or not a patient will be referred to rheumatology, with negative crithidiads less likely to be referred. This highlights some of the limitations of dsDNA ELISA testing however there is a clear role for this assay as depicted above in preventing over diagnosis of CTDs and unnecessary commitment to immunosuppression.
**BIOSIMILAR SWITCH - CHALLENGES IN A MULTI ETHNIC POPULATION**

Karen Hall, Biologic Pharmacist, Dr A Moorthy, Consultant Rheumatologist

University Hospitals of Leicester NHS trust, Leicester

**Background**

Biological therapy revolutionised management of patients with Autoimmune Rheumatic diseases. Biologics drugs are very effective however expensive due to patency of the drugs etc. Our current biological drug budget cost per year is £12,335,706. In the ever-changing NHS with huge financial implications demands clinicians to use tax payer's money cost effectively. Our commissioners are keen secondary care providers to use less expensive drugs such as biosimilars. Switching originator to Biosimilar is inevitable in the current NHS economy. We switched two group of originators to biosimilars in our unit with multi-ethnic patient cohort. We reviewed our practice of switching and try to identify the challenges to improve the switch and retention rate of biosimilars.

**Aim**

- To see any difference in accepting the switch with regards to ethnicity
- To see persistence with biosimilar drug therapy among the switchers.
- To explore the reasons for switching back to originator drugs

**Methods**

Review of biosimilar switchers from originator Etanercept and Infliximab was undertaken. Patient group were identified from our biological data base. Proforma was developed to capture details. The results were retrospectively analysed using Microsoft excel spread sheet.

**Results and Discussion**

In our unit currently 1730 patients are prescribed Biological therapy for various Rheumatological indications. Two originator Infliximab and Etanercept were switched to biosimilars and our practice was reviewed and compared. 376 Etanercept were attempted to switch into biosimilar. Out of these 362 (96.27%) switched and only 14 (3.73%) did not want to switch. Due to various reasons 21 (5.8%) switched back to originator drugs with a retention rate of switchers is about 90%. Older patients ready to switch and Female patients are less interested in switching. Ethnicity difference also noted as white British less likely (79%) to switch.

Reasons not switching varies from Anxiety (17%) medical reasons (33%), Faith in the originator drugs, Previous reaction, Perception of side effects.

We also compared Infliximab switch and noted slightly low rate in switching (85.45%). Biosimilar non-switchers are more 14.55 % compared to Etanercept. It is interesting to note only one patient switch back to originator drug with larger retention rate in infliximab groups. We reviewed the reasons for switching back to originator and noted the reasons as lack of confidence in the drug, (17%) rather than inefficacy.

**Conclusion**

This is a small group retrospective analysis with limitations and larger group comparison is required. We observed older patients prefer not to switch and with differences in Ethnicity. Effective patient Education will help to switch patient to Biosimilars and maintain the retention rate. This can be achieved by developing patient expert group on Biosimilar switchers and also one to one education by health professionals.
AN AUDIT OF A SINGLE CENTRE’S ADHERENCE TO THE 2017 BRITISH SOCIETY FOR RHEUMATOLOGY GUIDELINE FOR THE MANAGEMENT OF GOUT IN CLINICAL PRACTICE

James Powell*, Christos Koutsianas**, Rainer Klocke**
* Medical School, University of Birmingham
** Department of Rheumatology, The Dudley Group NHS Foundation Trust

Aim: To evaluate The Dudley Group NHS Foundation Trust Rheumatology Department’s adherence to the 2017 British Society for Rheumatology Guideline for the Management of Gout.1

Method: We retrieved clinical correspondence and blood investigation results of patients with a primary diagnosis of gout reviewed in clinics between August 2017 and March 2018. Retrospective data on demographics, co-morbidities, baseline blood results, acute presentation and management, urate-lowering treatment and serum uric acid level targets was collected using criteria derived from the Audit Tool published with the 2017 BSR guideline2 and captured on a predefined Excel spreadsheet form.

Results: 41 patients were identified fulfilling the above criteria. The population’s demographics were typical for gout in terms of age (67±12.8 years) and sex (83% male). The majority represented more severe, chronic and complex cases of gout (oligo/poly-articular involvement in 85.3% and tophi present in 56.1%). There were a high number of recorded co-morbidities present, including hypertension (68%), smoking (54%), dyslipidaemia (51%), diuretics use (51%), CKD (44%), alcohol excess consumption (27%), obesity (27%), heart failure (24%), IHD (24%) and diabetes (22%). The 16 cases that presented with acute gout were managed according to guidelines using colchicine (50%) and corticosteroids (either intra-articular or systemic). Only 5 patients were not started on urate-lowering treatment (ULT) and these had only been seen for one consultation. 94.4% of ULT used was allopurinol; the rest was febuxostat, as no uricosuric agents were used. 50% of the patients were started at a dose of allopurinol that was not adjusted to their eGFR, as per the guidelines. In all but one patient that started ULT, prophylaxis was used (75% of which was colchicine). For 75% of patients, the correspondence did not state a clear serum uric acid level target. For the majority of those that did, <360 µmol/l, rather than the recommended <300 µmol/l was stated.

