

abbvie



**Irish Society
for Rheumatology**

Autumn Meeting 2014



Brochure kindly sponsored by MSD

**11 & 12 September 2014
Fitzpatrick Castle Hotel
Killiney, Co. Dublin**





The first biologic approved in both SC and IV formulations for the treatment of moderate to severe active rheumatoid arthritis*

Patient-reported improvements in pain, physical function, work productivity and fatigue were maintained after 2 years¹

 **ORENCIA**
(abatacept)

 **Bristol-Myers Squibb**

* in combination with methotrexate

ORENCIA® (abatacept) **PRESCRIBING INFORMATION.** See Summary of Product Characteristics before prescribing. **PRESENTATION:** 250 mg powder for concentrate for solution for IV infusion containing 250 mg abatacept per vial. Each ml contains 25 mg of abatacept, after reconstitution; 125 mg pre-filled syringe for SC injection. Each pre-filled syringe contains 125 mg of abatacept in 1 ml. **INDICATION:** *Rheumatoid arthritis (IV infusion and SC pre-filled syringe):* Treatment of moderate to severe active rheumatoid arthritis (RA), in combination with methotrexate, in adult patients who have responded inadequately to previous therapy with one or more disease-modifying anti-rheumatic drugs (DMARDs) including methotrexate (MTX) or a Tumour Necrosis Factor (TNF)-alpha inhibitor. A reduction in the progression of joint damage and improvement of physical function have been demonstrated during combination treatment with abatacept and methotrexate. See SmPC. *Polyarticular Juvenile Idiopathic Arthritis (pJIA) (IV infusion only):* Orencia 250 mg powder for concentrate for solution for infusion is indicated for treatment of moderate to severe active pJIA in paediatric patients 6 years of age and older who have had an insufficient response to other DMARDs including at least one TNF inhibitor. **DOSAGE and ADMINISTRATION:** Treatment should be initiated and supervised by specialist physicians experienced in the diagnosis and treatment of RA. Orencia 250 mg powder for concentrate for solution for IV infusion *Adults and elderly:* Patients weighing < 60 kg: 500 mg (2 vials). Patients weighing ≥ 60 kg to < 100 kg: 750 mg (3 vials). Patients weighing > 100 kg: 1000 mg (4 vials). *Treatment of pJIA:* Paediatric patients, 6 to 17 years of age, weighing less than 75 kg: 10 mg/kg paediatric patients weighing 75 kg or more: to be administered adult dosage, not exceeding a maximum dose of 1,000 mg. See SmPC for details of reconstitution and administration as a 30 minute IV infusion. After initial administration, Orencia should be given at 2 and 4 weeks, then every 4 weeks thereafter. *Children:* Use in children below 6 years of age is not recommended. Orencia 125 mg solution for injection (SC pre-filled syringe) *Adults and elderly:* Orencia SC may be initiated with or without an intravenous (IV) loading dose. Orencia SC should be administered weekly at a dose of 125 mg by subcutaneous injection regardless of weight. If a single IV infusion is given to initiate treatment (IV loading dose before SC administration), the first 125 mg abatacept SC should be administered within a day of the IV infusion, followed by the weekly 125 mg abatacept SC injections. Patients transitioning from Orencia IV therapy to SC administration should administer the first subcutaneous dose instead of the next scheduled intravenous dose. *Children:* Administration in children below 18 years of age is not recommended. The continuation of treatment with abatacept should be re-assessed if patients do not respond within 6 months. **CONTRAINDICATIONS:** Hypersensitivity to the active substance or excipients. Severe and uncontrolled infections such as sepsis and opportunistic infections. **WARNINGS AND PRECAUTIONS:** *Allergic Reactions:* Caution in patients with a history of allergic reactions. Anaphylaxis or anaphylactoid reactions can occur and can be life threatening. Orencia should be discontinued permanently if a patient develops serious allergic or anaphylactic reaction. *Infections:* Caution should be exercised when considering the use in patients with a history of frequent infections, or underlying conditions which may predispose to infection. Treatment with Orencia should not be initiated with patients with active infections until infections are controlled. Screening for tuberculosis and hepatitis B should be performed prior to therapy. Any patient who develops a new infection should be closely monitored and Orencia should be discontinued if a patient develops a serious infection. Monitor patients for signs of infection when transitioning from TNF-antagonist to Orencia. Co-administration of Orencia with biologic immunosuppressive or immunomodulatory agents could potentiate the effects of abatacept on the immune system. Treatment with immunosuppressive therapy may be associated with progressive multifocal leukoencephalopathy (PML). Orencia treatment should be discontinued if neurological symptoms suggestive of PML occur, and appropriate diagnostic measures initiated. *Malignancies:* The potential role of Orencia in the development of malignancies is unknown, see SmPC. *Elderly:* Caution should be used when treating elderly patients due to a higher incidence of infections and malignancies in this patient group. *Autoimmune processes:* Theoretical risk of deterioration in autoimmune disease. *Immunisation:* Live vaccines should not be given simultaneously or within 3 months of discontinuation of Orencia. See SmPC. **DRUG INTERACTIONS:** Concomitant therapy of Orencia with a TNF-inhibitor is not recommended. No major safety issues were identified with the use of Orencia in combination with sulfasalazine, hydroxychloroquin or leflunomide. **PREGNANCY AND LACTATION:** Do not use in pregnancy unless clearly necessary. Women should use contraception and not breast-feed during treatment and for up to 14 weeks after last dose treatment. **UNDESIRABLE EFFECTS:** In adult placebo-controlled trials the following adverse drug reactions were reported. *Very Common (≥ 1/10):* upper respiratory tract infection including tracheitis, nasopharyngitis. *Common (≥ 1/100 to < 1/10):* Lower respiratory tract infection (including bronchitis), urinary tract infection, herpes infections (including herpes simplex, oral herpes and herpes zoster), rhinitis, pneumonia, influenza, leukopenia, headache, dizziness, paraesthesia, conjunctivitis, hypertension, flushing, blood pressure increased, cough, abdominal pain, diarrhoea, nausea, dyspepsia, mouth ulceration, aphthous stomatitis, vomiting, liver function test abnormal (including transaminases increased), rash (including dermatitis), alopecia, pruritus, pain in extremity, fatigue, asthenia, injection site reactions. *Uncommon (≥ 1/1,000 to < 1/100):* Tooth infection, onychomycosis, sepsis, musculoskeletal infections, skin abscess, pyelonephritis, pelvic inflammatory disease, basal cell and squamous cell carcinoma, skin papilloma, thrombocytopenia, hypersensitivity, depression, anxiety, sleep disorder (including insomnia), migraine, dry eye, visual acuity reduced, vertigo, palpitations, tachycardia, bradycardia, hypotension, hot flush, vasculitis, blood pressure decreased, bronchospasm, wheezing, dyspnea, gastritis, increased tendency to bruise, dry skin, urticaria, psoriasis, erythema, hyperhidrosis, arthralgia, amenorrhoea, menorrhagia, influenza like illness, weight increased. *Rare (≥ 1/10,000 to < 1/1,000):* Tuberculosis, bacteraemia, gastrointestinal infection, lymphoma, lung neoplasm malignant, throat tightness. See SmPC for further details. **LEGAL CATEGORY:** POM. **MARKETING AUTHORISATION NUMBER:** Orencia 250 mg concentrate for solution for infusion - EU/1/07/389/001, 1 vial pack; Orencia 125 mg solution for injection - EU/1/07/389/008, 4 pre-filled syringes with needle guard. **MARKETING AUTHORISATION HOLDER:** Bristol-Myers Squibb Pharma EEIG, Uxbridge Business Park, Sanderson Road, Uxbridge, Middlesex UB8 3DH. **FURTHER INFORMATION FROM:** Bristol-Myers Squibb Pharmaceuticals, Watery Lane, Swords, Co. Dublin. Tel: 1-800-749-749 or medicalinformation@bms.com. **DATE OF PREPARATION:** April 2014. Job No: 4271E14PR03953

Reference: 1. Fleischmann R et al. ACR/ARHP Annual Scientific Meeting, October 25-30, 2013, San Diego, California, Poster 424.

4271E14PR04979-01 Date of Approval: May 2014 IRQC-142293



Welcome Message from the ISR President Professor David Kane

Dear Colleagues and Friends

I am very pleased to welcome you all to our Autumn meeting in Killiney Castle Hotel, Dublin. I sincerely hope that you will enjoy the experience and find it both educational and enjoyable.

The Irish Society for Rheumatology has a proud history and tradition. Arguably its main strength lies in the cross-speciality involvement of Rheumatologists and scientists in an all Ireland capacity. Our combined focus is in the understanding of the mechanisms of Rheumatology and the clinical management of our patients.

I hope to continue during my Presidency to build on our strengths and to continue to develop the inter-relationships between all stakeholders. The ISR should be protective of clinicians in the public, professional, and political domains. It is our collective responsibility to raise public awareness of the disease. The ISR must support the profession in delivering high quality care of patients and lobby centrally to influence government policy.

Again I welcome our colleagues in IRHPS and I hope that they will have a memorable conference. Likewise a big thank you to our colleagues in Industry for their continued support.

I am very grateful to our Academic team in St Vincent's University Hospital - Oliver Fitzgerald, Doug Veale, Gerry Wilson, Eamon Molloy & Ursula Fearon for the very interesting programme that they have put together. I look forward to welcoming and hearing all of the fine speakers who have agreed to present at our meeting.

Often we almost overlook many of the teams who work silently in the background. Here I would like to pay tribute to the abstract review panel who so generously give their time during the holiday period. This year our thanks to Claire Sheehy, Catherine Sullivan, Gerry Wilson and Susan Sant for a job well done.

I have no doubt that within the society we have world class professionals delivering state of the art services to the population. We also have many recently appointed colleagues with novel skills and a cohort of outstanding trainees.

I, with you, am aware of the problems that exist but look forward with enthusiasm to the future and the challenges ahead. It is my intention that we continue to showcase the excellence of Irish Rheumatology over the next few years. We must fully identify the issues and insist on a properly resourced efficient service for the population at large.

Above all enjoy the educational and social interaction !

I look forward to meeting with all of you here, renewing old acquaintances and making new ones.

Professor David Kane,
ISR President

Help put everyday life back in their hands

Efficacy still going strong five years on



The GO studies

Five-year data confirm good persistence, sustained efficacy and predictable tolerability with Simponi in RA, AS and PsA¹⁻⁴

Simponi 50 mg, 100 mg Solution for Injection in pre-filled pen Simponi 50 mg Solution for Injection in pre-filled syringe (golimumab)

Prescribing Information (Refer to full SPC text before prescribing Simponi (golimumab)) **Indications:** **Rheumatoid Arthritis (RA):** Simponi, in combination with methotrexate (MTX), is indicated for the treatment of moderate to severe, active rheumatoid arthritis in adults when the response to disease-modifying anti-rheumatic drug (DMARD) therapy including MTX has been inadequate, the treatment of severe, active and progressive rheumatoid arthritis in adults not previously treated with MTX. Simponi, in combination with MTX, has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function. **Ankylosing Spondylitis (AS):** Simponi is indicated for treatment of severe, active AS in adults who have responded inadequately to conventional therapy. **Ulcerative colitis (UC):** Simponi is indicated for treatment of moderately to severely active UC in adult patients who have had an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or have medical contraindications for such therapies. **Dosage and administration:** Simponi should be injected subcutaneously. Treatment should be initiated and supervised by qualified physicians experienced in the diagnosis and treatment of RA, PsA, AS or UC. After proper training in subcutaneous injection technique, patients may self-inject, if their physician deems it appropriate. **RA:** Simponi 50 mg given once a month, on the same date each month, concomitantly with MTX. **PsA:** Simponi 50 mg given once a month, on the same date each month, alone or in combination with MTX. **AS:** Simponi 50 mg given once a month, on the same date each month. Clinical response is usually achieved within 12-14 weeks of treatment (3 or 4 doses). Continued therapy should be reconsidered in patients who show no evidence of therapeutic benefit within this time period. In patients weighing more than 100 kg who do not achieve an adequate clinical response after 3 or 4 doses, increasing the dose of golimumab to 100 mg once a month may be considered, taking into account the increased risk of certain serious adverse reactions with the 100 mg dose compared with the 50 mg dose. **UC: Patients weighing < 80 kg:** Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 50 mg every 4 weeks. **Patients weighing > 80 kg:** Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 100 mg every 4 weeks. During maintenance treatment, corticosteroids may be tapered, following clinical practice guidelines. Clinical response is usually achieved within 12-14 weeks of treatment (after 4 doses). **Missed dose:** If a patient forgets to inject Simponi on the planned date, the forgotten dose should be injected as soon as the patient remembers. The patient should be instructed not to inject a double dose. **Older patients (> 65 years):** no dose adjustment required. **Paediatric patients (< 18 years) and patients with renal and hepatic impairment:** Simponi is not recommended in these populations. **Contraindications:** Patients with a hypersensitivity to golimumab or any of the excipients. Patients with active tuberculosis (TB) or other severe infection such as sepsis and opportunistic infections; patients with moderate or severe heart failure (NYHA class III/IV). **Precautions and Warnings:** Infections: Patients must be monitored closely for infection before, during and for 5 months after cessation of treatment. Exercise caution when considering Simponi in patients with chronic infection or a history of recurrent infection including use of concomitant immunosuppressive therapy. Simponi should not be given to patients with clinically important active infection. Patients should be advised of the potential risk factors. Bacterial infections (including sepsis and pneumonia), mycobacterial (including TB), invasive fungal and opportunistic infections, including fatalities, have been reported. There was a greater incidence of serious infections, including opportunistic infections and TB, in patients receiving golimumab 100 mg compared with patients receiving golimumab 50 mg. Serious infections have occurred in patients on concomitant immunosuppressive therapy that, in addition to their underlying disease, could predispose them to infection. There have been reports of active TB in patients receiving Simponi, including patients previously treated for latent TB. Patients should be evaluated for active or latent TB before Simponi treatment. All such tests should be recorded on the Patient Alert Card provided with the product. If active TB is diagnosed, treatment with Simponi should not be initiated. If latent TB is diagnosed, treatment with anti-TB therapy must be initiated before initiation of Simponi. Patients on Simponi should be monitored closely for signs and symptoms of active TB and advised to seek medical advice if signs and/or symptoms of TB appear. **Hepatitis B (HBV) reactivation:** Reactivation of HBV occurred in patients receiving Simponi who were chronic carriers. Some cases had a fatal outcome. Patients should be tested for HBV infection before initiating treatment with Simponi. **Malignancies and lymphoproliferative disorders:** Caution is advised when considering Simponi treatment in patients with history of malignancy or continuing treatment in patients who develop a malignancy, additional caution should be exercised in patients with increased risk for malignancy due to heavy smoking. A risk for the development of malignancies in children and adolescents cannot be excluded. Rare cases, usually fatal, of hepatosplenic T-cell lymphoma (HSTCL) have been reported, the majority of cases occurred in adolescent and young males nearly all on concomitant treatment with azathioprine (AZA) or 6-mercaptopurine (6-MP). The potential risk with the combination of AZA or 6-MP and Simponi should be carefully considered. A risk for the development of HSTCL in patients treated with TNF-blockers cannot be excluded. Colon dysplasia/carcinoma - Screen for

dysplasia in all patients with UC who are at increased risk or had a prior history for dysplasia or colon carcinoma. In newly diagnosed dysplasia patients the risks and benefits of continued Simponi use should be carefully assessed. Melanoma (all TNF-blocking agents including Simponi) and Merkel cell carcinoma (other TNF-blocking agents) have been reported, periodic skin examination is recommended, particularly for patients with risk factors for skin cancer. **Heart Failure:** Simponi should be used with caution in patients with mild heart failure (NYHA class I/II) and discontinued in the event of worsening symptoms of heart failure. **Neurological events:** Use of anti-TNF therapy, including Simponi, has been associated with cases of new onset or exacerbation of clinical symptoms and/or radiographic evidence of central nervous system demyelinating disorders, including multiple sclerosis and peripheral demyelinating disorders. Discontinuation of Simponi should be considered if these disorders develop. Carefully consider the benefits and risks before initiation of therapy in patients with a history of demyelinating disorders. **Surgery:** Patients requiring surgery whilst on Simponi therapy should be closely monitored for infections. **Autoimmune processes:** If a patient develops symptoms suggestive of a lupus-like syndrome following treatment with Simponi and is positive for antibodies against double-stranded DNA, treatment should be discontinued. **Haematological reactions:** There have been post-marketing reports of pancytopenia, leucopenia, neutropenia, aplastic anaemia, and thrombocytopenia in patients receiving TNF-blockers. Cytopenias including pancytopenia have been reported infrequently in clinical trials. Patients should be advised to seek medical attention if they develop signs and symptoms suggestive of blood dyscrasias. Discontinuation should be considered in patients with significant haematologic abnormalities. **Vaccinations/therapeutic infectious agents:** It is recommended that live vaccines or any therapeutic infectious agents should not be given concurrently. **Allergic reactions:** If an anaphylactic reaction or other serious allergic reaction occurs, administration of Simponi should be discontinued immediately, and suitable treatment initiated. The needle cover of the pre-filled pen contains latex and may cause allergic reactions in those sensitive to latex. **Special populations:** Adverse events, serious adverse events and serious infections in patients aged ≥65 were comparable to those observed in younger patients. However, caution should be exercised when treating the elderly, particular attention should be paid to infections. Simponi contains sorbitol (E420). Patients with rare hereditary problems of fructose intolerance should not take Simponi. **Interactions:** Combination of Simponi and other biological therapeutics used to treat the same conditions as Simponi, including anakinra and abatacept is not recommended. **Pregnancy and Lactation:** Administration of Simponi is not recommended during pregnancy or breast-feeding. Women of childbearing potential should use adequate contraception and continue its use for at least 6 months after the last Simponi treatment. **Side-effects: Refer to SmPC for complete information on side effects** Very Common (> 1/10): upper respiratory tract infection; Common (> 1/100): bacterial infections, viral infections, bronchitis, sinusitis, superficial fungal infections, anaemia, allergic reactions, autoantibody positive, dizziness, headache, hypertension, dyspepsia, gastrointestinal and abdominal pain, nausea, alanine aminotransferase increased, aspartate aminotransferase increased, pruritus, rash, pyrexia, asthenia and injection site reaction, were reported. Serious, including fatal adverse events have been reported including septic shock, lymphoma, leukaemia, melanoma, Merkel cell carcinoma*, hepatosplenic T-cell lymphoma*, leucopenia, thrombocytopenia, pancytopenia, aplastic anaemia, serious systemic hypersensitivity reactions (including anaphylactic reaction), skin exfoliation, vasculitis (systemic), sarcoidosis, demyelinating disorders, congestive heart failure, arrhythmia, ischaemic coronary artery disease, thrombosis, Interstitial lung disease and lupus-like syndrome. * Observed with other TNF-blocking agents, but not observed in clinical studies with golimumab. **Package quantities:** 1.50 mg pre-filled pen containing 50 mg of golimumab in 0.5 ml solution for injection or 1.50 mg pre-filled syringe containing 50 mg of golimumab in 0.5 ml solution for injection or 1.50 mg pre-filled pen containing 100 mg of golimumab in 1 ml solution for injection. **Legal Category:** Prescription Only Medicine. **Marketing Authorisation Number:** 50 mg Pre-filled Pen EU/1/09/546/001; 50 mg Pre-filled Syringe EU/1/09/546/003; 100 mg Pre-filled Pen EU/1/09/546/005. **Marketing Authorisation Holder:** Janssen Biologics B.V., Einsteinsteinweg 101, 2333 CB Leiden, The Netherlands © Merck Sharp & Dohme Ireland (Human Health) Limited, 2013. All rights reserved. **Date of Revision of Text:** October 2013. Further information is available on request from: MSD, Red Oak North, South County Business Park, Leopardstown, Dublin 18 or from www.medicines.ie. **Date of preparation:** December 2013.

References:

- Keystone E et al. Presented at EULAR 2013 Congress, Madrid, Spain, June 12-15, 2013. Abstract AB0267.
- Han C et al. Presented at EULAR 2013 Congress, Madrid, Spain, June 12-15, 2013. Abstract THU0513.
- Kavanaugh A et al. Presented at EULAR 2013 Congress, Madrid, Spain, June 12-15, 2013. Abstract AT0270.
- Deodhar A et al. Presented at EULAR 2013 Congress, Madrid, Spain, June 12-15, 2013. Abstract THU0352.



Red Oak North, South County Business Park, Leopardstown, Dublin 18, Ireland



PROGRAMME ISR Autumn Meeting

Killiney Castle Hotel, Thursday & Friday 11th & 12th September 2014

Wednesday 10th September 2014

7.45pm **MSD Satellite meeting**

Thursday 11th September 2014

8.15am **Private Practice Meeting** (breakfast meeting)
Chair: Dr John McCarthy

9.15am **Registration & Visit the Industry**

9.45am **Official Opening by Prof David Kane, President ISR**

Dealing with

- Recent Members Survey
- ISR Strategy
- Rheumavision

10.15am **ORAL PAPERS (Scientific) 1 – 5**

11.15am **Coffee & Visit the Industry**

11.35am **Session 1 - Rheumatoid arthritis**

Dr Kimme Hyrich

Centre for Musculoskeletal Research,
Institute of Inflammation and Repair,
Manchester Academic Health Science Centre

Title: 'Lessons from British Biologics registry'

12.15pm Prof Steffen Gay
University Hospital Zurich
Title: "Epigenetics in the pathogenesis of rheumatic diseases"

13.00pm **Lunch, Poster Viewing and visit the Industry**

14.15pm **ORAL PAPERS (Clinical) 6 – 10**

15.15pm **Session 2 - Vasculitis**

Prof Wolfgang Gross
University Hospital Schleswig-Holstein,
Campus Lübeck, Germany

Title: 'ANCA associated vasculitis: New perspectives on pathogenesis'

16.00pm **Coffee Break, Posters viewing & Visit Industry**

16.30pm Dr David Jayne
Reader in Vasculitis, University of Cambridge
Title: 'Advances in treatment of ANCA associated vasculitis'

17.30pm **ISR AGM**

19.30pm **Drinks Reception**

20.00pm **Conference Dinner**

Friday 12th September 2014

8.15am **UCB Satellite meeting**

9.00am **Registration & Visit the Industry**

9.30am **Arthritis Ireland Presentation**
Planning for the future?

10.00am **ORAL CASES 11 – 14**

11.00am **Coffee Break, Posters viewing & Visit Industry**

11.30am **The Young Investigator Award**

11.45am **Session 3 - Psoriatic Arthritis**

Prof Neil McHugh

Professor of Pharmacoepidemiology
Department of Pharmacy and Pharmacology
University of Bath

Title: 'Psoriatic arthritis – the need for early intervention'

12.30pm Prof Robert Winchester
College of Physicians and Surgeons,
Columbia University, New York
Title: 'Clinical Phenotype in Spondyloarthritis; is it all in the genes?'

13.15pm **Prize Giving & Closing Remarks**

Lunch



The ENBREL way

Indicated for RA, PsA, JIA, AS and PsO#

Over 20 years
and 3 million
patient-years
collective
clinical
experience^{9,10}

A unique mechanism of action

- Enbrel is the only fully human soluble tumour necrosis factor (TNF) receptor^{1,2,3,4,5,6}
- It works differently than MAB's¹

No neutralising antibodies¹

- Enbrel is not associated with the production of neutralising antibodies in humans

Enbrel has a short half life (<3 days)¹

- The half-life of anti-TNF agents should be taken into account if a treatment break is required

Efficacy

- Registry data and Cochrane Review data support efficacy & safety of Enbrel^{7,8}

Enbrel (etanercept) Abbreviated Prescribing Information

Before prescribing Enbrel® please refer to full Summary of Product Characteristics (SmPC). Presentation: Enbrel Pre-filled Syringe: Enbrel 25 mg and 50 mg solution for injection in pre-filled syringe. Each pre-filled syringe contains either 25 mg or 50 mg etanercept. Enbrel Pre-filled Pen (MYCLIC®): Enbrel 50 mg solution for injection in pre-filled pen. Each pre-filled pen contains 50 mg etanercept. Enbrel Powder: Enbrel 25 mg powder and solvent for solution for injection. Each vial contains 25 mg etanercept and each pre-filled syringe contains 1 ml water for injections. Enbrel Paediatric: Enbrel 10 mg powder and solvent for solution for injection for paediatric use. Each vial contains 10 mg etanercept and each pre-filled syringe contains 1 ml water for injections.

Uses: Adults: Moderate to severe active rheumatoid arthritis (RA), in combination with methotrexate, when response to disease-modifying anti-rheumatic drugs (DMARDs), including methotrexate (unless contraindicated), has been inadequate. Enbrel can be given as monotherapy in the case of intolerance to methotrexate or when continued treatment with methotrexate is inappropriate. Severe, active and progressive RA without prior methotrexate treatment.

Enbrel alone or with methotrexate has been shown to reduce the rate of progression of joint damage measured by X-ray and to improve physical function. Patients with moderate to severe plaque psoriasis (PP) who failed to respond to, or who have a contraindication to, or are intolerant to other systemic therapy including ciclosporin, methotrexate or PUVA. Active and progressive psoriatic arthritis (PsA) when response to DMARDs has been inadequate. Enbrel has been shown to improve physical function in PsA patients, and to reduce the progression rate of peripheral joint damage as measured by X-ray in patients with polyarticular symmetrical subtypes of PsA. Severe active ankylosing spondylitis (AS) when response to conventional therapy has been inadequate. Children aged 2-17 years: Juvenile idiopathic arthritis (JIA). Polyarthritis (rheumatoid factor positive or negative) and extended oligoarthritis from the age of 2 years when inadequate response to, or intolerant of methotrexate. Psoriatic arthritis from the age of 12 years when inadequate response to, or intolerant of methotrexate. Children aged 6-17 years: Chronic severe psoriasis when inadequately controlled by, or intolerant to, other systemic therapies or phototherapies. Dosage: By subcutaneous injection. Adults: RA – 25 mg twice weekly or 50 mg once weekly PP – 25 mg twice weekly or 50 mg once weekly for up to 24 weeks, or 50 mg twice weekly for up to 12 weeks followed by 25 mg twice weekly or 50 mg once weekly for a further 12 weeks if needed. Continuous therapy may be appropriate for some adult patients. Discontinue if no response after 12 weeks. For re-treatment: 25 mg twice weekly or 50 mg once weekly for up to 24 weeks. AS and PsA – 25 mg twice weekly or 50 mg once weekly. Children aged 2-17 years: JIA – 0.4 mg/kg (maximum per dose 25 mg) twice weekly with an interval of 3 - 4 days or 0.8 mg/kg (maximum per dose 50 mg) once weekly. Discontinuation of treatment should be considered in patients who show no response after 4 months. Children aged 6-17 years: Plaque psoriasis in children aged 6-17 years – 0.8 mg/kg (maximum per dose 50 mg) once weekly for up to 24 weeks. Discontinue if no response after 12 weeks. For re-treatment: 0.8 mg/kg (maximum per dose 50 mg) once weekly for up to 24 weeks. Contra-indications: Hypersensitivity to any of the ingredients, sepsis or risk of sepsis, active infections. Warnings and Precautions: Enbrel should be initiated and supervised by specialist physicians experienced in the diagnosis and treatment of RA, JIA, PsA,

AS, PP or Paediatric PP. Patients treated with Enbrel should be given the Patient Alert Card. Use carefully in patients predisposed to, or with history of, infection due to underlying diseases other than RA (e.g. advanced or poorly controlled diabetes) or with history of blood dyscrasias, pre-existing or predisposition to demyelinating disease or congestive heart failure. Cases of active tuberculosis have been reported, therefore all patients should be evaluated for both active and inactive TB prior to being treated with Enbrel. If active TB is diagnosed, Enbrel should not be initiated. Caution should be used when administering Enbrel to patients identified as carriers of hepatitis B virus and there have been reports of worsening hepatitis C in patients receiving Enbrel. Use with caution in patients with a history of hepatitis C. Whether treatment with Enbrel might influence the development and course of active and/or chronic infections is unknown. Concurrent administration of Enbrel and anakinra has been associated with increased risk of serious infections and neutropenia, and is therefore not recommended. In clinical studies, concurrent administration of abatacept and Enbrel resulted in increased incidences of serious adverse events, and is therefore not recommended. Use caution when considering combination therapy with DMARDs other than methotrexate. Reports of various malignancies have been received in the post-marketing period, therefore with current knowledge, a possible risk for the development of lymphomas, leukaemia or other haematopoietic or solid malignancies in patients treated with a TNF-antagonist cannot be excluded. Malignancies, some fatal, have been reported among children, adolescents and young adults (up to 22 years of age) treated with TNF-antagonists (initiation of therapy ≤ 18 years of age) in the postmarketing setting. Melanoma and non-melanoma skin cancer (NMSC) have been reported in patients treated with TNF-antagonists, including Enbrel. Post-marketing cases of Merkel cell carcinoma have been reported very infrequently in patients treated with Enbrel. Periodic skin examination is recommended for all patients, particularly those with risk factors for skin cancer. Enbrel has not been studied in combination with other systemic therapies or phototherapy for the treatment of psoriasis. Monitor closely if patient develops new infection during treatment. Discontinue treatment if serious infection or allergic reaction develops or if blood dyscrasias are confirmed. Caution should be used in patients who have moderate to severe alcoholic hepatitis and Enbrel should not be used in patients for the treatment of alcoholic hepatitis. Discontinue temporarily if significantly exposed to varicella virus. Live vaccines should not be given concurrently with Enbrel. Paediatric patients should have received all vaccines recommended in current immunization guidelines prior to starting Enbrel. Treatment with Enbrel may result in the formation of autoantibodies. Enbrel is not recommended for use in patients with Wegener's granulomatosis. There have been reports of hypoglycaemia in Enbrel patients receiving medication for diabetes, necessitating a reduction in antidiabetic medication in some of these patients. There have been reports of Inflammatory Bowel Disease (IBD) and uveitis in JIA patients being treated with Enbrel. Caution should be exercised when treating the elderly and with particular attention to occurrence of infections. Pregnancy & Lactation: Enbrel is not recommended in pregnant or breastfeeding women. Undesirable Effects: Adults: The most commonly reported adverse reactions are injection site reactions, infections, allergic reactions, development of autoantibodies, itching, and fever. See SmPC for less commonly reported side effects. TNF-antagonists, such as Enbrel, affect the immune system and their use may affect the body's defences against infection and cancer. Serious infections affect fewer than 1 in 100 patients treated with Enbrel. Reports have included fatal and life threatening infections and sepsis. Various malignancies have also been reported with use of Enbrel, including cancers of the breast, lung, skin and lymphatic system (lymphoma). Serious infections and other adverse events such as uncommon reports of: thrombocytopenia, systemic vasculitis, uveitis and

scleritis, interstitial lung disease, rare reports of tuberculosis, opportunistic infections, anaemia, leucopenia, neutropenia, pancytopenia, seizures, worsening of heart failure, autoimmune hepatitis, Steven Johnson's syndrome and very rare reports of: anaphylaxis, toxic epidermal necrolysis and aplastic anaemia have been reported. Reactivation of hepatitis B (a liver infection) has also been reported. Central and peripheral demyelinating events have been seen rarely and very rarely, respectively, with Enbrel use. There have been rare reports of lupus, lupus-related conditions, and vasculitis. Rate of new malignancies was similar to that expected for the population studied. Fatalities associated with serious infections, pancytopenia, aplastic anaemia and interstitial lung disease have also been reported. Paediatrics: Generally as for adults, except the following were more common: headaches, nausea, vomiting and abdominal pain. In addition the following were reported as severe events: varicella, appendicitis, gastroenteritis, depression/personality disorder, cutaneous ulcer, oesophagitis/gastritis, group A streptococcal septic shock, type I diabetes mellitus and soft tissue and post operative wound infection. There have been post-marketing reports of IBD and uveitis in JIA patients, including cases indicating a positive re-challenge. Legal Category: POM. Package Quantities: Enbrel Pre-filled Syringe: Each carton contains 4 pre-filled syringes containing either 25 mg or 50 mg of Enbrel and 4 alcohol swabs. Enbrel Pre-filled Pen (MYCLIC): Each carton contains 4 pre-filled pens containing 50 mg of Enbrel and 4 alcohol swabs. Enbrel Powder: Each carton contains 4 vials of Enbrel 25 mg powder, 4 pre-filled syringes of water for injections, 4 needles, 4 vial adaptors and 8 alcohol swabs. Enbrel Paediatric (10 mg): Each carton contains 4 vials of Enbrel 10 mg powder, 4 pre-filled syringes of water for injections, 4 needles, 4 vial adaptors and 8 alcohol swabs.

European Marketing Authorisation Numbers: Enbrel Pre-filled Syringe 25 mg: EU/1/99/126/013 Enbrel Pre-filled Syringe 50 mg: EU/1/99/126/017 Enbrel Pre-filled Pen (MYCLIC) 50 mg: EU/1/99/126/020 Enbrel Powder 25 mg: EU/1/99/126/003 Enbrel Paediatric 10 mg: EU/1/99/126/022. S1B: Product subject to a prescription which may be renewed. European Marketing Authorisation Holder: Pfizer Limited, Ramsgate Road, Sandwich, Kent, CT13 9NJ, UK. For full prescribing information see the Summary of Product Characteristics. For further information on this medicine please contact: Pfizer Medical Information on 1800 363 633 or at EJMEDINFO@pfizer.com. For queries regarding product availability please contact: Pfizer Healthcare Ireland, Pfizer Building 9, Riverwalk, National Digital Park, Citywest Business Campus, Dublin 24 + 353 1 4676500. API Reference Number: EN_6_1. Date of Prescribing Information: December 2012.

References:

1. Enbrel Summary of Product Characteristics August 2013.
2. Remicade Summary of Product Characteristics.
3. Humira Summary of Product Characteristics.
4. Orenzia Summary of Product Characteristics.
5. Mabthera Summary of Product Characteristics.
6. Simponi Summary of Product Characteristics.
7. Singh J et al. CMAJ:2009 DOI:10.1503.
8. Hetland ML et al. Arthritis & Rheumatism. Vol 62, no 1, January 2010.
9. Data on File Pfizer Inc. 10 Data on File Amgen

Rheumatoid Arthritis, Psoriatic Arthritis, Juvenile Idiopathic Arthritis, Ankylosing Spondylitis and Psoriasis. For full prescribing information see the Summary of Product Characteristics.

