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POS0303

PREVENTION OF CHRONIC DISEASES DUE TO INFLAMMATION IN INFLAMMATORY ARTHRITIS: RESULTS OF A DELPHI PROCESS TO SELECT CARE RECOMMENDATIONS FOR AN ELECTRONIC MEDICAL RECORD (EMR) INTERVENTION

I. Sheriff¹, A. Lima², O. Tseng³, A. Aviña^{2,4}, M. Dawes⁵, C. E. H. Barber⁶, J. Esdaile^{2,7}, K. Shojania^{2,7}, C. L. Koehn⁸, A. Hoens^{2,9}, S. McQuitty¹⁰, S. Singh⁵, J. Yap^{3,11}, D. Page¹², J. Kur⁷, B. Hobson^{3,13}, M. Price³, D. Lacaille^{2,7}. ¹Arthritis Research Canada, Summer Student Research, Vancouver, Canada; ²Arthritis Research Canada, Research, Vancouver, Canada; ³The University of British Columbia, Department of Family Practice, Vancouver, Canada; ⁴The University of British Columbia, Department of Medicine, Division of Rheumatology, Vancouver, Canada; ⁵The University of British Columbia, Department of Family Practice, Vancouver, Canada; ⁶University of Calgary, Departments of Medicine and Community Health Sciences, Calgary, Canada; ⁷The University of British Columbia, Department of Medicine, Division of Rheumatology, Vancouver, Canada; ⁸Arthritis Consumer Experts, President, Vancouver, Canada; ⁹The University of British Columbia, Department of Physical Therapy, Vancouver, Canada; ¹⁰Arthritis Research Canada, Arthritis Patient Advisory Board, Vancouver, Canada; ¹¹New Westminster Family Practice, Family Physician, New Westminster, Canada; ¹²The University of British Columbia, UBC Family Practice Residency Program, Vancouver, Canada; ¹³Doctors of BC (previously BC Medical Association) Shared Care Committee and Practice Support Program for Family Physicians, Family Physician, Vancouver, Canada

Background: Inflammatory arthritis (IA) predisposes patients to several chronic conditions including cardiovascular diseases (CVD), diabetes (DM), osteoporosis (OP) and infections, likely due to systemic effects of inflammation. Studies have found that patients with IA often receive suboptimal care for screening and managing these conditions.

Objectives: This is the first phase of a study which will develop and pilot test automated EMR reminders for family physicians. The reminders will prompt family physicians to screen for and address risk factors for these conditions. We conducted a Delphi process to select care recommendations to be addressed by the EMR reminders.

Methods: We conducted a review of current BC, Canadian and international guidelines for screening and addressing risk factors for CVD, DM, OP and infection. A list of 22 care recommendations, including their level of evidence and risks/benefits of implementation, was reviewed by a panel of six family physicians, three rheumatologists and three IA patients, in a three-round online modified Delphi process. Panelists rated each care recommendation, using 9-point scales, on 1) their clinical importance, 2) their likelihood of improving outcomes, and 3) implementation feasibility. Results were discussed in an online forum. Panelists then rated slightly revised care recommendations, modified based on feedback from the discussion. Care recommendations were retained if the median rating was ≥ 7 with no disagreement as defined by the RAND/UCLA Method handbook.

Results: A list of 15 care recommendations was selected by the Delphi process for EMR integration, including recommendations that address CVD risk assessment (1), hypertension screening (1), DM screening (2), fracture risk assessment (1), BMD testing (1), osteoporosis prevention (1) and treatment (1) with bisphosphonates, preventing infections through immunization (2), minimizing steroids (1) and hepatitis screening (1), screening for hydroxychloroquine retinal toxicity (1), and counselling for lifestyle modifications (2). We excluded 7 recommendations which addressed lipid testing (1), BMD testing in steroid users (1), immunizations (2), weight management (1), and DMARD laboratory test monitoring (2). Recommendations were excluded on the basis of importance (1) or feasibility (6).

Conclusion: The results of the Delphi process will inform the development of reminders, integrated in EMRs, that will support family physicians in their efforts to engage IA patients in addressing risk factors for chronic diseases related to inflammation. We hope to improve the prevention of these diseases, which represent an important cause of morbidity and mortality for people with inflammatory arthritis.

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POS0304

EPIDEMIOLOGY AND ECONOMIC BURDEN ASSOCIATED WITH MENTAL HEALTH COMORBIDITIES IN SYSTEMIC LUPUS ERYTHEMATOSUS AND LUPUS NEPHRITIS PATIENTS

M.A. Petri¹, D. Naessens², A. Ogbomo³, A. Ratiu³, C. Gutierrez³, C. Karyekar⁴.