When compared to the results of the relevant BSR National Audit3, our patient population had strikingly more frequent co-morbidities, such as hypertension (68 vs 49%), diabetes mellitus (22 vs 14%), chronic kidney disease (44 vs 27%), hyperlipidaemia (51 vs 27%) and congestive heart failure (24 vs 8%).

Conclusions: Adherence to the guideline was generally good, but there were particular areas where a need for improvement was found: (a) clear documentation and addressing of co-morbidities such as obesity and smoking, and communication of concerns with GPs regarding these, (b) adjustment of starting doses of allopurinol according to eGFR and (c) communication with GPs of the serum uric acid targets of ≤ 300 µmol/l, titrating the Allopurinol dose to reach that target and the importance of continuing ULT throughout acute attacks. Our results also suggest that our catchment population referred for gout to secondary care has an increased rate of co-morbidities compared to the national average, indicating a higher overall disease management need for this disease group.

References:
PILOTING AN EPIDEMIOLOGICAL STUDY OF THE PREVALENCE OF BEHCETS DISEASE IN ENGLAND
Chandratre P, Chandan J, Hunjan M, Situnayake RD + staff
of the Birmingham National Centre of Excellence for BD
Sandwell & West Birmingham Hospitals NHS Trust

Background: Behcet's disease is a rare multisystem inflammatory disorder, with a single UK reported prevalence of 0.64/100,000. Few UK studies have described the epidemiology in depth including differences in clinical manifestation and outcomes.

Objectives: To establish the methodology and describe the epidemiology and clinical phenotype of the condition at the specialist centre in Birmingham as part of a larger investigation ascertaining the prevalence of Bechet's disease, in England using the 3 National specialist centres and a postal survey technique
To establish the relationship between disease activity and outcomes at most recent follow up.

Methods: A retrospective cross-sectional analysis of medical records between 2012 – 2018 was conducted at the Bechet's specialist centre in Birmingham, U.K. Patients aged ≥ 18 years were included and diagnosis confirmed using an MDT approach. Data collected included baseline characteristics, symptoms at presentation, treatment modality and clinical/patient reported outcomes (BDCAF). Analysis was conducted using STATA v14.2 (Statacorp 2015). Prevalence was defined as the number of cases during this study point divided by the mid-point population in 2017 in the West Midlands; n=5,860,706 (patient group which the Birmingham Bechet's centre serves).

Sub-group analysis was conducted by age and gender. Between group comparisons used either the student t-test (continuous data, parametric), Wilcoxon rank sum (non-parametric data) or chi² testing for categorical data. Using available data, we used univariate (p < 0.2)and multivariate (P < 0.05) logistic regression to model the effect of age, gender and current end organ damage on Bechet's disease activity (BDCAF, Transformed index score).

Results: We identified 296 patients with Bechet's disease resulting in a prevalence of 5.05/100,000 individuals in the West Midlands (and 1.75/100,000 – based on 16.968 million for our referral area). The average age of this group was 44 years (SD 11.5). 109 patients were male (36.8%) and 199 (67.2%) were Caucasian. Most patients were referred by a rheumatologist (42.0%). At baseline the most common symptoms were oral ulceration (80.4%), genital ulceration (63.9%), skin changes (36.8%) and ocular changes (30.1%). At their last appointment 21.0% of patients complained of ocular symptoms.51.0% of patients had ocular damage and 15.9% had experienced some form of venous major vessel disease. The majority were on steroid therapy alone or in combination with another drug. Average Transformed index score was 5 (IQR 3-8) and EQ VAS (0-100, 'Health Today') was 55 (IQR 45-75). Age (> or < 40 years) appeared to have no impact on presentation or current symptoms experienced. Men were younger, and on average experienced less genital ulceration and musculoskeletal symptoms at presentation than women. Men had a higher transformed index score. Univariate logistic regression identified both age and gender associated with transformed index score and remained significant in multivariate analysis. Decrease in age (OR 0.96; 95% CI 0.93-1.00) and being female (OR 0.30; 95% CI 0.12-0.69) were associated with a lower disease activity score.

