REFERENCES:

- [1] Teaching rheumatology in primary care, *Ann Rheum Dis.* 2000, G. Hosie.
- [2] Musculoskeletal education in US medical schools: lessons from the past and suggestions for the future, *Curr Rev Musculoskelet Med.* 2011, Seetha U. Monrad.
- [3] Development of a competency framework for general practitioners with a special interest in musculoskeletal/rheumatology practice, *Rheumatology* 2007, E. M. Hay.
- [4] Assessing the Need for Improved Access to Rheumatology Care: A Survey of Massachusetts Community Health Center Medical Directors, *J Clin Rheumatol.* 2013.

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AB1262

TAPERING OF BIOLOGICAL ANTIRHEUMATIC DRUGS IN RHEUMATOID ARTHRITIS PATIENTS IS ACHIEVABLE AND COST EFFECTIVE IN DAILY CLINICAL PRACTICE: DATA FROM THE BRUSSELS UCL RA COHORT

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Background: Several studies demonstrate that Rheumatoid Arthritis (RA) patients achieving low disease activity or remission are able to taper biological (b) DMARDs.

Objectives: The aim of this study is to determine the number of patients suffering from RA in whom tapering of bDMARDs is achievable in daily practice and to evaluate the patient characteristics. Another objective is to analyse the budget impact and determine which bDMARDs are more adapted to dose reduction.

Methods: Inclusion criteria were RA patients from our Brussels UCL cohort treated with a bDMARD for at least one year. A dose reduction was proposed by the senior physician when sustained low disease activity or remission was observed. Data from 357 eligible RA patients (247 women and 110 men) were collected. Patient characteristics and baseline features before the current bDMARDs and flares if happened were collected. Annual drug dosage and cost were calculated.

Results: In 131 patients (35.7%), the dose of the bDMARD could be tapered. Patients in the decreased dose group were older (60.6 vs 55.9 years, $p=0.005$) and started bDMARDs earlier in their disease course (6.8 vs 8.4 years, $p=0.025$). As expected, the current DAS28-CRP was lower (2.26 vs 2.55, $p=0.018$) and interestingly, more patients were treated with a combination of Methotrexate (84% vs 73%, $p=0.019$). No differences between groups was observed for gender, disease duration, baseline HAQ, DAS28-CRP, erosion, ACPA, number of previous bDMARDs and use of Glucocorticoids. In our cohort, Anti-TNF agents were the most commonly prescribed medications (see Table). Annual drug cost was largely decreased for Rituximab and anti-TNF agents. Only 11 patients experienced a flare during the follow-up.

Abstract AB1262 – Table 1

bDMARD	Number of Pts	Stable dose (%)	Annual cost/ Pts (€)	Dose decreased (%)	Annual cost/ Pts (€)
ABA	23	12 (52)	12 979	11 (48)	8643,5
ADA	46	21 (46)	12 525	25 (54)	6908,8
CERTO	7	7 (100)	11740,2	0 (0)	Not available
ETN	69	41 (59)	9328,6	27 (39)	6101,6
GOL	24	22 (92)	12703,08	2 (8)	Not available
IFX	99	74 (75)	7290	25 (25)	6067
RTX	37	22 (59)	8784	17 (46)	4691,6
TOC	52	35 (67)	12773,7	17 (33)	9371,9
	357	234		124	

Conclusions: In daily practice, tapering of bDMARDs in RA patients with low disease activity or remission is an achievable goal, thereby reducing annual drug cost, especially for Rituximab, Infliximab, Etanercept and Adalimumab.

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AB1263

FINNISH HEALTHVILLAGE.FI-RHEUMATICDISEASES.FI: A SPECIALISED CARE SERVICE UNIT DEVELOPED TOGETHER WITH PATIENTS TO OFFER ON-LINE INFORMATION AND TREATMENT FOR PATIENTS IN A MODERN WAY

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Background: Finnish on-line Health village environment, so-called HUS-MAP©, was used to develop on-line information for rheumatic patients.

Objectives: To face the challenge of increasing demand for rheumatological care without additional resources a new virtual client-orientated service was developed.

Methods: In Finland, an on-line Health village environment, so-called HUS-MAP©, has been developed to offer virtual digital information to citizens, patients, and healthcare professionals. By using this HUS-MAP© environment, we provide information and support to citizens and patients who need information on different rheumatic diseases and various unspecified aches and musculoskeletal pains. The study group consisted of participants from every university hospital in Finland, from local authorities; rheumatologists, other specialists, general practitioners, nurses, special professionals such as physical therapists, and patients. Information provided was based on updated international and Finnish guidelines on rheumatic diseases. After the information was reviewed and accepted by our study group, it was fed into a special program and published on-line in the Health village environment.

Results: E-service for citizens and patients was opened in March 2017. Detailed description of symptoms, diagnosis and therapy of various rheumatic diseases, such as rheumatoid arthritis, spondyloarthritis, connective tissue diseases and vasculitis are available. Early diagnosis and treatment to remission when possible is emphasised. The service aids to identify, by using symptom navigator and questionnaires for back pain, as well as swollen and painful joints those who may have a rheumatic disease and guide patients to find medical services without delay. Already 60 500 persons have visited our website.