¹John Hopkins University School of Medicine, Division of Rheumatology, Baltimore, United States of America; ²Janssen Pharmaceutica NV, Director Global Market Access Immunology, Beerse, Belgium; ³STATinMED Research, HEOR, Ann Arbor, United States of America; ⁴Janssen Global Commercial Strategic Organization, Compound Development Team, Horsham, United States of America

Background: Systemic lupus erythematosus (SLE), a multisystem autoimmune disease, is associated with mental health (MH) disorders. There is scarce information on the epidemiology and economic burden associated with MH comorbidities and the impact on SLE as well as the subpopulation with lupus nephritis (LN).

Objectives: Examined the incidence and prevalence rate of MH, healthcare resource utilization (HCRU), and costs associated with MH comorbidities in SLE/LN patients.

Methods: Adult SLE and LN patients with ≥ 1 inpatient or ≥ 2 outpatient diagnosis claims for SLE/LN (ICD-9 code: 710.0; and ICD-10 codes M32.10-19, M32.8, M32.9) were identified between 01JAN2013-30JUN2019 from two large US commercial databases. Inclusion required continuous enrollment benefits 12 months pre-/post-index date. Patients were divided into two groups: those with (WMH) vs. those without (NMH). WMH was defined as a MH diagnosis of depression, anxiety, bipolar disorder, or psychosis. Index date for the WMH group was first MH diagnosis claim. For the NMH group, a random index date was assigned between 01JAN2014-30JUN2018. The groups were then matched with a 1:1 ratio based on age, sex, and region within their respective databases. Incidence and prevalence rate of MH in the SLE/LN population were determined. All-cause healthcare costs and HCRU per patients per year (PPPY) were examined with generalized linear models.

Results: A total of 7,760 SLE and 336 LN patients were identified. The majority of patients were female (SLE=93.5%; LN=95.2%) with a mean age of 55.1 years (SLE) and 44.5 years (LN). The prevalence rate of MH was 35.7% for SLE and 28.8% for LN patients and the incidence rate was 18.5% and 15.3%, respectively. Anxiety and depression were the most common MH comorbidities (Figure 1). WMH inpatient stays averaged an additional 2.6 and 7.2 days longer than NMH for SLE and LN, respectively. In addition, WMH patients averaged 10.4 (SLE) and 18.4 (LN) significantly more outpatient visits PPPY than NMH. Overall healthcare cost PPPY was significantly higher for WMH patient in both SLE (\$49,553 vs \$26,064), and LN (\$112,169 vs \$39,529). Inpatient costs were approximately 3 – 5 times greater in the WMH group (Table 1).

Conclusion: This real-world study shows that MH comorbidities have a high incidence and prevalence rate in SLE and LN patients. Health care costs and utilization for SLE and LN patients with MH comorbidities were significantly higher than patients without MH comorbidities. This study highlights not just the high prevalence of MH comorbidity but its large contribution to SLE healthcare costs.

Figure 1. Incidence and Prevalence Rate of Mental Health Comorbidities in the SLE and LN Populations. LN: Lupus nephritis; SLE: Systemic lupus erythematosus

Table 1. Follow-up Healthcare Cost and Utilization for SLE/LN Case and Control Population

	SLE with MH Comorbidities N=3,880 (WMH)	SLE without MH comorbidities N=3,880 (NMH)	P- value	LN with MH Comorbidities N=168 (WMH)	LN without MH comorbidities N=168 (NMH)	P- value
All-cause health care utilization PPPY	Mean	Mean		Mean	Mean	
Mean # inpatient visits	1.36	0.50	<0.0001	1.86	0.86	<0.0001
Mean # outpatient visits	32.11	21.67	<0.0001	47.85	29.45	<0.0001
Mean # office visits	13.49	9.74	<0.0001	14.94	10.29	<0.0001
Mean # ER visits	1.27	0.66	<0.0001	1.40	0.63	0.0005
Mean # other outpatient visits	25.55	17.08	<0.0001	41.48	24.19	<0.0001
Mean # pharmacy Rx	33.33	20.82	<0.0001	36.96	23.81	<0.0001
Length of inpatient stay (mean, days)	3.69	1.09	<0.0001	9.53	2.37	<0.0001
All-cause health care costs PPPY						
Outpatient costs (ER+ office +other)	\$19,271	\$12,847	<0.0001	\$34,956	\$19,530	<0.0001
Pharmacy costs	\$7,222	\$4,707	<0.0001	\$7,874	\$4,254	<0.0001
Inpatient costs	\$22,605	\$8,191	<0.0001	\$68,216	\$14,680	<0.0001
Total costs	\$49,553	\$26,064	<0.0001	\$112,169	\$39,529	<0.0001

PPPY: Per patient per year; ER: Emergency room; LN: Lupus nephritis; SLE: Systemic lupus erythematosus

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Rheumatoid Arthritis - comorbidity and clinical aspects - Part 2