ENB/2013/192/1

Date of preparation: September 2013





Programme for IRHPS Meeting and AGM Killiney Castle Hotel, Dublin Sept 11th and 12th 2014

Thursday 11th September 2014

09.15	Registration Opens Coffee & Poster Viewing ISR Programme
10.15 – 11.30	IRHPS Programme Chairs: Derek Deely, Eimear Lyons
10.15- 10.20	Welcome by IRHPS Chairperson; Rhona Galway
10.20-10.45	Arthritis and Down Syndrome Dr. Charlene Foley, Clinical Research Fellow, National Children's Research Centre
10.45-11.15	Arthritis and Pain Management Dr Brian Maguire, Director of the Doctor of Psychological Science programme in Clinical Psychology and Joint Director of the Centre for Pain Research in NUI Galway.
11.15 – 12.15	ISR Programme
13.00 – 14.15	Lunch & Poster viewing
14.10 – 15.15	IRHPS Programme Chairs: Rhona Galway
14.10-14.15	Arthritis Ireland Update Grainne O'Leary, Head of Education & Support Services Arthritis Ireland
14.15-14.45	Oral Presentation 1: <i>Use of a Pedometer to monitor Physical Activity levels in patients attending a Chronic Pain Rehabilitation Group Programme: A pilot study.</i> Catherine Cullinane, Senior Physiotherapist, University Hospital Waterford
14.45-15.15	Oral Presentation 2: <i>Do physiotherapists working in new patient rheumatology clinics miss inflammatory arthritis: A retrospective review of 296 patients</i> Paul Kirwan, Senior Physiotherapist, Connolly Hospital
15.15 – 17.30	ISR Programme
17.30 – 18.00	IRHPS AGM
19.30	Drinks Reception
20.00	Gala Dinner

Friday 20th September 2013

09.00	Registration
09.30-11.00	ISR Programme
11.00-11.30	Coffee & Poster Viewing
11.30-13.00	ISR Programme
13.00	Prize Giving & Close of Meeting



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Musgrave Park Hospital, Belfast



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Eamonn Molloy

MD MS FRCPI

Consultant Rheumatologist,
ISR Board Member



Eamonn Molloy graduated from University College Dublin (1997) and completed rheumatology and internal medicine training in Ireland. He obtained an MD at RCSI (2006), which focused on calcium crystal induced inflammation. From 2005, he underwent subspecialty fellowship training in vasculitis at the Cleveland Clinic, completed a MS (Clinical Research) at Case Western Reserve University and then joined the staff at the Vasculitis Center and RJ Fasenmeyer Center for Clinical Immunology at the Cleveland Clinic. In 2010, he was appointed as a consultant rheumatologist at St Vincent's University Hospital and is a UCD Senior Clinical Lecturer. He is the author of approximately 50 publications largely pertaining to vasculitis, complications of biologic therapy and crystal induced arthritis. Currently, his primary research focus is giant cell arteritis.

Prof Oliver FitzGerald

Oliver FitzGerald is a consultant rheumatologist and Newman Clinical Research Professor at St Vincent's University Hospital and the Conway Institute, University College Dublin (UCD). Professor FitzGerald has published over 250 peer-reviewed papers, many on the subject of spondyloarthropathy, in particular psoriatic arthritis. His main research interests in psoriatic arthritis include clinical and therapeutic studies; the development of novel imaging techniques; analysis of synovial and skin cellular and cytokine profiles; and, more recently, studies of gene and protein expression in diseased tissue. He currently receives research funding support from EU FP7 programme and a number of pharmaceutical companies. Professor FitzGerald has served on a number of editorial boards. He is an executive member of the Group for Research and Assessment in Psoriasis and Psoriatic Arthritis (GRAPPA) and he is also working with the Outcome Measures in Rheumatology Clinical Trials (OMERACT) group to develop a longitudinal study of soluble biomarkers of joint damage. For the past 5 years, he has been Programme lead with the HSE Clinical Programme in Rheumatology.



Prof Douglas James Veale

Dublin Academic Medical Centre (DAMC), St Vincent's University Hospital, Dublin, Ireland

Douglas J. Veale is a Professor of Medicine, Director of Translational Research at DAMC, Consultant Rheumatologist at St Vincent's University Hospital and Fellow and Principal Investigator at The Conway Institute for Biomedical and Biomolecular Research, University College Dublin (UCD). He is a Fellow of both the Royal College of Physicians in Ireland (1997) and the Royal College of Physicians, London (1999). Professor Veale graduated from the Royal College of Surgeons in Ireland in 1984 and obtained his MD



by thesis from UCD in 1992.

Professor Veale has established an international reputation in translational research in the areas of early arthritis, biopharmaceutical therapy, biomarkers and scleroderma. He has established an excellent research team including senior scientists, post-doctoral scientists, clinical research fellows and PhD students funded by peer-reviewed grants from The American Federation for Ageing Research, The European Union FP6 and FP7 Innovative Medicines Initiative (IMI), The Health Research Board of Ireland, Science Foundation Ireland, the Programme for Research in Third Level Institutions and a several of industry partnership programmes.

Professor Veale's primary research interests include inflammatory arthritis – rheumatoid/ psoriatic arthritis, novel biopharmaceutical therapy and biomarkers.

Dr Ursula Fearon

Dr Fearon is a Senior Research Scientist in the Centre for Arthritis & Rheumatic Diseases, Dublin. Dr Fearon has established an international reputation in the areas of angiogenesis, metabolism and synovial fibroblast invasion. She has developed a number in-situ, in-vitro and ex-vivo models of arthritis using human tissue from patients with inflammatory arthritis. These models closely reflect the in-vivo joint environment and are utilised in collaboration with several industry partnerships to examine potential new therapeutic targets. Using these 'pre-clinical proof of concept models' it is possible to dissect the complex signaling pathways involved in inflammation including blood vessel dysfunction, metabolism and synovial invasion. Dr Fearon is a member of several international research consortia, has established a strong research team funded from National and International agencies (HRB, IRCSET, SFI, EU FP6), in addition to industry collaborative partnerships.



Prof Gerry Wilson

University College, Dublin

Professor Gerry Wilson graduated in Medicine from Queen's University Belfast. He was awarded an ARC Clinical Fellowship for a PhD thesis which he undertook at the University of Sheffield. He was subsequently awarded an ARC Copeman Fellowship for research at Stanford University. He was appointed Professor in Rheumatology and Honorary Consultant Rheumatologist at the University of Sheffield Medical School and Sheffield Teaching Hospitals NHS Foundation Trust where he was Head of the Sheffield EULAR Centre of Excellence for Rheumatology. Prof Wilson was appointed to the Arthritis Ireland/UCD Chair of Rheumatology in 2013. Research interests include genetic and epigenetic influences in RA.



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HUMIRA has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function when given in combination with methotrexate.¹

*In moderate to severe RA.

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Reference: 1. For more information on HUMIRA's licensed indications, please refer to HUMIRA's Summary of Product Characteristics available on www.medicines.ie.

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Speakers

Dr David RW Jayne

MD FRCP FRCPE FMedSci

Dr David RW Jayne is Director of the Vasculitis and Lupus Clinic and Reader in Vasculitis at The University of Cambridge, UK.



Dr Jayne received his bachelor of surgery degree and medical degree from Cambridge University, Cambridge, England. He received postgraduate training at several London hospitals and Harvard University. He is a fellow of the Royal Colleges of Physicians of London and Edinburgh, and the Academy of Medical Science.

Dr Jayne is on the editorial board of 7 journals and serves as a referee for 45 journals. He is a medical advisor to UK, US, and EU regulatory bodies, patient groups, and professional organizations. He has published more than 200 peer-reviewed journal articles, book chapters, and reviews. He was elected the first President of the European Vasculitis Society in 2011 and his research interest has focused on investigator-initiated international trials and the introduction of newer therapies in vasculitis and SLE with collaborators in five continents.

Prof Robert Winchester

Robert Winchester is Professor of Medicine and Pathology at Columbia University, College of Physicians and Surgeons. He graduated from Cornell University Medical College and worked with Henry Kunkel at Rockefeller University for many years. Dr. Winchester has had a sustained interest in the genetic basis of autoimmunity and the pathophysiologic mechanisms of autoimmune diseases, with a particular interest in psoriatic arthritis. The author of well over 200 publications in the area of the pathogenesis of autoimmune diseases, he was designated a Fellow of the American Association for the Advancement of Science, for "Discovery of human class II major histocompatibility complex (MHC) molecules and identification of shared sequences in different MHC genes associated with rheumatoid arthritis." He was also awarded the Lee C. Howley, Sr. Prize for Arthritis Research, by the Arthritis Foundation for "Discovering the share epitope, the molecular basis of susceptibility to rheumatoid arthritis." In 2013 he was the recipient of the Crafoord Prize of the Royal Swedish Academy of Sciences presented by the King of Sweden for his research on arthritis. He has an extensive record of training fellows and students who advanced to leadership positions, and in recognition of this was recently awarded the "Prize and Award for Excellence in Investigative Mentoring" by the American College of Rheumatology.



Dr Kimme Hyrich

MD PhD FRCPC

Dr Hyrich completed her Bachelors of Science and her medical degree at the University of Manitoba in Canada. She did her training in internal medicine in Winnipeg, Canada and a fellowship in rheumatology at the University of Toronto.

She subsequently worked as an Arthritis Society of Canada Research Fellow at the Arthritis Research UK Epidemiology Unit in Manchester. She is currently a Reader in Rheumatic Disease Epidemiology at the University of Manchester and an Honorary Rheumatology Consultant at the Manchester Royal Infirmary, Manchester, UK. Her main research interests centre on outcomes in inflammatory arthritis in both adults and children, with a particular focus on pharmacoepidemiology. She is a principal investigator for a number of studies including the British Society for Rheumatology Biologics Register, the Biologics for Children with Rheumatic Diseases Cohort Study, the Rheumatoid Arthritis Medication Study and the Childhood Arthritis Prospective Study. She has published extensively on the short and long-term effectiveness and safety of biologics in a number of rheumatic diseases, as well as on determinants of treatment response.



Prof Wolfgang L. Gross

Prof. Wolfgang L. Gross was trained in internal medicine, rheumatology and immunology at the university Kiel. 1989 he received his chair and full professorship for internal medicine/rheumatology and was medical director of the department of rheumatology at the university hospital Luebeck and the clinic for rheumatology in Bad Bramstedt. He initiated the first center for vasculitis in Germany and is an expert for GPA (Wegener's). His major contributions were in the field of ANCA-associated vasculitides with > 600 papers (cum IF (lifetime 1546,101, h-factor 61).

Today he serves the University of Luebeck as a senior professor and is still active as speaker for the Clinical Research Group (DFG-KFO 170) and a member of the DFG-sponsored Cluster of Excellence (Universities of Kiel, Luebeck and Research Center Borstel).



Prof Neil McHugh

Prof Neil McHugh graduated from Otago University, New Zealand 1978, research fellowship at Walter and Eliza Hall, Melbourne 1985, Registrar at RNHRD in Bath until 1990, postdoctoral fellow at Yale University 1991, Consultant Rheumatologist at Royal National Hospital of Rheumatic Diseases from 1992 and Professor of Pharmacoepidemiology, University of Bath from 2013. Current fields of interest are psoriatic arthritis (treatment guidelines, outcome measures, genetics, clinical trials), autoimmune mechanisms in connective tissue disease (genetics, autoantibodies, proteomics, clinical trials). Current ARUK Clinical Study Group lead for spondyloarthritis.





ISR Board members

Professor David Kane

Prof David Kane attended medical school at Trinity College, Dublin, Ireland and was conferred MB BCh BAO BA in 1991, PhD in 2002 and FRCPI in 2006. He has trained in rheumatology with Prof. Barry Bresnihan and Prof. Oliver FitzGerald at St. Vincent's University Hospital, Dublin, Ireland and with Prof Roger Sturrock, Prof Iain McInnes and Dr Peter Balint at Glasgow Royal Infirmary, Glasgow, United Kingdom. He was appointed as Senior Lecturer in Rheumatology at the University of Newcastle (2003-2005) and is currently working as Consultant Rheumatologist at the Adelaide and Meath Hospital and Clinical Professor in Rheumatology at Trinity College Dublin. His special interests are musculoskeletal ultrasound, spondyloarthritis and synovial inflammation. He is a member of the European Working Party on Musculoskeletal Ultrasound and the OMERACT special interest group on musculoskeletal ultrasound, previous organiser of the BSR Musculoskeletal Ultrasound course and is Faculty member of the EULAR Musculoskeletal ultrasound course. He has served as a Board member of the Irish Osteoporosis Society, as Treasurer of the Irish Society for Rheumatology and is currently a Board member of Arthritis Ireland.



Dr Frances Stafford

Frances is a graduate of UCD, spent almost a decade in North America, training in Rheumatology first at University of Toronto, followed by a fellowship at Massachusetts General Hospital & Harvard Medical School. She was awarded a 4 year Arthritis Foundation Postdoctoral Fellowship, which I completed at the NIH, and then went on staff at the NIH. Frances is American Board Certified in Internal Medicine and in Rheumatology. She has been Consultant at Blackrock Clinic since 1995.



Dr Sinéad Harney

Dr Sinéad Harney graduated from UCG in 1994 and did her specialist training in Rheumatology and General Medicine in Dublin. She completed her training in Oxford in 2005 and was awarded a DPhil by thesis titled "Major Histocompatibility Genetics of Rheumatoid Arthritis". She was appointed to a Consultant Rheumatologist post in Cork University Hospital in 2005 and has worked there since. She completed a Masters in Sports and Exercise Medicine in UCC in 2007. Her research interests include – Genetics of inflammatory arthritis and occult cardiovascular disease in Rheumatoid Arthritis and she has over 90 publications. She is currently the treasurer of the Irish Society of Rheumatology and a board member of the TUE committee of the Irish Sports Council.



Dr Suzanne Donnelly

Dr Suzanne Donnelly graduated from Trinity College Dublin, trained in Ireland and England and was appointed consultant rheumatologist at St. George's Hospital and Medical School, London in 2002. She returned to Ireland in 2005 to work part time as Consultant Rheumatologist in the Mater Misericordiae University Hospital. Her clinical and educational research interests include systemic autoimmune disease, Systemic Lupus Erythematosus and Care in Medicine. Suzanne has held academic posts in medical education since 1996 including in Trinity College Dublin; the University of Oxford and in London, and joined UCD as Director of Clinical Education in 2008, to lead the development of early clinical education. She was responsible for a series of innovative educational strategies across all disciplines including the development of a patient educator programme in association with Arthritis Ireland. She led the first national undergraduate curriculum project in Ireland, published as the ISR Undergraduate Curriculum in Rheumatology in 2009, and is a contributing author to the textbooks *Medicine at A Glance* & *The Rheumatology Handbook*. She was ISR nominee to the board of Arthritis Ireland (2008-13), a board member of Raynauds and Scleroderma Ireland (2007-10) and is a medical patron of Lupus Group Ireland.



Dr Sandy Fraser

Consultant Rheumatologist, General Physician and Honorary Senior Lecturer, University Hospitals Limerick. Dr. Alexander Fraser graduated in medicine from Trinity College Dublin in 1991. He began practicing Rheumatology in 1996 and the following year was appointed Specialist Registrar in Rheumatology at the Yorkshire Deanery. Training with Professor Emery's group in Leeds he developed a research interest in clinical, immunological and therapeutic aspects of Rheumatoid Arthritis, Psoriatic Arthritis and the Seronegative Spondyloarthropathies. He was appointed Consultant Rheumatologist and Honorary Senior Lecturer at the Leeds Teaching Hospitals NHS Trust, working at The Leeds General Infirmary and St. James' University Hospital in October 2001, and working closely with Professor Emery and Professor Doug Veale he published in the area of Angiogenesis, Vascularity and Inflammation in early and established arthritis and Biomarkers of cartilage turnover. Dr Fraser took up his current appointment as Consultant Rheumatologist, General Physician and Honorary Senior Lecturer at the University Hospitals Limerick in 2006. In conjunction with the University of Limerick Graduate Entry Medical School (GEMS) Dr. Fraser and his team have continued their strong academic interests while managing a busy clinical practice.





Dr Donough Howard

Donough Howard is a Consultant Rheumatologist at St James's Hospital and Hermitage Medical Clinic. Dr Howard is the national specialty director for rheumatology. He graduated from RCSI and completed postgraduate training both in Ireland and the US. He previously worked in Lahey Clinic Medical Centre, with academic appointments to both Harvard and Tufts Medical Schools. Dr Howard has published in the fields of vasculitis and also has subspecialty interests in the fields of scleroderma.



Dr Miriam O'Sullivan

Miriam O Sullivan is a final year SpR working in Galway University and Merlin Park Hospitals. She is participating in the flexible training scheme for SpRs funded by the medical education and training office.



Dr Gary Wright

Dr Wright qualified from Queens University in 1987 and was appointed Consultant Rheumatologist at the Royal Victoria Hospital and Musgrave Park Hospitals in Belfast in 1998. He is an Honorary Clinical lecturer at Queen's University Belfast. He trained in Rheumatology in Belfast and spent a further year as Honorary Senior Registrar in Nottingham with Professor Mike Doherty. His Research interests include the genetics of osteoarthritis and crystal disease, early diagnosis and treatment of inflammatory arthritis and musculoskeletal ultrasound in rheumatic disorders.



Professor Steffan Gay

Academic and Professional Career since 1996 Professor of Experimental Rheumatology and Leading Doctor, Center for Experimental Rheumatology, Clinic of Rheumatology, University Hospital Zurich, Switzerland
Since 1996 Adjunct Professor of Medicine, Department of Medicine, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, USA
1984 - 1996 Professor of Medicine, Department of Medicine, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, USA
1984 - 1996 Director, WHO Collaborating Center for the Biochemical Classification and Diagnostic Criteria of Rheumatoid Arthritis and Allied Diseases
1984 - 1991 Senior Scientist, Institute of Dental Research, University of Alabama at Birmingham, USA
1983 - 1991 Director, UAB, School of Dentistry, LM-EM-Histochemistry-Autoradiography Unit, USA.
1978 - 1996 Associate Professor, Department of Dermatology, University of Alabama in



Birmingham, USA
1978 - 1996 Scientist, Comprehensive Cancer Center and Breast Cancer Research Task Force,
University of Alabama in Birmingham, USA
1978 - 1984 Scientist, Institute of Dental Research, University of Alabama in Birmingham, USA
1978 - 1984 Associate Professor, Department of Medicine, Division of Clinical Immunology and
Rheumatology, University of Alabama in Birmingham, USA
1977 - 1978 Visiting Assistant Professor, Dept. of Pathology, University of Alabama in
Birmingham, USA
1976 - 1978 Visiting Investigator, Institute of Dental Research, University of Alabama in
Birmingham, USA
1976 Research Specialist, Dept. of Biochemistry, CMDNJ-Rutgers Medical School,
Piscataway, New Jersey, USA
1973 - 1976 Research Fellow, Max Planck Institute for Biochemistry, Munich, Germany
1972 - 1973 Resident, Fachkrankenhaus für Innere Medizin, Leipzig, Germany
1970 - 1973 Research Graduate Student, Pathological Institute of the University Leipzig, Germany
1972 Promotion at the University Leipzig, Germany
1966 - 1972 Studies at the Universität Leipzig, Germany

Young Investigator Award 2014

Winner:
Dr Lorna Gallagher
Adelaide & Meath Hospital
Tallaght



Pseudostarvation by AMPK activator therapy is associated with reduced disease activity and downregulation of pro-inflammatory responses in Rheumatoid Arthritis (RA)

Dr Lorna Gallagher began working in Rheumatology research with Dr. Ronan Mullan at the start of 2014. She completed her undergraduate studies (2003) and PhD in Functional Genomics of *Aspergillus fumigatus* (2010) at the National College of Ireland Maynooth. She then moved to Youngstown State University, Ohio, to conduct research in the HIV associated pathogen, *Penicillium marneffeii*. Subsequent to this, she returned to Ireland to work with Dr. Ursula Bond in Trinity College Dublin, where the team utilized human α -defensin in lager yeasts to prevent beer spoilage during fermentation. She then moved to University College Cork to work with Prof. Fergal O'Gara and colleagues to investigate specific molecules secreted from *Pseudomonas aeruginosa*, the pathogen found in lungs of Cystic fibrosis sufferers. Currently she is working with Dr. Ronan Mullan investigating the potential of the anti-diabetic drug, Metformin, as a therapeutic in the treatment of Rheumatoid Arthritis.

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ADENURIC 80 mg and 120 mg film-coated tablets: Abbreviated Prescribing Information Please consult the Summary of Product Characteristics (SmPC) for full prescribing information. **Presentation:** Film-coated tablets containing 80 mg or 120 mg febuxostat. Also contains lactose monohydrate. **Use:** Treatment of chronic hyperuricaemia in conditions where urate deposition has already occurred (including a history, or presence of, tophus and/or gouty arthritis) in adults. **Dosage and administration:** Oral use with or without food. Recommended dose is 80 mg once daily. If serum uric acid is > 6 mg/dL (357 µmol/L) after 2-4 weeks, 120 mg once daily may be considered. **Older people:** No dose adjustment required. **Renal impairment:** No dosage adjustment necessary in patients with mild or moderate renal impairment. Efficacy and safety not fully evaluated in patients with severe renal impairment. **Hepatic impairment:** Recommended dosage in patients with mild hepatic impairment is 80 mg. Limited information available in patients with moderate hepatic impairment. Efficacy and safety has not been studied in patients with severe hepatic impairment. **Children and adolescents:** Safety and efficacy in children under 18 has not been established. **Organ transplant recipients:** No experience therefore not recommended. **Contra-indications:** Hypersensitivity to the active ingredient or to any of the excipients. **Warnings and precautions:** **Cardio-vascular disorders:** **Not recommended in patients with ischaemic heart disease or congestive heart failure.** **Product allergy/hypersensitivity:** Advise patients of signs/symptoms of allergic/hypersensitivity reactions and monitor closely for symptoms. Stop treatment immediately if serious reactions occur, including Stevens-Johnson syndrome, Toxic epidermal necrolysis and acute anaphylactic reaction/shock; do not re-start febuxostat at any time. Severe hypersensitivity reactions, including Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) associated with fever, haematological, renal or hepatic involvement in some cases. **Acute gouty attacks (gout flare):** Do not start treatment until an acute attack of gout has completely subsided. As with other urate lowering medicinal products, gout flares may occur during initiation of treatment. At treatment initiation flare prophylaxis for at least 6 months with an NSAID or colchicine is recommended. If a gout flare occurs during treatment, do not discontinue. Manage the gout flare concurrently as appropriate. Continuous treatment decreases frequency and intensity of gout flares. **Xanthine deposition:** As with other urate lowering medicinal products, in patients in whom the rate of urate formation is greatly increased (e.g. malignant disease and its treatment, Lesch-Nyhan syndrome), the absolute concentration of xanthine in urine could, in rare cases, rise sufficiently to allow deposition in the urinary tract. As there has been no experience, febuxostat is not recommended for use in these populations. **Mercaptopurine/azathioprine:** Not recommended in patients concomitantly treated with mercaptopurine/azathioprine. Where combination cannot be avoided, monitor patients closely. Dose reduction for mercaptopurine/azathioprine is recommended. **Theophylline:** No pharmacokinetic interaction shown with febuxostat 80 mg, no data for 120 mg. **Liver disorders:** Liver function test is recommended prior to the initiation of therapy and periodically thereafter based on clinical judgement. **Thyroid disorders:** Caution in patients with alteration of thyroid function. **Lactose:** Contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine. **Interactions:** **Mercaptopurine/azathioprine:** On the basis of the mechanism of action of febuxostat on xanthine oxidase inhibition concomitant use is not recommended. No data is available regarding the safety of febuxostat during cytotoxic chemotherapy. **Rosiglitazone/CYP2C8 inhibitors:** No dosage adjustment required. **Theophylline:** No special caution advised for 80 mg febuxostat, no data available for 120 mg. **Naproxen and other inhibitors of glucuronidation:** Can be co-administered with naproxen with no dose adjustments necessary. **Inducers of glucuronidation:** Monitoring of serum uric acid is recommended 1-2 weeks after start of treatment with a potent inducer of glucuronidation. Cessation of treatment of an inducer might lead to increased plasma levels of febuxostat. **Colchicine/indometacin/hydrochlorothiazide/warfarin:** Can be co-

administered with colchicine or indometacin with no dose adjustments necessary. No dose adjustment necessary when administered with hydrochlorothiazide. No dose adjustment necessary for warfarin when administered with febuxostat. **Desipramine/CYP2D6 substrates:** Co administration with other CYP2D6 substrates is not expected to require any dose adjustment for those compounds. **Antacids:** May be taken without regard to antacid use. **Pregnancy and lactation:** Do not use during pregnancy or breast-feeding. Effect on fertility unknown. **Side-Effects:** **Clinical Studies and post-marketing experience:** **Common (1-10%):** Gout flares, headache, diarrhoea*, nausea, liver function test abnormalities*, rash, oedema. **Uncommon (0.1-1%):** Blood thyroid stimulating hormone increased, diabetes mellitus, hyperlipidemia, decrease appetite, weight increase, decreased libido, insomnia, dizziness, paraesthesia, hemiparesis, somnolence, altered taste, hypoesthesia, hyposmia, atrial fibrillation, palpitations, ECG abnormal, hypertension, flushing, hot flush, dyspnoea, bronchitis, upper respiratory tract infection, cough, abdominal pain, abdominal distension, gastro-oesophageal reflux disease, vomiting, dry mouth, dyspepsia, constipation, frequent stools, flatulence, gastrointestinal discomfort, cholelithiasis, dermatitis, urticaria, pruritus, skin discoloration, skin lesion, petechiae, rash macular, rash maculopapular, rash papular, arthralgia, arthritis, myalgia, musculoskeletal pain, muscle weakness, muscle spasm, muscle tightness, bursitis, renal failure, nephrolithiasis, haematuria, pollakiuria, proteinuria, erectile dysfunction, fatigue, chest pain, chest discomfort, blood amylase increase, platelet count decrease, WBC decrease, lymphocyte count decrease, blood creatine increase, blood creatinine increase, haemoglobin decrease, blood urea increase, blood triglycerides increase, blood cholesterol increase, haematocrit decrease, blood lactate dehydrogenase increased, blood potassium increase. **Rare (0.1-0.01%):** Pancytopenia, thrombocytopenia, anaphylactic reaction**, drug hypersensitivity**, blurred vision, weight decrease, increase appetite, anorexia, nervousness, tinnitus, pancreatitis, mouth ulceration, hepatitis, jaundice**, liver injury**, Toxic epidermal necrolysis**, Stevens-Johnson Syndrome**, DRESS**, angioedema**, generalized rash (serious)**, erythema, exfoliative rash, rash follicular, rash vesicular, rash pustular, rash pruritic**, rash erythematous, rash morbilliform, alopecia, hyperhidrosis, rhabdomyolysis**, joint stiffness, musculoskeletal stiffness, tubulointerstitial nephritis**, micturition urgency, thirst, blood glucose increase, activated partial thromboplastin time prolonged, red blood cell count decrease, blood alkaline phosphatase increase. *Treatment-emergent non-infective diarrhoea and abnormal liver function tests in combined Phase III studies more frequent in patients concomitantly treated with colchicine. **Adverse reactions coming from post-marketing experience. Rare serious hypersensitivity reactions including Stevens-Johnson Syndrome and anaphylactic reaction/shock have occurred in post-marketing experience. Hypersensitivity reactions to febuxostat can be associated with the following symptoms: skin reactions characterised by infiltrated maculopapular eruption, generalised or exfoliative rashes, also skin lesions, facial oedema, fever, haematologic abnormalities such as thrombocytopenia, and single or multiple organ involvement (liver and kidney including tubulointerstitial nephritis). Gout flares commonly observed soon after treatment start and in first months. Frequency decreases after time. Gout flare prophylaxis is recommended. Please consult the SmPC for further information. **Pack sizes:** 80 mg and 120 mg tablets: 28 film-coated tablets. **Legal category:** POM. **Marketing authorization number:** EU/1/08/447/001 & 003. **Marketing authorization holder:** Menarini International Operations Luxembourg S.A., Avenue de la Gare, L-1611 Luxembourg, Luxembourg. **Marketed by:** A. Menarini Pharmaceuticals Ireland Ltd. Further information is available on request to A. Menarini Pharmaceuticals Ireland Ltd, 2nd Floor, Castlecourt, Monkstown Farm, Monkstown, Glenageary, Co. Dublin or may be found in the SmPC. Last updated: March 2014.

References: 1. Adenuric SmPC. March 2014. 2. McQueen, F.M., et al. *Nat Rev Rheumatol*, 2012. 8(3): p. 173-81.

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**Oral Presentations – Autumn Meeting
September 11th and 12th 2014**

Abstract No	Author(s)	Abstract Title	Day	Time
Scientific				
108	Dr Wei Gao	Tofacitinib Regulates Synovial Angiogenesis in Psoriatic Arthritis Through Induction of Negative Feedback Inhibitors	Thurs	10.15
138	Dr Lorraine O'Neill	IL 6 Does Not Upregulate Pro-inflammatory Cytokine Expression In An Ex-Vivo Model of Giant Cell Arteritis	Thurs	10.27
154	Dr Eoghan McCarthy	Lymphocyte Stimulator (BLyS) Promotes Dysregulated Monocyte Function in Systemic Lupus Erythematosus(SLE)	Thurs	10.39
156	Ms Sian Cregan	MTX inhibits migrational and invasive mechanisms in Rheumatoid Arthritis	Thurs	10.51
167	Dr Eimear Linehan	Genetic variation in the C5orf30 locus (rs26232) impacts synovial fibroblast phenotype in Rheumatoid Arthritis patients	Thurs	11.03
Clinical				
110	Dr David McCormick	Anti-TNF response rates in radiographic and non-radiographic axial spondyloarthritis	Thurs	14.15
111	Dr S A Ramakrishnan	Outcome of Treat to Target (T2T) in newly diagnosed Rheumatoid Arthritis (RA) at Rheumatology Department, Our Lady's Hospital, Navan	Thurs	14.27
115	Dr Aamar Saeed	Optimal Management of Foot and Ankle Disease in Rheumatoid Arthritis: Is a T2T DAS-driven protocol adequate?	Thurs	14.39
159	Dr Lorraine O'Neill	Vasculitis Damage Assessment at 12 Months in a Cohort of Patients with Giant Cell Arteritis	Thurs	14.51
184	Dr Helen French	Prevalence and burden of Osteoarthritis amongst older people in Ireland: findings from (TILDA).	Thurs	15.03
Cases for Friday 12th				
136	Dr Aidan O'Neill		Fri	10.00
173	Dr Q Shah		Fri	10.15
177	Dr F.A. Ashraf		Fri	10.30
181	Dr Carl Orr		Fri	10.45

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Rheumatoid arthritis (RA): in combination with MTX, for reducing the signs and symptoms of RA and to improve physical function in: adult patients with active disease when the response to DMARDs, including MTX, has been inadequate; adult patients with severe, active and progressive disease not previously treated with MTX or other DMARDs.

Ankylosing spondylitis (AS): adult patients with severe, active AS who have responded inadequately to conventional treatment.

Psoriatic arthritis (PsA): adult patients with active and progressive PsA when the response to previous DMARD therapy has been inadequate: in combination with MTX; or alone in patients who show intolerance to MTX or for whom MTX is contraindicated.



Abbreviated Prescribing Information – INFLECTRA™ (Infliximab) powder for concentrate for solution for infusion

Please refer to full Summary of Product Characteristics (SmPC) before prescribing. **Presentation:** Vial containing 100 mg of infliximab powder for concentrate for solution for infusion. **Indications:** 1) *Rheumatoid arthritis* in adult patients with active disease with inadequate response to disease-modifying antirheumatic drugs (DMARDs) or adult patients with severe, active and progressive disease not previously treated with methotrexate (MTX) or other DMARDs 2) *Adult Crohn's disease* a) In patients with moderately to severely active Crohn's disease who have not responded despite a full and adequate course of therapy with a corticosteroid and/or an immunosuppressant; or who are intolerant to or have contraindications for such therapies. b) In patients with fistulising, active Crohn's disease who have not responded despite conventional treatment (including antibiotics, drainage and immunosuppressive therapy). 3) *Paediatric Crohn's disease* Severe, active Crohn's disease in patients aged 6 to 17 years, who have not responded to conventional therapy including corticosteroid, immunomodulator and primary nutrition therapy; or who are intolerant to or have contraindications for such therapies. 4) *Ulcerative colitis* In both adult patients with moderate to severely active ulcerative colitis, and children and adolescents aged 6 to 17 years with severely active ulcerative colitis and an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine or azathioprine; or who are intolerant to or have contraindications for such therapies. 5) *Ankylosing spondylitis* In adult patients with severe active ankylosing spondylitis who have responded inadequately to conventional therapy. 6) *Psoriatic arthritis* In adult patients with active and progressive psoriatic arthritis when response to previous DMARD therapy has been inadequate. 7) *Psoriasis* In adult patients with moderate to severe plaque psoriasis who failed to respond to, or who have a contraindication to, or are intolerant to systemic therapy including cyclosporine, MTX or PUVA. **Dosage & Administration** 1) *Rheumatoid arthritis* 3 mg/kg as an intravenous (IV) infusion repeated 2 and 6 weeks after initiation, then every 8 weeks. Inflectra must be given concomitantly with MTX. 2) *Moderately to severely active Crohn's disease* 5 mg/kg IV infusion repeated 2 weeks after initiation. If a patient does not respond after 2 doses, no additional dose should be given. 3) *Fistulising, active Crohn's disease* 5 mg/kg IV infusion repeated 2 and 6 weeks after initiation. If a patient does not respond after 3 doses, no additional dose should be given. 4) *Ulcerative colitis* 5 mg/kg IV infusion repeated 2 and 6 weeks after initiation, then every 8 weeks. 5) *Ankylosing spondylitis* 5 mg/kg IV infusion repeated 2 and 6 weeks after initiation, then every 6 to 8 weeks. If a patient does not respond by 6 weeks, no additional dose should be given. 6) *Psoriatic arthritis* 5 mg/kg IV infusion repeated at 2 and 6 weeks after initiation, then every 8 weeks. 7) *Psoriasis* 5 mg/kg IV infusion repeated 2 and 6 weeks after initiation, then every 8 weeks. If a patient shows no response after 14 weeks no additional dose should be given. Administer IV over 2 hours initially and monitor for infusion-related reactions.

Contraindications: Hypersensitivity to infliximab, to other murine proteins, or to any excipients. Tuberculosis (TB) or other severe infections such as sepsis, abscesses, and opportunistic infections. Moderate or severe heart failure (NYHA class III/IV).

Warnings and Precautions: Caution in patients with or at risk of infusion reactions and hypersensitivity. Do not administer in patients with infections, and/or invasive fungal infections. Monitor for TB and do not use in patients with TB. Test for latent/active TB prior to initiation of therapy. Do not use Inflectra in patients with active TB, patients with latent TB must not be initiated on Inflectra therapy until initiation with anti-TB therapy. Monitor closely for infections, including TB before, during and for six months post-treatment. Patients with fistulising Crohn's disease with acute suppurative fistulas must not initiate therapy until source of infection, specifically abscess, is excluded. Test for HBV infection before initiating treatment. Consult expert in treatment for HBV-positive patients. Closely monitor carriers of HBV during and after therapy. In patients with HBV reactivation, stop Inflectra and initiate appropriate therapy. Pregnancy should be avoided during therapy, and for at least 6 months after last infusion. **Adverse effects:** Viral infection, bacterial infection, TB, fungal infection, meningitis, opportunistic infection, parasitic infection, hepatitis B reactivation, lymphoma, non-Hodgkin's lymphoma, Hodgkin's disease, leukaemia, melanoma, hepatosplenic T-cell lymphoma, Merkel cell carcinoma, allergic respiratory symptom, anaphylactic reaction/shock, lupus like syndrome, serum sickness-like reaction, vasculitis, sarcoid-like reaction, depression, insomnia, amnesia, agitation, confusion, somnolence, nervousness, apathy, headache, vertigo, dizziness, hypoaesthesia, paraesthesia, seizure, neuropathy, transverse myelitis, demyelinating disorders, conjunctivitis, keratitis, periorbital oedema, hordeolum, endophthalmitis, transient visual loss, tachycardia, palpitation, cardiac failure, arrhythmia, syncope, bradycardia, cyanosis, pericardial effusion, myocardial ischaemia/infarction, hypotension, hypertension, ecchymosis, hot flush, flushing, peripheral ischaemia, thrombophlebitis, haematoma, circulatory failure, petechia, vasospasm, URTI, sinusitis, lower respiratory tract infection, dyspnoea, epistaxis, pulmonary oedema, bronchospasm, pleurisy, pleural effusion, interstitial lung disease, abdominal pain, nausea, gastrointestinal haemorrhage, diarrhoea, dyspepsia, gastroesophageal reflux, constipation, intestinal perforation/stenosis, diverticulitis, pancreatitis, cheilitis, hepatic function abnormal, transaminases increased, hepatitis, hepatocellular damage, cholecystitis, jaundice, liver failure, psoriasis (new onset or worsening), urticaria, rash, pruritus, hyperhidrosis, dry skin, fungal dermatitis, eczema, alopecia, bullous eruption, onychomycosis, seborrhoea, rosacea, skin papilloma, hyperkeratosis, abnormal skin pigmentation, Toxic Epidermal Necrolysis, Stevens-Johnson syndrome, erythema multiforme, furunculosis, arthralgia, myalgia, back pain, urinary tract infection, pyelonephritis, vaginitis, infusion related reaction, pain, chest pain, fatigue, fever, injection site reaction, chills, oedema, impaired healing, granulomatous lesion, autoantibody positive, complement factor abnormal. The SmPC should be consulted for further details of adverse effects **Legal**

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Telephone Medical Information: +44 (0) 1926 834400

MTX = Methotrexate
DMARD = Disease-modifying anti-rheumatic drug

References:

1. INFLECTRA™. European Public Assessment Report (EPAR). Available at: www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/human/medicines/002778/human_med_001677.jsp&mid=WC0b01ac058001d124. [Accessed January 2014].
2. EMA. Guideline on similar biological medicinal products containing monoclonal antibodies – non-clinical and clinical issues. May 2012. Available at: http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2012/06/WC500128686.pdf [Accessed January 2014].