Conclusions: Finnish e-service, rheumaticdiseases.fi, offers an easy way to reach people and increase citizen's awareness on their own health. By guiding people to search for care the service may reduce delays in diagnosis of rheumatic diseases and the onset of therapy

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AB1264

BARRIERS AGAINST TESTING ANTI-TNF DRUG LEVELS AND ANTI-DRUG ANTIBODIES IN ROUTINE CLINICAL PRACTICE

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Background: There is growing interest in using tests to measure anti-TNF drug levels and anti-drug antibodies (ADAb) in routine clinical practice for patients with rheumatic diseases. Testing may provide rheumatologists with additional information when considering a decision to adjust biologic treatment; for example, a decision to increase the interval between injections of an anti-TNF or to change treatment to a biologic that has a different target. However, it is not clear whether rheumatologists consider drug level and ADAb testing to be a useful technology within their routine clinical decision-making. Testing may be implemented imperfectly if rheumatologists perceive barriers against measuring drug levels and ADAb which, in turn, can affect the effectiveness and cost-effectiveness of care.

Objectives: To explore the potential barriers against testing anti-TNF drug levels and ADAb in routine clinical practice.

Methods: Semi-structured telephone interviews were conducted individually with a purposive sample of consultant rheumatologists from different hospitals across England. The telephone interviews were recorded and transcribed verbatim. Pilot interviews were undertaken to develop the interview schedule. The rheumatologists were invited to discuss their perceptions and experiences of anti-TNF drug

level and ADAb testing within their own clinical practice. The transcripts were analysed by thematic framework analysis where themes comprised perceived barriers to testing. Ethical approval was obtained from The University of Manchester's Research Ethics Committee.

Results: Eleven rheumatologists provided informed consent to participate in the study. All rheumatologists demonstrated an awareness of tests that were available to measure anti-TNF drug levels and ADAb. However, the majority ($n=10$) did not use these tests in their routine clinical decision-making. Five potential barriers against testing were identified as themes:¹ recognising the clinical problem within their own patients;² understanding the purpose of testing drug levels and ADAb,³ a lack of robust evidence to support testing,⁴ insufficient capacity to implement testing locally, and⁵ the additional cost associated with testing.

Conclusions: The potential barriers against measuring anti-TNF drug levels and ADAb suggest that introducing these tests into practice for rheumatology may be challenging. Authoritative guidance for measuring anti-TNF drug levels and ADAb in specific rheumatic diseases may reduce the uncertainty over the purpose of testing in routine clinical settings. The generation and dissemination of robust evidence for the accuracy, effectiveness, and cost-effectiveness of testing is likely to be informative to rheumatologists and decision-makers that allocate resources for health care. Decisions to introduce testing in clinical practice may benefit from considering the implications of capacity constraints when analysing samples and the mechanisms to pay for the additional cost of testing. These barriers against testing are not unique to the health care system in England and may generalise to the delivery of care for rheumatic diseases within health care systems internationally.

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AB1265 LOSS OF SPECIALTY MEDICAL CARE FOR ELDERLY RHEUMATOID ARTHRITIS PATIENTS WHO DISCHARGED FROM HOSPITAL

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Background: As the ageing of the population progresses, the proportion of the population over the age of 65 reaches 27.3% in 2016, in Japan. Even elderly rheumatoid arthritis (RA) patients often require immunosuppressive agents or biological disease modifying antirheumatic drugs (DMARDs) due to their high disease activity. Therefore, they need to continuously receive treatment by specialty rheumatologists. Due to the deterioration of the ability of daily living activities, some patients may drop out of specialty medical care.

In recent years, the age of RA patients who need to be hospitalised has also increased. However, it is unclear whether elderly patients discharged from the hospital are able to continue receiving specialty medical care.

Objectives: To clarify whether a patient who has been discharged from a rheumatology specialty hospital can continue receiving rheumatology specialty medical care.

Methods: RA patients who discharged from our rheumatology unit from January 1, 2016 to December 31, 2016, were included. We investigated the backgrounds and outcomes of those patients retrospectively. We compared the background characteristics of patients who are receiving treatment by specialty rheumatologists at the final follow-up (specialty group) and those who are not (non-specialty group). For the statistical analysis, a chi-squared test and Student's t-test were used.

Results: We identified 147 patients. The mean $\pm$ SD age of patients at discharge was 72.2 ± 9.1 years and 74.8% was female. The reasons for hospitalisation were 87 patients (59.2%) for treatment of RA and 60 (40.8%) for treatment of complications (sepsis, fracture and so on).

After discharge, 134 patients (91.1%) had returned to follow up in our department for RA treatment. The remaining 13 patients were treated at other hospitals, five of whom were treated by a primary care physician who was not specialised for rheumatology. Overall, we compared 142 patients in the specialty group and 5 in the non-specialty group.