Conclusion: Our database permitted the identification of patients diagnosed with BD and provided an initial prevalence estimate in keeping with previous observations. This technique, replicated at the three National Centres and supplemented with a National postal survey of Rheumatologists, Ophthalmologists and Dermatologists could provide the first National estimate of BD prevalence and ethnic profile. As expected both age, and gender associated with disease activity though this may be further refined by a ‘time integrated’ analysis to examine relationships with outcome.
Posters
BIOLOGIC TREATMENT FOR CORNEAL MELT IN RA

A Buche¹, T Adizie¹, B Ilango², P Caruana², N Barkham¹
1. Department of Rheumatology, New Cross hospital Wolverhampton
2. Department of Ophthalmology, New Cross hospital Wolverhampton

Background: Eye involvement in RA can be in the form of dry eye or sight threatening peripheral ulcerative keratitis, scleritis and corneal melt. Uveal and retinal involvement is rare. Autoimmune process leads to tissue damage on ocular surface (corneal, uveal, scleral tissue) which is influenced by the changes in the immune system¹. This forms the rationale of treating with biologics in such patients and systemic treatment of RA benefits in reducing the eye disease². We report two cases of corneal melt which were successfully treated using biologic DMARDs.

Case 1: 62 year old man diagnosed with seronegative erosive RA since 2008 which was controlled on Sulphasalazine (3g/day) and Methotrexate(10mg/week) developed left eye corneal melt in July 2015 with deterioration of vision to 6/60. He required application of corneal glue for perforation with iris pulling. He was treated with pulse IV methylprednisolone and IV cyclophosphamide between August and November 2015. After 4 monthly IV cyclophosphamide (1 gram) infusions his corneal melt resolved and visual acuity improved to 6/9. He was recommenced on Methotrexate which was escalated to 20 mg/week. In April 2017, he had a recurrence of peripheral ulcerative keratitis and active corneal melt in the same eye and was referred to Rheumatology department. His visual acuity was 6/9 RE and 6/24 in LE. There was inferior corneal infiltrate about 3.2 mm with 70% corneal thinning, Anterior Chamber deep and quiet and normal intraocular pressure. He had received one repeat dose of IV methylprednisolone before he was seen in rheumatology clinic. His arthritis was quiescent and systemic examination was unremarkable. His relevant investigations showed ESR 10, CRP 6, increased IgG, IgA and normal IgM, no para protein on electrophoresis. His Rheumatoid factor, Anti CCP, ANA and ANCA were negative. His Hepatitis screening was negative. He was given anti-tuberculous treatment for 3 months for positive T spot test before commencing on Rituximab 1gm two infusions two weeks apart in December 2017. Post infusion his visual acuity was 6/5 in RE and 6/9 in LE with normal intraocular pressures in both eyes and unremarkable fundus examination and was on Methotrexate 20mg/ week and eye lubricant drops for dry eyes.

Case 2: 86 years old man diagnosed with seropositive RA 18 years, previously on Methotrexate 25 mg/ week, Sulfasalazine 2 gm/day and Hydroxychloroquine 200 mg/day developed RE corneal melt in Oct 2017 and underwent 2 corneal glues and a corneal transplant for it. The graft took well initially but the melt recurred. His visual acuity was in RE counting fingers and LE 6/6. The RE examination showed hazy corneal graft with stromal oedema. He received 3 doses of IV methylprednisolone, before his rheumatology clinic visit, which triggered atrial fibrillation. He had no systemic symptoms. Clinically his DAS 28 ESR score was 2.56, no vasculitis rash or leg ulcer and systemic examination was unremarkable. Corneal swab was negative for infection. ESR was 63, CRP 85, Rheumatoid factor and Anti-CCP was positive. His ANA, PR3/MPO were negative and immunoglobulins were normal. As he developed atrial fibrillation on IV steroid, he was reluctant for Rituximab. He developed basal cell carcinoma and the surgery delayed the commencement of Adalimumab which was given in August 2018 to control his eye disease. On subsequent review in the eye clinic his right eye was quiet and he continues to use eye lubricants and steroid eye drops.

Conclusion: Biologic DMARDs have a role in controlling the eye disease in RA. They can be used specifically to reduce eye inflammation even in absence of active Rheumatoid arthritis.

References:
CALCIFIC PERIARTHRITIS AS THE ONLY CLINICAL MANIFESTATION OF HYPOPHOSPHATASIA IN A DAUGHTER AND HER MOTHER

Mithun Chakravorty1, Kevin Fairburn1, Prateek Sharma2, Alisdair McNeill3,
Rheumatology, Chesterfield Royal Hospital,
2Radiology, Chesterfield Royal Hospital,
3Clinical Genetics, Northern General Hospital, Sheffield

We present what we believe to be the first reported case of hydroxyapatite-associated calcific periarthritis (CP) as the only clinical manifestation of hypophosphatasia (HPP) in a parent and her offspring.

A 33-year-old woman presented with recurrent episodes of severe pain affecting her elbows and shoulders since her teenage years and a recent episode affecting her feet. Typically the attacks occur spontaneously several times a year. They may be associated with warmth and swelling around the joint, usually last about 2 weeks and respond to local corticosteroid injection therapy. The patient’s mother had suffered similar attacks of joint pain throughout her adult life.