IE/INF/14/0002
January 2014



IRHPS Autumn 2014 Update

Welcome to the Annual Scientific Meeting of the Irish Rheumatology Society and the Irish Rheumatology Health Professionals Society.

2014 has been a busy year and a successful one for our members!

Not least at EULAR in Paris – not only do we continue to be represented as a member nation of the EULAR Health Professionals Standing Committee but also as one of our members – Paul Kirwan's (Senior Physiotherapist, Connolly Hospital) research was accepted for oral presentation and was awarded a EULAR research prize. This is especially notable as he is the first Irish Physiotherapist and only the second Irish Clinician to receive a EULAR prize. So our congratulations go to Paul – he received the opportunity to attend EULAR by winning the 2013 Roche/IRHPS poster prize. It could be you!

The IRHPS continues to contribute to Arthritis Ireland with committee members' opinions and contributions being reflected at board level by committee member Eimear Lyons. Examples of recent joint initiatives include collaboration on new patient education leaflets and representing the IRHPS on the newly established Services Sub-Committee. This Committee aims to contribute to the quality and development of service provision by Arthritis Ireland to clients with RMDs across this country.

Thanks again to the Pharma companies for their continued support, without which a valuable educational opportunity would be lost. Thanks must go to MSD, Abbvie, UCB and Roche. Please take the opportunity to have a look at the large number of posters we have received again this year and remember to vote for the "Peoples' choice" poster! Also if you come across an interesting speaker or any developments in your area please let us know on EdOfficer@irhps.ie.

The IRHPS committee's support and dedication over the year has been invaluable. And especially now as I step down as Chair and hand over to Derek Deeley I wish the new Chair and society well in the future

Many Thanks to all!

Best Wishes

Rhona Galway
IRHPS Chair



Connecting with patients

"I would like to change the perception of rheumatoid arthritis and increase public awareness. It is associated with the elderly, but it is a disease that can happen to anyone at any age. I'm grateful for the therapies that are available now to help sufferers live their lives as best they can."

Alison, living with rheumatoid arthritis

UCB has a passionate, long-term commitment to help patients and families living with severe diseases lead normal, everyday lives.

Our ambition is to offer them innovative new medicines and ground-breaking solutions in two main therapeutic areas: neurology and immunology. We foster cutting-edge scientific research that is guided by patients' needs.



ABSTRACT 1 (14A108) ORAL PRESENTATION

Title of Paper: Tofacitinib Regulates Synovial Angiogenesis in Psoriatic Arthritis Through Induction of Negative Feedback Inhibitors

Author(s): Wei Gao, Jennifer McCormick, Carl Orr, Mary Connolly, Ursula Fearon, Douglas J Veale.

Department(s)/Institution(s): Translational Rheumatology Research Group St. Vincent's University Hospital Dublin Academic Medical Centre Dublin 4

Introduction: Janus Kinase and Signal Transducer and Activator of Transcription (JAK/STAT), a critical signalling pathway involved in inflammatory mechanisms, has been implicated in the pathogenesis of PsA.

Aims/Background: To examine the mechanistic effect of Tofacitinib (A novel JAK inhibitor CP-690,550) on pro-inflammatory pathways using ex vivo and in vivo models of PsA.

Method: PsA whole tissue synovial explant cultures were established from PsA biopsies. Primary PsA synovial fibroblasts (PsASFC) were also isolated from PsA synovial biopsies. Phospho-STAT3 (p-STAT3), phospho-STAT1 (p-STAT1), SOCS3 and PIAS3 expression were quantified by Western Blot in PsA synovial explants and PsASFC following culture with Tofacitinib (1uM) or vehicle control. Cytokine expression of IL-6, IL-8 and IL-10 in ex vivo culture synovial explants in response to Tofacitinib were assessed by ELISA. Furthermore the effect of Tofacitinib on PsASFC migration, invasion, matrigel network formation and MMP2/9 were quantified by wound repair assays, transwell invasion chambers and zymography.

Results: Tofacitinib significantly decreased p-STAT3 and p-STAT1 expression in PsA synovial tissue explant cultures ex vivo and in primary PsASFC (p<0.05). In contrast Tofacitinib induced SOCS3 and PIAS3 expression in both models. In parallel Tofacitinib significantly decreased spontaneous secretion of IL-6 (p<0.05), IL-8 (p<0.05) and induced IL-10 (p<0.05) expression in PsA explant cultures. Functionally, PsASFC invasion, matrigel network/tube formation, migration, and pro-MMP-2/-9 activities, were inhibited in the presence of Tofacitinib (p<0.05).

Conclusion: Tofacitinib mediated specific JAK-STAT signalling components, inhibited key pro-inflammatory cytokines and invasion/migrational mechanisms, supporting the use of JAK-STAT inhibition as a potential therapeutic agent for the treatment of PsA.

ABSTRACT 2 (14A138) ORAL PRESENTATION

Title of Paper: IL 6 Does Not Upregulate Pro-inflammatory Cytokine Expression In An Ex-Vivo Model of Giant Cell Arteritis

Author(s): O'Neill L, McCormick J, Gao W, Murphy C, McCarthy G, Veale D, Fearon U, Molloy E.

Department(s)/Institution(s): St. Vincent's University Hospital, Royal Victoria Eye and Ear Hospital, Mater Misericordiae University Hospital

Introduction: Interleukin 6 (IL 6) is postulated to play a role in the pathogenesis of Giant Cell Arteritis. Several studies have demonstrated increased circulating IL 6 levels and upregulation of IL 6 in the temporal arteries of patients with GCA.

Aims/Background: The aim of this study was to examine the functional ability of IL 6 to induce pro inflammatory mediators in ex -vivo temporal artery explant cultures.

Method: 28 patients meeting 1990 ACR classification criteria for GCA were prospectively recruited. Ex-vivo temporal artery explant models were established. Temporal artery explants were cultured in the presence or absence of recombinant human IL 6 and its soluble receptor (sIL6R) for 24 hours. Explant supernatants were harvested and assayed for IFN γ , TNF, SAA, IL1 β , IL 17, IL 8 and VEGF by ELISA. Of the cultured biopsies, 4 were snap frozen, protein was extracted and pSTAT3 expression assessed by Western Blot.

Results: Stimulation with IL 6 did not induce any of the pro - inflammatory mediators assayed. No differences were observed in the explants cultured in the presence or absence of the sIL6R or between those with a positive (n=11) or negative (n=17) temporal artery biopsy. Western Blot analysis revealed increased expression of pSTAT3 in response to the combination of IL6+sIL6R.

	Basal:	Stimulated: IL6 (20 ng/ml)	p value: Wilcoxon signed- rank test
INF γ	27.13 +/-8.6	36.10 +/- 12.8	0.148
TNF	5.93 +/- 1.9	7.39 +/- 2.6	0.460
IL1 β	2.45 +/- 0.6	2.52 +/- 0.85	0.945
IL 17	11.08 +/- 4.9	16.92 +/- 8.20	0.843
IL 8	16,563 +/- 5458	19,118 +/- 6698	0.277
SAA *	10.42 +/- 4.31	7.45 +/- 2.54	0.625
VEGF	7.74 +/- 3.45	107.3 +/- 78.44	0.062

Conclusion: IL6 stimulation of temporal artery explants from patients with GCA, at concentrations sufficient to activate STAT3 and up regulate VEGF, did not result in increased expression of key pro-inflammatory mediators. This data argues against a central role for IL6 in driving vascular inflammation in GCA.

References:

- 1 Roche et al, Arthritis Rheum 1993; 36: 1286-94.
- 2 Emilie et al, Hum Immunology 1994 ; 39: 17-34.
- 3 Weyland et al, Ann Internal Med 1994; 121: 484-91



ABSTRACT 3 (14A154) ORAL PRESENTATION

Title of Paper: Lymphocyte Stimulator (BlyS) Promotes Dysregulated Monocyte Function in Systemic Lupus Erythematosus(SLE)

Author(s): Eoghan M. McCarthy¹, Joan Ní Gabhann², Siobhán Smith², Lorraine O'Neill³, Eamonn S. Molloy³, Donough Howard¹, Paul G. O'Connell¹, S. Donnelly⁴, Caroline Jefferies² and Grainne M. Kearns¹

Department(s)/Institution(s): 1 Beaumont Hospital, 2 Royal College of Surgeons in Ireland, 3 St. Vincent's University Hospital, ⁵Mater Misericordiae University Hospital

Introduction: Both monocytes and BlyS contribute to the dysregulated immune response seen in SLE. However the effect of BlyS on monocyte function in SLE is poorly understood.

Aims/Background: To investigate the effect of BlyS on monocyte signalling and activation in healthy and SLE.

Method: Signalling pathways were investigated by Western Blotting in primary monocytes. qPCR was utilised to investigate gene expression. Monocyte supernatant and serum levels of proinflammatory cytokines were measured by ELISA. Monocyte activation was assessed by Flow Cytometry

Results: SLE patient monocytes exhibited significantly enhanced responses to BlyS stimulation compared to controls for the phospho-p44/42 MAPK, AKT and STAT pathways. qPCR analysis revealed significant increases in BlyS, IL-6 and IFN- γ gene expression in SLE patients following stimulation. ELISA confirmed significantly enhanced IL-6 production in the supernatant of SLE patient monocytes compared to controls following BlyS stimulation with patients exhibiting significantly higher levels of IL-6 in their serum. BlyS stimulation resulted in significant increases in CD80, CD86 and HLA-DR in SLE patients, a result that was most marked in serologically active patients. The healthy control volunteers failed to significantly upregulate any of the surface markers indicating that SLE patient monocytes are more responsive to the effects of BlyS. Co-culture of BlyS treated monocytes with T lymphocytes resulted in enhanced expression of the T cell activation marker CD69 on both CD8 and CD4+ T Cells, a finding that was significant in SLE patients.

Conclusion: BlyS promotes aberrant monocyte signalling and activation in SLE with consequential excess production of pro-inflammatory cytokines and dysregulated T cell activation

ABSTRACT 4 (14A156) ORAL PRESENTATION

Title of Paper: MTX inhibits migrational and invasive mechanisms in Rheumatoid Arthritis

Author(s): Cregan S, Connolly M, Canavan M, Veale DJ, Fearon U, Wilson AG.

Department(s)/Institution(s): School of Medicine and Medical Science, University College Dublin, Belfield, Dublin 4.

Introduction: Rheumatoid arthritis (RA) is characterised by

inflammation and proliferation of synovial tissue, leading to progressive degradation of articular cartilage and bone. Methotrexate (MTX) is the most commonly used disease modifying anti-rheumatic drug in the management of RA, however its mechanism of action has not been extensively studied.

Aims/Background: To examine the effect of MTX on synovial fibroblast invasive and migratory mechanisms.

Method: Primary RA synovial fibroblasts (RASFC) were isolated from synovial biopsies obtained from patients undergoing arthroscopic examination. Cell migration and invasive mechanisms were assessed in RASFC cultured in the presence of MTX (100uM) using wound repair scratch assays, Biocoat transwell matrigelTM invasion chambers, zymography and ELISA. RA peripheral blood mononuclear cells (PBMC) (1x10⁶) were cultured in the presence of MTX (100uM), and cell surface expression of CD80, CD83, CD40, ICAM-1 and α 1-integrin were quantified by Flow cytometry and Flo-jo software

Results: MTX inhibited RASFC invasion and extracellular matrix degradation evident by a reduction in MMP2 activity. In parallel MTX inhibited RASFC repopulation of the wound margins in comparison to basal control where migration across the wound was clearly evident. Furthermore MTX inhibited cell surface expression of the T cell costimulatory activation marker CD80 in PBMC cultures.

Conclusion: MTX inhibits migrational and invasive mechanisms in synoviocyte and alters T cell activation, processes which are critically involved in the pathogenesis of RA.

ABSTRACT 5 (14A167) ORAL PRESENTATION

Title of Paper: Genetic variation in the C5orf30 locus (rs26232) impacts synovial fibroblast phenotype in Rheumatoid Arthritis patients

Author(s): Linehan E, Connolly M, Creevey K, Veale DJ, Fearon U, Wilson AG.

Department(s)/Institution(s): School of Medicine and Medical Science, UCD, Belfield, Dublin 4.

Introduction: Rheumatoid arthritis (RA) is characterised by synovial proliferation, joint destruction and functional disability. RA synovial fibroblasts (RASFC) manifest an abnormal phenotype with increased proliferation, resistance to apoptosis and invasiveness of adjacent tissue. The C5orf30 locus (rs26232) has recently been associated with risk of developing RA, with a significant increase in radiographic progression in RA patients with a CC genotype compared to those with CT or TT genotype.

Aims/Background: The aim of this study is to investigate the link between rs26232 and joint damage by examining the effect of genetic variation on RASFC invasiveness.

Method: Primary RASFC were isolated from biopsies obtained at the time of arthroscopy. DNA was isolated from blood and genotyped for rs26232. To examine if a specific genotype was associated with increased synovial invasion, RASFC isolated from



CC, CT and TT genotypes were assessed by transwell matrigel invasion chambers and proliferation assays. Furthermore, cell surface expression of ICAM-1 and VCAM-1 were quantified by flow cytometry.

Results: Genotyping demonstrated that 46.2%, 42.3% and 11.5% of patients were CC, CT and TT respectively. RASFC from patients with the CC genotype had increased proliferation in response to TNF- α and increased invasion compared to RASFC from patients with CT genotype. Furthermore RASFC from CC patients demonstrated higher cell surface expression of ICAM-1 compared to CT.

Conclusion: RASFC from patients with a CC genotype displayed a more aggressive phenotype, potentially contributing to the increased joint damage. Our preliminary data suggests that the genetic association with x-ray damage is the result of genotype-related differences in RASFC phenotype.

ABSTRACT 6 (14A110) ORAL PRESENTATION

Title of Paper: Anti-TNF response rates in radiographic and non-radiographic axial spondyloarthritis

Author(s): David McCormick, Jonathan McKnight, Adrian Pendleton

Department(s)/Institution(s): Rheumatology department, Musgrave Park Hospital, Belfast

Introduction: With recent changes to classification systems for axial spondyloarthritis to include non-radiographic disease, there has been an increasing emphasis to treat inflammatory back pain early, aiming to halt disease progression and prevent chronic damage.

Aims/Background: It is currently unknown whether there is a significant difference in response rates to anti-TNF therapy between those with radiographic and non-radiographic spondyloarthritis.

Method: 59 patients in Musgrave Park Hospital, Belfast on anti-TNF therapy for axial spondyloarthritis were divided into three groups; Group A (N=29) - confirmed x-ray changes in keeping with sacroiliitis; Group B (N=23) - no x-ray changes but have evidence of sacroiliitis on MRI; and Group C (N=7) - MRI confirmed sacroiliitis but have not had sacro-iliac joints x-rayed.

Results: After three months the number of patients achieving an adequate response to anti-TNF, according to NICE, were; Group A=14 (48%), Group B=11 (48%), Group C=4 (57%). In those achieving adequate responses according to NICE, the percentage improvements in BASDAI, VAS and BASFI were similar. Average improvement in BASDAI were; Group A = 3.96 (55%), Group B = 4.46 (56%), Group C = 4.45 (57%). Average improvement in VAS were; Group A = 4.47 (55%), Group B = 4.6 (56%), Group C = 5 (57%). Average improvement in BASFI were; Group A = 4.2 (56%), Group B = 2.93 (44%), Group C = 2.66 (46%).

Conclusion: In summary, this study appears to show similar response rates between both radiographic and non-radiographic spondyloarthritis groups after 3 months therapy with anti-TNF.

ABSTRACT 7 (14A111) ORAL PRESENTATION

Title of Paper: Outcome of Treat to Target (T2T) in newly diagnosed Rheumatoid Arthritis (RA) at Rheumatology Department, Our Lady's Hospital, Navan

Author(s): S A Ramakrishnan

Department(s)/Institution(s): Department of Rheumatology, Our Lady's Hospital, Navan

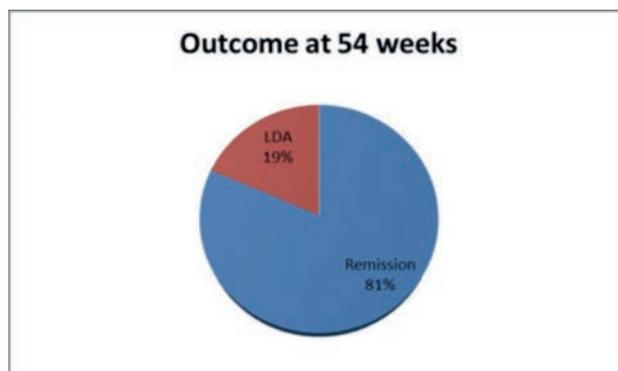
Introduction: Treating Rheumatoid Arthritis (RA) to Target (Remission or Low disease activity) as measured by Disease Activity Score improves long term outcome, prevents damage and improves function.

Aims/Background: We audited the outcome of Treat to Target in RA patients diagnosed in 2012. Patients were managed as per EULAR 2010 guidelines and recommendations of T2T task group.

Method: All patients diagnosed with RA in 2012 were enrolled in T2T programme. T2T programme in our department is nurse led with full access to consultants. Patients had DAS28 measurement baseline and every 6-8 weeks. The medications were adjusted as necessary at each visit. DAS28 below 2.6 was defined as remission and between 2.7-3.2 as low disease activity (LDA).

Results: A total of 54 patients were diagnosed with RA in 2012 of which 40 were females and 14 males. 41 patients were seropositive. Baseline erosion was seen in 11 patients. No. of patients in remission at: 24 weeks = 33. 38 weeks = 37. 52 weeks = 44. A total of 12 patients proceeded to anti TNF medications usually around 24 weeks. 44 patients (81.5%) achieved remission and 10 patients remained in low disease activity at 52 weeks. A total of 54 patients were diagnosed with RA in 2012 of which 40 were females and 14 males. 41 patients were seropositive. Baseline erosion was seen in 11 patients.

Conclusion: By using T2T recommendations, we were able to achieve remission in 81.5% patients at one year after diagnosis. In fact 61% patients achieved remission at 6 months. These figures are comparable to published figures of 70-80% remission at 1 year using T2T. We conclude that T2T should be part of standard care for all RA patients at diagnosis to improve long term outcome.





ABSTRACT 8 (14A115) ORAL PRESENTATION

Title of Paper: Optimal Management of Foot and Ankle Disease in Rheumatoid Arthritis: Is a T2T DAS-driven protocol adequate?

Author(s): A Saeed, S Lee, A Mumtaz, C McDonagh, R Mullan, D Kane

Department(s)/Institution(s): Bone & Joint Unit, Tallaght Hospital, Dublin 24

Introduction: EULAR recommends a treat to target (T2T) protocol for RA. The DAS-28 CRP is usually used in a T2T protocol but does not include assessment of foot and ankle, which are commonly involved in RA.

Aims/Background: This study comprehensively evaluated the effectiveness of a DAS-28 CRP T2T protocol on foot and ankle disease using standardised clinical and functional scores and ultrasound (US) in patients with RA.

Method: 18 consecutive patients with established RA commencing biological treatment as per T2T protocol were assessed at baseline and six months with ESR, CRP, DAS28, metrology of ankles and feet, Leeds Foot Impact Scale (LFIS) scores and US of feet and ankles (A.S. Level 1 Ultrasonographer)

Results: 16 patients (15 females, mean age = 47 years, mean disease duration = 46 months) completed the study. Patients received treatment (Etanercept =8, Adalimumab =5, Abatacept = 1, Golimumab =1 and Rituximab=1) for six months. Significant improvements were observed in DAS28 CRP ($p<0.001$), tender (TJC) ($p<0.001$) and swollen feet joint count (SJC) $p<0.01$ in comparison to baseline. Non-significant improvements were demonstrated in feet US (grey and power doppler scores) and LFIS scores (Table 1). 60% of DAS-28 remission patients at 6 months showed subclinical disease with LFIS and GSUS.

Table 1: Comparison of 0 and six months observations

	0 months	6 months	P
DAS-CRP (Mean ± SEM)	4.8 ± 0.23	2.6 ± 0.26	P<0.001
TJC (Mean ± SEM)	8.25 ± 0.78	3.68 ± 0.75	p<0.001
SJC (Mean ± SEM)	4.37 ± 0.67	1.93 ± 0.69	p<0.01
LFIS (Mean ± SEM)	28.1 ± 3.4	24.8 ± 3.3	p=0.21
GSUS (Mean ± SEM)	12.7 ± 1.3	9.0 ± 2.0	P=0.09
PDUS (Mean ± SEM)	2.88 ± 1.1	1.3 ± 0.89	P=0.2

Conclusion: A DAS-28 CRP T2T protocol is effective in managing clinical foot and ankle disease in most RA patients but significantly underestimates synovitis compared to US as a gold standard. US synovitis is associated with the progression to joint damage.

ABSTRACT 9 (14A159) ORAL PRESENTATION

Title of Paper: Vasculitis Damage Assessment at 12 Months in a Cohort of Patients with Giant Cell Arteritis

Author(s): O' Neill L, Gallagher P, McCarthy G, Murphy C, Veale D, Fearon U, Molloy E.

Department(s)/Institution(s): St Vincents University Hospital, Mater Misericordiae University Hospital, Royal Victoria Eye and Ear Hospital.

Introduction: Giant cell arteritis (GCA) is a common idiopathic vasculitis of large and medium-sized arteries, exclusively affecting patients over 50. Both disease and treatment related complications are common in GCA. Irreversible ischaemic events such as blindness and stroke occur in 30% of patients, with over 80% in some series experiencing at least one glucocorticoid related complication. The Vasculitis Damage Index (VDI) is a validated tool for measuring damage sustained from vasculitis or it's treatment. The VDI also provides prognostic information. Patients with higher VDI scores have worse outcomes.

Aims/Background: The aim of this study was to assess damage accrual using the VDI in a cohort of patients with GCA.

Method: 54 consecutive patients with GCA were prospectively enrolled. All patients underwent standardised clinical assessments at predefined timepoints. The VDI was calculated at 12 months.

Results: The mean age of the study population was 73.7 years (+/- 8.8 years). 59% were Female and 46% had a positive temporal artery biopsy. All patients met the 1990 ACR Classification Criteria for GCA. At 12 months, 31 patients (57%) had accrued at least one item of damage as measured by the VDI with 15 (27.77%) scoring 2 points or greater. Permanent visual loss occurred in 14 patients (26%). Overall 56 % of all damage sustained was treatment related, the commonest complications being hypertension, osteoporosis/fracture, cataract and steroid induced diabetes.

Conclusion: Steroid adverse effects contribute significantly to the burden of morbidity among GCA patients, and an urgent unmet need exists for alternative immunosuppressive therapies for GCA.

References:

- 1 Analysis of steroid related complications and mortality in temporal arteritis: a 15 year survey of 43 patients. Nesher G et al. Journal of Rheumatology 1994.
- 2 Current status of outcome measure development in vasculitis. Luqmani et al. J Rheumatology 2014

ABSTRACT 10 (14A184) ORAL PRESENTATION

Title of Paper: Prevalence and burden of Osteoarthritis amongst older people in Ireland: findings from The Irish Longitudinal Study on Ageing study (TILDA).

Author(s): French HP, Galvin R, Horgan F, Kenny RA.



Department(s)/Institution(s): School of Physiotherapy and HRB centre for Primary Care Research, Dept of General Practice, RCSI; The Irish Longitudinal Study of Ageing, Chemistry Extension, TCD.

Introduction: Prevalence and burden of Osteoarthritis in Ireland is unknown.

Aims/Background: To investigate the prevalence of OA in a population aged 50 years and older in Ireland, and to determine its relationship with demographic and health-related variables.

Method: Cross-sectional data from Wave 1 of The Irish Longitudinal Study on Ageing (TILDA), a population-based study of people aged 50 years and older assessing health, economic, and social aspects of aging in Ireland were analysed. Logistic regression was used to determine associations between the presence of OA and a range of demographic and health-related variables.

Results: The overall prevalence of OA was 12.9% (women-17.3%; men-9.4%). Prevalence increased with age, with prevalence in those aged 80 or over twice that (17.7%; 95% CI 13.97, 21.54) of those aged 50-60 (8.23, 95% CI 7.32, 9.13). OA was significantly associated ($p < 0.02$) with female gender, older age, pain severity, Non-steroidal Anti-Inflammatory drug (NSAIDs) use, higher body mass index (BMI), fear of falling, greater number of physical limitations, co-morbidities and medications. Those taking NSAIDs were almost six times (OR=5.88, 95% CI 4.16, 8.31) more likely to have OA. Odds of having OA increased almost threefold for every additional chronic disease present (OR=2.75 9 (95% CI= 2.44, 3.09), when adjusting for other variables.

Conclusion: OA is a common and multifaceted condition, with comparable prevalence of self-reported OA in Ireland with similar populations. Assessment and management should focus on potentially modifiable factors such as BMI, pain, physical limitation and polypharmacy.

ABSTRACT 11 (14A100) POSTER PRESENTATION

Title of Paper: Leflunomide Use is Not Associated with an Increased Risk of Lung Disease in Rheumatoid Arthritis: A Meta-Analysis of Randomised Controlled Trials

Author(s): R Conway, C Low, RJ Coughlan, MJ O'Donnell, JJ Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Leflunomide is an effective treatment for rheumatoid arthritis. An association between pulmonary adverse events, in particular interstitial lung disease, and leflunomide use has been reported. Incident respiratory events may result in cessation of leflunomide treatment. Clarification of its potential role in pulmonary disease is therefore of clinical importance.

Aims/Background: To assess the relative risk of pulmonary adverse events in leflunomide treated patients with rheumatoid arthritis.

Method: We performed a systematic literature search of Pubmed and Cochrane databases for double-blind randomised controlled trials of leflunomide versus comparators in adults with rheumatoid arthritis. Studies with less than 50 subjects or of less than 12 weeks duration were excluded. Random effects meta-analysis using the Mantel-Haenszel method was used to assess total respiratory adverse events, infectious respiratory adverse events, non-infectious respiratory adverse events, pneumonitis, and death. Results were expressed as relative risks (RR) with 95% confidence intervals.

Results: Our literature search returned 884 results. Eight studies, 4 with placebo comparators, met our inclusion criteria. Seven hundred and eight respiratory adverse events were documented in 4579 participants. Six cases of pneumonitis and 4 pulmonary deaths occurred, all in the comparator group. Leflunomide was not associated with an increased risk of total adverse respiratory events, RR 0.99 (95% CI 0.56-1.78), or infectious respiratory adverse events, RR 1.02 (95% CI 0.58-1.82). Leflunomide was associated with a decreased risk of non-infectious respiratory adverse events, RR 0.64 (95% CI 0.41-0.97).

Conclusion: Our study found no evidence of increased respiratory adverse events with leflunomide treatment.

ABSTRACT 12 (14A101) POSTER PRESENTATION

Title of Paper: Methotrexate Use and Liver Disease in Rheumatoid Arthritis: A Meta-Analysis of Randomised Controlled Trials

Author(s): R Conway, C Low, RJ Coughlan, MJ O'Donnell, JJ Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Methotrexate is the most widely prescribed DMARD in the treatment of rheumatoid arthritis. Guidelines advise treatment cessation for transaminases greater than three times the upper limit of normal (>3 ULN). Our understanding of the relative risk and significance of liver profile abnormalities with methotrexate remains incomplete.

Aims/Background: To assess the relative risk and severity of liver adverse events in rheumatoid arthritis patients treated with methotrexate.

Method: We performed a systematic literature search from 1st January 1990 to 24th April 2014 for double-blind randomised controlled trials of methotrexate versus comparators in rheumatoid arthritis. Studies with less than 100 subjects or of less than 24 weeks duration were excluded. Random effects meta-analysis was used to assess total liver adverse events, minor liver adverse events (≤ 3 ULN), major liver adverse events (>3 ULN or treatment withdrawal) and a composite outcome of liver failure, fibrosis, cirrhosis, or death.

Results: A total of 28 studies with 12035 participants were included. Methotrexate was associated with an increased risk of



all adverse liver events, Relative Risk (RR) 2.15 (95% CI 1.66-2.78), as well as minor and major liver function test abnormalities, RR 2.15 (95% CI 1.62-2.84) and RR 2.57 (95% CI 1.68-3.93). Patients treated with methotrexate were not at increased risk of liver failure, cirrhosis or death, RR 0.12 (95% CI 0.01-1.09).

Conclusion: Our study found an increased risk of elevated transaminases with methotrexate compared to other agents. This did not translate into an increased risk of liver failure, cirrhosis, or death.

ABSTRACT 13 (14A102) POSTER PRESENTATION

Title of Paper: Methotrexate Use is Not Associated with an Increased Risk of Lung Disease: A Meta-Analysis of Randomised Controlled Trials

Author(s): R Conway, C Low, RJ Coughlan, MJ O'Donnell, JJ Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Methotrexate is widely used to treat a variety of inflammatory diseases but its effect on pulmonary morbidity and mortality has not been determined. A recent meta-analysis of methotrexate in rheumatoid arthritis (RA) showed that the risk of lung disease is lower than previously thought. These results may have been affected by channelling bias as several forms of lung disease can occur as a manifestation of RA.

Aims/Background: To evaluate the relative risk of pulmonary adverse events in methotrexate treated patients.

Method: We performed a meta-analysis of double-blind randomised controlled trials of methotrexate versus placebo or active comparator agents in adults with psoriatic arthritis, psoriasis or inflammatory bowel disease. The Mantel-Haenszel method was used to assess total respiratory adverse events, infectious respiratory adverse events, non-infectious respiratory adverse events, pneumonitis, and death. Results were expressed as relative risks (RR) with 95% confidence intervals.

Results: Seven studies met our inclusion criteria, 6 with placebo as the comparator. Five hundred and four respiratory adverse events were documented in 1630 participants. Methotrexate was not associated with an increased risk of adverse respiratory events, RR 1.03 (95% CI 0.90-1.17), respiratory infections, RR 1.02 (95% CI 0.88-1.19) or non-infectious respiratory events, RR 1.07 (95% CI 0.58-1.96). One case of pneumonitis was reported in a methotrexate treated patient. No pulmonary deaths occurred.

Conclusion: Methotrexate does not increase the risk of non-infectious lung disease or pulmonary death in non-malignant inflammatory diseases. Pneumonitis associated with methotrexate use is an infrequent occurrence.

ABSTRACT 14 (14A103) POSTER PRESENTATION

Title of Paper: Adherence and persistence to urate-lowering therapies in the Irish Setting

Author(s): Bernie McGowan¹, Kath Bennett², Carmel Silke¹, Bryan Whelan^{1,2}

Department(s)/Institution(s): 1. North Western Rheumatology Unit, Our Lady's Hospital Manorhamilton, Co Leitrim. 2. Department of Medicine, National University of Ireland, Galway. 3. The Department of Pharmacology and Therapeutics.

Introduction: Better adherence is associated with improved achievement of serum uric acid (SUA) levels. Appropriate initiation and dosing of ULT are the main modifiable risk factors associated with the achievement of SUA goal [1].

Aims/Background: To 1) identify adherence and persistence levels with ULT using the national HSE-PCRS database and 2) identify factors, including comorbidity, age and gender, associated with adherence and persistence.

Method: This was a retrospective, pharmacy claims-based analysis of dispensed anti-gout medications on the Irish national HSE-PCRS scheme database between January 2008 and December 2012. Adherence is defined by the medication possession ratio (MPR) and patients were considered to be adherent if the MPR $\geq 80\%$. Persistence was defined as continued use of therapy with no periods exceeding a refill gap of > 63 days. Logistic regression analysis was used to predict odds ratios (OR) and 95% CI for persistence and adherence in relation to age, gender and level of comorbidity.

Results: There was a 53% increase in the number of patients prescribed anti-gout medications with an increase of 27% in the associated ingredient cost. Allopurinol accounted for 87% of the prescribing and febuxostat accounted for 9%. In patients who started on 100mg allopurinol 14.6% were titrated to the 300mg dose. For all those initiating urate lowering therapies 45.8% of patients were persistent with treatment at 6 months decreasing to 22.6% at 12 months. In multivariate analysis, females had poorer adherence (OR=0.83 (0.77- 0.90)) and increasing age was associated with increased adherence (OR=4.19 (2.53-6.15)) Increasing comorbidity score was associated with reduced adherence and persistence at 6 months (OR = 0.68 (0.59 - 0.79)).



Adjusted logistic regression model for predicting adherence in incident cases

Adherence at 6 months			Adherence at 12 months	
	OR	95% CI	OR	95% CI
Female vs male	0.83	0.77, 0.90	0.74	0.69, 0.81
Age				
25-34 vs 16-24 yrs	2.23	1.29, 3.45	2.10	1.18, 3.74
35-44 vs 16-24	2.15	1.29, 3.27	2.19	1.27, 3.79
45-54 vs 16-24	3.23	1.96, 4.86	3.14	1.84, 5.36
55-64 vs 16-24	4.59	2.80, 6.86	4.27	2.51, 7.26
65-69 vs 16-24	4.74	2.93, 7.25	4.54	2.66, 7.77
70-74 vs 16-24	4.94	3.08, 7.57	4.79	2.81, 8.17
75+ vs 16-24	4.19	2.53, 6.15	3.75	2.20, 6.38
Number of comorbidities				
0	1.0		1.0	
1	0.49	0.42, 0.57	0.55	0.47, 0.66
2	0.57	0.49, 0.66	0.67	0.58, 0.79
3	0.62	0.53, 0.71	0.77	0.67, 0.89
4	0.59	0.51, 0.68	0.80	0.69, 0.93
5	0.66	0.57, 0.76	0.84	0.73, 0.98
6	0.60	0.52, 0.70	0.77	0.66, 0.90
7	0.69	0.59, 0.81	0.84	0.71, 0.99
8	0.69	0.58, 0.81	0.97	0.81, 1.14
9	0.63	0.52, 0.75	0.87	0.72, 1.05
10+	0.68	0.59, 0.79	0.94	0.81, 1.08

Conclusion: Sustained treatment for gouty arthritis is essential in the prevention of serious adverse outcomes.