The age, the use ratio of immunosuppressive agents/biological DMARDs/prednisolone and the dose of prednisolone in the specialty group and the non-specialty group were 71.9 and 79.0 years old ($p=0.09$), 50.0% and 20.0% ($p=0.37$), 29.6% and 20.0% ($p=1.00$), 78.7% and 80.0% ($p=1.00$), 6.5 and 5.6 mg/day ($p=0.83$), respectively.

Conclusions: In elderly RA patients, some patients drop out of RA specialty medical care. The background of such patients is not different from those of patients who are receiving treatment by specialty rheumatologists. In order to provide specialty medical care for RA patients throughout the community, a co-management medical collaboration system between specialty rheumatologists and primary care doctors should be established.

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AB1266

AUTOIMMUNE DISEASES INDUCED BY BIOLOGICAL AGENTS USED IN PATIENTS WITH ADVANCED CANCER: A NATIONWIDE MULTICENTER REGISTRY OF CASES DIAGNOSED IN DAILY PRACTICE (cBIOGEAS-SEMI)

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Objectives: To characterise the development of autoimmune diseases triggered by the new biological therapies used as immunotherapy in patients with advanced cancer in a real-life clinical setting.

Methods: In 2006, the Study Group on Autoimmune Diseases (GEAS) of the Spanish Society of Internal Medicine created the BIOGEAS project, a multicenter study devoted to collecting data on the use and safety of biological agents in adult patients. In December 2016, the cBIOGEAS-SEMI multicenter registry was formed with the aim of collecting patients with cancer treated with biological immunotherapies who developed autoimmune diseases.

Results: By January 2018, the cBIOGEAS-SEMI Registry includes 40 patients (26 men and 14 women, mean age of 59.7 years) who developed 54 triggered autoimmune diseases, including interstitial lung disease ($n=11$), enterocolitis ($n=8$), hypophysitis ($n=6$), polyarthritis ($n=4$), thyroiditis ($n=3$), vasculitis ($n=3$), severe cutaneous involvement ($n=3$), adrenalitis ($n=2$), Sjögren syndrome ($n=2$), cardiomyopathy ($n=2$), pancreatitis ($n=2$), Guillain-Barre syndrome ($n=2$), hepatitis ($n=2$) and CNS involvement, sclerosing cholangitis, glomerulonephritis and sarcoidosis (one case each). Underlying neoplasia consisted mainly in pulmonary neoplasia ($n=16$), melanoma ($n=11$) and breast cancer ($n=3$). The main pharmacological groups of cancer immunotherapies included PD1 inhibitors ($n=26$), CTL4 inhibitors ($n=7$), growth factor/adhesion molecules inhibitors ($n=4$), combined PD1/CTL4 blockade ($n=2$) and TK inhibitors ($n=1$); biologics included nivolumab ($n=20$), ipilimumab ($n=9$), pembrolizumab ($n=8$), trastuzumab ($n=3$), catumaxomab ($n=1$) and vemurafenib/combinetininib ($n=1$). Glucocorticoids were used in all cases but 4, and 9 patients required intravenous methylprednisolone pulses; 5 patients required additional immunosuppressive therapies (intravenous immunoglobulins in 4, methotrexate in one). All cases responded to treatment with glucocorticoids except 4 patients who died (3 due to ILD and one due to neurological disease).

Conclusions: A wide variety of systemic and organ-specific autoimmune diseases triggered by the new cancer immunotherapies is emerging. In this nationwide real-life Registry, immune checkpoint inhibitors are the biologics involved in nearly 90% of cases. We found an excellent response to glucocorticoids, with a poor prognosis in those patients who developed pulmonary and neurological autoimmune diseases.

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AB1267

BIO-SIMILAR TO BIO-ORIGINATOR SWITCHBACK: NOT A RELIABLE QUALITY INDICATOR

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Background: SB4 in an etanercept biosimilar which was licensed by the EMA in January 2016 for clinical use. Switching etanercept treated patients from reference etanercept (ETN) to SB4 can deliver a substantial saving in drug costs. The SB4 to ETN switchback rate is often scrutinised by commissioners and clinicians, as it may be a quality indicator for the switch process.

Objectives: To evaluate SB4 drug survival and the SB4 to ETN switchback rate in our cohort of patients with Rheumatoid Arthritis, Axial Spondyloarthritis and Psoriatic Arthritis.

Methods: This was a retrospective observational study of 56 patients who were switched from ETN to SB4 in December 2016 at Kings College Hospital. Clinical data was collected 8 months post-switch to establish the number of patients in whom SB4 had been discontinued, the reasons for discontinuation, and the switchback rate.

Results: 84% ($n=47$) of patients remained on SB4 at 8 months following the switch. Of the 9 patients who discontinued SB4, 89% ($n=8$) was due to loss of efficacy, whilst 11% ($n=1$) reported side effects. Of these, 78% ($n=7$) were switched over to a 3rd biologic agent, whilst 22% ($n=2$) were switched back to ETN. The