The patient had been investigated 6 years previously at a Specialist Metabolic Bone Unit. At that time an X-ray of her right shoulder showed periarticular calcification. Her markers of bone metabolism and turnover, as well as tubular handling of phosphate were normal. No demonstrable cause for her CP was found.

An X-ray of the patient’s left elbow showed a 17mm x 8mm area of calcification adjacent to the lateral epicondyle of the left humerus and this appeared to be within the common extensor origin consistent with a diagnosis of CP. No bony destruction, joint effusion, chondrocalcinosis or ossified intra-articular body was demonstrated. The patient was treated by ultrasound guided local corticosteroid injection therapy to the calcified peritendonous area of the common extensor origin of the left elbow with symptomatic relief.

Further investigations showed serum creatinine 55 umol/L (55-100); calcium 2.34 mmol/L (2.2-2.65); alkaline phosphatase 33 U/L (35-104); vitamin B6 (pyridoxal phosphate) 186 nmol/L (40-100); bone mineral densitometry normal.

Sequencing of genomic DNA has shown that the patient is heterozygous for a p.(Asp294Ala)c.881A>C, a likely pathogenic mutation in exon 9 of the ALPL gene which codes for tissue non-specific ALP (TNSALP). This mutation has been reported in individuals affected by HPP and functional studies have shown it to cause a reduction in enzyme activity. The result is consistent with a diagnosis of HPP in this individual. The same mutation has been detected in the patient’s mother who has a similar clinical phenotype having suffered recurrent episodes of CP for about 50 years without a previous underlying diagnosis being established.

Discussion

Usually there is no underlying metabolic abnormality in CP. The condition may be associated with injury or repetitive use of the affected area and is often self-limiting. However, the unusual presentation of the patient at a young age with recurrent CP affecting several joints and the history of her mother being affected by a similar condition prompted further assessment.

HPP is a rare inborn error of metabolism that features loss of TNSALP activity caused by functional mutations within the ALPL gene. The usual presentation of HPP in children is loss of deciduous teeth and fractures, severe cases in infancy may be fatal. Adults with HPP may present with recurrent metatarsal fractures, proximal femoral fractures and osteomalacia. Asfotase alfa, a human recombinant ALP, is licensed for the treatment of HPP in adults with a childhood onset of severe disease.
Low TNSALP activity results in increased levels of inorganic phosphate (PPI), pyridoxal phosphate and phosphoethanolamine. The extracellular accumulation of PPI may lead to calcium pyrophosphate dihydrate (CPPD) crystal deposition resulting in pyrophosphate arthropathy or pseudogout.

In contrast, CP resulting from an apparent paradoxical deposition of hydroxyapatite crystals in soft tissues adjacent to joints is also described in association with HPP. The precise mechanism is unclear. The variable nature of the clinical expression of HPP may lead to a long delay in diagnosis of the condition. CP is rarely the only clinical manifestation of HPP. We found two reports of this presentation confirmed by genetic analysis. In previous reports the parent(s) of affected individual(s) do not appear to express the same clinical phenotype. We believe this to be the first such reported case.
A 69-year-old male retired van driver and manual worker of white British background initially presented to the orthopaedic service in 2008 with lower back pain secondary to degenerative disease. A lumbar spine radiograph identified narrowing of all the lumbar disc spaces with gross osteophytic lipping. He underwent several bilateral facet joint injections over the subsequent years. He was re-referred to the orthopaedic service in 2016 for consideration of total knee replacements. The knee radiograph indicated a longstanding enthesopathy and no evidence of osteoarthritis. Initial assessment revealed fixed flexion deformities of the knees and hips, a Schober’s index of 2.5 cm, cervical rotation of 30 degrees bilaterally and occiput to wall distance of 15 cm. His VAS was 7/10 and BASDAI was 5.5. There was no personal or family history of psoriasis, colitis or iritis. He was HLA-B27 negative. He was given a diagnosis of Ankylosing Spondylitis (AS) and subsequently commenced on Etanercept and at 12 week review his BASDAI score had improved to 1 and visual analogue scale improved to 2. Twelve months later, the patient was seen by a different consultant who thought the history and radiographic findings were more consistent with Diffuse Idiopathic Skeletal Hyperostosis (DISH) and therefore Etanercept was withdrawn. Two months later, symptoms reappeared. An MRI of the whole spine demonstrated features of both DISH and chronic ankylosing spondylitis with no convincing features of active inflammation.

AS and DISH can usually be differentiated clinically however advanced forms of both diseases occasionally share similar clinical characteristics (1). Diagnosis can be sought by identifying the several distinguishing radiological features between these two conditions (2). Despite this, some features such as sacroiliac joint involvement and anterior longitudinal ligament ossification can occur in both conditions and therefore misdiagnosis is not uncommon. This is of particular importance considering the differing management of these two conditions. Current diagnostic criteria exclude a diagnosis of DISH if spinal manifestations of AS are present (3). However, the two conditions have been reported to co-exist and to date there have been 39 cases reported in the literature of both conditions occurring simultaneously (4). While there are clinical and radiological similarities between long-standing AS and DISH, the co-existence remains rare. Despite this it thought to be under recognised and it should be considered in those who share similar characteristics.