References:

[1] Dalbeth N, House ME, Horne A, Petrie KJ, McQueen FM, Taylor WJ Prescription and dosing of urate-lowering therapy, rather than patient behaviours, are the key modifiable factors associated with targeting serum urate in gout. *BMC MusculoskeletalDisord.* 2012; vol. 13 pp. 174

ABSTRACT 15 (14A104) POSTER PRESENTATION

Title of Paper: Anthropometric characteristics of elite Gaelic football players and their relationship to injury occurrence

Author(s): Carmel Silke¹, James Clarke², Bernie McGowan¹, Claire Smyth³, Therese Devaney³, Aoife McPartland¹, Pdraig McGourty⁴, Micheal Newel², Bryan Whelan^{1,2}

Department(s)/Institution(s): 1.The North Western Rheumatology Unit, Our Lady's Hospital, Manorhamilton, Co Leitrim, 2.Dept of Medicine, Nursing and Health Sciences, NUIG.

3.Sligo Senior Gaelic Management Team. 4.Dept of Life Sci

Introduction: It is beneficial for both management and players of senior gaelic teams to know the optimum physical characteristics that players should have in order to compete to optimum levels while avoiding injury.

Aims/Background: To investigate the a) anthropometric characteristics of an inter-county football team in pre-season and mid-season and b) to determine if anthropometric changes throughout the season have any relationship with injury occurrence.

Method: Total Body Composition (bone, muscle and fat mass) measurements were taken at pre-season and mid-season on 21 senior inter-county gaelic players using dual-energy x-ray absorptiometry (DXA scan). Injury data on the players was collected twice weekly and recorded by the team physiotherapists throughout the study period.

Results: Mean age of the players was 25.1yrs (4.0). Defender's Fat Mass (p=0.033) decreased significantly compared to forwards between pre-season and mid-season. Pre-season DXAs identified that 19.0% of the players were classified as having ideal Body Fat Percentage for athletes. By mid-season 85.1% of players had decreased their fat mass with 23.8% being ideal, 19.0% acceptable & 57.1% above recommended values. Players suffering from chronic injuries had a higher fat mass and tissue percent fat and lower lean mass compared to those suffering acute and overuse injuries. Players who were injury free had a higher lean mass in pre-season than those with injuries. It was identified that there was a correlation between reduction in lean mass and number of injuries between pre-season and mid-season.

Conclusion: Long-term monitoring of senior inter county gaelic players is indicated to obtain more injury data in order to examine anthropometric relationships with greater statistical power.

ABSTRACT 16 (14A105) POSTER PRESENTATION

Title of Paper: A comparison of Dietary Intake and body composition assessment in senior Inter-county Gaelic Footballers at pre-season and mid-season

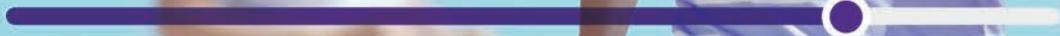
Author(s): Dan Simpson¹, Bernie McGowan², Carmel Silke², Brendan Egan³, Gemma Faulkner¹, Aoife McPartland², Pdraig McGourty¹, Bryan Whelan²

Department(s)/Institution(s): 1.Dept of Life Sciences, Sligo IT. 2.The North Western Rheumatology Unit, Our Lady's Hospital, Manorhamilton, Co Leitrim. 3.School of Public Health, Physiotherapy & Population Science, UCD

Introduction: Nutritional assessment and analysis of seasonal anthropometric changes in Gaelic players may identify relationships between diet and maintenance of a body composition conducive to the requirements of the physically demanding playing season (1,2).

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Reference: 1. Stelara SMPC Date April 2014 available from www.medicines.ie

Date of preparation: April 2014. PHIR/STE/0913/0002a(1)





Aims/Background: To identify 1) changes in anthropometric characteristics of senior inter county Gaelic players during the playing season 2) if the nutritional intake of Gaelic players is in line with nutrient recommendations (3).

Method: 27 players on an Inter-County Gaelic Football panel were included in the study during the 2013-2014 playing season. The EPIC Norfolk Food Frequency Questionnaire (4) was used to record dietary intake for a 12 month period prior to pre-season and the FFQs were repeated at mid-season following dietary intervention. Dual-energy X-ray absorptiometry (DXA) were performed at pre-season and mid-season. Results were considered statistically significant at $p < 0.05$.

Results: The Bone Mineral Density (BMD) for all the players at pre and mid-season stage were within the normal ranges. A decrease in mean % body fat mass was observed (pre-season=16.46%, + SD 4.85%; mid-season=15.46%, + SD 5.31, $P=0.001$) and an increase in WB lean mass was observed (pre-season=66.96kg, + SD 5.77kg; mid-season=67.63kg, + SD 5.8 $P=0.1$). By mid-season, the panel had maintained recommended nutrient intake for Energy, Protein, and Carbohydrate with a reduction in Total Fat % Energy of 4% (mean = 34.86%, +SD 4.91) to within the recommended range of 20-35. There were no statistically significant correlations identified between age, total energy intake, and % fat energy intake and % body fat mass.

Conclusion: These anthropometric changes may be attributed to a combination of increase in calorie expenditure/training volume, and dietary intervention between pre-season and mid-season analysis.

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ABSTRACT 17 (14A106) POSTER PRESENTATION

Title of Paper: An assessment of diet and body Composition in Inter-county Gaelic Footballers

Author(s): Carmel Silke¹, Dan Simpson², Bernie McGowan¹, Brendan Egan³, Gemma Faulkner², Pdraig McGourty², Aoife McPartland¹, Bryan Whelan¹

Department(s)/Institution(s): 1.The North Western Rheumatology Unit, Our Lady's Hospital, Manorhamilton, Co Leitrim. 2.Dept of Life Sciences, Sligo IT. 3.School of Public Health, Physiotherapy & Population Science, UCD

Introduction: Gaelic Football is a highly competitive, high impact, fast and vigorous game that requires physical strength, power, speed and agility.

Aims/Background: To investigate nutritional intake and body composition in elite Gaelic Football players (1,2).

Method: 27 Senior Inter-county players were included in the study during the 2013-2014 playing season. The EPIC Norfolk Food Frequency Questionnaire(3) was used to record estimated dietary intake of the panel for a 12 month period prior to their first DXA scan.The players attended for DXA scan to the NWRU in December 2013 (pre-season).

Results: The mean age of the group was 24.85 years (SD +4.07). The mean % body fat of the players was 16.46%, (SD +4.85%). The Bone Mineral Density (BMD) at the pre-season stage were normal. The results of the FFQ identified that players were achieving the daily recommended nutrient intake for Energy, Protein, and Carbohydrate but were exceeding the daily recommended intake for Fat % Energy (mean = 36.17%, SD +5.68), The recommended Saturated Fat % Energy of <10% was also exceeded with a mean of 14.45%, (SD +3.10). Intake of Fibre was below the recommended daily intake of 25g (mean = 20.70g, SD 8.26g) and intake of Vitamin D was also below the recommended daily intake of 5µg (mean = 4.34µg, SD 2.33). There were no statistically significant correlations between age, total energy intake, and % fat energy intake and % body fat mass,

Conclusion: Players have a pre-season % fat mass above recommended values for athletes. Dietary intake was comparable to that of the general population but exceeded the recommendations for Fat and Fe intake and were below the recommended intake for Vitamin D.

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ABSTRACT 18 (14A107) POSTER PRESENTATION

Title of Paper: Potential under treatment of patients with gout in the Irish setting: analysis of data from a linked database of laboratory and pharmacy claims data

Author(s): Deepti Ranganathan¹, Bernie McGowan¹, Kath Bennett³, Carmel Silke¹, Bryan Whelan^{1,2}

Department(s)/Institution(s): 1.North Western Rheumatology Unit, Our Lady's Hospital Manorhamilton, Co Leitrim. 2.Department of Medicine, National University of Ireland, Galway. 3.



Introduction: EULAR(1) and ACR (2) guidelines recommend a 'treat to target serum urate' approach in the management of gout. Despite this, treatment remains consistently poor and the reasons remain multi-factorial.

Aims/Background: To 1) evaluate the efficacy of drug dosing based on SUA levels in patients with repeat SUA levels post initiation of treatment. 2) To identify adherence and persistence to treatment at 12 months post initiation of therapy

Method: This was a retrospective study involving a combined data set of the HSE-PCRS database with Sligo Regional Hospital (SRH) and Letterkenny General Hospital (LGH) laboratory database from January 2008 to December 2012. The datasets were linked using the patients HSE-PCRS number for GMS eligible patients only. All patients included in the study were followed through for a period of 12 months post initiation of therapy.

Results: In total 620 (7%) of the patients had received urate-lowering therapy within the study period. Only 264 of the patients had at least 1-year follow-up of ULTof which 44.3% were persistent with therapy at 12 months and 43.02% were compliant (>80% medication possession ratio). Of the 105 patients with repeat SUA levels, persistence was lower again at 38.1% and compliance at 35.2%. The uric acid levels were categorized as <6mg/dl, 6-8.99mg/dl and ≥9mg/dl. At 12 months follow-up there were 63.8%, 23.8% and 12.4% in each of these categories respectively.

Conclusion: Management of patients with gout in the HSE-NW does not meet with the current EULAR and ACR guidelines, which suggest repeat SUA levels every 2-5 weeks till titration of ULT achieves target SUA and for continued SUA level measurements every 6 months once

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ABSTRACT 19 (14A109) POSTER PRESENTATION

Title of Paper: Audit of hot swollen joint referrals

Author(s): C Masih, M Wray, L Feeney

Department(s)/Institution(s): Rheumatology, Ulster Hospital, Dundonald, Belfast BT16 1RH

Introduction: We are frequently referred patient with hot swollen joints as "query septic arthritis" in whom antibiotics have already been commenced. Some of these patients who have a diagnosis of, for example, crystal arthritis may not need admission. We decided to audit such referrals to assess the

numbers of other diagnoses in hot swollen joints and assess if joints were being aspirated appropriately.

Aims/Background: To assess if septic arthritis was being over diagnosed on initial presentation of patients with hot swollen joints and to record whether these joints were being appropriately aspirated prior to starting antibiotics

Method: A retrospective chart review of all inpatient referrals to rheumatology with a hot swollen joint over a 4 week period was carried out.

Results: Seventeen patients were audited with 1 chart unavailable. We recorded higher proportions of knees (29%) and wrists (35%) presenting, with half (47%) the patients being treated as septic arthritis prior to assessment by rheumatology. Fifty percent of these had not had any joint aspiration attempted. Only one case (5.8%) of septic arthritis in a prosthetic hip was confirmed with greater numbers of crystal arthritis (47%) and new presentations of inflammatory arthritis (23.5%).

Conclusion: We undertook a teaching session for junior medical staff outlining assessment of hot swollen joints when on call, including reviewing any history of crystal arthritis and avoiding antibiotics for patients systemically well prior to joint aspiration. Junior medical staff were offered attendance at joint injection clinic to improve skills of joint aspiration.

References:

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ABSTRACT 20 (14A116) POSTER PRESENTATION

Title of Paper: Penile necrosis leading to penile loss presenting features in Granulomatosis with polyangiitis

Author(s): Dr S Mc Dermott, Dr C Silke

Department(s)/Institution(s): Department of Rheumatology, Our Ladies Hospital, Manorhamilton

Introduction: A 64 year old gentleman presented with a 10 week history of painful right groin and penile ulceration. He subsequently developed a dusky erythematous macular patch on his thigh, both this and the penis was biopsied. The initial working diagnosis was Pyoderma Gangrenosum and he was treated with steroids, followed by cellcept. Treatment was then discontinued as he developed subsequent necrosis of his penis and organ loss. Penile carcinoma and T cell lymphoma were excluded. He then developed new onset sinusitis. His skin and sinus biopsy showed evidence of vasculitis with poorly formed granulomas. The c ANCA results were borderline. He was diagnosed with Granulomatous with polyangiitis and commenced on Methotrexate and prednisolone. His Methotrexate was discontinued whilst he was being assessed for T cell Lymphoma and during that period he presented with a right sided proptosis. His MRI orbits showed a 2.5cm lesion in the medial orbital cavity and granulomatous involvement of the orbital cavity. He was recommenced on methotrexate and Rituximab infusions with resolution of his symptoms. This is a very unusual presentation of Granulomatous with polyangiitis.



Results: To our knowledge, this is only the fifth case of GPA initially presenting with a penile lesion to be reported in the literature.

Conclusion: GPA although it typically involves the upper and lower respiratory tract and the kidney it can present with urogenital and orbital involvement. Necrosis of the penis is a rare manifestation of GPA. A negative ANCA test does not rule out the diagnosis of GPA.

References:

Dr. D. G. Ebo, A. V. Mertens, L. S. De Clerck, P. Gentens, R. Daelemans . Relapse of Wegener's granulomatosis presenting as a destructive urethritis and penile ulceration Clinical Rheumatology 1998, Volume 17, Issue 3, pp 239-241.
Adam R, Katz S, Lee K, Jewett M, Kodama R., Wegener's granulomatosis of the penis: diagnosis and management. Can J Urol. 2004 Aug;11(4):2341-3.

ABSTRACT 21 (14A119) POSTER PRESENTATION

Title of Paper: The impact of Abatacept Therapy in severe Rheumatoid Arthritis: The Northern Health and Social Care Trust experience.

Author(s): Dr A. McShane, D. Collins, Dr G. Meenagh.

Department(s)/Institution(s): Department of Rheumatology, Antrim Hospital, Antrim, N.Ireland

Introduction: Abatacept is a T-cell co-stimulator biologic therapy indicated for patients with severe Rheumatoid Arthritis (RA) who have failed other therapies including anti-TNF agents.

Aims/Background: To assess effectiveness of Abatacept and determine if we could predict which patients are most likely to have a positive response.

Method: Chart review was undertaken for all RA patients who had received Abatacept within our unit. The following domains were noted; patient demographics, serology, erosive status, biologic treatment history, serial DAS scores and methotrexate prescription.

Results: Total 27 patients. 93% female, average age 54. 70% seropositive, 48% had erosions at baseline. Majority received monotherapy (63%). Average baseline DAS score 5.27. 86.9% had improvement in DAS, 50% having a significant improvement (DAS >1.2). In patients with improvement 55% were on monotherapy whilst 50% had received two previous TNF drugs. 70% of seropositive patients had significant DAS score improvement (>1.2) compared to 30% who were seronegative. 44% with baseline erosions had significant improvement (DAS>1.2) compared to 55% of non-erosive patients. 1 patient had significant infection (drug discontinued).

Conclusion: Abatacept was well tolerated and the majority of patients improved with treatment. The rate of significant response was higher in seropositive patients. This was a cohort who had tried several biologic agents previously. Co-prescription with methotrexate did not seem to influence response markedly.

References:

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ABSTRACT 22 (14A120) POSTER PRESENTATION

Title of Paper: An audit of Cardiovascular risks in Psoriatic Arthritis

Author(s): Khan S, Mohammed A, O'Rourke KP

Department(s)/Institution(s): Rheumatology Department, MRH, Tullamore

Introduction: Psoriatic arthritis(PsA) is a risk factor for cardiovascular disease .The magnitude of the increased risk is similar to that of contemporarily managed diabetes Mellitus. Compared with the general population, patients with psoriatic arthritis have a higher prevalence of obesity and metabolic syndrome. According to NICE guidelines, patients with PsA should be screened for cardiovascular risks on an annual basis, and treated accordingly. This includes assessment of lipid profile, glucose, BMI, blood pressure and smoking status.

Aims/Background: To evaluate if these patients PsA are screened and counselled accordingly for particular cardiovascular risk factors.

Method: 100 Consecutive patients with PsA attending the Rheumatology department in MRH, Tullamore were included. The recent correspondence letter was reviewed. We audited whether or not lipid profile, glucose, body mass index (BMI), smoking status had been checked. For patients with a documented BMI>30, currently smoking, hypertensive patients, if any intervention was taken to address these risk factors.

Results: Lipid was checked in 48 %, Glucose 17%, Blood pressure 100 %, BMI 100 %, and smoking status 100 %. 26% of the patients had a BMI>30 and intervention advice given in 0%; 17% of patients were smokers, and intervention advice given in 76.5%; and 3% of patient were hypertensive: and intervention advice given in 100%.

Conclusion: The results of this audit noted that blood pressure, BMI, and smoking status are regularly recorded . However lipid profiling and Glucose measurement could be significantly improved. Intervention for detected hypertension was always advised, and smoking cessation advice was given to most current smokers. We are aiming to tak measures to address these issues, in order to improve the practice.

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ABSTRACT 23 (14A121) POSTER PRESENTATION

Title of Paper: Glycoprotein VI: A potential biomarker for disease activity and platelet reactivity in gout

Author(s): Murphy CL, Madigan A, McMullen PM, Bell L, Durcan L, Fathelrahim I, Kavanagh P, Geraghty E, Helbert L, Stephens K, Dunne E, Kenny D, McCarthy GM

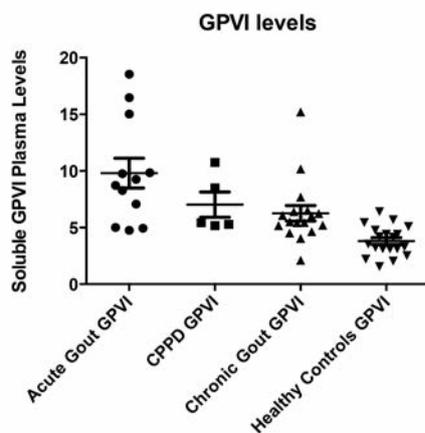
Department(s)/Institution(s): Mater Misericordiae University Hospital, Dublin 7 and RCSI, Dublin 2

Introduction: Patients with gout or hyperuricemia are at high risk of cardiovascular mortality. Platelets amplify joint inflammation via the collagen receptor, glycoprotein (GP)VI followed by production of proinflammatory platelet microparticles¹. When platelets are activated, the GPVI receptor is shed and is detectable as soluble GPVI (sGPVI).

Aims/Background: Our hypothesis is that sGPVI would be raised in active gout compared to stable gout versus healthy controls. We also compared sGPVI in calcium pyrophosphate arthritis (CPP).

Method: Following ethics approval and informed consent, blood was taken from patients with newly diagnosed active gout (n=12), CPP (n=5), chronic gout (n=17) and controls (n=19). Demographic data, VAS scores, ESR, CRP, fibrinogen and urate were recorded. Samples were centrifuged at 720g and 20000g to remove platelets and microparticles and sGPVI was measured by ELISA².

Results: Mean sGPVI was similar between CPP and chronic gout (7.0 +/-2.8 ng/ml vs 6.3 +/-2.5 ng/ml respectively), but significantly higher in acute gout (9.8 +/-4.5ng/ml; p<0.05). Mann-Whitney U showed sGPVI was significantly higher in acute gout versus chronic gout versus controls (p<0.05). Spearman's rank correlation showed weak positive correlation between CRP and VAS scores (p<0.05).



Conclusion: sGPVI levels are significantly higher in acute gout versus chronic gout, CPP and healthy controls. Despite no correlation between sGPVI levels and ESR, CRP and VAS scores, there was weak positive correlation between CRP and VAS scores suggesting an inherent platelet phenomenon independent of inflammatory markers. Thus, sGPVI may be a marker of both disease activity and platelet reactivity in gout, which likely contributes to cardiovascular events.

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ABSTRACT 24 (14A122) POSTER PRESENTATION

Title of Paper: Tocilizumab for the Treatment of Giant Cell Arteritis

Author(s): Dr. Louise Rabbitt, Dr. Richard Conway, Ms. Geraldine Mannion, Ms. Ann-Maria Curran, Dr. Catherine Sullivan and Dr. John J Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Giant cell arteritis (GCA) is a significant illness among older patients causing headaches, arthritis and occasionally serious manifestations including stroke, vision loss, necrosis and aortic dissection or aneurysm. Corticosteroids remain the only proven treatment option and are associated with significant morbidity and mortality. A previous multinational randomised controlled trial evaluating tocilizumab ceased due to recruitment failure. Limited data exist on the effectiveness of this treatment in GCA.

Aims/Background: To evaluate the efficacy of tocilizumab in the treatment of refractory steroid-dependent GCA.

Method: We performed a retrospective study of all patients treated with tocilizumab for GCA attending the rheumatology clinic at Galway University Hospitals.

Results: Five patients presented with classic symptoms and high inflammatory markers, 3 of whom had positive biopsies. All were female, mean age 69 years (54-88) and had a mean follow-up time on tocilizumab of 11 months. All patients required chronic corticosteroids (mean dose 8mg/day), had suffered at least 1 major side-effect, and had failed to wean off corticosteroids despite use of other DMARDs (methotrexate and plaquenil). All were treated with tocilizumab per our department's protocol. Four had complete resolution of symptoms, weaned off their corticosteroids and remained in remission on tocilizumab monotherapy. One patient failed to wean their prednisolone.

Conclusion: Tocilizumab is potentially an effective treatment option for refractory steroid-dependent GCA. Results of larger studies are awaited.



ABSTRACT 25 (14A123) POSTER PRESENTATION

Title of Paper: Tocilizumab for the Treatment of Undifferentiated Rheumatic Disease

Author(s): Dr. Louise Rabbitt, Dr. Richard Conway, Ms. Geraldine Mannion, Ms. Ann-Maria Curran, Dr. Catherine Sullivan and Dr. John J Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Undifferentiated inflammatory illnesses remain a diagnostic and treatment dilemma for practising rheumatologists. Occasionally patients present with severe systemic illnesses, but a well defined diagnosis remains elusive despite the passage of time and exhaustive diagnostic evaluations. This makes it difficult to recommend specific treatments. Experience with tocilizumab is limited in this area and we present our centre's experience.

Aims/Background: To evaluate the efficacy of tocilizumab in the treatment of refractory steroid-dependent undifferentiated rheumatic disease.

Method: We performed a retrospective study of all patients treated with tocilizumab for a severe steroid-responsive undefined rheumatic disease attending the rheumatology clinic at Galway University Hospitals.

Results: Seven patients presenting with severe systemic symptoms, polyarthritis, high inflammatory markers (CRP >100) were included, 2 males and 5 females. The mean age at presentation was 61 years (52-81). All patients required hospital admission for several days or weeks at presentation. Extensive evaluations, including immunologic, radiologic and pathologic studies failed to elicit a specific diagnosis in all cases. All required chronic corticosteroids to keep their disease under control despite other DMARDS (methotrexate and plaquenil), and had suffered at least 1 major glucocorticoid-related side-effect. All were treated with tocilizumab as per our department's protocol. Five had complete resolution of symptoms, 6 weaned off their corticosteroids and remained in remission on tocilizumab only. 1 patient failed to wean their prednisolone completely and remains on 1mg/day.

Conclusion: Tocilizumab is an effective treatment for refractory steroid-dependent undifferentiated rheumatic diseases. Results of larger studies are awaited.

ABSTRACT 26 (14A124) POSTER PRESENTATION

Title of Paper: A single centre experience of rheumatology patients treated with Inflectra, an infliximab biosimilar for rheumatic diseases

Author(s): Ms. Geraldine Mannion, Ms. Ann-Maria Curran, Dr. Richard Conway, Dr. Miriam O'Sullivan, Dr. Catherine Sullivan and Dr. John J Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Merlin Park, Galway, Ireland

Introduction: Biologic therapies have greatly improved the lives of many patients with rheumatic diseases. However they are not without problems, and are very expensive relative to conventional DMARDS. Cost-saving strategies such as vial-sharing programmes and dose-reduction strategies can help reduce costs. New 'biosimilar' medications may offer further savings, but unlike other specialties including oncology and nephrology, real-world experience is limited among rheumatologists.

Aims/Background: To evaluate the effects of inflectra, an infliximab biosimilar, among rheumatology patients following a hospital policy to switch patients from infliximab.

Method: We performed a retrospective study of all patients treated with at least 1 dose of inflectra since our hospital introduced this new policy.

Results: Forty patients were included: 22 women and 18 men, mean age 52 years (28-78). Diagnoses included: rheumatoid arthritis (17), ankylosing spondylitis (10), psoriatic arthritis (8), inflammatory bowel disease related arthritis (4), and juvenile idiopathic arthritis (1). All received at least 1 dose of inflectra as per our hospital protocol: vial sharing, 3-5mg/kg every 6-12 weeks. 34 were previous users of infliximab, 3 were prior users of another biologic and 3 were new to biologic therapy. Overall there were no significant changes in disease activity parameters, infusion reactions or serious side-effects. One patient was admitted to an outside hospital with heart failure following a complex illness. Two patients discontinued treatment due to lack of efficacy.

Conclusion: Inflectra is an effective treatment option for rheumatic patients and was well tolerated.

ABSTRACT 27 (14A125) POSTER PRESENTATION

Title of Paper: The Development of a Physiotherapy-Led Inflammatory Back Pain Clinic: An audit of one year's data

Author(s): Maura McGeeney, Aisling Brennan, Sarah O'Driscoll, Caitríona Ní Shé, Professor David Kane, Dr Ronan Mullan

Department(s)/Institution(s): Departments of Physiotherapy and Rheumatology, Tallaght Hospital, Tallaght, Dublin 24

Introduction: Inflammatory Back Pain (IBP) is an important clinical symptom in axial spondyloarthropathies (SpA). The median time frame from symptom onset to diagnosis is estimated between 8 and 11 years. Delay in diagnosis can result in progression of the disease with associated pain and disability for the patient.

Aims/Background: To reduce the waiting time for initial outpatient consultation for patients with a suspicion of IBP. To establish a diagnosis and management plan for patients with IBP.

Method: Criteria for inclusion in the IBP Triage Clinic were established between Advanced Practice Physiotherapists (APPs) and Consultant Rheumatologists. Patients referred with suspected IBP were assessed by APPs and if required by Consultant Rheumatologists. An IBP Pathway was established following diagnosis which involved interval appointments with rheumatology doctors, nurses and physiotherapists



Results: From June 2013 to June 2014 68 patients were seen by APPs at the IBP Triage Clinic. Of these 51 percent (n= 35) were diagnosed with IBP (Ankylosing Spondylitis n=24; Psoriatic Spondyloarthritis n=8; Crohns Spondyloarthritis n=3). Of the 35 patients diagnosed with IBP 71 percent (n=25) were male; the average age was 40 years (range: 19-67 years); the average duration of symptoms was 13 years (range: 1-40 years). The waiting time for initial outpatient consultation for patients with suspected IBP reduced from 3 years to 2 months over the 12 month period.

Conclusion: This initiative demonstrates that appropriately trained and supported APPs can assist in the assessment and diagnosis of patients with a suspicion of IBP. Use of APP clinics can ensure early diagnosis and timely referral to appropriate services, thereby potentially reducing disability in this population.

ABSTRACT 28 (14A126) POSTER PRESENTATION

Title of Paper: Higher Anti-CCP Titres are Associated with Phenotypic Variations of Alpha-1 Anti-Trypsin

Author(s): Orr C, McCarthy C, Bergin DA, McCormick J, Carroll TP, Fee LT, Creevey K, Reeves EP, McElvaney NG, Fearon U, Veale DJ.

Department(s)/Institution(s): Department of Rheumatology, Dublin Academic Medical Centre, Saint Vincent's University Hospital; Department of Medicine, Royal College of Surgeons in Ireland

Introduction: Recent evidence suggests a link between deficient states of alpha-one antitrypsin (A1AT), and autoimmunity in vitro.(1) Heterozygous individuals for the Z allele (i.e. MZ) have increased activation of the TNF- α system,(1) a key cytokine in the pathogenesis of inflammation in rheumatoid arthritis (RA).(2) Previous studies of the prevalence of alleles associated with deficient states in rheumatoid arthritis have given conflicting results.(3, 4)

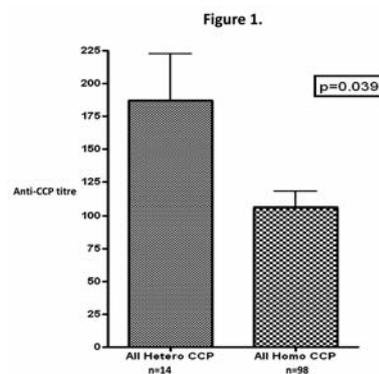
Aims/Background: We set out to examine the A1AT phenotype of an RA cohort, and to determine if heterozygosity is associated with higher levels of auto-antibodies for anti-CCP.

Method: Characterisation of A1AT phenotypes in 234 RA patients was performed. A control cohort of 1,100 randomly selected individuals in Ireland was available(5) Fisher's exact test was used to test for a correlation between allelic status and RA. Antibody titres were available for RF in 135 patients, and for anti-CCP in 112 patients. Mann Whitney U-Test was employed to determine differences in mean levels of antibodies between the cohorts.

Results: Higher levels of anti-CCP were associated with heterozygosity for A1AT when compared with homozygous states (fig 1.). There was no difference between the prevalence of the homozygous MM phenotype and the heterozygous phenotypes i.e. MZ or MS in patients with RA and the control group.

Conclusion: Anti-CCP likely has a pathological role in RA, and the importance of higher levels of this antibody in patients with deficiency states of A1AT requires further study. However, there

does not appear to be an overrepresentation of alleles associated with deficiency states of A1AT in RA.



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ABSTRACT 29 (14A127) POSTER PRESENTATION

Title of Paper: Knee arthroscopy in an International Training Centre: An audit of safety and impact on work days

Author(s): Orr C, Murray M, MacMullan P, O'Neill M, Veale DJ.

Department(s)/Institution(s): Department of Rheumatology, Dublin Academic Medical Centre, Saint Vincent's University Hospital

Introduction: The utility of synovial biopsy has been confirmed as an important research tool in increasing our understanding of the pathogenesis of RA, evaluating new treatments and identifying potential therapeutic targets (1, 2). In 2004, we published data showing that complication rates are very low (3), however it is critically important to continue to monitor safety and audit our outcomes.

Aims/Background: We collected and analysed the experience reported by patients following arthroscopy in our unit, examining parameters such as overall tolerability, pain, time out of work post-arthroscopy and complications. Procedures are performed under local anaesthesia

Method: Consecutive patients returning to the arthroscopy programme since July 2013 completed a questionnaire including 16 questions, three visual analogue scales, as well as binary questions.

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Humira (adalimumab) 40mg solution for injection in pre-filled pen or pre-filled syringe and Humira 40mg/0.8ml solution for injection for paediatric use.

Refer to Summary of Product Characteristics for full information.

Presentation: Each 0.8ml single dose pre-filled pen, pre-filled syringe or vial contains 40mg of adalimumab. **Indications:** **Rheumatoid arthritis (RA):** In combination with methotrexate (MTX) is indicated for the treatment of moderate to severe, active RA in adult patients with inadequate response to disease-modifying anti-rheumatic drugs (DMARDs) including MTX. Also indicated for the treatment of severe, active and progressive RA in adults not previously treated with MTX. Can be given as monotherapy in case of intolerance to or when continued treatment with MTX is inappropriate. Humira has been shown to reduce the rate of progression of joint damage on X-ray and to improve physical function, in combination with MTX. **Polyarticular Juvenile Idiopathic Arthritis (JIA):** In combination with MTX for the treatment of active JIA, in children and adolescents from the age of 2 years with inadequate response to one or more DMARDs, or as monotherapy in case of intolerance to or when continued treatment with MTX is inappropriate. **Psoriatic arthritis (PsA):** Treatment of active and progressive PsA in adults with inadequate response to DMARDs. Humira has been shown to reduce the rate of progression of peripheral joint damage on X-ray in patients with polyarticular symmetrical subtypes of the disease and to improve physical function. **Ankylosing spondylitis (AS):** Treatment of adults with severe active AS with inadequate response to conventional therapy. **Axial spondyloarthritis non-radiographic (nr-axSpA):** Treatment of adults with severe axial spondyloarthritis without radiographic evidence of AS but with objective signs of inflammation by elevated CRP and / or MRI, who have had an inadequate response to, or are intolerant to nonsteroidal anti-inflammatory drugs (NSAIDs). **Crohn's disease (CD):** Treatment of moderate to severe, active CD, in adult patients not responding despite a full and adequate course of therapy with a corticosteroid and/or an immunosuppressant; or who are intolerant to or have medical contraindications for such therapies. **Paediatric Crohn's Disease:** Treatment of severe active Crohn's disease in paediatric patients (from 6 years of age) who have had an inadequate response to conventional therapy including primary nutrition therapy, a corticosteroid, and an immunomodulator, or who are intolerant to or have contraindications for such therapies. **Pсориаз (Ps):** Treatment of moderate to severe chronic plaque psoriasis in adult patients not responding to or contraindicated for, or are intolerant to other systemic therapy including cyclosporine, MTX or PUVA. **Ulcerative colitis (UC):** Treatment of moderate to severe active UC in adult patients with an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or contraindicated for such therapies. **Dosage and administration:** Treatment should be initiated and supervised by specialist physicians experienced in the diagnosis and treatment of the condition. Patients should be given the special alert card. After proper injection training patients may self-inject, subject to physician approval and appropriate medical follow-up. During treatment other concomitant therapies should be optimised. RA, PsA, AS or nr-axSpA: 40mg administered every other week as a single dose via subcutaneous injection. RA: MTX should be continued. In monotherapy some patients who experience a decrease in their response to Humira may benefit from an increase to 40mg every week. There may be a need for dose interruption, e.g. before surgery or if serious infection occurs. Re-introduction of Humira after discontinuation for 70 days or longer resulted in the same magnitudes of clinical response and similar safety profile as before dose interruption. JIA: Age 2 to 12 years: 24mg/m² body surface area to a maximum single dose of 20mg (for patients aged 2- <4) and up to a maximum single dose of 40mg (for patients aged 4-12) administered every other week. The volume for injection is based on the patients' height and weight (see SmPC for height and weight dosing chart). For adolescents from 13 years: 40mg administered every other week regardless of body surface area. For RA, JIA, PsA, AS and nr-axSpA, available data suggest that the clinical response is usually achieved within 12 weeks of treatment. Continued therapy should be carefully reconsidered in a patient not responding within this time period. CD: Adults: induction dose of 80mg at Week 0 followed by 40mg at Week 2. For a more rapid response, 160mg at Week 0 (dose can be administered as four injections in one day or as two injections per day for two consecutive days), 80mg at Week 2, can be used. Note that the risk for adverse events is higher during induction. After induction, the dose is 40mg every other week. If a patient has stopped Humira and signs and symptoms of disease recur, Humira may be re-administered. There is little experience from re-administration after more than 8 weeks since the previous dose. During maintenance treatment, corticosteroids may be tapered in accordance with clinical practice guidelines. Patients experiencing a decrease in their response may benefit from an increase in dosing frequency to 40mg every week. Patients who have not responded by Week 4 may benefit from continued maintenance therapy through Week 12 and should be carefully reconsidered in a patient not responding within this time period. Paediatric CD patients <40Kg: induction dose of 40mg at Week 0 followed by 20mg at Week 2. In case of need for a more rapid response to therapy, the regimen 80mg at Week 0 (dose can be administered as two injections in one day), 40mg at Week 2, can be used with the awareness that the risk for adverse events is higher during induction. After induction treatment, the recommended dose is 20mg every other week. Some patients who experience insufficient response may benefit from an increase in dosing frequency to 40mg every week; Paediatric CD patients >40Kg: for induction dose double the dose regimen for those patients <40Kg. Continued therapy should be carefully considered in a subject not responding by week 12. Ps: Adult: induction dose of 80mg at week 0, followed by 40mg subcutaneously given every other week from week 1. Continued therapy beyond 16 weeks should be carefully reconsidered in a patient not responding within this time period. UC: Adults: induction dose of 160mg at week 0 (dose can be administered as four injections in one day or as two injections per day for two consecutive days) and 80mg at week 2. After induction treatment, the dose is 40mg every other week. During maintenance treatment, corticosteroids may be tapered in accordance with clinical practice guidelines. Patients experiencing a decrease in their response may benefit from an increase in dosing frequency to 40mg every week. Available data suggest that clinical response is usually achieved within 2-8 weeks of treatment. Therapy is not recommended in patients failing to respond within this time period. **Contraindications:** Active TB or other severe infections such as sepsis, and opportunistic infections; moderate to severe heart failure (NYHA class III/IV) and hypersensitivity to adalimumab or any of the excipients. **Precautions and Warnings:** **Infections:** Patients taking TNF-antagonists are more susceptible to serious infections especially if they have impaired lung function. Patients must be monitored for infections, including tuberculosis, before, during and for 4 months after treatment. Treatment should not be initiated in patients with active, infections until they are controlled. The risks and benefits of treatment should be considered prior to initiating therapy in patients who have been exposed to tuberculosis or endemic mycoses. New infections during treatment should be evaluated and monitored closely. Treatment should be discontinued for new serious infection or sepsis and treated appropriately. Exercise caution when treating patients with a history of recurring infections or who are predisposed to infections. **Serious infections:** Serious infections, including those with hospitalisation or death have been reported in patients receiving treatment. **Tuberculosis:** Consult SmPC for details. Reactivation and new onset TB, both pulmonary and extra-pulmonary (disseminated) have been reported. Before initiation of therapy all patients must be screened for both active or inactive (latent) TB. If active TB is