POS0305 PHYSICIAN AND PATIENT ATTITUDES TOWARDS TREAT-TO-TARGET, ITS IMPLEMENTATION AND STATED TREATMENT GOALS IN PATIENTS WITH RHEUMATOID ARTHRITIS IN A REAL-WORLD SETTING ACROSS EUROPE

B. Fautrel¹, R. Caporali^{2,3}, E. Holdsworth⁴, B. Donaghy⁴, M. Khalid⁵, M. Moore⁶, K. Van Beneden⁷, Y. Piette⁸, S. Romero-Yuste⁹, J. Broen¹⁰, P. C. Taylor¹¹. ¹Sorbonne University – APHP, Pitie-Salpetriere University Hospital, Rheumatology Department, Paris, France; ²University of Milan, Department of Clinical Sciences and Community Health, Milan, Italy; ³Gaetano Pini Hospital, Clinical Rheumatology Unit, Milan, Italy; ⁴Adelphi Real World, Rheumatology, Bollington, United Kingdom; ⁵Galapagos NV, Evidence Generation & Epidemiology, Mechelen, Belgium; ⁶Gilead Sciences Europe Ltd, Global Medical Affairs, Uxbridge, United Kingdom; ⁷Galapagos NV, Medical Affairs, Mechelen, Belgium; ⁸AZ Sint-Jan Brugge - Oostende AV, Department of Rheumatology, Bruges, Belgium; ⁹Complexo Hospitalario Universitario de Pontevedra, Rheumatology, Pontevedra, Spain; ¹⁰Maxima Medical Center, Regional Rheumatology Center, Eindhoven, Netherlands; ¹¹University of Oxford, Botnar Research Centre, Oxford, United Kingdom

Background: The principles of treat to target (T2T) include defining an appropriate treatment target, assessed at pre-defined intervals, with a commitment to changing therapeutic approach if the target is not met (1). T2T is recommended as a key strategy for the treatment of rheumatoid arthritis (RA).

Objectives: To explore attitudes towards T2T, its implementation and stated treatment goals among physicians and their patients with RA.

Methods: The Adelphi RA Disease Specific Programme™ was a large, quantitative, point-in-time survey conducted amongst rheumatologists (n=296) and their consulting patients with RA (n=3042) in Europe (France, Germany, Italy,

Spain, UK) between Q4 2019–Q3 2020. Physicians were recruited via publicly available lists, completing an online survey and medical record extraction for their next 10–12 consecutive patients. The same patients were invited to voluntarily complete a self-report questionnaire (n=1098, 36% response), collecting data on attitudes towards T2T and treatment goals.

Results: Physicians reported that 76% of patients were in remission (DAS28: <2.6) or had low disease activity (DAS28: 2.6 – 3.2), and 24% had moderate-high disease activity (DAS28: >3.2). Patient mean age was 53.0 years (SD 14.0), mean time since diagnosis was 7.2 years (SD 7.2). The proportion of patients currently receiving an advanced therapy (AT; defined as biologic or targeted synthetic DMARD) was 68%, of whom 70% were on a first line AT. No difference was observed between disease activity groups.

In the physician survey, 86% of physicians stated they followed T2T principals in at least some of their RA patients, and would utilize a T2T approach in RA patients with moderate-high disease activity (61%), the most uncontrolled patients (37%) and those who do not respond well to initial therapy (34%). In this sample of real-world RA patients, 66% were reported by physicians to be on a T2T plan at the time of data collection. The most common physician-reported targets were remission (DAS28: <2.6) (75%), improvement of quality of life (QoL) (41%) and reduction of pain (31%), with 85% of physicians perceiving these treatment goals were fully or partially met. The most stated reasons for not implementing T2T was physician preference not to adjust current treatment (34%), patient preference not to adjust current treatment (23%), and there are no achievable goals for this patient (16%).

Overall, 29% of patients reported they were involved in setting their T2T goals, while 34% stated their T2T goals were set by their physicians only, and 29% perceived no T2T goal had been set (n=620). The most common overall T2T goals from the patient perspective were remission (61%), controlling symptoms (41%), and reducing impact on QoL (34%). Of those patients who acknowledged a T2T goal had been set (n=407), 77% reported their T2T goal was fully or partially achieved.

Of 719 patients who had moderate-high disease activity, 57% were on a T2T plan, with 46% of physicians perceiving these treatment goals were fully or partially met. The most common physician-stated reason for not implementing T2T was a lack of achievable targets (29%).

Conclusion: Rheumatologists in this study reported a strong belief in T2T. The most common physician-set T2T goals were remission, improvement of QoL and reduction of pain, corresponding with T2T goals as reported by patients. However, a third of patients in this cohort were not aware of a defined T2T objective in their management, which may be a result of a perceived lack of achievable goals by physicians. It may be desirable to promote more patient involvement in defining achievable targets amongst those with moderate-high disease activity who despite best efforts may not reach a clinical state of remission. Further research is needed to identify and understand goals important to RA patients.

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