References
BIOSIMILAR SWITCHING IN DERBY
Shazeen Ayub, Terence Nelson, Sheila O'Reilly
University Hospitals of Derby and Burton NHS Trust

Background
Patients in Royal Derby hospital were switched from Enbrel to the biosimilar Benepali. This process took place from September 2017 to May 2018. Patients received an initial explanatory letter followed by a telephone call from one of our biologics nurse specialist two weeks later.

We reviewed our data on these patients to assess our initial switching rates. We also looked at how many patients needed to switch back to the originator drug.

Methods
Data was collated from electronic records over September 2017 to May 2018. A total of 639 patients were eligible for switching from Enbrel to the biosimilar drug. We looked further to evaluate the reason for an unsuccessful switch to Benepali.

Results
Overall data consists of 639 patients - 447 had rheumatoid arthritis, 118 had psoriatic arthritis and 74 had ankylosing spondylitis. Our overall switch rate to Benepali was 78%. Rates were similar across the three patient groups. Of the remaining patients, 91 declined to switch (14%) and 48 remain undecided (8%). Of the 500 patients who switched, 73 patients (14%) have switched back to Enbrel. Again this is consistent across the patient groups. The reasons for switching back are as follows:

- Inefficacy 40 (55%)
- Side effects 21 (29%)
- Device issues 5 (7%)
- Patient choice 7 (9%)

Conclusions
Our overall switching rate was 78% which is similar to other rheumatology units and in line with NHS England guidance. So far, however, 14% have switched back to the originator drug. Although there is limited data to compare with, this would appear higher than has been reported previously.

We plan to look at the reasons for switching in more detail as well as look at our survival rates for etanercept in general.
AN AUDIT TO ASSESS THE SUCCESS RATE OF CRYOLOBULIN BLOOD TEST REQUESTING
William Arnold, Tochukwu Adizie, Nick Barkham
Department of Rheumatology, New Cross Hospital, Wolverhampton

Background
Cryoglobulins are a form of immunoglobulin found in the serum which precipitate at temperatures below 37°C and dissolve when re-warmed. Cryoglobulinemia is often associated with lymphoproliferative disorders, autoimmune conditions and viral infections. When small vessel vasculitis occurs concurrently with cryoglobulinemia, severe organ damage may occur and this can require aggressive treatment. BSR guidelines (1) recommend that clinicians should test for cryoglobulins when suspecting vasculitis. However, despite the request being made, the test is often not carried out by the laboratory and so results cannot be obtained. This may be partly due to the complexity of gaining and processing the test sample (2). The primary aim of this audit is to assess the success rate of cryoglobulin blood requesting, success being defined as when a request is processed, the sample is taken and a test result is obtained. Supplementary aims are to investigate the reasons given when requests are unsuccessful, and to find out how many of the successful cryoglobulin requests come back positive.

Method
Data was collected on all of the requests for cryoglobulins made in the Rheumatology department at New Cross Hospital in the last 8 months. From this data, we identified whether or not the request was successful. When a request was unsuccessful, the reason given for its failure was noted. If a request was successful, we noted whether the test came back positive or negative.

Results
From the requests made for cryoglobulins over the last 8 months, only 58% were successfully processed. Of the 42% of requests which were unsuccessful, various different reasons were given for their failure, such as “inappropriate sample received”, “pre-analytical error” and “sample not received”. Of the successfully processed requests, 14% came back positive for cryoglobulins.

Discussion
We can see from the results that the success rate of cryoglobulin requesting is low, especially compared with other rheumatological blood tests. The reasons given for failed requests indicate that there is a lack of education regarding the collection and processing of the tests – for example, the blood sample may have been collected in the wrong bottle, or the sample could have been stored at the wrong temperature. This could be addressed by increasing understanding of how cryoglobulin samples are obtained from blood, perhaps by using an information leaflet attached to the cryoglobulin request form. We could supplement this by carrying out tutorials on cryoglobulins for clinicians and health care professionals tasked with collecting and processing tests.

References
Giant Cell Arteritis (GCA) is the most common form of vasculitis in those over the age of 50, and widely considered in differential diagnosis of headache in the elderly. In contrast, secondary syphilis is generally not considered on the differential for those presenting with headache, regardless of age. Multiple studies demonstrate a resurgence of syphilis in Western Europe and the United States. This increase in prevalence disproportionately affect men who have sex with men (MSM), with reported prevalence of 309 per 100,000 in the US for MSM, compared with 2.9 per 100,000 for heterosexual men. Here, we describe a case of secondary syphilis presenting with features of giant cell arteritis, highlighting the importance of being aware of the specific symptoms and signs of this increasingly common, but easily treated, infectious disease, that can present with neurological symptoms.