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10
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diagnosed Humira therapy must not be initiated. If latent TB is suspected, a physician with appropriate expertise should be consulted and local treatment recommendations for prophylaxis followed prior to initiation of Humira. Despite prophylaxis TB reactivation has occurred on Humira. **Other opportunistic infections:** Opportunistic infections have been observed in patients receiving Humira. In patients with signs and symptoms of such infections Humira should be discontinued. Diagnosis and administration of empiric antifungal therapy in these patients should be made in consultation with a physician with appropriate expertise. **Hepatitis B Reactivation:** Reactivation has occurred in chronic carriers (i.e. surface antigen positive) tested for HBV infection before initiating treatment. Carriers should have a consultation with a specialist physician. HBV carriers should be closely monitored for signs and symptoms of active HBV infection throughout therapy and for several months following termination of Humira. If reactivation occurs discontinue treatment and initiate appropriate anti-viral and supportive treatment. **Neurological events:** Humira has a rare association with new onset or exacerbation of clinical symptoms and/or radiographic evidence of central and peripheral nervous system demyelinating disease. Caution is advised when considering Humira in patients with pre-existing or recent-onset central or peripheral nervous system demyelinating disorders. **Allergic reactions:** Reports of serious allergic reactions including anaphylaxis have been received. If an anaphylactic reaction or other serious allergic reaction occurs, Humira should be discontinued immediately and appropriate therapy initiated. **Malignancies and lymphoproliferative disorders:** A possible risk of malignancy, including lymphoma and leukaemia, in patients including children and adolescents treated with TNF antagonists cannot be excluded. All patients, and in particular those with a history of extensive immunosuppressant or PUVA treatment, should be monitored for non-melanoma skin cancer prior to and during Humira therapy, caution in COPD patients, as well as in patients with increased risk of malignancies due to heavy smoking. The potential risk with the combination of azathioprine or 6-mercaptopurine and Humira should be carefully considered (hepatosplenic T-cell lymphoma has occurred). A risk for the development of hepatosplenic T-cell lymphoma in patients treated with Humira cannot be excluded. Caution should be exercised in considering Humira treatment in patients with a history of malignancy. The risk for developing dysplasia or colon cancer is unknown. UC patients and those with a prior history of dysplasia or colon carcinoma should be screened for dysplasia before therapy and throughout their disease course. This evaluation should include colonoscopy and biopsies per local recommendations. **Haematologic reactions:** Adverse events of the haematologic system have been reported with Humira. Patients should be advised to seek immediate medical attention if they develop signs and symptoms of blood dyscrasias. **Vaccinations:** Patients on Humira may receive concurrent vaccinations, except for live vaccines. Paediatric patients should be brought up to date with all immunisations prior to initiating Humira (see also fertility, pregnancy and lactation section). **Congestive heart failure:** See contraindications. Caution is advised in mild heart failure (NYHA class I/II) and treatment discontinued in patients who develop new or worsening symptoms of congestive heart failure. **Autoimmune processes:** Autoimmune antibodies may form. Discontinue treatment if development of a lupus-like syndrome with positive antibodies against double-stranded DNA. **Surgery:** The long half life of Humira should be considered when a surgical procedure is planned. Patients should be monitored for infections. **Small bowel obstruction:** Failure to respond to treatment for CD may indicate the presence of fixed fibrotic stricture that may require surgical treatment. Data suggests that Humira does not worsen or cause strictures. **Elderly people:** Serious infections were higher in patients over 65 years of age some of whom had fatal outcomes. Consider risk of infection. **Interactions:** Combination of adalimumab with other biologic DMARDs (e.g. anakinra and abatacept) or other TNF-antagonists is not recommended. **Fertility, pregnancy and lactation:** Treatment is not recommended during pregnancy. Women of childbearing potential should use adequate contraception and continue its use for at least five months after the last Humira treatment. Administration of live vaccines to infants exposed to adalimumab in utero is not recommended for 5 months following the mother's last adalimumab injection during pregnancy. Women must not breast-feed for at least five months after the last Humira treatment. **Driving and machinery:** Humira may have a minor influence the ability to drive, cycle or use machines. **Side Effects:** The most commonly reported side effects are: Infections, leucopenia, anaemia, lipids increased, headache, abdominal pain, nausea and vomiting, elevated liver enzymes, rash (including exfoliative rash), musculoskeletal pain, injection site reaction. **Prescribers should consult the SmPC for the other less commonly reported side effects.** Serious, including fatal, side effects have been reported including infections/sepsis, intestinal perforation, opportunistic infections, TB, endemic mycoses, demyelinating disease, malignancies including lymphoma (including hepatosplenic T-cell lymphoma), leukaemia and skin cancer (including melanoma and Merkel cell carcinoma), cytopenias, worsening heart failure, myocardial infarction, pulmonary embolism, pleural effusion, pulmonary fibrosis, cerebrovascular accident, interstitial lung disease, Stevens-Johnson syndrome, angioedema, anaphylaxis, sarcoidosis, hepatitis, liver failure and worsening of symptoms of dermatomyositis. **Overdose:** No dose-limiting toxicity was observed during clinical trials. The highest dose level evaluated has been multiple intravenous doses of 10 mg/kg (approximately 15 times the recommended dose). **Legal Category:** POM. **Marketing Authorisation Numbers/Presentations:** Val: EU/1/03/256/001; 1 pack contains 2 cartons each containing 1 single use vial and empty sterile injection syringe, needle and vial adapter, Pre-filled Syringe: EU/1/03/256/003; Each carton contains 2 single use pre-filled syringes in a blister, Pre-filled Pen: EU/1/03/256/008; Each carton contains 2 single use pre-filled pens in a blister. Further information is available from AbbVie Limited, Block B, Liffey Valley Office Campus, Quarryvale, Co. Dublin. Suspected adverse events should be reported to the pharmacovigilance unit at the Irish Medicines Board, imbpharmacovigilance@imb.ie. Information about adverse event reporting can be found on the IMB website (www.imb.ie). Suspected adverse events should also be reported to AbbVie Limited on 01-4287900. Date of revision of PI: September 2013 PI/256/009. **References:** 1. HUMIRA [summary of product characteristics]. AbbVie Limited; November 2013. 2. Data on file, AbbVie Inc. 2014. 3. Burmester GR, Panaccione R, Gordon KB, et al. Adalimumab: long-term safety in 23 458 patients from global clinical trials in rheumatoid arthritis, juvenile idiopathic arthritis, ankylosing spondylitis, psoriatic arthritis, psoriasis and Crohn's disease [published online ahead of print May 5, 2012]. *Ann Rheum Dis*. doi:10.1136/annrheumdis-2011-201244.

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Results: 136 (47 male) respondents are included, age 20-82 years (mean 53.76, SD 13.86). 91.2% (124/136) of patients felt they had received adequate information before the procedure. 84.6% (115/136) reported that the procedure matched their expectations. The main concern before the arthroscopy was potential pain during the procedure cited by 78.7% (107/136). The mean VAS for pain during the procedure was 50mm (SD 34.6); in the first 48 hours after the procedure 31mm (SD 28.2); and 15mm (SD 24.1) in the month following the procedure. There was no correlation between diagnosis, age or sex to VAS. 64.0% (73/114) were out of work for less than 2 days, 29.8% (34/114), and 6.1% (7/114). The remainder of patients left this field blank. No significant complications were reported. 66.9% (91/136) felt improvement in their knee symptoms following arthroscopy.

Conclusion: Knee arthroscopy remains a safe and well tolerated research procedure. Patients are out of work for very short periods following arthroscopy and no significant complications were reported.

References:

1. Gerlag DM, Tak PP. Novel approaches for the treatment of rheumatoid arthritis: lessons from the evaluation of synovial biomarkers in clinical trials. *Best Practice & Research Clinical Rheumatology*. 2008;22(2):311-23.
2. Kraan MC, Reece RJ, et al. Modulation of inflammation and metalloproteinase expression in synovial tissue by leflunomide and methotrexate in patients with active rheumatoid arthritis: Findings in a prospective, randomized, double-blind, parallel-design clinical trial in thirty-nine patients at two centers. *Arthritis & Rheumatism*. 2000;43(8):1820-30.
3. Kane D, Veale D, et al. Survey of arthroscopy performed by rheumatologists. *Rheumatology*. 2002;41(2):210-5.

ABSTRACT 30 (14A128) POSTER PRESENTATION

Title of Paper: Use of Physician Extenders to Improve Quality and Efficiency of Clinical Visits

Author(s): Orr C, O'Neill L, Murray M, Young F, Gallagher P, Veale DJ.

Department(s)/Institution(s): Department of Rheumatology, Dublin Academic Medical Centre, Saint Vincent's University Hospital

Introduction: Physician Extenders (PE) have been used to improve efficiency in clinics.(1) In this action-research endeavour(2), we introduced changes both to the structure and process of how return patients are assessed, making use of a PE to prepare for patient visits.

Aims/Background: The specific aims were: 1. To decrease the time physicians spend with inflammatory arthropathy (IA) return patients. 2. To perform a standardised and validated measurement of disease activity. 3. To increase the proportion of patients acquiring staging hands and feet plain film radiographs every two years.

Method: The PE recorded the results of the last inflammatory markers and plain film radiographs of hands and feet in a pro-forma, and with a physician, ordered required tests ahead of

clinic visit. The pro-forma and ordering forms were mailed to returning IA patients 2 weeks in advance of their visit. Patients were asked to take the completed the pro-forma to their clinic visit, and to have the bloods and radiographs taken a few days beforehand.

Results: 125 patients (85 female) with IA were sent pro-formas before their clinic visit. Mean time a physician spent at clinic per patient was decreased from 23 minutes to 15 minutes. 120 (96.0%), patients had DAS28-CRP scores calculated. 68/125 (54.4%) had no radiographs in the three 3 years before their clinic visit. Of the 68 who had no radiographs taken during this time, 49 (72.1%) had radiographs directly as a result of this action-research.

Conclusion: This use of a PE decreased the time physicians need to spend reviewing patients, and increased the quality of the visit.

References:

1. Norris B, Harris T, Stringer S. Effective use of physician extenders in an outpatient otolaryngology setting. *Laryngoscope*. 2011;121(11):2317-21.
2. Coghlan D, Brannick T. *Doing action research in your own organization*: Sage; 2014.

ABSTRACT 31 (14A129) POSTER PRESENTATION

Title of Paper: Increased Body Fat and Decreased Strength among Adults with Ankylosing Spondylitis is Associated with Functional Impairment

Author(s): T. O'Dwyer, F. O'Shea and F. Wilson

Department(s)/Institution(s): School of Medicine, Discipline of Physiotherapy, Trinity College, Dublin, Ireland. Department of Rheumatology, St. James's Hospital, Dublin, Ireland

Introduction: A higher prevalence of overweight and obese adults with ankylosing spondylitis (AS) is associated with an increased burden of disease symptoms.

Aims/Background: This study examined body composition and muscle strength in adults with AS and explored their relations with clinical assessments.

Method: This cross-sectional study included 40 adults diagnosed with AS, and 40 age- and gender-matched controls. Participants completed clinical questionnaires on disease activity, function, quality-of-life and physical activity. Anthropometric measures were recorded and bioelectrical impedance analysis measured body composition. Knee flexor/extensor strength and endurance of the dominant leg were assessed using isokinetic dynamometry (Biodex System 3).

Results: Thirty-three males and seven females were recruited into each group. Results are summarised in Table 1. Fat mass (FM) and body fat percentage were significantly higher in the AS group. Knee flexion/extension peak torque per body weight (PT/BW) and total work for thirty repetitions were significantly lower in the AS group, except for knee flexor total work. FM was significantly correlated with Bath AS Functional Index (BASFI)



scores ($r=0.549$, $p<0.001$) and Bath AS Disease Activity Index (BASDAI) scores ($r=0.324$, $p=0.044$). A significant negative correlation was found between PT/BW and BASDAI (flexors: $r=-0.290$, $p=0.011$; extensors: $r=-0.326$, $p=0.004$), and between PT/BW and BASFI (flexors: $r=-0.361$, $p=0.001$; extensors: $r=-0.366$, $p=0.001$).

Table 1.	AS	Controls	P
Age (years)	39.7 (9.1)	38.7 (9.0)	0.604
Height (cm)	168.5 (10.5)	176.4 (7.2)	<0.001*
Weight (kg) [†]	77.3 (17.8)	76.3 (12.1)	0.207
Fat Mass (kg) [†]	21.2 (12.8)	13.1 (7.0)	0.002*
Fat Free Mass (kg) [†]	59.1 (10.6)	63.3 (13.9)	0.142
Body Fat %	25.1 (9.5)	19.1 (6.2)	0.001*
BASDAI [†]	3.4 (4.0)	N/A	
BASFI [†]	2.8 (3.7)	N/A	
ASQoL [†]	5.1 (5.0)	N/A	
IPAQ _{Total} [†]	3078 (3065)	2414 (2838)	0.456
PT/BW (%)Extension	187.8 (51.8)	221.3 (89.3)	0.006*
Flexion	103.6 (29.1)	120.5 (29.0)	0.018*
Total Work (J)Extension	1962.5 (535.6)	2332.9 (640.6)	0.011*
Flexion	1050.8 (366.1)	1197.8 (371.1)	0.070

Mean (SD) unless otherwise stated. □ Median (Interquartile Range). Mann-Whitney U tests were conducted for between-group comparisons; * denotes statistical significance $p<0.05$. Abbreviations - ASQoL: Ankylosing Spondylitis Quality-of-Life questionnaire; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; Bath Ankylosing Spondylitis Functional Index; IPAQ: International Physical Activity Questionnaire; N/A: not assessed, PA: Physical Activity; PT/BW: peak torque per body weight.

Conclusion: Adults with AS have increased body fat compared to the general population. This has a negative association with physical function and disease activity. Despite fat free mass being comparable to controls, the AS group have decreased muscular strength and endurance.

ABSTRACT 32 (14A130) POSTER PRESENTATION

Title of Paper: Reduced Levels of Daily Physical Activity and Decreased Cardiorespiratory Fitness among Adults with Ankylosing Spondylitis are Associated with Impaired Axial Mobility

Author(s): T. O'Dwyer, F. O'Shea and F. Wilson

Department(s)/Institution(s): School of Medicine, Discipline of Physiotherapy, Trinity College, Dublin, Ireland. Department of Rheumatology, St. James's Hospital, Dublin, Ireland

Introduction: The health benefits of physical activity (PA) in the general population are numerous, however few studies have objectively measured PA in an Ankylosing Spondylitis (AS) cohort.

Aims/Background: This study investigated the relation between free-living PA and aerobic fitness, spinal mobility, disease activity, function and quality-of-life in adults with AS.

Method: This cross-sectional study included 40 adults diagnosed with AS, and 40 age- and gender-matched controls. Participants completed clinical questionnaires on disease activity, function and quality-of-life. Axial mobility was measured with the Bath AS Metrology Index (BASMI). Cardiorespiratory fitness was assessed with a submaximal, incremental treadmill test and $VO_{2\rightarrow\rightarrow\rightarrow}MAX$ was predicted. Tri-axial RT3 accelerometers recorded PA during waking hours over one week.

Results: Thirty-three male and seven female participants were recruited into each group. Results are summarised in Table 1. Compared to controls, the AS group spent significantly less time in vigorous PA, and spent less time performing >10 minute bouts of moderate/vigorous PA (PAbouts) than controls. Time spent performing PAbouts correlated positively with predicted VO_{2max} ($r = 0.544$, $p<0.001$) and negatively with BASMI ($r = -0.358$, $p<0.05$). No significant correlations were found between PAbouts and outcomes of clinical questionnaires.

Table 1.	AS	Controls	P
Age (years) [†]	39.7 (9.1)	38.7 (9.0)	0.604
Men (%)	33 (82.5)	33 (82.5)	
Symptom Duration (years) [†]	16.4 (10.1)	N/A	
BASDAI	3.4 (4.0)	N/A	
BASFI	2.8 (3.7)	N/A	
BASMI	2.0 (4.0)	N/A	
ASQoL	5.1 (5.0)	N/A	
Predicted VO_2 ($ml.kg^{-1}.min^{-1}$)	36.6 (14.6)	45.3 (12.5)	0.006*
Physical Activity			
Sedentary (min/day)	444 (178)	518 (346)	0.081
Light (min/day)	372 (145)	316 (100)	0.097
Moderate (min/day)	48 (31)	52 (24)	0.628
Vigorous (min/day)	7 (9)	14 (18)	0.009*
P _{ABOUTS} (min/day)	19 (18)	27 (29)	0.022*
Meeting PA guidelines (%)	15 (39.5%)	24 (61.5%)	0.053



Median (Interquartile Range) unless otherwise stated. □ Mean (standard deviation). Mann-Whitney U tests were conducted for between-group comparisons; * denotes statistical significance $p < 0.05$.

Abbreviations - ASQoL: Ankylosing Spondylitis Quality-of-Life questionnaire; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; Bath Ankylosing Spondylitis Functional Index; BASMI: Bath Ankylosing Spondylitis Metrology Index; N/A: not assessed, PA: Physical Activity. Mann-Whitney U tests were conducted for between-group comparisons

Conclusion: Adults with AS perform significantly less vigorous-intensity PA and accumulate fewer bouts of health-enhancing PA than controls; fewer than half meet national guidelines for weekly PA. Adults with AS also have significantly lower cardiorespiratory capacity

ABSTRACT 33 (14A131) POSTER PRESENTATION

Title of Paper: An observational study of the management of Chronic Gout in a Primary-Care setting

Author(s): Dr Marie-Therese Glynn

Department(s)/Institution(s):

Introduction: Gout is a common rheumatological disease and is frequently managed solely at Primary Care level in Ireland. Misdiagnoses and suboptimal treatment are common.

Aims/Background: To examine prevalence of Gout in a single mixed urban-rural Irish practice population. To ascertain adherence to the EULAR 2006 Urate Lowering Treatment (ULT) guidelines.

Method: A practice database was formed using software ICD-10 and ICPC coding searches for gout during the 2 year sample period. Prescribing patterns for ULT were reviewed along with patient demographics, serum urate testing frequency and frequency of gouty flares during the study period.

Results: Of 6747 eligible patients, 122 had recorded diagnoses of chronic gout. This indicates a practice prevalence of 1.8% with M: F ratio of 3:1 and mean age of 68.6yrs. Of these patients, 73 (60 %) were on ongoing ULT. Of those on ULT, annual monitoring of SUA levels occurred in just 50%, with a further 8% never having had it checked. 71.4% of sample patients had SUA levels above the target level of 360mmol/L. 44 % of patients on ULT were at target. 49% of ULT users experienced at least 1 flare over the 2 year study period.

Conclusion: Prevalence of chronic gout is 1.8% in our practice population aged >30yrs. This is in keeping with UK figures and indicates awareness of gout diagnosis in the practice. Despite this, only 60% of diagnosed patients are on appropriate long term ULT, and in those, only 50% are having annual SUA checks to facilitate treatment to target levels.

While management of gout is improving in primary care, further education and encouragement is needed regarding EULAR target urate levels.

ABSTRACT 34 (14A137) POSTER PRESENTATION

Title of Paper: National Recommendations for the treatment of ankylosing spondylitis

Author(s): Ni Mhuircheartaigh O, Elmamoun M, Sullivan C, Kane D, Fitzgerald O, O Shea F

Department(s)/Institution(s): St James's Hospital, St Vincents Hospital, Tallaght Hospital and Galway University hospital

Introduction: In recent years many changes have occurred in the early identification and treatment options for ankylosing spondylitis (AS). Numerous guidelines have been produced as a result. Early referral to a rheumatologist in suspected cases of AS is desirable. Regular primary care education and access to a dedicated AS clinic may be beneficial. Plain X-ray changes are no longer required for diagnosis. The ASAS criteria, incorporating MRI changes, are increasingly used for diagnostic purposes. All patients should receive patient education and regular physiotherapy which should be continued throughout treatment. Regular NSAID use is first line treatment for AS. Up to two different NSAIDs, at maximum tolerated dose, should be tried over a four week period. If NSAIDs are contraindicated regular physiotherapy is first line. If ineffective, a trial of an anti-TNF agent should be commenced. If Inflammatory bowel disease (IBD) co-exists a monoclonal antibody should be used. In the absence of IBD, no difference between anti-TNF exists. After a trial of four months, if a response is not achieved a second anti-TNF should be used. There is no role for biologics outside of the anti-TNF agents for AS. Specialist referral for extra-articular manifestations should be considered. Throughout analgesia should be addressed. Systemic steroids have no role in treatment of AS. Treatment failure is characterised by ongoing symptoms, and a BASDAI of ≥ 4 after the specified medication trial period. At baseline all patients should be screened, and treated accordingly, for cardiovascular disease and osteoporosis.

ABSTRACT 35 (14A140) POSTER PRESENTATION

Title of Paper: Audit of Hot Swollen Joint Referrals

Author(s): C. Donaghy, S. Walker

Department(s)/Institution(s): Rheumatology Department, Craigmavon Area Hospital

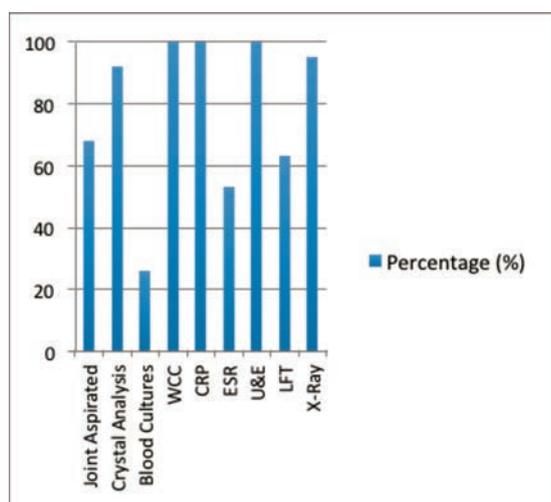
Introduction: Acute mono/oligoarthritis is the most common rheumatology inpatient referral.

Aims/Background: The most serious potential diagnosis is septic arthritis, with a mortality of up to 11% (1). BSR devised guidelines in 2006 (revised 2012) for management of these patients (1).

Method: Referrals of inpatients with hot swollen joints in a DGH over a six-month period were examined and compared with standards as laid out by BSR. Nineteen patient charts meeting the criteria were examined.



Results: Results demonstrated that 68% of patients had their affected joint aspirated and synovial fluid sent for gram stain and culture, and 92% of aspirates were analysed for crystals. Reasons for not aspirating the joint included raised INR and the diagnosis clinically being cellulitis. Blood cultures were carried out in only 26%, WCC / CRP / U&E were all checked in 100%, however LFTs in only 63%, and ESR in 53%. X-ray of the affected joint was carried out in 95%. Antibiotics, when given, were given in equal frequency without aspiration, pre-aspiration, and post-aspiration. There was repeatedly a significant time delay in administration of first dose antibiotics. Final diagnosis in 59% was crystal arthritis, with only 5% being confirmed septic arthritis.



Conclusion: The results demonstrate that potential septic joints are being aspirated appropriately, but other baseline investigations such as blood cultures, are not always being carried out. There may be a benefit to introducing a direct ED to rheumatology referral service, which may reduce time to aspiration and administration of antibiotics, as well as potentially length of inpatient stay.

References:

1. G. Coakley, C. Mathews et al. BSR & BHPR, BOA, RCGP and BSAC guidelines for management of the hot swollen joint in adults. *Rheumatology* 2006; 45: 1039–1041.

ABSTRACT 36 (14A141) POSTER PRESENTATION

Title of Paper: Knowledge and uptake of vaccination against influenza and pneumococcal infections in immunocompromised patients

Author(s): D Gheta, A Mumtaz, R Valea, S Lee, R Mullan, D Kane

Department(s)/Institution(s): Adelaide and Meath Hospital Tallaght, Dublin

Introduction: The vaccination with influenza and pneumococcal (both killed) vaccine should be undertaken in patients starting or currently receiving disease-modifying antirheumatic drugs (DMARDs) or biologic agents, but should ideally be administered before starting B-cell depleting biological therapy.(1,2)

Aims/Background: To establish whether patients attending a

rheumatology clinic and on immunosuppressive therapy 1. Have been advised that they should receive influenza vaccination annually and pneumococcal vaccination every five years. 2. Received such vaccination. 3. The reason if vaccination was not received

Method: Self-administered questionnaire of consecutive patients with autoimmune inflammatory diseases and taking immunosuppressive medication who were attending the Rheumatology OPD at Tallaght Hospital between December 2013 and April 2014.

Results: Data were collected on 59 subjects. 35 (59.3%) of these patients were informed that they should get Influenza vaccination and 29 (49.1%) of all the patients actually received flu vaccination. Of the 30 (50.8%) of patients who did not receive the Influenza vaccination 43.3% were not advised by doctor/nurse, 26.6% did not have time being too busy, 13.3% were concerned about side effects and one (3%) could not afford the cost of vaccination. Only 9 (15.2%) of all the patients were advised that they should receive Pneumococcal vaccination every 5 years of being on immunosuppressive therapy and only 7 of these patients have actually received this vaccination. The main reason for which they did not receive Pneumococcal vaccination was that it was not advised by doctor/nurse seen in 41 (87%) of patients.

Conclusion: This audit documents deficits in vaccination against influenza and in particular pneumococcal infections in subjects taking immunosuppressive medication. Many did not recall receiving advice in this regard.

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2. 2012 Update of the 2008 American College of Rheumatology Recommendations for the Use of Disease-Modifying Antirheumatic Drugs and Biologic Agents in the Treatment of Rheumatoid Arthritis, *Arthritis Care & Research*, Vol. 64, No. 5, May 2012, pp 625–639 DOI 10.1002/acr.21641

ABSTRACT 37 (14A143) POSTER PRESENTATION

Title of Paper: Audit: Does the management of acute gout in a secondary care setting follow the recommendations of British Society for Rheumatology and British Health Professionals in Rheumatology guideline?

Author(s): Dr Emma Mack and Dr Gary Meenagh

Department(s)/Institution(s): Department of Rheumatology, Antrim Hospital, Northern Health and Social Care Trust

Introduction: Acute gout is a common and increasingly prevalent condition in the United Kingdom. The management of lifestyle factors plays a key role in gout prevention.

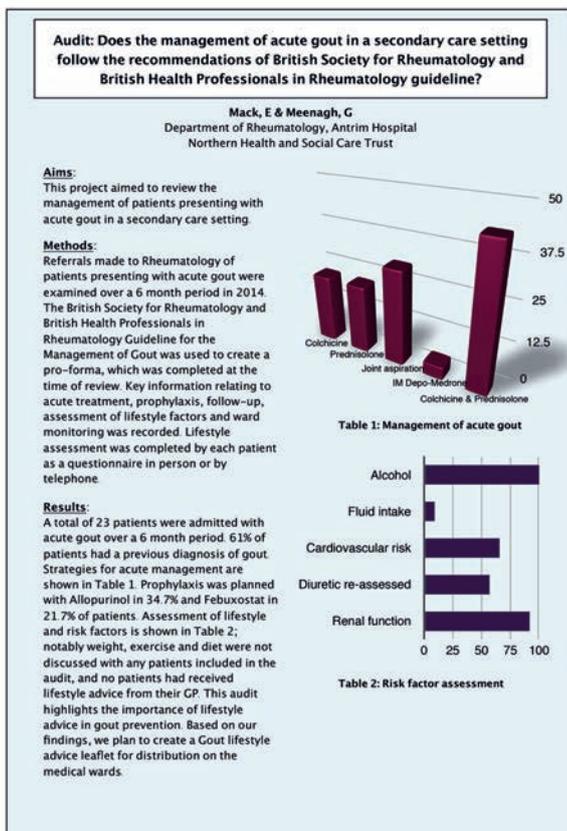
Aims/Background: This project aimed to review the management of patients presenting with acute gout in a secondary care setting.

Method: Referrals made to Rheumatology of patients presenting



with acute gout were examined over a 6 month period in 2014. The British Society for Rheumatology and British Health Professionals in Rheumatology Guideline for the Management of Gout was used to create a pro-forma. Key information relating to acute treatment, prophylaxis, follow-up, assessment of lifestyle factors and ward monitoring was recorded. Lifestyle assessment was completed by each patient as a questionnaire in person or by telephone.

Results: A total of 23 patients were admitted with acute gout. 61% of patients had a previous diagnosis of gout. Strategies for acute management included colchicine monotherapy (21.7%), prednisolone monotherapy (21.7%), colchicine and prednisolone combination (43.4%), joint aspiration (30%) and intramuscular depomedrone (4%). Prophylaxis was planned with Allopurinol in 34.7% and Febuxostat in 21.7% of patients. Assessment of lifestyle and risk factors included alcohol use assessment in 100%, fluid intake assessment in 8.7% and assessment of cardiovascular risk factors in 65.2%. Diuretic therapy was reassessed in 56.5% of patients. The results also showed that weight, exercise and diet were not discussed with any patients included in the audit, and no patients had received lifestyle advice from their GP.



Conclusion: This audit highlights the importance of lifestyle advice in gout prevention. Based on our findings, we plan to create a Gout lifestyle advice leaflet for distribution on the medical wards.

References:

Jordan et al (2007) 'British Society for Rheumatology and British Health Professionals in Rheumatology Guideline for the Management of Gout' Rheumatology (doi:10.1093/rheumatology/kem056a)

Title of Paper: National Recommendations for the Treatment of Psoriatic Arthritis

Author(s): Elmamoun M, Ni Mhuirheartaigh O, Kane D, O Shea B, FitzGerald O, Sullivan C

Department(s)/Institution(s): Galway University Hospital, St. Vincent's University Hospital, St. James Hospital, Tallaght Hospital

Results: Psoriatic arthritis (PsA) is a multifaceted disease that may involve arthritis of peripheral joints, skin and nail disease, enthesal involvement, dactylitis and axial disease. The treatment of PsA has changed over recent years. Observations that pro-inflammatory cytokines may play important pathogenetic roles have led to the evaluation of novel therapies. Synthetic and biological disease-modifying anti-rheumatic drugs (DMARD) are widely used, with further treatment options anticipated in future. Non-steroidal anti-inflammatory drugs may be used to relieve musculoskeletal signs and symptoms. In patients with active disease (particularly those with many swollen joints, structural damage in the presence of inflammation, high ESR/CRP and/or clinically relevant extra-articular manifestations), treatment with disease-modifying drugs, such as methotrexate, sulfasalazine, leflunomide, should be considered at an early stage. In patients with active psoriatic arthritis and clinically relevant psoriasis, a disease modifying drug that also improves psoriasis, such as methotrexate, should be preferred. In patients with active arthritis and an inadequate response to at least one synthetic disease-modifying anti-rheumatic drug, such as methotrexate, therapy with a tumour necrosis factor inhibitor should be commenced. In patients with active enthesitis and/or dactylitis and insufficient response to non-steroidal anti-inflammatory drugs or local steroid injections, tumour necrosis factor inhibitors may be considered. In patients with predominantly axial disease that is active and has insufficient response to non-steroidal anti-inflammatory drugs, tumour necrosis factor inhibitors should be considered. In patients who fail to respond adequately to one tumour necrosis factor inhibitor, switching to another tumour necrosis factor inhibitor agent should be considered.

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ABSTRACT 39 (14A145) POSTER PRESENTATION

Title of Paper: MAS-tering Diagnoses in SLE

Author(s): C. Donaghy, N. Liggett

Department(s)/Institution(s): Rheumatology Department, Craigavon Area Hospital

Introduction: Rheumatic diseases can present in a variety of ways, often posing diagnostic and treatment conundrums.

Aims/Background: We present a case of secondary haemophagocytic lymphohistiocytosis (HLH), or macrophage activation syndrome (MAS) in a new diagnosis of SLE.

Method: A 22 year old male was admitted with pyrexia, arthralgia, significant weight-loss, lymphadenopathy and neutropenia. Blood cultures were positive for *Strep. pneumoniae*. Autoimmune screen was strongly positive, including positive anti-dsDNA antibody but negative crithidia. He had a positive EBV PCR. A diagnosis of SLE was made. He developed neutropenic sepsis requiring admission to ICU. He developed bilateral pulmonary infiltrates and was treated with IVMP, antimicrobials and antifungals. Ferritin was elevated at >35000, and a diagnosis of macrophage activation syndrome was made(1). Bone marrow biopsy was undertaken, with findings in keeping with MAS. He later developed heavy haematuria and proteinuria, and a diagnosis of lupus nephritis was made. He was treated with further IVMP, along with mycophenolate, and Rituximab was commenced as an in-patient.

Results: He responded well and is currently on a reducing dose of prednisolone with hydroxychloroquine. Consideration is being given to further Rituximab.

Conclusion: Haemophagocytic lymphohistiocytosis (HLH) can be primary, with a genetic aetiology, or secondary, associated with malignancy, autoimmune disease or infection(2). MAS is recognized in association with SLE. It is a hyperinflammatory syndrome, can follow a rapidly fatal course and prompt recognition is vital. Viral infectious agents have been recognized as triggers, including EBV. Treatment has not yet been standardized. In this case Rituximab has been shown to be an effective treatment.

HLH 2004 Diagnostic Criteria ⁽¹⁾

The diagnosis of HLH can be established if one of either 1 or 2 below is fulfilled:

1. A molecular diagnosis consistent with HLH
2. Diagnostic criteria for HLH are fulfilled (five out of the eight criteria below):
 - Fever
 - Splenomegaly
 - Cytopenias (affecting ≥ 2 lineages in the peripheral blood):
 - Hemoglobin < 90 g/l (in infants < 4 weeks: hemoglobin < 100 g/l
 - Platelets $< 100.000/ml$
 - Neutrophils $< 1000/ml$
 - Hypertriglyceridemia and/or hypofibrinogenemia:
 - Fasting triglycerides ≥ 265 mg/dl
 - Fibrinogen ≤ 1.5 g/L
 - Hemophagocytosis in bone marrow or spleen or lymphnodes
 - Low or absent NK-cell activity
 - Ferritin ≥ 500 $\mu g/l$
 - Soluble CD25 ≥ 2400 U/L

Comments: 1. If hemophagocytic activity is not proven at the time of presentation, further search for hemophagocytic activity is encouraged. If the bone marrow specimen is not conclusive, material may be obtained from other organs. Serial marrow aspirates over time may also be helpful.