Our patient, a 72 year old Caucasian male, was referred to the acute medical unit with a six week history of left sided headache and exquisite scalp tenderness. He described feeling generally unwell and fatigued, with an accompanying 5kg weight loss over the past 6 weeks, along with pain and stiffness in the shoulder girdle. There was no jaw claudication or visual disturbance. Over the past week he had noticed an erythematous, non-itchy rash over his chest. There were no genitourinary symptoms or any other systemic symptoms.

On examination, the left side of the scalp was tender to touch. The left temporal artery was tender, with a faint palpable pulse. Visual acuity was normal. There were a cluster of smooth, non-tender reddish macules on the front of the chest. The rest of the examination was unremarkable. Urine dip was clear. Bloods demonstrated a mild normocytic anaemia with haemoglobin at 132 g/L (135-180). CRP was elevated at 44 mg/mL (<10), ESR elevated at 45 mm/hr (1-19). Based on the suspicion of GCA, he was commenced on prednisolone 40mg once daily. 24 hours later, his symptoms had improved, but not abated entirely. An ultrasound of temporal artery was negative, as was left temporal artery biopsy. At 2 weeks post initiation of prednisolone, CRP had fallen to 18, but the patient still had scalp tenderness at night. The rash over the chest had spread to the rest of the trunk, and a rash appeared on his feet also. The patient attended the GUM clinic as part of his 6 monthly sexual health check as a sexually active MSM. The team suspected syphilis from the appearance of the rash. RPR was positive at 1:16. He received a weekly intra-muscular injection of Penicillin G bezathine 2.4 million units for 3 weeks, and all symptoms and signs subsided.

Due to its varied and often subtle manifestations, syphilis, caused by the spirochaete Treponema pallidum, has been termed the ‘Great Imitator’. Multiple risk factors for syphilis infection in Europe and the USA have been identified from recent epidemiological studies, including being HIV positive, having multiple or anonymous sexual partners, illicit drug use, and MSM. Patients with primary syphilis can present with a single chancre on the genitals or other body sites involved in sexual contact about 3 weeks after infection. Lesions are typically painless, resolve spontaneously, and may affect regions not easily visible; hence primary syphilis often goes unrecognised. Resolution of primary lesions is followed by secondary manifestations at about 6-8 weeks post infection, which can include fever, headache and a maculopapular rash. As secondary signs and symptoms settle, the disease enters an asymptomatic latent stage. Approximately 35% of patients with late latent syphilis will go on to develop tertiary syphilis, with potentially serious cardiac and neurological involvement.

To date, only a single case report exists describing a case of secondary syphilis initially diagnosed as giant cell arteritis, in the 1980s. Our case highlights the re-emergence of syphilis as an increasingly common sexually transmitted disease, and in hindsight, it was clear from our patient’s social history, that multiple risk factors for syphilis infection were present. Since syphilis can present with a wide variety of symptoms, our case emphasises the importance of recognising risk factors and signs of this treatable infection, which has potentially serious consequences if left untreated.
REGIONAL SURVEY TO EVALUATE CURRENT PRACTICE OF INITIATING AND MONITORING HYDROXYCHLOROQUINE IN SECONDARY CARE

Dr Shilpa Jagadeesh, SpR Rheumatology
Dr Arumugam Moorthy, Consultant Rheumatologist & Hon Senior Lecturer
Dept of Rheumatology, University Hospitals of Leicester NHS trust

Background
Hydroxychloroquine is used in clinical practice since 1955 and has an interesting journey from antimalarial to immunomodulator. The mass usage during second world war led to discovery of its benefits in autoimmune diseases. It has been used by different specialists due to versatile mechanism of action. Hydroxychloroquine is widely prescribed and perceived to be relatively safe. However, Prescription of Hydroxychloroquine and monitoring is not as rigorous as for other DMARDS. Emerging evidence to suggest retinal toxicity is higher than thought previously. This prompted royal college of ophthalmology to release latest guidelines for initiation and monitoring safe clinical practice.

Aim
1. To evaluate current practice of prescribing Hydroxychloroquine in secondary care.
2. To evaluate current monitoring practice for those on Hydroxychloroquine.

Methodology
Questionnaire based survey piloted locally. Improved questionnaires shared electronically to prescribing and monitoring clinicians. Results were analysed through excel spreadsheet and charts.