2. The following findings may provide strong supportive evidence for the diagnosis: (1) spinal fluid pleocytosis (mononuclear cells) and/or elevated spinal fluid protein, (2) histological picture in the liver resembling chronic persistent hepatitis (biopsy).

3. Other abnormal clinical and laboratory findings consistent with the diagnosis are: cerebromeningeal symptoms, lymph node enlargement, jaundice, edema, skin rash. Hepatic enzyme abnormalities, hypoproteinemia, hyponatremia,

Refer VLDL \uparrow , HDL \downarrow .
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ABSTRACT 40 (14A146) POSTER PRESENTATION

Title of Paper: Infusional Bisphosphonates: Audit of Practices and Implementation of Guidelines

Author(s): Dr. B O'Kelly, Dr. L Durcan, Dr G Kearns, Dr P O'Connell.

Department(s)/Institution(s): Rheumatology Department, Beaumont Hospital, Beaumont Road, Dublin 9

Introduction: Intravenous bisphosphonates are a commonly prescribed alternative to oral bisphosphonates and are warranted when complications arise from the latter. Guidelines suggest that 3-5 infusions with an IV bisphosphonate are adequate (1). Furthermore there are now alternative treatment options including Denosumab (2).

Aims/Background: In light of new alternatives to IV bisphosphonates this audit was undertaken to evaluate the use of bisphosphonate infusions on the rheumatology day ward and implement protocols for their use.

Method: A chart review on all patients in Beaumont Hospital receiving IV bisphosphonates in the rheumatology infusion room.



Data collected included age, gender, T score where available, risk factors for osteoporosis, number of infusions, reason for bisphosphonate and bone-health related blood test results.

Results: At the initial audit there were 19 people on our infusion room list. See Table 1. Raised alkaline phosphatase was seen in 2 cases. A PTH level was done in only 3 cases. Twelve individuals had a serum protein electrophoresis performed. Seven individuals had a vitamin D level taken. A serum albumin was performed in all cases.

Table 1.

Age	Gender	T score	No of infusions	Reason for IV bisphosphonate
75	F	-2	4	Side-effects
	F			compliance/
75		-3.5	4	Side-effects
85	F	-3.3	6	Not stated
83	F	-3.7	3	Ineffective PO
63	F	-4	5	Not stated
82	F		1	Paget's Disease
87	F	-2.5	3	Non-compliance
75	M		4	Not stated
83	F	-3.2	2	Non-compliance
	F			Worsening T
77		-3.2	2	score
66	F	-3.1	2	Side-effects
61	F	-3.4	1	CREST
55	F		2	Side-effects
75	F	-3.6	5	CREST
61	F	-4.1	4	Side-effects
74	M	-3	1	Side-effects
94	F	-4.5	4	Side-effects
82	F	-3.8	2	Side-effects
85		-2.8	1	Non-compliance

Conclusion: Based on our review, treatment was stopped in 13 cases. Six were due for follow up in clinic for consideration for Denosumab post DEXA scanning. Those who were to continue bisphosphonate infusions were limited to 3 infusions and are to be re-evaluated post.

There were significant inconsistencies in the osteoporosis work up prior to IV therapy. Following on from these findings we have standardised appropriate investigations for osteoporosis and have included these in the infusion protocol for bisphosphonates.

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- 1) Black DM et al. (2007) Once-Yearly Zoledronic Acid for Treatment of Postmenopausal Osteoporosis. NEJM. May 356:1809-1822.
- 2) Cummings SR et al (2009) Denosumab for Prevention of Fractures in Postmenopausal Women with Osteoporosis. NEJM. August 361:756-765

ABSTRACT 41 (14A147) POSTER PRESENTATION

Title of Paper: Compliance With Osteoporosis Medications Among Patients Attending a Fracture Liaison Service in South-East Ireland

Author(s): Fitzgerald G, Rooney D, Fox M, O'Gradaigh D

Department(s)/Institution(s): Department of Rheumatology,

University Hospital Waterford, Waterford, Ireland

Introduction: Fracture Liaison Services (FLS) are the most cost effective method of secondary prevention following fragility fracture.^{1,2} However, reported compliance with medication is typically under 50% within 6 months, even in patients who have fractured.^{3,4}

Aims/Background: To determine follow through of recommendations made by the FLS in a regional orthopaedic setting.

Method: Following assessment, the FLS sends a letter to the patient's GP with a treatment recommendation. The GP is then expected to contact the patient to commence treatment. Patients who had been recommended to commence or change their treatment (n=74) were contacted by telephone 6-9 months after their FLS assessment. Patients referred for further consultant assessment or whose current treatment was not changed are not included here.

Results: Of patients who were recommended to start or change their medication, 89.2% (n=66) did receive a prescription. Calcium and/or vitamin D supplement was commenced by 85.1% (n=63), with 79.4% (n=50) of those reporting ongoing compliance. The most common reason for discontinuation was forgetting to take the medication (n=6). 52 patients (70.3%) also commenced a specific treatment, half of these commencing denosumab. Alendronic acid was the most common bisphosphonate chosen. 45 patients (86.5%) reported ongoing compliance with treatment at follow-up, with 85.1% (n=63) reporting correct understanding of the reason for their prescription.

Conclusion: These compliance data are better than previously reported studies, likely reflecting the critical role of education about the condition and its treatment at the point of care by the fracture liaison nurse specialist.

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ABSTRACT 42 (14A148) POSTER PRESENTATION

Title of Paper: Dexamphetamine and Its Association With Raynaud's Syndrome in Adults

Author(s): Fitzgerald GE, Sheehy C

Department(s)/Institution(s): Department of Rheumatology,



University Hospital Waterford, Waterford, Ireland

Introduction: Dexamphetamine is a central nervous system (CNS) stimulant used in the treatment of attention deficit hyperactivity disorder (ADHD). ADHD in adults is being increasingly diagnosed, the prevalence estimated at 2-5%.^{1,2} An association between Raynaud's Syndrome (RS) and CNS stimulants has been reported in children.³ However, there are currently no reports in the literature of this occurring in adults.

Aims/Background: We present the case of a 46 year old female non-smoker, who commenced dexamphetamine for adult-onset ADHD. Four months later, she presented with new RS, associated with a six week history of painful ulcers on both her feet. There was no history of systemic symptoms, arthralgia, photosensitivity, sicca symptoms or mouth ulcers. She was not on any other regular medication.

Method: On examination, she had ulcerated areas at the tips of all her toes bilaterally. She had no stigmata of connective tissue disease. Capillaroscopy was normal. Pedal pulses were all present. Extensive investigation revealed only a weakly positive antinuclear antigen. Routine bloods, inflammatory markers, extractable nuclear antigens, double-stranded DNA, anti-neutrophil cytoplasmic antibodies and cryoglobulins were all negative.

Results: The patient received five days of intravenous iloprost. She had an excellent response with complete resolution of the ulcers. She was then commenced on nifedipine ten milligrams twice daily. Following discussion with the psychiatry services, the dexamphetamine was discontinued with a tapering dose.

Conclusion: Healthcare professionals involved in treating adults with ADHD need to be aware of the potential for CNS stimulants to precipitate Raynaud's Syndrome in this patient population.

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ABSTRACT 43 (14A150) POSTER PRESENTATION

Title of Paper: Reliability of Electronic Patient Self-Assessment of Swollen and Tender Joints in Psoriatic Arthritis: A Comparison Study with B-Mode Ultrasonography, Physician and Nurse Assessments

Author(s): A Szentpetery, M Haroon, E O'Flynn, P Gallagher, S Alraqi and O FitzGerald

Department(s)/Institution(s): Department of Rheumatology, St. Vincent's University Hospital, Dublin, Ireland

Introduction: 68/66 joint counts are recommended for disease activity assessment in PsA.

Aims/Background: The aim of this study was to evaluate the reliability of patient self-assessed joint counts versus joint counts obtained by a physician, a nurse and B-mode ultrasonography (US) in PsA.

Method: 50 patients with PsA were enrolled. Patients assessed their 68 joints using an electronic digital mannequin on touchscreen. Joint examination by a nurse and a rheumatologist on 68 joints; and US evaluation by a consultant rheumatologist on 34 joints and all extensor/flexor tendons of the fingers and toes was performed. Presence of joint effusion, synovial proliferation and tenosynovitis on grayscale (GS); synovitis/tenosynovitis on power Doppler (PD) were evaluated.

Results: Focusing on the 34 joints also examined by US, patient and nurse-assessed SJC was significantly higher than physician-counts. Patients scored their number of affected joints (swollen or tender) significantly higher than physicians and the US. Joint effusion was detected by US in 74%, synovitis in 78% on GS and 68% on PD; 30% had tenosynovitis. Patients SJC significantly correlated with US-assessed joint effusion, and with synovitis (GS and PD). Physician and nurse-reported SJC correlated with US-derived synovitis scores. The number of affected joints as assessed by patients and physician correlated with the US measurements ($r=0.28$, $p=0.04$; $r=0.29$, $p=0.04$; respectively).

Conclusion: Patients scored their SJC and number of affected joints higher than physicians and US measurements. Patient-reported SJC correlated with both effusion and synovitis as detected by US suggesting that patients' self-evaluated SJC may be valid in routine clinical practice for monitoring disease activity in PsA.

ABSTRACT 44 (14A151) POSTER PRESENTATION

Title of Paper: A Dedicated Ankylosing Spondyliti Clinic and Education of NCHDs Improves Frequency of Spinal Measurements and Patient Care

Author(s): Elmamoun M, Hussein M, Sullivan C, Carey J

Department(s)/Institution(s): Galway University Hospitals

Introduction: Ankylosing Spondylitis (AS) is a chronic inflammatory disease of unknown aetiology associated with human leukocyte antigen HLA-B27. It usually affects the sacroiliac joints and may involve the axial skeleton at later stages of the disease. Peripheral joint involvement may also be an important feature. The serial collection of clinical parameters including spinal measurements is an important aspect of the management of AS. An increased work load and time demands can lead to this aspect being overlooked in a general Rheumatology clinic.

Aims/Background: To assess the frequency of spinal measurements, BASDAI, disease activity (back pain/stiffness) and inflammatory markers (CRP/ESR) in our AS cohort before and after education of team members in a specialized AS clinic

Method: We performed a retrospective chart review to assess



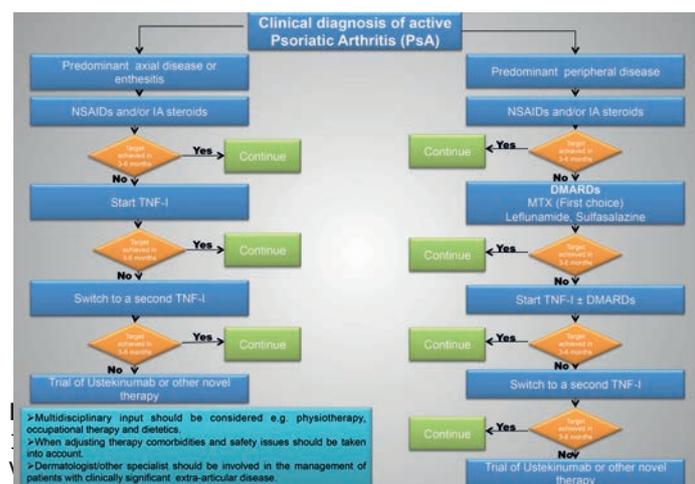
the frequency of measurement of 4 spinal measurements- Schober's test, Occiput-wall, chest expansion, finger-floor, BASDAI, back pain/stiffness and ESR/CRP in our AS cohort. Following the results of this review AS patients were reviewed in a dedicated AS clinic and team members underwent a mandatory tutorials in AS measurements of disease activity and spinal measurements

Results: Forty-one patients were included in this study. All had AS according to the modified New York criteria. The frequency of full set of spinal measurements and BASDAI increased from 0 to 100%. The frequency of individual measurement is outlined in table 1

Measurement	Audit	Re- Audit
Schober's Test	25 (60.9)	41 (100%)
Finger-floor	22 (53.6)	41 (100%)
Occiput-wall	21 (51.2)	41 (100%)
Chest expansion	4 (9.7)	41 (100%)
BASDAI	0 (0%)	41 (100%)
Full measurement set	0 (0%)	41 (100%)
Back pain/ stiffness	41 (100%)	41 (100%)
Inflammatory markers (CRP/ESR)	23 (56%)	41 (100%)

Table 1: Frequency of spinal measurements, back pain/stiffness, ESR/CRP in the initial audit and re-audit groups

Conclusion: A dedicated AS clinic and training of team members leads to substantial improvement in the frequency of performing spinal measurement, disease activity measurements and optimum patient care



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ABSTRACT 45 (14A152) POSTER PRESENTATION

Title of Paper: Abatacept Improves Synovitis as Assessed by Magnetic Resonance Imaging (MRI) in Psoriatic Arthritis - Preliminary Analysis from a Single

Author(s): A Szentpetery, E Heffernan*, M Haroon, P Gallagher, AM Baker, M Cooney and

Department(s)/Institution(s): Departments of Rheumatology and Radiology*, St. Vincent's University Hospital, Dublin, Ireland

Introduction: It has been proposed that 10 mg/kg of abatacept may be an effective treatment choice for PsA.

Aims/Background: (1) to study skin and joint-related clinical outcomes prior to and 6 months after introducing abatacept treatment in PsA; (2) to investigate MRI changes of an inflamed knee in PsA patients on abatacept.

Method: Biological-treatment-naïve PsA patients with active disease for >3 months with synovitis of a knee were enrolled. Patients were randomised to receive abatacept 3mg/kg or placebo infusion on day 1, 15 and 29; thereafter abatacept 10mg/kg was administered every 28 days for 5 months. Ga-enhanced MRI of the knee was performed at baseline, 2 and 6 months and scored using the PsAMRIS method by one consultant radiologist. Each knee was divided into 4 regions; medial (MED) and lateral (LAT) parapateller recesses, intercondylar notch (ICN) and suprapatellar pouch (SPP). A synovitis score (0-3) was assigned to each region and then added for a total synovitis score (MRS 0-12).

Results: 15 patients were enrolled. At baseline mean DAS28-CRP was 4.7(±0.9). Mean synovitis scores at MED, LAT, ICN and SPP regions were 2.07(±0.9), 2.21(±0.9), 1.4(±0.8) and 1.85(±1) respectively, MRS was 7.6(±3.4).

Conclusion: Six months of abatacept treatment reduced synovitis scores as assessed by MRI. The results of our study suggest that 10 mg/kg of abatacept is a potent treatment option in PsA.

ABSTRACT 46 (14A153) POSTER PRESENTATION

Title of Paper: Investigating myeloid and plasmacytoid dendritic cell activation within the synovium and peripheral blood of Rheumatoid Arthritis patients

Author(s): Canavan M, O'Rourke M, Veale DJ, Fearon U

Department(s)/Institution(s): Translational Rheumatology Group, Dublin Academic Medical Centre, St Vincents Unversity Hospital



Introduction: Dendritic cells (DC) are a heterogeneous population of professional antigen presenting cells. Myeloid and plasmacytoid DCs represent two DC subsets that can be distinguished based on their morphology, function and expression of surface markers.

Aims/Background: In this study, we compared the percentage and maturation status of mDC versus pDC at the site of inflammation in RA compared to systemic circulation.

Method: DC whole blood phenotyping was carried out using multicolour flow cytometry. Synovial tissue biopsies were digested using the GentleMACs system and stained for DC markers. To assess the effect of the synovial environment on DC maturation, synovial tissue explants were cultured for 24hr allowing the release of cytokines into the medium. Monocyte derived DC were cultured in the presence of this media and expression of DC maturation markers was analysed.

Results: RA patients have a significant decrease ($p < 0.05$) in CD11c mDC circulating in peripheral blood compared to HC. The expression of CD40 on pDC in RA patients is significantly increased compared to HC ($p < 0.001$). CD40 and CD83 on mDC and pDC is increased in tissue compared to that of fluid or blood. Finally MoDC cultured in the presence of explant conditioned media have increased CD80 and CD83 compared to control.

Conclusion: DC have a more mature phenotype in the synovial tissue compared to that in synovial fluid or peripheral blood. Given that there are also lower circulating levels of DC in RA patients compared to controls our data suggest that peripheral blood DC are recruited to the joint where they undergo maturation.

ABSTRACT 47 (14A155) POSTER PRESENTATION

Title of Paper: The effect of BlyS on Monocyte Subpopulation Differentiation in SLE

Author(s): Eoghan M. McCarthy¹, Joan Ní Gabhann², Siobhán Smith², Donough Howard¹, Paul G. O'Connell¹, S. Donnelly³, Caroline Jefferies² and Grainne M. Kearns¹

Department(s)/Institution(s): 1 Beaumont Hospital, 2 Royal College of Surgeons in Ireland, 3 Mater Misericordiae University Hospital

Introduction: Monocytes contribute to disease in SLE through dysregulated pro and anti-inflammatory responses. The effect of BlyS effect on monocyte subpopulation differentiation has not been reported.

Aims/Background: To investigate the effect of BlyS on monocyte subpopulations in health and SLE.

Method: Monocyte subpopulations (M1, M2a/c, M2b) were analysed by Flow Cytometry. qPCR and ELISA was utilised to investigate gene expression and serum cytokines for the subsets markers as follows: M1 CXCL10; M2a CCL17; M2b CCL1; M2c CXCL13.

Results: SLE patients ($n=25$) have significantly less anti-inflammatory M2a/c and more proinflammatory M1 monocytes than controls basally. BlyS stimulation promoted a significant increase in pro-inflammatory M1 and anti-inflammatory M2a/c

monocytes in both health and SLE. The response was augmented in SLE such that following BlyS stimulation SLE patients had significantly more M1 monocytes than controls. Interestingly BlyS stimulation also resulted in a 4 fold greater increase in M2a/c monocytes from baseline in SLE patients compared to controls. No effect was seen on the M2b population. Strikingly BlyS stimulation significantly increased the M1 subpopulation in SLE patients who were dsDNA +ve when compared to those who were -ve. qPCR and/or ELISA confirmed these findings with higher levels of the M1 associated gene CXCL10 and lower levels of the M2a and M2c-associated genes CCL 17 and CXCL13 seen basally in SLE with BlyS stimulation resulted in increases in all markers.

Conclusion: BlyS promotes a mixed monocyte phenotype in SLE which has potential pro and anti-inflammatory effects.

ABSTRACT 48 (14A157) POSTER PRESENTATION

Title of Paper: To explore the impact of fatigue on activities of daily living for people with Ankylosing Spondylitis

Author(s): Clodagh Fitzpatrick (1), Finbar O'Shea (2), Deirdre Connolly (1)

Department(s)/Institution(s): (1) Discipline of Occupational Therapy, Trinity College Dublin, (2) Department of Rheumatology, St James's Hospital Dublin

Introduction: Fatigue in Ankylosing Spondylitis (AS), has been found to impact on functioning and quality of life. To date no Irish studies have been performed.

Aims/Background: The aim was to explore experiences of fatigue and how it impacts on activity participation in an Irish cohort of patients with AS.

Method: Mixed methods design used self-report measures to assess fatigue and activity participation. All participants were invited to take part in interviews to explore personal experiences.

Results: Fifty patients meeting the modified New York AS classification criteria completed questionnaires. Significantly high fatigue levels were found in 38% of participants. Activity levels were high with a mean score of 31.86 in the Frenchay Activities Index. Lowest activity participation levels were found in Leisure/Work category. Significant differences between Multidimensional Assessment of Fatigue scores (over and under 21) were found in activity participation, disease activity, functional ability, pain (total and night) and quality of life. Interviews found that disrupted sleep due to pain causes fatigue. Concentration in work, energy and motivation to engage in activities were affected by fatigue. Strategies helpful in managing fatigue included sleeping when possible, having a sleep routine and keeping active. It was reported that health professionals do not address fatigue management and that it was often a minor topic in written information.

Conclusion: This study stresses that fatigue has a notable impact on disease activity, pain, quality of life and participation in work and leisure activities. More input is required from health professionals to assist with education on sleep hygiene and



fatigue manag

ABSTRACT 49 (14A158) POSTER PRESENTATION

Title of Paper: The impact of co-morbidities and fatigue on daily activities in people with Sjögren's syndrome

Author(s): Niamh Galavan (1), Finbar O'Shea (2), Conleth Feighery (2), and Deirdre Connolly (1)

Department(s)/Institution(s): School of Occupational Therapy, Trinity College Dublin (1), St. James's Hospital (2)

Introduction: The impact of Sjögren's syndrome on the lives of those affected is substantial.

Aims/Background: Research on the effects of this syndrome on daily activities is limited, therefore this study investigated this.

Method: A mixed-method design was used. Data were collected through self-report measures of disease activity (Profile of Fatigue and Discomfort- Sicca Symptoms Inventory (PROFAD-SSI) (1), fatigue (Fatigue Severity Scale) (2) and function (Frenchay Activity Index) (3). Semi-structured interviews explored personal experiences. Those with levels of anti-Ro and anti-La >240.00 were included in the study. Forty-six completed questionnaires were returned and eleven interviews were completed.

Results: Disease activity was significantly associated with fatigue and co-morbidity. Fatigue was also significantly associated with low activity participation, particularly leisure/work and outdoor activities. There were significant differences in activity levels and disease activity for those above 4 on the Fatigue Severity Scale. Significant differences were also found between no co-morbidity and one or more co-morbidities on domestic and outdoor activities and the fatigue domains of PROFAD-SSI. Those working were significantly more fatigued than people not working. Interviewees discussed the effect of Sjögren's Syndrome on all aspects of their lives. However a strong theme was the effect of sicca symptoms on engagement in daily activities which resulted in social withdrawal. Participants reported a lack of understanding of Sjögren's from family and health professionals.

Conclusion: Disease activity, participation in daily activities (particularly domestic and outdoor) and fatigue was significantly different for those working and those with co-morbidity. Therefore these groups may need to be prioritised by health professionals.

References:

1. Bowman, S.J., Hamburger, J., Richards, A., Barry, R.J., & Rauz, (2008). Patient-reported outcomes in primary Sjögren's syndrome: comparison of the long and short versions of the Profile of Fatigue and Discomfort—Sicca Symptoms Inventory. *Rheumatology*, 48(2).
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ABSTRACT 50 (14A162) POSTER PRESENTATION

Title of Paper: Cardiovascular Risk Management in Patients with Rheumatoid Arthritis at University Hospital Waterford

Author(s): M Elhassan, A Alshamsi, D O Gradaigh

Department(s)/Institution(s): Dept of Rheumatology, University Hospital Waterford, Waterford, Ireland

Introduction: EULAR recommends annual assessment of CV risk in RA patients. We evaluated CV risk in our RA patients to determine the potential effectiveness / unmet need for CV risk management in a regional rheumatology clinic.

Results: 102 patient records were evaluated, 59 females, mean age 62.8 yrs, mean disease duration 7.0 yrs. Recent ESR and/or CRP were normal in 80% of patients. Seven men, four women had established cardiovascular disease; five men and two women had diabetes mellitus. Forty-five patients had documented hypertension, all of whom were on medications. Lipids results within the past one year were not available in 35 patients. 17 % had TC/HDL of >5 and only two of these were on treatment. Smoking status was not documented in one third, 15 were active smokers (within the past year), 31% were ex-smokers and 22% had never smoked. Over the last year 25% of patients had had short course oral or IM steroids (GP prescription of steroid between visits not reliably recorded). Twenty-eight percent had NSAIDs (23% of men, 30% of women) and 10 % had taken COX2 inhibitors (12% of men, 8% of women). Calculating and grading by SCORE1, the group divided as shown (table)

Conclusion: CVD and CV risk factors are prevalent among RA patients and are not optimally monitored and managed, consistent with the findings in other studies². While the appropriate setting for CV risk management needs review, risk-factor screening can improve through patient education, GP correspondence and awareness during clinic visits.

References:

1. European Guidelines on cardiovascular disease prevention in clinical practice (version 2012). The Fifth Joint Task Force of the European Society of Cardiology and Other Societies. *European Heart Journal* (2012) 33, 1635–1701.
2. Could cardiovascular disease risk stratification and management in rheumatoid arthritis be enhanced? Dessein PH, Semb AG, *Ann Rheum Dis* 2013; 72(11): 1743-6

ABSTRACT 51 (14A163) POSTER PRESENTATION

Title of Paper: MicroRNA Expression is altered in SLE patient monocytes



Author(s): McCarthy EM¹, Ni Gabhann J², Smith S², O'Connell P¹, Howard D¹, Kearns G¹, Jefferies C².

Department(s)/Institution(s): 1 Rheumatology Department, Beaumont Hospital 2 Royal College of Surgeons in Ireland

Introduction: MicroRNAs are increasingly recognised as playing a role in the fine tuning of immune responses. Previously we have described dysregulated function of SLE monocytes at rest and in response to BlyS. The role of miRs in regulating immune responses in SLE monocytes and in response to BlyS is not well described.

Aims/Background: To investigate miR expression in SLE monocytes and in response to BlyS stimulation.

Method: miRNA levels in 5 SLE patient and control monocyte samples was screened by Nanostring technologies, Seattle. qRT-PCR was used to validate a selected panel of miRs from this screen as well as to investigate potential gene targets following bioinformatic analysis.

Results: In total expression of 800 miRs was assessed. Overall the screen identified 82 miRs as being significantly dysregulated in SLE patient monocytes basally compared to controls; 14 miRs were upregulated with the remainder downregulated. BlyS stimulation caused significant dysregulation of 6 miRs in healthy monocytes with SLE monocytes revealing 35 dysregulated miRs post BlyS stimulation. Following bioinformatic analysis and qRT-PCR analysis four miRs were validated as being altered. These were miR-155-5p, miR-132-3p and miR-125a-5p which were confirmed as being reduced basally in SLE monocytes whilst mir-1246 demonstrated higher levels in control monocytes following BlyS stimulation. With regard to gene targets qPCR detailed an appropriate upregulation of the Type 1 interferon regulating gene TAB2 (predicted target for miR-155-5p) and TNFRSF8 for mir-1246.

Conclusion: miRs may play a role in regulating BlyS mediated immune responses in SLE patient monocytes.

ABSTRACT 52 (14A164) POSTER PRESENTATION

Title of Paper: Remote Arthritis Monitoring: The R.A.M

Author(s): Ms. Geraldine Mannion, CNS, Dr. Richard Conway, Mr. David Clancy, Dr. John J. Carey

Department(s)/Institution(s): Department of Rheumatology, Galway University Hospitals, Galway, Ireland Netcare Wellness, Cúram House, Carlow, Ireland

Introduction: The internet has several advantages over traditional communication media. Use of internet-based technology has great potential for improving patient care, system efficiency, and saving time and money.

Aims/Background: 1) To assess the effectiveness of a novel internet platform for teaching patients self-injection with Humira®. 2) To evaluate the effectiveness of a bespoke internet platform for monitoring patients' response to treatment.

Method: The study was approved by the local IRB board and all participants gave written informed consent. Patients initiating Humira treatment for inflammatory arthritis were screened and treated per usual care, and then offered a choice of normal referral to an outreach nurse programme sponsored by Abbvie, or a bespoke internet-based teaching programme with our own nurse specialist (Ms. G.M.) using bespoke software, hardware and technical support from Netcare Wellness developed specifically for this project.

Results: 16 patients agreed to participate: 12 females and 4 males with the following diagnoses: 9 RA, 4 AS, 3 PsA. 8 patients were taught self-injection using this technology and were satisfied with their care, and technique. 14 completed the monitoring project. Compliance with monitoring was good or excellent with for ¾ of patients.

Conclusion: Use of a bespoke specialty-backed internet-based technology can be used to teach patients self-injection with biologic therapies and monitor their disease activity. This has the potential to improve their care and warrants further study.

ABSTRACT 53 (14A166) POSTER PRESENTATION

Title of Paper: A Clinical Analysis Into The Use Of Biologic Therapy In Seropositive Rheumatoid Arthritis Patients Within The Belfast Trust

Author(s): A.Elliott, N.Fawkes

Department(s)/Institution(s): Rheumatology Department, Musgrave Park Hospital, Belfast, Co Antrim, Belfast, Northern Ireland.

Introduction: Biologic therapy in Rheumatoid Arthritis (RA) has resulted in a paradigm shift in its management. Guidelines are constantly updated and important questions remain relating to the best time to initiate therapy and the appropriate step up in management if treatment fails.

Aims/Background: The aim of this analysis was to assess the biologic therapy prescribing trends and patient responses in a regional rheumatology centre, in particular, adalimumab and etanercept.

Method: We retrospectively reviewed the Electronic Care Pathway (ECP) records of 381 patients funded for biologic therapy. We included only those who were seropositive RA being commenced on therapy within the Belfast trust. We analysed the records from the commencement of the ECP in 2005 until February 2014

Results: A total of 205 patients had the appropriate data recorded to allow analysis and thus were recorded in the study. The mean age was 57, with a female to male ratio of 2.8:1. We compared the data for those prescribed either adalimumab or etanercept at any stage of their treatment and the table attached includes the results. (Statistical analysis to follow)



Questions	Humira	Enbrel
1. Total % of patients on Anti TNF > 1 year	52% 64/123	62% 58/93
2. % failed due to no response	62% 44/71	59% 36/61
3. % failed due to SE	38 % 27/71	38% 23/61
4. How many on monotherapy lasted > 1 year	45% 14/31	57% 17/30
5. How many >1 year with DMARD	52% 48/92	65% 41/63
6. % responded to 2nd anti TNF as second line	57% 25/44 for both	
7. % responded to other biologic second line	74% 17/23 for both	

Conclusion: This analysis has shown that patients responded to a second Anti-TNF therapy was prescribed, 57% of patients responded after failing the first Anti-TNF therapy. This has prompted further questions and lays out a platform for future observational studies and examination of the appropriateness of current guidelines when applied to practise.

References:

- 1) Rheumatoid arthritis: the management of rheumatoid arthritis in adults. National Institute of Health and Clinical Excellence. <http://www.nice.org.uk/Guidance/CG79> (Last accessed June 2014).
- 2) British Society for Rheumatology. Guidelines for prescribing TNF-a blockers in adults with rheumatoid arthritis. <http://www.rheumatology.org.uk/guidelines/clinicalguidelines> (Last accessed June 2014).
- 3) Deighton C, Hyrich K, Ding T, Ledingham J, Lunt M, Luqmani R et al (2010) BSR and BHPR rheumatoid arthritis guidelines on eligibility criteria for the first biological therapy. *Rheumatology* (Oxford) 49:1197–1199

ABSTRACT 54 (14A168) POSTER PRESENTATION

Title of Paper: Scleroderma in Ireland: Reported Experience of Consultant Rheumatologists

Author(s): Murray M, Orr C, Gallagher P, Baker AM, Veale DJ

Department(s)/Institution(s): Department of Rheumatology, Dublin Academic Medical Centre, Saint Vincent's University Hospital

Introduction: The value of registry data in furthering our knowledge of rare and heterogenous disease is well established.1 Such a registry is specifically suited to an island nation studying a rare disease that has a wide spectrum of presentations and severity.

Aims/Background: 1. To assess the attitude of consultant rheumatologists in Ireland concerning the development of a national scleroderma registry. 2. To assess the burden of the disease on the services of consultant rheumatologists, and to determine the severity of disease they care for.

Method: Consultant rheumatologists in Ireland were invited by email to participate anonymously in an online survey comprising 11 questions. Participants were not compelled to answer every question.

Results: 41 consultant rheumatologists participated. 94.6% (35/37) would be interested in their scleroderma patients being included on a national registry. However, only 53.7% (22/41) indicated they would like to register patients themselves; 66.7% (12/18) of those not willing to register patients themselves preferring Raynaud's and Scleroderma Ireland to do this. Over the last 6 months, 86.8% (33/38) reported seeing 6 new cases of scleroderma. 61.5% (24/39) of rheumatologists reported caring for less than 20 patients with established disease; and 35.9% (14/39) reported caring for less than 10 patients. Physicians reported most patients as having mild disease phenotypes as measured by those requiring prostacyclin infusion- (85.7% of physicians answering 10-20%), digital ulceration (67.6% of physicians answering 10-20%), and pulmonary artery hypertension (90.32% of physicians answering between 10-20%).

Conclusion: A national registry would be beneficial to the further study of this disease, and would likely encourage collaboration between rheumatologists as they share their experience.

References:

1. Jung, M., et al. Myopathy is a poor prognostic feature in systemic sclerosis: results from the Canadian Scleroderma Research Group (CSRG) cohort. *Scandinavian journal of rheumatology* 43.3 (2014): 217-220.

ABSTRACT 55 (14A169) POSTER PRESENTATION

Title of Paper: Assessment of hepatitis B and C virus screening rates in patients with rheumatic conditions requiring immunosuppressive therapy

Author(s): Annmarie Curran, Miriam O'Sullivan, Geraldine Mannion, John Carey, Catherine Sullivan

Department(s)/Institution(s): Rheumatology, Galway University Hospitals

Introduction: Screening for hepatitis B and C viruses in rheumatology patients prior to receiving immunosuppressive therapy is advisable. Reactivation of both viruses has been reported in patients receiving these treatments.

Aims/Background: The aim was to assess current practice with regard the hepatitis screening in the Galway University Hospitals rheumatology department and to implement necessary changes depending on results.

Method: This retrospective study of clinic patients took place over a 2 week period in April 2014. A chart review identified patients who were currently receiving either traditional or biologic DMARDs or both. The online laboratory record system was reviewed to identify what percentage of these patients had a prior hepatitis screening blood test.

Results: Medical records of 222 rheumatology patients attending the clinic were examined. 67% (149/222) were receiving some form of DMARD therapy. 60% (135/222) were on a synthetic DMARD and 22% (49/222) were on a biologic agent. Of the 149



patients on immunosuppressive therapy, 11% (17/149) had a record of hepatitis screening pre-treatment. Nine of the 17 were patients on a biologic agent. All 17 patients had a negative screening test for both hepatitis B and C virus.

Conclusion: Current levels of screening for viral hepatitis in patients requiring immunosuppressive therapy is low. Educational sessions to improve clinician awareness of the importance of screening are being conducted. Hepatitis screening will be included in the departmental protocol for assessment of patients prior to commencing DMARD therapy. A re-audit will be conducted to establish if the above measures have been successful in improving screening rates.

ABSTRACT 56 (14A172) POSTER PRESENTATION

Title of Paper: Preliminary Analysis of ASRI reveals interesting differences between Men and Women with Ankylosing Spondylitis

Author(s): F O'Shea, P Gallagher, R Mullan, K O'Rourke, C Sheehy, C Sullivan, C Silke, F Stafford, O FitzGerald.

Department(s)/Institution(s): St James's Hospital, AMANCH, Midlands Regional Hospital Tullamore, University Hospital Waterford, Galway University Hospital, Sligo General Hospital, Blackrock Clinic, St Vincent's University Hospital

Introduction: In 2013, the first patients were entered in to ASRI – the Ankylosing Spondylitis Registry of Ireland, by a number of different rheumatology centres across the country.

Aims/Background: The primary objectives of ASRI are to provide basic descriptive epidemiological data on the AS population in Ireland, and to establish a registry for potential future studies of genetics, aetiology and therapeutics.

Method: A standardised clinical assessment of patients was performed and entered in a web-based database. Specific measures of disease activity (BASDAI), function (BASFI and HAQ), and quality of life (ASQoL) has been obtained. Samples for serum and DNA will be stored for future use to correlate with clinical data.

Results: As of June 2014, 146 patients have been entered in the database (115 males, 31 females). The average age of the cohort is 47.8 years. The average disease duration is 21.7 years. The average delay in diagnosis is 8.2 years. As regards extra-spinal manifestations, 15.8% have Psoriasis, 40.4% have uveitis, 13% have Crohns/IBD. In general Females had higher BASDAI scores than Males (4.25 versus 3.57), higher BASFI scores (3.78 versus 3.44) and worse ASQoL scores (6.39 versus 5.57).

Conclusion: Preliminary analysis has already started to provide us with very interesting data on AS patients in Ireland. This is a unique opportunity for the Irish Rheumatology community to generate a valuable resource that will ultimately improve the delivery of care to Irish AS patients. We look forward recruiting more patients from as many rheumatology centres as possible.

ABSTRACT 57 (14A174) POSTER PRESENTATION

Title of Paper: Methotrexate Tolerance Among Patients Attending a Regional Rheumatology Centre

Author(s): Fitzgerald G & Martin U, Sheehy C

Department(s)/Institution(s): Department of Rheumatology, University Hospital Waterford, Waterford

Introduction: Methotrexate (MTX) is the most commonly used disease-modifying antirheumatic drug (DMARD).¹ Serious adverse effects are rare, but as many as 66% of patients have unwanted side-effects.^{2,3}

Aims/Background: (1) Determine MTX tolerance and perception of efficacy. (2) Determine side-effect frequency

Method: 50 patients (78% rheumatoid arthritis, 16% psoriatic arthritis, 14% other) prescribed MTX and attending a regional rheumatology clinic were surveyed, as part of a multi-centre study in UK and Ireland. A questionnaire containing 100mm visual analogue scales (VAS) examined MTX side-effect frequency, side-effect severity and perceived efficacy of MTX.

Results: The mean MTX dosage was 15.2 milligrams weekly, with 90% (n=45) using tablet form. Mean treatment duration was 4.7 years. Average perceived efficacy was 69mm (VAS). The total percentage of any side effects was 72% (range among all surveyed centres: 57-86%). Gastrointestinal intolerance (GI) and fatigue were the most common and severe side-effects (see Table 1). Seventy-four percent (n=37) report full MTX compliance in the last 12 months. Seventy percent reported no or mild desire to change MTX.

Conclusion: The side-effect frequency was similar to other reported studies. Most patients viewed MTX as moderately to very effective with little or no desire to change treatment suggesting that patients are willing to accept side-effects for efficacy. Asking and documenting MTX tolerance should be a routine part of all patient assessments.

References:

1. Singh, J. A., Furst, D. E., Bharat, A., Curtis, J. R., Kavanaugh, A. F., Kremer, et al. 2012 Update of the 2008 American College of Rheumatology recommendations for the use of disease-modifying antirheumatic drugs and biologic agents in the treatment of rheumatoid arthritis. *Arthritis Care Res* 2012, 64: 625–639.
2. Verstappen SM, Bakker MF, Heurkens AH, van der Veen MJ, Kruize AA, Geurts MA, et al. Rheumatoid Arthritis Cohort Study Group: Adverse events and factors associated with toxicity in patients with early rheumatoid arthritis treated with methotrexate tight control therapy: the CAMERA study. *Ann Rheum Dis* 2010, 69:1044-1048.
3. Jacobs JW, Bakker MF, Bijlsma JW: Low-dose prednisone inclusion in a methotrexate-based, tight control strategy for early rheumatoid arthritis. *Ann Intern Med* 2012, 156(5):329-39.

ABSTRACT 58 (14A176) POSTER PRESENTATION

Title of Paper: JAK 2 V617F mutation and Behcet's Syndrome: The Alexandria Experience-a case series of six patients with Behcet's syndrome and thrombotic events in Alexandria, Egypt

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Author(s): FA Ashraf (1), M Tayel (2), DE Kaffash (3), K Mohd Idris (2), MF Abu Hassan (2), A Fraser (1)

Department(s)/Institution(s): (1)Rheumatology Dept, University Hospital Limerick, Ireland (2)Rheumatology and Internal Medicine Dept, Alexandria University Hospital, Egypt (3)Pathology Dept, Alexandria University Hospital, Egypt

Introduction: Acquired somatic mutation in the JAK-2 gene results in production and constitutive activation of JAK-STAT (signal transducer and activator of transcription signal transduction) pathway that is associated with many hematological and autoimmune conditions (1-4). While JAK-2 V617F mutation allows a reliable and early detection of polycythemia vera and has been shown to increase thrombosis in myeloproliferative disorders (MPD) (5-8) which could help identify MPD patients that are high-risk of developing this complication, the association between the mutation and risk of thrombosis among patients from certain other conditions is still questionable and inconsistent (9-14).

Aims/Background: The aim of the study was to investigate the molecular association of JAK 2 V617F polymorphism among clinical Behcet's syndrome (BS) patients from Alexandria, Egypt presented with thrombotic events.

Method: Behcet's patients presented to our institute between May 2013 and February 2014 with at least one thrombotic event were included in this study. Blood samples were collected from all of the patients and their JAK-2 V617F gene status were analyzed

Results: To our knowledge, this small study is the first to evaluate the relationship between JAK-2 mutation and BS with thrombotic events among Egyptian patients.

Conclusion: Our results suggest that a JAK 2 V617F genetic polymorphism is not associated with BS patients with thrombotic events in Alexandria, Egypt population.

References:

1. O'Shea, John J. et al. JAK and STAT Signaling Molecules in Immunoregulation and Immune-Mediated Disease. *Immunity*, Volume 36, Issue 4, 542 - 550

ABSTRACT 59 (14A178) POSTER PRESENTATION

Title of Paper: Screening for Pulmonary Hypertension in Systemic Sclerosis Patients in SJH

Author(s): Dr. Conor Magee, Dr. John Stack, Dr. Michelle Doran

Department(s)/Institution(s): Department of Rheumatology, SJH

Introduction: The purpose of this audit was to check whether patients with systemic sclerosis (SSc) attending St James' Hospital (SJH) were being investigated for the development of pulmonary hypertension in accordance with best practice guidelines.

Aims/Background: Pulmonary Arterial Hypertension (PAH) is

one of the most serious complications and a leading cause of death in patients with SSc. Detection of the development of PAH facilitates earlier treatment and better outcomes.

Method: We initially investigated whether patients with SSc attending SJH within the past year had had Pulmonary Function Testing (PFTs) and Cardiac Echocardiograms performed within the past 2 years. We then used the DETECT criteria to help prioritise patients who would be higher risk for PAH and required an echocardiogram.

Results: Of patients with SSc (n= 15) who had been seen in the outpatient clinic in the past year, a total of 11 (73%) had had PFTs within the previous 2 years and 6 (40%) had had an echocardiogram within that timeframe. When applying the DETECT criteria, We found that only 3 (20%) of patients had at least 5 of the 6 DETECT criteria recorded which are used to assess whether patients should proceed to echocardiography for further assessment of PAH. However, even with the smaller number of criteria that were available, 11 patients (73%) exceeded the threshold score for proceeding to echocardiography.

Conclusion: The majority of patients with systemic sclerosis had not been adequately screened for PAH within the past 2 years. Lack of availability of echocardiography was the main contributor to this. The majority of patients evaluated using the DETECT criteria required echocardiography for further evaluation of PAH.

References:

Evidence-based detection of pulmonary arterial hypertension in systemic sclerosis: the DETECT study. Coghlan JG, Denton CP, Grunig E, et al. *Ann Rheum Dis* doi: 10.1136/annrheumdis-2013-203301

ABSTRACT 60 (14A179) POSTER PRESENTATION

Title of Paper: An Audit Of Cardiovascular Risk Assessment In Systemic Lupus Erythematosus (SLE), Sjogren's Syndrome (SS) And Myositis Patients At The North Western Rheumatology Unit

Author(s): O. Banks, B. McGowan, B. Whelan, C. Silke

Department(s)/Institution(s): Northwestern Rheumatology Unit, Our Lady's hospital, Manorhamilton, Co. Leitrim. NUI, Galway.

Introduction: Cardiovascular disease is a well-recognized complication of Systemic Lupus Erythematosus (Schoenfeld et al., 2013). Studies have shown that patients with primary Sjogren's Syndrome and Myositis also have a greater cardiovascular risk (Linos et al., 2013)(Perez-De-Lis et al., 2010). Systematic screening for and treatment of cardiovascular risk factors may be beneficial in reducing cardiovascular mortality (Linos et al., 2013).

Aims/Background: To identify if patients with a diagnosis of Systemic Lupus Erythematosus (SLE), Sjogren's Syndrome(SS) and Myositis are routinely assessed during out-patient appointments for the presence of cardiovascular risk factors.

Method: All patients diagnosed as having SLE, SS and Myositis were identified by Rheumatology consultants. 65 patients were identified, 45 of these patients had been reviewed in clinic within



the previous 12 months. A data collection tool was developed using Microsoft Excel, with eleven criteria identified using EULAR evidence based recommendations for cardiovascular risk factors in patients with inflammatory arthritis (Peters et al., 2010) ; smoking status, physical activity, weight, Body Mass Index(BMI), blood pressure, oral contraceptive or hormone replacement therapy, family history, blood glucose and cholesterol levels. Data was obtained retrospectively from solely written patient health records over previous 12 months. Data was analysed using Microsoft Excel.

Results: Good practice was found with 91.1% of patients having their weight and 88.9% of patients having their blood pressure documented annually. However, no patient had a cardiovascular score documented. Only 11.1% of patients had their BMI and physical activity recorded.

Conclusion: A total cardiovascular risk assessment document should be included in each patients chart incorporating these risk factors to be completed annually in all these patients.

References:

1. Schoenfeld et al. (2013) The epidemiology of atherosclerotic cardiovascular disease among patients with SLE: A systematic review.
2. Linos et al. (2013) Atherosclerotic cardiovascular disease and dermatomyositis; an analysis of the Nationwide Inpatient Sample Survey.
3. Perez-De-Lis et al. (2010) Cardiovascular risk factors in primary Sjögren's syndrome: a case-control study in 624 patients.
4. Peters et al. (2010) EULAR evidence-based recommendations for cardiovascular risk management in patients with rheumatoid arthritis and other forms of inflammatory arthritis

ABSTRACT 61 (14A180) POSTER PRESENTATION

Title of Paper: The Histone Methyltransferase EZH2 Regulates Proangiogenic Gene Expression in Rheumatoid Arthritis Synovial Fibroblasts

Author(s): M Trenkmann¹, S Gay², DJ Veale¹, U Fearon¹

Department(s)/Institution(s): 1 Department of Rheumatology, Translational Research Group, Dublin Academic Medical Centre and St. Vincent's University Hospital, Dublin, Ireland 2 Center of Experimental Rheumatology, University Hosp

Introduction: Overexpression of the epigenetic regulator Enhancer of Zeste 2 (EZH2) is associated with tumour invasion, malignancy and angiogenesis. EZH2 is upregulated in rheumatoid arthritis (RA) synovial fibroblasts (SF) whose activated phenotype causes them to invade and destroy articular cartilage.

Aims/Background: To study the role of EZH2 in the interplay of RASF and endothelial cells in RA.

Method: Synovial tissue (ST) biopsies were stimulated with TNF α (10ng/ml) (n=3). Human microvascular endothelial cells (HMVEC) were stimulated with proinflammatory stimuli (n=3). RASF (n=4) were transfected with siRNA targeting EZH2 and analyzed by quantitative real-time PCR and ELISA.

Results: EZH2 was induced by TNF α in RAST (1.8 \pm 0.3-fold). Since RAST explant cultures maintain the overall synovial architecture ex vivo, these data indicate that chronic inflammation within the RA synovium upregulates EZH2 expression in vivo. Concomitantly, secretion of proinflammatory and proangiogenic mediators, namely IL6 (from 77 \pm 88 ng/ml to 197 \pm 163 ng/ml) and IL8 (from 105 \pm 53 ng/ml to 220 \pm 30 ng/ml), was increased. Silencing of EZH2 in RASF reduced the expression and secretion of IL6 and VEGF both under basal (by 39 \pm 17% and 29 \pm 8%) and TNF α -stimulated (by 30 \pm 18% and 38 \pm 6%) conditions. In HMVEC, no significant changes in EZH2 expression were observed following proinflammatory stimuli (TNF α , IL-1b, IL-17), TLR stimulation (TLR2, 3 and 4) or treatment with synovial fluid, ruling out a direct effect of inflammation-induced EZH2 on endothelial cell behaviour.

Conclusion: Our ex vivo and in vitro data imply that induction of EZH2 by TNF α in RAST and RASF drives proinflammatory and proangiogenic mechanisms in RASF.

ABSTRACT 62 (14A182) POSTER PRESENTATION

Title of Paper: The Prevalence of Low Physical Activity Levels and Increased BMI in Patients with Knee Osteoarthritis"

Author(s): Rachel Burke, Aisling Brennan

Department(s)/Institution(s): Physiotherapy Department, Tallaght Hospital

Introduction: The NICE (2014) and American College of Rheumatology (ACR) (2012) guidelines strongly recommend general aerobic exercise and weight loss, if overweight, for the management of osteoarthritis (OA). People with knee OA who are overweight are at high risk of experiencing worsening symptoms and structural progression.

Aims/Background: To investigate the aerobic physical activity levels and body mass index (BMI) of patients referred to physiotherapy for the management of knee OA.

Method: All participants were referred to physiotherapy over a 2-month period for management of their knee OA. Self-reported weekly levels of moderate or vigorous physical activity were compared to WHO recommendations. Height and weight were recorded for all patients. BMI was calculated and patients were classified into the following categories; underweight, healthy weight, overweight, obese class I, obese class II, obese class III (WHO BMI classification system).

Results: Fourteen patients (9 male, 5 female) with a mean age of 61 (range 46-71) years participated in the study. Thirty percent (n=4) reported meeting the recommended guidelines for aerobic physical activity. The remaining participants (n=9) reported doing none, or <150 minutes per week of moderate-, or <75 minutes of vigorous-intensity, physical activity. In relation to their BMI, patients were categorised as follows; 29% (n=4) were overweight, 36% (n=5) were obese class I, 21% (n=3) were obese class II, and 14% (n=2) were obese class III.

Conclusion: This study has identified that the majority of patients with knee OA have below recommended physical activity levels and increased BMI. There is a need for strategies to



address these factors in this patient population.

References:

1. <http://guidance.nice.org.uk/CG177/NICEGuidance/pdf/English>.
2. WHO Global Strategy Diet and Physical Activity: http://www.who.int/dietphysicalactivity/factsheet_recommendations/en/.
3. Felson DT. Weight and osteoarthritis. *Am J Clin Nutr* 1996; 63 (suppl):430S-432S.
4. Felson DT, Goggins J, Niu J, Zhang Y, Hunter DJ. The effect of body weight on progression of knee osteoarthritis is dependent on alignment. *Arthritis Rheum* 2004;50:3904-9.
5. <https://www.healthpromotion.ie/hp-files/docs/HPM00782.pdf>

ABSTRACT 63 (14A183) POSTER PRESENTATION

Title of Paper: Altered miRNA expression in Giant Cell Arteritis

Author(s): O'Neill L¹, Connolly M¹, Wade S¹, McCormick J¹, McCarthy GM², Veale DJ¹, Murphy C³, Fearon U¹ and Molloy E¹.

Department(s)/Institution(s): 1 Dublin Academic Medical Centre, Department of Rheumatology, St. Vincent's University Hospital, University College Dublin, 2 Mater Misericordiae University Hospital, 3 Royal Victoria Eye and Ear Hospital

Introduction: GCA is a primary systemic vasculitis associated with granulomatous vessel inflammation. MicroRNAs(miRNAs) are non-coding RNAs with a proven role in immune disease. To date miRNA have not been examined in GCA.

Aims/Background: To examine expression/regulation of miRNA in GCA.

Method: PBMC from GCA positive(n=10), negative(n=2) and controls(n=4) were collected. Six miRNAs were selected on the basis of their role in inflammation (miR-155, miR-146a, miR-125a-3p/-5p, miR-323-3p and miR-21). MicroRNA was isolated from GCA positive and negative (n=21) temporal artery biopsies(TAB) and expression quantified by PCR. To examine miRNA regulatory factors, GCA positive PBMC were cultured with TLR ligands and pro-inflammatory cytokines. In parallel IL-6, IL-8 and IL-10 were quantified in cultured supernatants.

Results: MiR-155 levels were increased in GCA positive PBMC compared to negative and healthy control cells(p<0.05). No difference in expression of miR-125a-5p or miR-146a was observed. MiR-323-3p/miR-125a-3p were undetectable. TLR2/IL-1B significantly induced miR-155 and miR-146(p<0.05), while TNF- α induced miR-146a expression(p<0.05). TLR2 and IL-1 β induced IL-6, IL-8 and IL-10 protein expression. MiR-21 was significantly higher in positive compared to negative TABs. MiR-155 was higher in GCA positive TABs. Conversely, miR-146a was significantly lower in disease positive patients. While miR-125a-3p/5p and -323 were detectable in all samples analysed, no differences were observed between groups.

Conclusion: MicroRNA are aberrantly expressed in GCA, suggesting a pathogenic role and novel therapeutic target.

ABSTRACT 64 (14A185) POSTER PRESENTATION

Title of Paper: MCC950 is a novel inhibitor of the NLRP3 inflammasome in Rheumatoid Arthritis

Author(s): Trudy McGarry (1), Mary Connolly (1), Rebecca Coll (2), Avril Robertson (3), Matthew Cooper (3), Luke O'Neill (2), Douglas Veale (1) and Ursula Fearon (1)

Department(s)/Institution(s): (1) Translational Rheumatology Research Group, Dublin Academic Medical Center, University College Dublin (2) Immunology Group, Trinity Biomedical Sciences Institute (3) University of Queensland

Introduction: The nlrp3 inflammasome is a multi-protein complex activated in response to environmental pathogens, resulting in caspase-1-dependant cleavage of pro-IL1B/IL18 to their active form.

Aims/Background: In this study we investigate the role of MCC950, a novel inhibitory compound, on the NLRP3 inflammasome in the RA joint

Method: RA and osteoarthritis (OA) synovial tissue biopsies were cultured in the presence or absence of MCC950(100nM). Expression of inflammasome component NLRP3 in addition to pro/active forms of IL1B/IL18 were assessed by RT-PCR and ELISA. Pro-inflammatory cytokine secretion (IL6/IL8/TNF α) was also determined by ELISA.

Results: The NLRP3 inflammasome is active in the RA joint, with significantly higher secretion of active IL1B/IL18 in RA compared to OA explant biopsies. Incubation of RA synovial biopsies with MCC950, a model maintaining cell-cell contact and closely reflecting the in vivo environment, resulted in a decrease of pro-IL1B/IL18, which was mirrored by a decrease in active IL1b/IL18 and NLRP3 expression. Spontaneous release of IL6, IL8 and TNF α was also reduced following MCC950 treatment.

Conclusion: In this study we show, for the first time, that MCC950, a novel inhibitory compound thought to be active in the NLRP3 pathway, inhibits inflammasome activity, subsequently reducing pro-inflammatory pathways in RA.

IRHPS ABSTRACT 1

Title of paper: An investigation of an exercise class versus individual exercise sessions in the management of rotator cuff impingement syndrome



Case Posters

Abstract No	Submitted by	Title of Paper
114	Dr Aamir Saeed	Suitability of Nurse-Led telephone consultation with inflammatory arthritis patients in remission?
118	Dr Aamir Saeed	CASE REPORT "Recognition and treatment of hard to diagnose sarcoidosis"
132	Dr Maria Wray	Nailfold Capillary Microscopy In The Assessment Of Raynauds Phenomenon
133	Dr Maria Wray	A Curious Case Of Hiccoughs - Unusual Presentation Of Granulomatosis With Polyangiitis
134	Dr Aamir Saeed	A case of respiratory Sepsis, Acute Cardiomyopathy and Dysphagia
135	Dr Geoff Watson	What Lies Beneath: Migratory Polyarthritis As a Feature of Occult Malignancy
142	Dr Shakeel Anjum	A Case of Granulomatosis Polyangiitis(GPA)/Wegener's Granulomatosis Presenting with Pericardial Effusion
148	Dr Gillian Fitzgerald	Dexamphetamine and It's Association With Raynaud's Syndrome in Adults
149	Dr Jonathan McKnight	Case Report: Adalimumab Induced Myocarditis in a Patient with Seronegative Rheumatoid Arthritis
161	Dr Omer Hussein	Interstitial Lung Disease Associated With Amyopathic Dermatomyositis In A Young Patient
165	Dr Coman Hennelly	Stroke as the presenting feature of Stroke as the presenting feature of Giant Cell Arteritis. A Case Report
170	Dr John F. McCarthy	An Unusual Case of APLS
175	Dr M A Muntaz	First Case Anti TNF therapy causing multisystem flare up in a known case of sarcoidosis

Author(s): N Walsh, Dr. M Phelan

Department(s)/Institution(s): Rheumatology department, South Infirmary Victoria University Hospital, Old Blackrock Road, Cork.

Aim/Introduction: Exercise has been shown to be beneficial in the management of rotator cuff impingement syndrome (Holmgren et al 2012, Kuhn et al 2009). However, there is little evidence to support the use of exercise classes in the management of this condition. The aim of this study was to assess if there was a difference between group and individual instruction of an exercise programme.

Method: 69 consecutive patients (mean age 56.3, range 30-80, 62.7% female), referred for physiotherapy management of rotator cuff impingement syndrome, were assessed prior to inclusion. Constant Murley score and Quick DASH outcomes were performed. Subject patients received instruction in groups of 4-6. Control patients received individual instruction. All patients did exercises at home and measures were reassessed at 12 weeks.

Results: Baseline characteristics were similar in both groups. 46 patients were reassessed, giving a 33% drop out rate. The mean change in Constant Murley score for the classes was 21.04 and for individuals 14.43. The mean change in quick Dash was 22.97 for classes and 14.83 for individuals. Although the outcomes improved significantly in both groups there was no statistical difference between those who had individual instruction and those who had group instruction (students t test).

Conclusion: An exercise programme appears to have equivalent

outcomes when performed in class or individual sessions. The implications for time management and efficient use of resources make the class model an attractive and effective method for the management of rotator cuff impingement syndrome.

References:

Holmgren T et al. Effect of a specific exercise strategy on need for surgery in patients with subacromial impingement syndrome: randomised controlled study *BMJ* (2012);344:e787doi:10.1136/bmj.e787
Kuhn J Exercise in the treatment of rotator cuff impingement: A systemic review and a synthesized evidence-based rehabilitation protocol *J Shoulder Elbow Surg* (2009) 18, 138-160

IRHPS ABSTRACT 2

Title of paper: An evaluation of a new management pathway for carpometacarpal osteoarthritis (CMC OA) in Tallaght Hospital-A pilot study.

Department(s)/Institution(s): Department of Rheumatology, Physiotherapy and Occupational Therapy Tallaght Hospital, Tallaght, D24.

Author(s): S.O'Driscoll, S. Sommerville, Professor D. Kane, Dr R. Mullan

Aim: To evaluate changes in disability scores in patients referred to a new CMC OA pathway in Tallaght Hospital.

Introduction: Prior to October 2013, no pathway existed for these patients. Historically, patients with CMC OA were referred to both physiotherapy (PT) and occupational therapy (OT).



Patients were treated several months apart and given conflicting advice on management of their condition. At present there are no guidelines available in the literature.

Method: In September 2013 the Rheumatology OT and PT in Tallaght Hospital formulated a new pilot pathway for management of CMC OA based on available evidence. Patients were treated initially by OT re splinting and advice. DASH scores were taken prior to treatment. Patients were transferred to physiotherapy when they had a pain free index finger to thumb pinch test. All patients referred to the pathway were invited to attend an education class on management of CMC OA. PT reviewed these patients within 3 weeks to begin their exercise programme, based on the article by O'Brien and Giveans (2013). On completion of the exercise programme a final DASH score was taken.

Results: From Oct 2013 to June 2014, 20 patients were referred to this pathway with 6 patients completing it. Eighteen patients were female (80%). Average initial DASH scores were 45.24. This improved to an average score of 26.6 on discharge.

Conclusion: This pilot pathway has shown clinically significant changes in disability for patients with CMC OA. The results indicate that it is a useful way to manage these patients. The pilot study will continue to run until October 2014 to aid further evaluation of the pathway.

References:

O'Brien, V.H., Giveans, M.R. (2013) Effects of a dynamic stability approach in conservative intervention of the carpometacarpal joint of the thumb: A retrospective study. *Journal of Hand Therapy*. 26(1) pg 44-52.

IRHPS ABSTRACT 3

Title of paper: Internet access and utilisation of Adolescents attending a National Centre for Paediatric Rheumatology.

Author(s): Derek Deely, Dr. Orla Killeen, Dr. Emma Jane MacDermott

Department(s)/Institution(s): Our Lady's Children's Hospital, Crumlin, Dublin 12

Introduction: With emerging interactive and communication technologies now available, the internet has become one of the top health information resources for adolescents and young people.

Method: 25 adolescent patients completed a questionnaire assessing the following:

- 1. Access and utilisation of the internet
- 2. Utilisation of the internet to access health related information.

Results: From the 25 respondents 52% were female, 48% male. The mean age was 14.5 years.

1. Access & utilisation of the internet

100% stated they have access to the internet on a daily basis with 85% using the internet 7 days per week. The reported time spent online ranged from 1 to 9 hours per day, mean: 2.9 hours. Respondents had numerous ways to access the internet (Table 1). 88% of participants had one or more profiles on social networking sites including facebook (100%) and Twitter (92%).

2. Utilisation of the internet to access health related information.

65% stated they use the internet to look up health information. Of these, 85% researched their own medical condition/diagnosis followed by medications (35%), pain/coping with pain (21%), other medical conditions (21%), alcohol and medication (14%) and sexual health (7%).

When asked to list recent search items used to look up health information the following were listed: pain, explaining arthritis to others, drinking alcohol on methotrexate, hypermobility syndrome, lupus, methotrexate, medications and pregnancy, and TNF medications.

Conclusion: Health professionals must know how to guide and advise adolescents in need of health related information to material that is both reputable and of a high standard while being age appropriate and appealing.

Table 1

Mobile phone	76%
Personal laptop	68%
Tablet	60%
Game Console	40%
Home PC	76%
School Computer	36%

Title of paper: The impact of a Paediatric and Activity Management Education (FAME) programme for individuals with systemic lupus erythematosus (SLE)

Author(s): Ruth O'Riordan (OT), Deirdre Connolly (School of OT, TCD)

Department(s)/Institution(s): Occupational Therapy St. James' Hospital, Dublin 8, School of Occupational Therapy, TCD.

Aim: To assess the impact of a FAME programme on individuals with SLE

Method: The sample for this study was n=21. A mixed methods design was used comprising of a quasi-experimental design for the quantitative part of the study. Quantitative data was collected using standardised outcome measures administered immediately before the intervention, immediately post, and 8 weeks post intervention. Qualitative data was collected through focus groups and individual interviews. Non-parametric tests were conducted on the quantitative data. Thematic analysis was carried out on the qualitative data.



Results: A significant reduction in depression ($p=0.050$) was seen. Significant improvements were seen in subscales of the Quality of Life questionnaire and Health Education Impact Questionnaire. No significant differences were seen in other outcomes however, improvements were seen in fatigue severity and self-efficacy. Greater benefits were observed for participants who attended more sessions as well as the largest FAME programme, which consisted of 12 participants. Qualitative data analysis revealed that participants valued the group based programme as it provided them with the opportunity to meet others with SLE and share experiences. The FAME programme facilitated peer learning, modelling, social interaction and support.

Conclusion: The findings provide support that the programme impacts positively on mood. This research is a promising evaluation of the development of an occupational therapy led fatigue and activity management education programme for people with SLE. This research may guide health professionals in adapting future programmes. A large scale study using control groups is required to further determine the findings.

IRHPS ABSTRACT 5

Title of paper: Use of a Pedometer to monitor Physical Activity levels in patients attending a Chronic Pain Rehabilitation Group Programme: A pilot study.

Author(s): Catherine Cullinane, Senior Physiotherapist. Dr. Leanne Bell, Dr. Claire Sheehy.

Department(s)/Institution(s): Rheumatology Department, University Hospital Waterford.

Introduction: Evidence recommends that patients with chronic pain should be physically active; however this population has been shown to have lower physical activity levels.¹ In order to effectively monitor physical activity levels appropriate measurement tools are required.

Pedometers provide a validated objective method of measuring ambulatory physical activity (in healthy adults 7000-13000 steps/day) although there is limited data on daily step count range in chronic pain populations.² The aim of this study was to monitor physical activity levels in patients undergoing a pain rehabilitation programme.

Method: Daily step count was recorded over a 4 week period using Omron pedometers. Patients were asked to wear pedometers continuously during this time.

Results: 15 took part, were mostly female (12) and average age was 48.6 years. On 20 occasions, pedometer data registered zero, signifying non compliance on that day. Zero entries were deleted from the data to eliminate bias.

Table 1. Step Count Results.

	Week 1	Week 2	Week 3	Week 4
N (number of step count entries analysed)	94	94	94	94
Median	6742	7102	8014	7614
Mean	6584	7514	7951	7867
Min	897	123	1993	1912
Max	14433	14443	14443	15733
Non-compliance	8	5	4	3

Conclusion: Pedometers provide an effective method of measuring physical activity in chronic pain patients, however a limitation of the study is inconsistent compliance with their usage.

Physical activity improved by a statistically significant amount from week 1 to week 4. Future developments involve larger numbers, longer term follow up and possibility of use as an objective outcome measure of physical activity before and after the pain rehabilitation group programme.

References:

1. Perruchoud C et al, 2014, *Assessment of Physical Activity of Patients with Chronic Pain*. International Neuromodulation Society, **17**, pp 43-47
2. Tudor-Locke et al. 2011. *How many steps/day are enough? For Older adults and Special Populations*. International Journal of Behavioural Nutrition and Physical Activity. **8**:80

IRHPS ABSTRACT 6

Title of paper: Working successfully with Arthritis: A pilot study of an Occupational Therapy Led Vocational Rehabilitation Programme for People with Inflammatory Arthritis

Author(s): Oriol Corcoran (MSc. Clinical Therapies; BSc. Occupational Therapy); Eimear Lyons (MSc. Clinical Therapies; BSc. Occupational Therapy); Maire Caulfield (BSc. Occupational Therapy)

Department(s)/Institution(s): Dept of Occupational Therapy & Rheumatology at University Hospital Waterford (UHW); Dept. of Clinical Therapies, University of Limerick

Aim/Introduction: Work disability is pervasive among those with inflammatory arthritis (IA). This causes costs from human, societal and economic perspectives¹. Work disability can develop rapidly for those with IA, therefore early intervention is integral to outcome. Vocational Rehabilitation (VR) has been shown to assist work retention for this population⁴, however VR programmes are sparse³. The study design of 'Working Successfully with Arthritis', an OT led VR programme aims to reduce work disability among people with IA.

Method: 64 workers attending IA clinic completed the work instability scale (WIS). 23/ 64 scales were returned; 11/23 demonstrated a moderate level of work instability on the WIS². 10/11 were invited and attended 4 evening group education sessions led by an OT in a community setting. 1/11 failed to attend. Data collection was by health and work related measures (MDHAQ, AIMS 2 - SF, ASES - SV, Euroqol 5D - 5L, Work Productivity and Impact questionnaire, Brief Illness Perception



Questionnaire, Time Loss, Work Ability Score and patient satisfaction questionnaire) which were administered pre and post intervention.

Results: Demographics outlined in Table 1. Final analysis is ongoing but preliminary findings show positive changes in participants' self-efficacy, work-ability, symptom scores, physical functioning and psychological wellbeing. Patient satisfaction feedback was very good.

Table 1:

Gender	Age Range	Diagnosis	Disease Duration	Occupation	Hours worked per week.
7 M: 3 F	Mean: 42.9 yrs SD: 11.01 Range: 28-59	AS: 4 PSA: 1 RA: 5	Mean: 5.8 yrs SD: 5.67 Range: 1 yrs – 18 yrs	2 electricians 1 mechanic 1 block layer 2 teachers 1 cleaner 1 shop assistant/ book maker 1 masseuse 1 engineer	Mean: 29.6 hrs SD: 17.4 Range: 8 – 55 hours per week

IRELAND.

References:

- 1: Bevan, S., McGee, R. and Quadrello, T. (2009b) *Fit For Work? Musculoskeletal Disorders and the Irish Labour Market*, London: The Work Foundation.
- 2: Gilworth, G., Emery, P., Barkham, N., Smyth, M., Helliwell, P. and Tennant, A. (2009) 'Reducing work disability in Ankylosing Spondylitis – development of a work instability scale for AS', *BMC Musculoskeletal Disorders*, 10(1), 68. 72.
- 3: O' Brien, R., Woodbridge, S., Hammond, A., Adkin J. and Culley, J. (2013) *Musculoskeletal Care* (11) p. 99–105
- 4: Waddell, G., Burton, A. and Kendall, N. (2008) *Vocational rehabilitation: what works, for whom, and when*, London: The Stationery Office.

IRHPS ABSTRACT 7

Title of paper: Do physiotherapists working in new patient rheumatology clinics miss inflammatory arthritis: A retrospective review of 296 patients

Author(s): Paul Kirwan, Trevor Duffy

Department(s)/Institution(s): Physiotherapy Dept and Rheumatology Dept, Connolly Hospital, Dublin 15

Aim/Introduction: Physiotherapists working in triage roles are well established in orthopaedic and spinal clinics, but there is less literature available on their role in rheumatology. We have shown previously that a physiotherapist can diagnose inflammatory arthritis with an accuracy of 89% (Kirwan and Duffy, 2014). This audit set out to ascertain whether a physiotherapist working in a

rheumatology new patient clinic, as a first point of contact clinician, misses inflammatory arthritis.

Method: Data was collected consecutively on all patients assessed by the Physiotherapist at the Rheumatology New Patient Clinic from December 2010 to June 2014. Patients who were diagnosed with an inflammatory condition were omitted from this review. The remaining patients were given non-inflammatory diagnoses. Medical charts were reviewed to establish whether any of these patients subsequently developed an inflammatory arthritis.

Results: A total of 294 patients were assessed over the time period. 233 patients were diagnosed with a non-inflammatory condition. Seven charts were unavailable at time of review. Of the 226 charts reviewed, none of these patients had developed an inflammatory arthritis.

Conclusion: The data indicate that a physiotherapist with specialist training in rheumatology does not miss inflammatory arthritis, and can safely and effectively assess inflammatory (Kirwan and Duffy, 2014) and non-inflammatory conditions, while working in a new patient rheumatology clinic. The findings from this review confirm the importance of having a physiotherapist present in rheumatology new patient clinics to assist in managing the large number of mechanical/degenerative conditions seen.

References:

- Kirwan P, Duffy T. Physiotherapist's accuracy in recognizing and diagnosing inflammatory joint disease while working in a new patient rheumatology clinic. (Abstract). In: *Ann Rheum Dis* 2014;73(Suppl2); 2014 Jun 11-14; Paris, France.

IRHPS ABSTRACT 8

Title of paper: The Development of a Physiotherapy-Led Inflammatory Back Pain Clinic: An audit of one year's data

Author(s): Maura McGeeney, Aisling Brennan, Sarah O'Driscoll, Caitriona Ni She, Professor David Kane, Dr Ronan Mullan

Department(s)/Institution(s): Physiotherapy Department/ Tallaght Hospital

Introduction: Inflammatory Back Pain (IBP) is an important clinical symptom in axial spondyloarthropathies (SpA). The median time frame from symptom onset to diagnosis is estimated between 8 and 11 years. Delay in diagnosis can result in progression of the disease with associated pain and disability for the patient.

Aim: To reduce the waiting time for initial outpatient consultation for patients with a suspicion of IBP. To establish a diagnosis and management plan for patients with IBP.