Results
We received 32 responses till date and survey remains open for responses. we are reporting our initial analysis. 70% respondents were consultant grade and 80% worked in Rheumatology. Over 50% prescribed Hydroxychloroquine 1-5 times a week. Both BSR(0) and RCO(21) do recommend referral for OCT within 6-12 months of starting the drug. RCO also guides on risk stratifying patients and visual monitoring accordingly. BSR no more advises of blood monitoring however this is being done routinely. When asked regarding pre-treatment checks 69% of prescribers recommended visual check in some form before starting therapy but surprisingly only 7% (2 of 27 prescribers) would refer for an Optical coherence tomography (OCT), others would advise visual field check with optician. 44% of the respondents do refer for OCT within 6-12 months of starting and rest would not due to various reasons including lack of local service, lack of capacity and lack of recommendations from local guidelines. 37% were aware of both BSR and RCO guidelines. RCO guidelines are aimed at prescribers and most up to date hence beneficial for patients if all prescribers were aware.

32 respondents saw in excess of 273 patients on hydroxychloroquine every week of whom 17-33 patients experienced retinopathy, 6-12 myopathy and over 79 other side effects of hydroxychloroquine. 19% respondents could not screen patients as per either of available guidelines predominantly due to non-availability of service. We asked if they follow BSR guidelines as per older recommendations of bloods and visual field checks and 62.5 % said they do.

Conclusion
Lack of consistency in clinical practice in secondary care is observed from this survey. Published evidence-based guidelines are not strictly followed in initiation and monitoring Hydroxychloroquine. It is important the approved guidelines are disseminated widely to deliver safe patient care. Lack of service availability and capacity issues will need addressing to improve adherence to evidence based guidelines.

Ledingham J, Gullick N et al.BSR and BHPR guideline for the prescription and monitoring of non-biologic disease-modifying anti-rheumatic drugs; Rheumatology 2017; 56: 865–868.
UNUSUAL CALCINOSIS IN SCLERODERMA

Dr Megan Rutter, Dr Shirish Dubey

A 67 year old woman had been diagnosed with polymyositis in 1995 and treated with oral corticosteroids and oral methotrexate to good effect. Inflammatory markers and creatinine kinase (CK) normalised. At that stage, ANA was positive 1:640 with negative RF, ENA and dsDNA.

Small, hard lumps around the iliac crests were noted in 2008. These correlated with areas of calcinosis seen on pelvic x-ray.

Methotrexate was discontinued in 2009 due to thrombocytopenia. A subsequent diagnosis of breast cancer was made, treated with mastectomy and Arimidex. As her muscle disease was stable a decision was made not to restart Methotrexate. Hydroxychloroquine was commenced.

In 2010, she was noted to have developed facial telangiectasia, sclerodactyly, calcinosis of the hands and microstomia. A diagnosis of scleroderma/myositis overlap syndrome was made. Repeat immunology showed strong Ro positivity but negative Scl-70, Jo1, U1-snRNP and centromere antibodies.

In late 2012, she was noted to have worsening pelvic calcinosis, despite normal inflammatory markers and CK for many years. X-ray confirmed significant progression of soft tissue calcinosis around the abdomen and trunk. She was given IVIG and then changed over to MMF. Unfortunately, she developed an upper gastrointestinal bleed secondary to oesophageal varices, portal hypertension and newly diagnosed cryptogenic liver cirrhosis.

In 2013, a decision was made to commence mycophenolate mofetil (MMF), following review by Prof Denton. Anti-TNF treatment was relatively contraindicated by the history of malignancy. A dose of MMF 1g BD slowed but did not halt the rate of progression. The dose was increased to 1.5g BD to good effect. Physiotherapy was arranged to help correct posture.

Myositis antibody screen in 2017 revealed positive Pm-Scl-70, Pm-Scl-100 and Ro-52 antibodies. NXP2 antibodies were negative. Repeat pelvic x-rays in 2018 showed stable calcinosis with no significant progression in disease since the commencement of MMF.

Learning Points:

- Calcinosis is seen in both scleroderma and myositis – in the latter, it is felt to be secondary to ongoing disease activity which may be subclinical
- Evidence for treatment options are limited and based on case series. Emphasis should be on optimal disease control
HYDROXYCHLOROQUINE: DEVELOPMENT OF OPHTHALMOLOGICAL ASSESSMENT AND SCREENING STRATEGIES AT HAYWOOD HOSPITAL

S Raghuvanshi, B Tarar, O Mushtaq, A Menon
Department of Rheumatology, Haywood Hospital, Stoke on Trent

Background
Hydroxychloroquine (HCQ) is well-established drug treatment in the management of several rheumatological conditions. However ophthalmological adverse effects, particularly retinopathy remain a cause for concern. American Academy of Ophthalmology (AAO) and BSR guidelines for HCQ retinopathy screening suggest formal baseline retinal OCT (Optical coherence tomography) assessment followed by annual assessments after 5 years of treatment. Also, higher doses are associated with increased risk of ocular toxicity; therefore, we recommend HCQ prescription at 5 mg/kg real body weight in our department as per AAO guidelines.

We performed an audit on HCQ prescribing and screening and would like to present the results of the audit and discuss our recommendations.