Method: Criteria for inclusion in the IBP Triage Clinic were established between Advanced Practice Physiotherapists (APPs)



and Consultant Rheumatologists. Patients referred with suspected IBP were assessed by APPs and if required by Consultant Rheumatologists. An IBP Pathway was established following diagnosis which involved interval appointments with rheumatology doctors, nurses and physiotherapists

Results: From June 2013 to June 2014 68 patients were seen by APPs at the IBP Triage Clinic. Of these 51 percent (n= 35) were diagnosed with IBP (Ankylosing Spondylitis n=24; Psoriatic Spondyloarthropathy n=8; Crohns Spondyloarthropathy n=3). Of the 35 patients diagnosed with IBP 71 percent (n=25) were male; the average age was 40 years (range: 19-67 years); the average duration of symptoms was 13 years (range: 1-40 years). The waiting time for initial outpatient consultation for patients with suspected IBP reduced from 3 years to 2 months over the 12 month period.

Conclusion: This initiative demonstrates that appropriately trained and supported APPs can assist in the assessment and diagnosis of patients with a suspicion of IBP. Use of APP clinics can ensure early diagnosis and timely referral to appropriate services, thereby potentially reducing disability in this population.

IRHPS ABSTRACT 9

Title of paper: Acceptance and Change in a Rheumatology Pain Rehabilitation Programme: An Interpretative Phenomenological Analysis of Patients' Reflections

Author(s): Noreen Nealon Lennox MSc & Prof Siobhan O'Neill

Department(s)/Institution(s): University Hospital Waterford, HSE South and Department of Health Psychology, University of Ulster

Aim/Introduction: Quantitative evidence supports the effectiveness of acceptance based cognitive behavioural therapies (CBT) for chronic pain. Qualitative research has explored the experiences of chronic pain sufferers. However, there is an absence of literature examining the processes through which improvements are made amongst this population. This study sought to qualitatively analyse the experiences of 6 adult patients who completed an acceptance based CBT pain rehabilitation programme (PRP).

Method: Semi-structured interviews were carried out and verbatim transcripts were subjected to Interpretative Phenomenological Analysis. This qualitative methodology is based on a double hermeneutic, whereby the researcher is making sense of the participant making sense of their world.

Results: Three superordinate themes were identified: (1) acceptance of a renewed sense of self; (2) feelings of insecurity in the context of healthcare; and (3) sustained motivation for change. These results add to the evidence base regarding a loss of sense of self. However, in addition, a renewed sense of self was found amongst patients' reports of their subjective experiences of participation in the PRP. The findings also highlight the processes by which the renewed sense of self was reached and these are

discussed in relation to chronic pain literature and in relation to the acceptance based therapy literature. Potential areas for improvement in clinical practice are also identified.

IRHPS ABSTRACT 10

Title of paper: 'Do physiotherapists in an outpatient physiotherapy department document weight and discuss the influence of weight on pathology in patients with Osteoarthritis?'

Author(s): A. Brennan, S. O'Driscoll, R. Burke, P. Walsh, M. McGeeney, S. Horan, C. Kelleher, E. Conlon, R. McCollum, M. Kelly, V. Jones

Department(s)/Institution(s): Physiotherapy Department/Tallaght Hospital

Introduction: There has been a strong association found between increased body weight and the presence of osteoarthritis (OA) and it is well established that patients with increased weight have an increased risk of developing OA. The NICE guidelines (2014) and American College of Rheumatology (ACR) guidelines (2012) strongly recommend that patients with OA consider weight loss if overweight.

Aim: To investigate if physiotherapists treating both knee and lumbar spine OA:

- i) measured or documented patients weight
- ii) discussed the role of increased weight on the patients condition

Method: A random sample of charts of patients who attended the outpatient physiotherapy department in Tallaght Hospital in 2013 with a diagnosis of knee and lumbar spine OA were audited. Ten outpatient physiotherapists randomly selected 7 charts of patients with either knee or lumbar spine OA. Once charts were selected a data sheet was completed to assess for the relevant information.

Results: Seventy physiotherapy charts were selected and included. Table 1 outlines the demographic profile of the patients. Of these, 15 percent (knee OA) and 11 percent (lumbar spine OA) had their weight documented. The role of increased weight was discussed with 15 percent (n=5) of patients with knee OA and 11 percent (n=4) of patients with lumbar spine OA.

Table 1. Demographic Profile of Patients



	Age mean (range)	Gender	Number of Treatment Sessions mean (range)
Knee OA (n=34)	59 years (42-88)	9 Male 25 Female	4 (1-11)
Lumbar Spine OA (n=36)	53 years	17 Male 19 Female	6 (1-13)

Conclusion: Increased weight is a modifiable risk factor for OA and must be addressed when treating patients with this condition. The current audit outlines that physiotherapists do not regularly document weight in patients with knee and lumbar spine OA or document if they advised patients regarding the role of weight management for the treatment of OA.

IRHPS ABSTRACT 11

Title of paper: An audit evaluating whether musculoskeletal outpatient physiotherapists record physical activity levels and discuss its importance in patients with Knee Osteoarthritis and Lumbar-Spine Osteoarthritis

Author(s): M. Kelly¹, S. O’Driscoll¹, R. Burke¹, P. Walsh¹, M. McGeeney¹, S. Horan¹, C. Kelleher¹, E. Conlan¹, A. Brennan¹.

Department(s)/Institution(s): Department of Physiotherapy¹, Tallaght Hospital, Dublin 24.

Aim/Introduction: Osteoarthritis (OA) is one of the greatest causes of disability and pain worldwide. Regular physical activity (PA) can reduce physical impairments, while improving participation in domestic, occupational, social and recreational activities. Exercise has been strongly recommended as an essential element in the non-pharmacological management of both knee and lumbar-spine OA (Osteoarthritis, NICE 2014; ACR, 2012).

The purpose of this audit was to examine whether physiotherapists treating patients with either knee or lumbar-spine OA:

- i) Documented patients PA levels
- ii) Educated patients on the importance of PA in the management of OA.

Method:

This retrospective study was completed on the charts of patients with knee and lumbar-spine OA who had attended the outpatient physiotherapy in Tallaght hospital in 2013. Nine outpatient physiotherapists randomly selected charts and collected the data from charts that were analysed and a data sheet was completed to ascertain whether they contained the relevant information.

Results: Seventy charts were randomly selected and included in this audit. Regarding knee OA (n=34), 56% had PA levels documented with the role of PA discussed in only 32% of charts. With respect to lumbar-spine OA (n=36), figures are more favourable with 78% of charts containing evidence of PA levels. Patients were educated on the importance of PA in 69% of charts.

Conclusion: The current audit highlights that outpatient physiotherapists do not always document PA levels, or record evidence of patient education regarding the essential role of PA in the non-pharmacological evidence-based management of OA. Thus, strategies to address this are warranted.

IRHPS ABSTRACT 12

Title of paper: Appropriateness of calls to the Rheumatology Advice Line

Author(s): Helen Reynolds, Noreen Harrington, Mary McGovern

Department(s)/Institution(s): Northwestern Rheumatology Unit, Our Lady’s Hospital, Manorhamilton, Co Leitrim

Introduction: The telephone advice line was set up in 1995 however there were no guidelines around the management of the service. The RCN document (2006) provided a framework for practice, recognizing that advice line support is a pivotal resource which should be adequately planned and managed. Guidelines were devised outlining the remit and practice of the service. Written information was provided to potential callers.

Aim: To assess if calls to the advice line are appropriate and in keeping with guidelines.

Method: A retrospective analysis of calls to the advice line during September 2013 was carried out. Data collected included the total number of calls, person calling, patient diagnosis and the reason for the call. Findings were compared with guideline criteria and appropriateness of calls was determined.

Results: Total number of calls was 169 – 129 patients, 26 relatives/partner, 5 GP, 4 nursing support agency, 5 others. 84.5% of calls concerned patients with a diagnosis as per guideline (Rheumatoid Arthritis 98, Psoriatic Arthritis 36, Ankylosing Spondylosis 13) and 15.5% were not (Osteoarthritis 2 and others 20). Reasons for calling included – Symptom management 53, medication query 56, blood results 30, high tech prescription renewal 27, opd query 46, Administrative queries 20.

Conclusion: This study highlighted inappropriate calls to the advice line, in particular 12% concerned administrative issues. Findings were presented to the multidisciplinary team and the remit and purpose of the advice line was clarified. A separate telephone review clinic for renewal of high tech prescriptions was recommended.

Reference: Royal College of Nursing (2006) *Telephone advice lines for people with long term conditions*, London: RCN.

IRHPS ABSTRACT 13

Title of paper: Methotrexate Educational Tool – “Methotrexate made Modern”

Author(s): Una Martin, Clinical Nurse Specialist

Department(s)/Institution(s): University Hospital Waterford



Aim/Introduction: Methotrexate (MTX) is an effective treatment for Inflammatory Arthritis and remains the cornerstone of current management of Inflammatory Arthritis. Little patient educational material exists to support patients in making an informed decision about taking MTX. In the current era of glossy biologic information packs this in turn may impact patient's initial reaction to the current material.

Method: An educational tool was designed, guided by a literature review as well as a collation of patient information leaflets currently used in Ireland. The content was then distributed to a pharmacist, clinical nurse specialist, clinical psychologist and patient for review.

Results: A high quality, educational tool was designed complete with images consisting of a twenty five page patient educational tool, in combination with patient information/monitoring booklet. This can be used interactively with the patient during consultations about MTX in combination with the patient information/ monitoring booklet. The latter serves to reinforce the MTX consultation that can be used at the patient's own pace. The content of both was produced using accurate and balanced information to help the patient to actively participate in their decision to take MTX.

Conclusion: This tool aims to enhance communication and to ensure that patients are equipped to use their MTX correctly and optimally. As written information forms an integral part of patient education, equipping patients with information about MTX is vital in order to ensure patients can make an informed decision regarding a medication that plays an integral part of the management of inflammatory arthritis.



Prof David Kane President ISR

ISR SpR Representative Report 2014

At present there are 21 SpRs participating in the Irish Rheumatology training scheme. Four new SpRs have started their scheme this year: Drs Conor Magee, Kieran Murray, Omar Hussein and Shama Khan. As a group we meet formally at 6 training days throughout the year, organised by our National Speciality Director, Dr Donough Howard. Incorporated into the scheme are a number of out-of- programme options for training including clinical and laboratory based research, fellowships abroad and flexible training. Currently, eight of the SpR group are involved in clinical and research fellowships both here and overseas.

Finally, congratulations to Dr Laura Durcan, on winning the Bresnihan Molloy International Rheumatology Fellowship bursary, sponsored by AbbVie and to Dr Claire Louise Murphy, who received the Pfizer Rheumatology Fellowship bursary to fund a fellowship in UCL.



Prof David Kane, Mr David Borton & Dr Killian O'Rourke



Audience View at Spring meeting 2014



Dr Ausuf Mohammad & Dr Killian O'Rourke Academic Org. Team



AbbVie Pharma Stand



Dr Harsha Gunawardena, Bristol Hospital UK



Mr Philip Grieve, Blackrock Clinic, Dublin



Andrew Mernagh & Graham Cooke



Hospira Pharma Stand



Prof David Isenberg, University College London



Dr Mike Cummings, Leeds University UK



Brian, Emma & Linda TCP Stand



AMGEN Pharma Stand



The ENBREL way

Indicated for RA, PsA, JIA, AS and PsO#

Over 20 years
and 3 million
patient-years
collective
clinical
experience^{9,10}

A unique mechanism of action

- Enbrel is the only fully human soluble tumour necrosis factor (TNF) receptor^{1,2,3,4,5,6}
- It works differently than MAB's¹

No neutralising antibodies¹

- Enbrel is not associated with the production of neutralising antibodies in humans

Enbrel has a short half life (<3 days)¹

- The half-life of anti-TNF agents should be taken into account if a treatment break is required

Efficacy

- Registry data and Cochrane Review data support efficacy & safety of Enbrel^{7,8}

Enbrel (etanercept) Abbreviated Prescribing Information

Before prescribing Enbrel® please refer to full Summary of Product Characteristics (SmPC). Presentation: Enbrel Pre-filled Syringe: Enbrel 25 mg and 50 mg solution for injection in pre-filled syringe. Each pre-filled syringe contains either 25 mg or 50 mg etanercept. Enbrel Pre-filled Pen (MYCLIC®): Enbrel 50 mg solution for injection in pre-filled pen. Each pre-filled pen contains 50 mg etanercept. Enbrel Powder: Enbrel 25 mg powder and solvent for solution for injection. Each vial contains 25 mg etanercept and each pre-filled syringe contains 1 ml water for injections. Enbrel Paediatric: Enbrel 10 mg powder and solvent for solution for injection for paediatric use. Each vial contains 10 mg etanercept and each pre-filled syringe contains 1 ml water for injections.

Uses: Adults: Moderate to severe active rheumatoid arthritis (RA), in combination with methotrexate, when response to disease-modifying anti-rheumatic drugs (DMARDs), including methotrexate (unless contraindicated), has been inadequate. Enbrel can be given as monotherapy in the case of intolerance to methotrexate or when continued treatment with methotrexate is inappropriate. Severe, active and progressive RA without prior methotrexate treatment.

Enbrel alone or with methotrexate has been shown to reduce the rate of progression of joint damage measured by X-ray and to improve physical function. Patients with moderate to severe plaque psoriasis (PP) who failed to respond to, or who have a contraindication to, or are intolerant to other systemic therapy including ciclosporin, methotrexate or PUVA. Active and progressive psoriatic arthritis (PsA) when response to DMARDs has been inadequate. Enbrel has been shown to improve physical function in PsA patients, and to reduce the progression rate of peripheral joint damage as measured by X-ray in patients with polyarticular symmetrical subtypes of PsA. Severe active ankylosing spondylitis (AS) when response to conventional therapy has been inadequate. Children aged 2-17 years: Juvenile idiopathic arthritis (JIA). Polyarthritides (rheumatoid factor positive or negative) and extended oligoarthritis from the age of 2 years when inadequate response to, or intolerant of methotrexate. Psoriatic arthritis from the age of 12 years when inadequate response to, or intolerant of methotrexate. Enthesitis-related arthritis from the age of 12 years when inadequate response to, or intolerant of, conventional therapy. Children aged 6-17 years: Chronic severe psoriasis when inadequately controlled by, or intolerant to, other systemic therapies or phototherapies. Dosage: By subcutaneous injection. Adults: RA – 25 mg twice weekly or 50 mg once weekly PP – 25 mg twice weekly or 50 mg once weekly for up to 24 weeks, or 50 mg twice weekly for up to 12 weeks followed by 25 mg twice weekly or 50 mg once weekly for a further 12 weeks if needed. Continuous therapy may be appropriate for some adult patients. Discontinue if no response after 12 weeks. For re-treatment: 25 mg twice weekly or 50 mg once weekly for up to 24 weeks. AS and PsA – 25 mg twice weekly or 50 mg once weekly. Children aged 2-17 years: JIA – 0.4 mg/kg (maximum per dose 25 mg) twice weekly with an interval of 3-4 days or 0.8 mg/kg (maximum per dose 50 mg) once weekly. Discontinuation of treatment should be considered in patients who show no response after 4 months. Children aged 6-17 years: Plaque psoriasis in children aged 6-17 years – 0.8 mg/kg (maximum per dose 50 mg) once weekly for up to 24 weeks. Discontinue if no response after 12 weeks. For re-treatment: 0.8 mg/kg (maximum per dose 50 mg) once weekly for up to 24 weeks. Contra-indications: Hypersensitivity to any of the ingredients, sepsis or risk of sepsis, active infections. Warnings and Precautions: Enbrel should be initiated and supervised by specialist physicians experienced in the diagnosis and treatment of RA, JIA, PsA,

AS, PP or Paediatric PP. Patients treated with Enbrel should be given the Patient Alert Card. Use carefully in patients predisposed to, or with history of, infection due to underlying diseases other than RA (e.g. advanced or poorly controlled diabetes) or with history of blood dyscrasias, pre-existing or predisposition to demyelinating disease or congestive heart failure. Cases of active tuberculosis have been reported, therefore all patients should be evaluated for both active and inactive TB prior to being treated with Enbrel. If active TB is diagnosed, Enbrel should not be initiated. Caution should be used when administering Enbrel to patients identified as carriers of hepatitis B virus and there have been reports of worsening hepatitis C in patients receiving Enbrel. Use with caution in patients with a history of hepatitis C. Whether treatment with Enbrel might influence the development and course of active and/or chronic infections is unknown. Concurrent administration of Enbrel and anakinra has been associated with increased risk of serious infections and neutropenia, and is therefore not recommended. In clinical studies, concurrent administration of abatacept and Enbrel resulted in increased incidences of serious adverse events, and is therefore not recommended. Use caution when considering combination therapy with DMARDs other than methotrexate. Reports of various malignancies have been received in the post-marketing period, therefore with current knowledge, a possible risk for the development of lymphomas, leukaemia or other haematopoietic or solid malignancies in patients treated with a TNF-antagonist cannot be excluded. Malignancies, some fatal, have been reported among children, adolescents and young adults (up to 22 years of age) treated with TNF-antagonists (initiation of therapy ≤ 18 years of age) in the postmarketing setting. Melanoma and non-melanoma skin cancer (NMSC) have been reported in patients treated with TNF-antagonists, including Enbrel. Post-marketing cases of Merkel cell carcinoma have been reported very infrequently in patients treated with Enbrel. Periodic skin examination is recommended for all patients, particularly those with risk factors for skin cancer. Enbrel has not been studied in combination with other systemic therapies or phototherapy for the treatment of psoriasis. Monitor closely if patient develops new infection during treatment. Discontinue treatment if serious infection or allergic reaction develops or if blood dyscrasias are confirmed. Caution should be used in patients who have moderate to severe alcoholic hepatitis and Enbrel should not be used in patients for the treatment of alcoholic hepatitis. Discontinue temporarily if significantly exposed to varicella virus. Live vaccines should not be given concurrently with Enbrel. Paediatric patients should have received all vaccines recommended in current immunization guidelines prior to starting Enbrel. Treatment with Enbrel may result in the formation of autoantibodies. Enbrel is not recommended for use in patients with Wegener's granulomatosis. There have been reports of hypoglycaemia in Enbrel patients receiving medication for diabetes, necessitating a reduction in antidiabetic medication in some of these patients. There have been reports of Inflammatory Bowel Disease (IBD) and uveitis in JIA patients being treated with Enbrel. Caution should be exercised when treating the elderly and with particular attention to occurrence of infections. Pregnancy & Lactation: Enbrel is not recommended in pregnant or breastfeeding women. Undesirable Effects: Adults: The most commonly reported adverse reactions are injection site reactions, infections, allergic reactions, development of autoantibodies, itching, and fever. See SmPC for less commonly reported side effects. TNF-antagonists, such as Enbrel, affect the immune system and their use may affect the body's defences against infection and cancer. Serious infections affect fewer than 1 in 100 patients treated with Enbrel. Reports have included fatal and life threatening infections and sepsis. Various malignancies have also been reported with use of Enbrel, including cancers of the breast, lung, skin and lymphatic system (lymphoma). Serious infections and other adverse events such as uncommon reports of: thrombocytopenia, systemic vasculitis, uveitis and

scleritis, interstitial lung disease, rare reports of tuberculosis, opportunistic infections, anaemia, leucopenia, neutropenia, pancytopenia, seizures, worsening of heart failure, autoimmune hepatitis, Steven Johnson's syndrome and very rare reports of: anaphylaxis, toxic epidermal necrolysis and aplastic anaemia have been reported. Reactivation of hepatitis B (a liver infection) has also been reported. Central and peripheral demyelinating events have been seen rarely and very rarely, respectively, with Enbrel use. There have been rare reports of lupus, lupus-related conditions, and vasculitis. Rate of new malignancies was similar to that expected for the population studied. Fatalities associated with serious infections, pancytopenia, aplastic anaemia and interstitial lung disease have also been reported. Paediatrics: Generally as for adults, except the following were more common: headaches, nausea, vomiting and abdominal pain. In addition the following were reported as severe events: varicella, appendicitis, gastroenteritis, depression/personality disorder, cutaneous ulcer, oesophagitis/gastritis, group A streptococcal septic shock, type I diabetes mellitus and soft tissue and post operative wound infection. There have been post-marketing reports of IBD and uveitis in JIA patients, including cases indicating a positive re-challenge. Legal Category: POM. Package Quantities: Enbrel Pre-filled Syringe: Each carton contains 4 pre-filled syringes containing either 25 mg or 50 mg of Enbrel and 4 alcohol swabs. Enbrel Pre-filled Pen (MYCLIC): Each carton contains 4 pre-filled pens containing 50 mg of Enbrel and 4 alcohol swabs. Enbrel Powder: Each carton contains 4 vials of Enbrel 25 mg powder, 4 pre-filled syringes of water for injections, 4 needles, 4 vial adaptors and 8 alcohol swabs. Enbrel Paediatric (10 mg): Each carton contains 4 vials of Enbrel 10 mg powder, 4 pre-filled syringes of water for injections, 4 needles, 4 vial adaptors and 8 alcohol swabs.

European Marketing Authorisation Numbers: Enbrel Pre-filled Syringe 25 mg: EU/1/99/126/013 Enbrel Pre-filled Syringe 50 mg: EU/1/99/126/017 Enbrel Pre-filled Pen (MYCLIC) 50 mg: EU/1/99/126/020 Enbrel Powder 25 mg: EU/1/99/126/003 Enbrel Paediatric 10 mg: EU/1/99/126/022. S1B: Product subject to a prescription which may be renewed. European Marketing Authorisation Holder: Pfizer Limited, Ramsgate Road, Sandwich, Kent, CT13 9NJ, UK. For full prescribing information see the Summary of Product Characteristics. For further information on this medicine please contact: Pfizer Medical Information on 1800 363 633 or at EJMEDINFO@pfizer.com. For queries regarding product availability please contact: Pfizer Healthcare Ireland, Pfizer Building 9, Riverwalk, National Digital Park, Citywest Business Campus, Dublin 24 + 353 1 4676500. API Reference Number: EN 6_1. Date of Prescribing Information: December 2012.

References:

1. Enbrel Summary of Product Characteristics August 2013.
2. Remicade Summary of Product Characteristics.
3. Humira Summary of Product Characteristics.
4. Ocrencia Summary of Product Characteristics.
5. Mabthera Summary of Product Characteristics.
6. Simponi Summary of Product Characteristics.
7. Singh J et al. CMAJ:2009 DOI:10.1503.
8. Hetland ML et al. Arthritis & Rheumatism. Vol 62, no 1, January 2010.
9. Data on File Pfizer Inc.10 Data on File Amgen

Rheumatoid Arthritis, Psoriatic Arthritis, Juvenile Idiopathic Arthritis, Ankylosing Spondylitis and Psoriasis. For full prescribing information see the Summary of Product Characteristics.

ENB/2013/192/1

Date of preparation: September 2013





IN DMARD-IR AND TNF-IR RA PATIENTS,
WHEN COMBINATION WITH MTX IS NOT AN OPTION...

THINK
ROACTEMRA¹

 **RoACTEMRA[®]**
tocilizumab

RoACTEMRA, in combination with methotrexate (MTX), is indicated for the treatment of moderate to severe active rheumatoid arthritis (RA) in adult patients who have either responded inadequately to, or who were intolerant to, previous therapy with one or more disease-modifying anti-rheumatic drugs (DMARDs) or tumour necrosis factor (TNF) antagonists. In these patients, RoACTEMRA can be given as monotherapy in case of intolerance to MTX or where continued treatment with MTX is inappropriate. RoACTEMRA has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function when given in combination with methotrexate.²

ABBREVED PRESCRIBING INFORMATION (For full prescribing information, refer to the Summary of Product Characteristics (SmPC)). RoActemra® (Tocilizumab) 20mg/ml Concentrate for Solution for Infusion

Indications: (i) In combination with methotrexate (MTX), for the treatment of adult patients with moderate to severe active rheumatoid arthritis (RA) who have had an inadequate response or intolerance to one or more DMARDs or TNF antagonists. In these patients, RoActemra can be given as monotherapy in case of intolerance to MTX or where continued treatment with MTX is inappropriate. RoActemra has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function when given in combination with methotrexate. (ii) As monotherapy (in case of intolerance to MTX or where treatment with MTX is inappropriate) or in combination with MTX, for the treatment of active systemic juvenile idiopathic arthritis (sJIA) in patients ≥ 2 years of age, who have responded inadequately to previous therapy with NSAIDs and systemic corticosteroids. (iii) In combination with MTX, for the treatment of juvenile idiopathic polyarthritis (rheumatoid factor positive or negative and extended oligoarthritis) in patients ≥ 2 years of age, who have responded inadequately to previous therapy with MTX. In these patients RoActemra can be given as monotherapy in case of intolerance to MTX or where continued treatment with MTX is inappropriate.

Dosage and Administration: Treatment should be initiated by healthcare professionals experienced in the diagnosis and treatment of RA, sJIA or pJIA and all patients should be given the Patient Alert Card. **RA Patients:** Recommended posology is 8mg/kg diluted to a final volume of 100ml, given once every 4 weeks by iv infusion over 1 hour. For patients weighing > 100 kg, doses > 800 mg per infusion are not recommended. No data on doses above 1.2g. Dose adjustments: Dose modification, interruption or in some cases discontinuation of RoActemra recommended in the event of raised liver enzymes, low absolute neutrophil count (ANC) or low platelet count (see SmPC for details). In patients not previously treated with RoActemra, initiation not recommended in patients with an ANC below $2 \times 10^9/l$. Closely monitor renal function in patients with moderate to severe renal impairment as RoActemra has not been studied in these patients. No data in patients with hepatic impairment. **sJIA Patients:** No data in patients < 2 years of age. Posology: In patients > 2 years of age - 8mg/kg diluted to a final volume of 100ml for patients ≥ 30 kg or 10 mg/kg diluted to a final volume of 50ml for patients < 30 kg once every 4 weeks by iv infusion over 1 hour. Check patient's weight at each visit - refer to SmPC. In the event of raised liver enzymes, low ANC or low platelet count, interrupt/discontinue RoActemra dose or modify/stop concomitant MTX and other medications where appropriate - see SmPC for details. Reduction of RoActemra dose due to laboratory abnormalities not studied in sJIA patients. Clinical improvement is generally seen within 6 weeks of starting RoActemra; reconsider continued therapy if no improvement is seen in this timeframe. **pJIA Patients:** No data in patients < 2 years of age. Posology: In patients > 2 years of age - 8mg/kg diluted to a final volume of 100ml for patients ≥ 30 kg or 10 mg/kg diluted to a final volume of 50ml for patients < 30 kg once every 4 weeks by iv infusion over 1 hour. Check patient's weight at each visit - refer to SmPC. In the event of raised liver enzymes, low ANC or low platelet count, interrupt/discontinue RoActemra dose or modify/stop concomitant MTX and other medications where appropriate - see SmPC for details. Reduction of RoActemra dose due to laboratory abnormalities not studied in pJIA patients. Clinical improvement is generally seen within 12 weeks of starting RoActemra; reconsider continued therapy if no improvement is seen in this timeframe. **Contraindications:** Hypersensitivity to any component of the product; active, severe infections. **Warnings and Precautions:** Serious (sometimes fatal) infections reported in patients receiving immunosuppressive agents including RoActemra. Do not initiate in patients with active infection. If serious infection develops interrupt therapy until infection controlled. Caution in patients with history of recurring/chronic infections, or other underlying conditions (e.g. diverticulitis, diabetes and interstitial lung disease) which may predispose patients to infection. Vigilance for the timely detection of serious infection recommended. Advise all patients and parents/guardians of sJIA and pJIA patients to contact their healthcare professional immediately when symptoms suggestive of an infection appear. Screen for latent TB prior to starting therapy. Treat latent TB with standard anti-mycobacterial therapy before initiating RoActemra. Risk of false negative tuberculin skin and interferon-gamma TB blood test results, especially in severely ill/immunocompromised patients. Advise patients to seek medical attention if signs/symptoms (e.g. persistent cough, wasting/weight loss, low grade fever) suggestive of TB infection occur during or after treatment with RoActemra. Viral reactivation (e.g. hepatitis B) reported with biologic therapies for RA. Patients screening positive for hepatitis excluded from clinical trials. Events of diverticular perforations as complications of diverticulitis reported uncommonly with RoActemra in RA patients. Exercise caution in patients with a history of intestinal ulceration or diverticulitis. Evaluate patients with symptoms of complicated diverticulitis promptly. Serious hypersensitivity reactions reported - may be more severe and potentially fatal in patients who have experienced hypersensitivity reactions during previous infusions even if they have received premedication with steroids and anti-histamines. Appropriate treatment should be available for immediate use in the event of an anaphylactic reaction with RoActemra. If an anaphylactic reaction or other serious hypersensitivity/serious infusion related reaction occurs, stop administration of RoActemra immediately and discontinue therapy permanently. Use with caution in patients with active hepatic disease or hepatic impairment. Not recommended in patients with baseline ALT or AST $> 5 \times$ ULN; use with caution in patients with ALT or AST $> 1.5 \times$ ULN. Monitor ALT and AST levels for RA, sJIA and pJIA patients according to SmPC - other liver function tests including bilirubin should be considered where indicated. If raised, follow dosage recommendations in SmPC for RA, sJIA and pJIA patients. Risk of neutropenia may be increased in patients previously treated with a TNF antagonist. Continued therapy not recommended in patients who develop an ANC $< 0.5 \times 10^9/l$ or platelet count $< 50 \times 10^9/l$. In patients not previously treated with RoActemra, initiation not recommended where ANC is below $2 \times 10^9/l$. Caution in patients with low platelet count; monitor neutrophils and platelets in RA, sJIA and pJIA patients according to SmPC. If reduced, follow dosage recommendations in SmPC for RA, sJIA and pJIA patients. Elevations in lipid parameters seen - refer to SmPC. Assess lipid parameters according to SmPC if elevated; manage patients according to local guidelines for hyperlipidaemia. Potential for central demyelination with RoActemra currently unknown; physicians should be vigilant for symptoms of new onset disease. Immunomodulatory medicines may increase malignancy risk in RA patients. Do not give live and live attenuated vaccines concurrently with RoActemra as safety not established. In a randomized open-label study, adult RA patients treated with RoActemra and MTX were able to mount an effective response to the 23-valent pneumococcal polysaccharide and tetanus toxoid vaccines. - refer to SmPC for further details on immunisations. RA patients should have CV risk factors managed as part of usual standard of care. Not recommended for use with other biological agents. Macrophage activation syndrome (MAS) is a serious life-threatening disorder that may develop in sJIA patients - RoActemra has not been studied in patients during an active MAS episode. Advise patients experiencing dizziness not to drive or use machines until dizziness resolved. Product contains 26.55mg sodium per 1200mg. **Drug Interactions:** Interaction studies only performed in adults. In RA patients, levels of simvastatin (CYP3A4) were decreased by 57% one week following a single dose of tocilizumab to levels similar to or slightly higher than those observed in healthy subjects. Monitor patients taking medicines which are individually adjusted and metabolised via CYP450 3A4, 1A2 or 2C9 when starting or stopping RoActemra, as doses may need to be increased to maintain therapeutic effect. The effect of tocilizumab on CYP450 enzyme activity may persist for several weeks after stopping therapy. Refer to SmPC for further details on the effects of RoActemra on cytochrome CYP450 and drug interactions generally. **Fertility, Pregnancy and Lactation:** Women of childbearing potential should use effective contraception during and up to 3 months after treatment. No adequate data from use in pregnant women. Animal study showed an increased risk of spontaneous abortions/embryo-fetal death at high dose. RoActemra should not be used during pregnancy unless clearly necessary. No lactation data in humans. A decision on whether to continue/discontinue breastfeeding or RoActemra therapy should be made taking into account the relative benefits to the child and mother. Refer to SmPC. **Effects on ability to drive and use machines:** RoActemra has minor influence on the ability to drive and use machines (dizziness). **Side Effects and Adverse Reactions:** RA: Most commonly reported ADRs (occurring in $> 5\%$ patients treated with tocilizumab monotherapy or with DMARDs) were upper respiratory tract infections, nasopharyngitis, headache, hypertension and increased ALTs. ADRs occurring in patients with RA receiving tocilizumab as monotherapy or in combination with MTX or other DMARDs in the clinical trial double-blind controlled periods: Very Common ($\geq 1/10$): upper respiratory tract infections and hypercholesterolaemia. Common ($\geq 1/100$ - $< 1/10$): cellulitis, pneumonia, oral herpes simplex, herpes zoster, abdominal pain, mouth ulceration, gastritis, rash, pruritus, urticaria, headache, dizziness, hepatic transaminases increased, weight increased, total bilirubin increased, hypertension, leucopenia, neutropenia, peripheral oedema, hypersensitivity reactions, conjunctivitis, cough and dyspnoea. sJIA: In general, the ADRs were similar to those seen in RA patients. Infections - Serious infections of varicella and otitis media reported, in addition to infections for RA. Infection reactions - Hypersensitivity reactions requiring treatment discontinuation occurred in $< 1\%$ of patients. Other events occurring within 24 hours of infusion in 16% of patients included, but were not limited to rash, urticaria (considered serious), diarrhoea, epigastric discomfort, arthralgia and headache. IgG - decreased levels during therapy. Other - decreases in neutrophil and platelet counts, hepatic transaminase elevations, lipid parameter increases and anti-tocilizumab antibodies observed. **Serious or Potentially Serious:** serious infections, active tuberculosis, invasive pulmonary infections, interstitial lung disease (including pneumonitis and pulmonary fibrosis), gastrointestinal perforations (as complications of diverticulitis), serious hypersensitivity reactions. pJIA: In general, the ADRs were similar to those seen in RA and sJIA patients. Nasopharyngitis, headache, nausea, and decreased neutrophil count were more frequently reported in the pJIA population and increased cholesterol was less frequently reported in pJIA than RA. Infections - The incidence of infections leading to dose interruptions was numerically higher in patients weighing < 30 kg, the rate of serious infections was also higher in these patients. Infusion reactions - 20.2% experienced an event within 24 hours of infusion. No clinically significant hypersensitivity reactions associated with tocilizumab and requiring treatment discontinuation were reported. Refer to SmPC for a complete listing of adverse events for RA, sJIA and pJIA. See SmPC section 4.8 for instructions on the reporting of Suspected Adverse Reactions. **Legal Category:** Product subject to medical prescription which may not be renewed (AI). **Presentations and Marketing Authorisation Numbers:** 80mg of tocilizumab in 4ml (20mg/ml) pack of 1 (EU/1/08/492/001); 200mg of tocilizumab in 10ml (20mg/ml) pack of 1 (EU/1/08/492/003); 400mg of tocilizumab in 20ml (20mg/ml) pack of 1 (EU/1/08/492/005). **Marketing Authorisation Holder:** Roche Registration Limited, 6 Falcon Way, Shire Park, Welwyn Garden City, AL7 1TW, United Kingdom. RoActemra is a registered trade mark. Further information is available from Roche Products (Ireland) Limited, 3004 Lake Drive, Citywest, Naas Road, Dublin 24. Telephone: (01) 4690700. Fax: (01) 4690791. **Date of Preparation:** March 2014. Copyright © 2014 by Roche Products (Ireland) Ltd. All rights reserved. **References:** 1. Nisar MK et al. The role of tocilizumab monotherapy in the management of rheumatoid arthritis: a review. *Int. J. Clin. Rheumatol.* (2012) 7(1): 9-19. 2. SmPC. RoACTEMRA (tocilizumab) Summary of Product Characteristics, 23 January 2014. **Date of Item:** August 2014. IE/RACTE/0614/0012.