Methods and Results
We identified patients on HCQ using our Diamond database system and stratified them according to the duration of their treatment. We also calculated their cumulative doses and verified how many were referred to ophthalmology. A total of 1296 patients were on HCQ, of which 78 were on treatment for 5 or more years. Majority of those 78 (61) had been on treatment for 5-7 years. We had smaller groups of patients on HCQ for longer i.e. 12 (8-10 years), 4 (11-15 years) and 1 (16 years). One patient had a cumulative dose of >2gms, 3 had between 1.5-2gms, 12 between 1.5-1gm, 49 between 500gms -1gm. Only 8 patients were seen by ophthalmology, of which 3 had OCT and none of 78 found to have retinal eye disease.

Conclusions
1. We recommend every new starter being weighed in the clinic and have it documented on the hospital database to facilitate prescribing HCQ at a dose of 5mg/kg as per real body weight of patients.
2. Patients on HCQ for 5 or more years would be referred for OCT first followed by more recent starters.
3. Need for a pathway to streamline screening for retinal disease for patients on HCQ.
4. “HCQ card” to be given to patient outlining potential risks and a list of local opticians performing OCT.
5. Ophthalmology review annually for all patients on HCQ after 5 years of treatment.
A CASE OF CHRONIC URTICARIA AND MONOCLONAL GAMMPATHY

Catherine M. McGrath¹,², Karen M. J. Douglas²
¹Rheumatology Research Group, University of Birmingham, Birmingham, UNITED KINGDOM
²Rheumatology, The Dudley Group NHS Foundation Trust, Dudley, UNITED KINGDOM

Case Report:

Case description: A 44-year-old Caucasian woman was referred to rheumatology in a district general hospital for non-specific intermittent small joint arthralgia. She reported a progressive, persistent non-pruritic urticarial rash and years of drenching night sweats. The rash was treated by immunology with fexofenadine and levocetirizine with limited benefit. She remained under surveillance by haematology for an IgM monoclonal gammopathy of undetermined significance (MGUS). In her family history, her grandmother had rheumatoid arthritis, her mother was treated for systemic lupus erythematosus and her son had a selective IgA deficiency.

On examination, there were absence of features of a classical inflammatory arthritis. An urticarial rash was noted over the patient’s trunk and a solitary, 1 cm non-painful lymph node palpable in the left axilla. The patient had a working diagnosis of both MGUS and chronic urticaria but neither fully explained her symptoms. The differential diagnosis was widened to look for conditions linked with chronic urticaria including autoimmune urticaria, mastocytosis, and periodic fever syndromes including Muckle-Wells syndrome.

By the end of the first rheumatology visit, the suspicion was of an (as yet unknown) unifying diagnosis and an internet search of the main symptoms brought up Schnitzler syndrome at the top of the list. After telephone discussion the following day with the National Amyloidosis Centre (NAC), we confirmed the patient already satisfied the Strasbourg criteria for Schnitzler syndrome and they encouraged an urgent referral.

In the meantime, a CT thorax, abdomen and pelvis showed mildly enlarged bilateral axillary nodes only and with a normal liver and spleen. An US guided biopsy of an enlarged axillary lymph node showed a benign reactive lymphadenopathy. Immunology showed a marginally raised rheumatoid factor but was negative for anti-nuclear antibody, extractable nuclear antigens, and ferritin, C3, C4 complement levels, C1 inhibitor, lactate dehydrogenase and immunoglobulin E values were all in normal ranges. Para-proteinemia had been gradually increasing with immunoglobulin M (IgM) >15 g/L at presentation. There were moderately raised inflammatory markers. A (later) punch biopsy of the skin of the mid back showed features consistent with an urticarial vasculitis without fibrinoid necrosis of blood vessels.

While awaiting skin biopsy results, the patient had her first visit to the NAC with prescription of the interleukin-1 antagonist anakinra with rapid improvement in urticarial rash and night sweats. She relies on daily anakinra to keep symptoms at bay and had re-occurrence of rash when she forgot her medication. An auto-inflammatory focused genetic screen showed no mutations. She had a rapid and sustained drop in serum amyloid A protein levels and slower progression of IgM levels.

Discussion: Schnitzler syndrome is a rare auto-inflammatory condition first described in 1972. It likely arises from a defect in the innate immune system and manifests as chronic urticaria/IgM(G)gammopathy/arthralgia/raised inflammatory markers. More than 300 cases have been documented worldwide, mostly in adult Caucasians, but the number of identified cases is increasing with greater awareness of the condition. Currently genetic screening typically includes a panel of auto-inflammatory genes but no expanded and familial genome wide studies have been reported. The rapid response to anakinra helps confirm the condition but symptoms rapidly return when the drug is stopped. The course of the disease is generally benign but 15-20 % of patients develop a lymphoproliferative disorder prompting examination of lymph nodes and bone marrow and long-term surveillance.