

The Journal of the Canadian Rheumatology Association

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Indigenous Studies

By Philip A. Baer, MDCM, FRCPC, FACR

"History is written by the victors."

- Walter Benjamin (1892-1940), often attributed to Winston Churchill.

What's in the news:

The Truth and Reconciliation Commission. The federal inquiry into missing and murdered Indigenous women (MMIW). The Sixties Scoop. The Joseph Boyden controversy. The death of Inuk artist Annie Pootoogook in Ottawa in September 2016, a few months before the CRA 2017 Annual Scientific Meeting (ASM).

Recent articles in CMAJ:

- "The cultural erosion of Indigenous people in health care."¹
- "Taking action on the social determinants of health in clinical practice."²
- "Health care experiences of Indigenous people living with type 2 diabetes in Canada."³

With this backdrop, I took advantage of an opportunity offered by the CRA and enrolled in the fall of 2016 in an online eight-week course on Indigenous Cultural Safety Training sponsored by San'yas and the British Columbia Provincial Health Services Authority. The CRA sponsored eight members in this pilot project, providing a refund of the tuition fee, and eight hours of the difficult-to-obtain Royal College MOC Section 3 credits for successfully completing the course.

Royal College credits are particularly appropriate, as the Royal College has played a leading role in developing a framework for continuing medical education in this area,⁴ and a CanMEDS blueprint for respecting Indigenous health values and principles.⁵

We met online, introducing ourselves and our cultural backgrounds, and healthcare roles. Most were frontline nurses and other allied health professionals. We were supported by a trained facilitator, Makonen Bondoc. The course progressed through eight weeks of modules, with an emphasis on videos and narrative testimonies of Indigenous people from across Canada, highlighting their interactions with the healthcare system. The history of Canada was reviewed through the lens of the experience of First Nations, including colonialism, racism and the effects of The Indian Act.

Many stories were familiar, including treaties being ignored, residential schools and their lasting impact, and efforts at cultural assimilation supported by various federal and provincial governments. The history of Indian hospitals was new to me. The testimony of survivors was powerful.

The training was very well executed. Each page had a suggested time required for completion, and the timer certainly worked. Staying on a page too long without any activity prompted an "Are you still there?" reminder. Quizzes were frequent, including pre- and post-tests. Keeping a private journal was required, and the moderator's comments to individuals and to the group were valuable and discerning. There were many downloads available to enrich the key learnings of the core curriculum, as well as references to be used as reminders for the clinic. A post-course written reflection was also required to obtain full credit.

The LEARN model for consultations was promoted and has broad implications for any interaction with patients, whether of Indigenous background or not:

- Listen to your client
- Explain your own perspective
- Acknowledge differences and similarities
- Recommend a course of action
- Negotiate mutual agreement

The culmination of the course for the CRA-sponsored rheumatologists, and others interested in the topic, was participation in a special workshop at the CRA Annual Scientific Meeting (ASM) 2017, titled "Finding Common Ground: Communicating with your Indigenous Patients."

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What is the CRA Doing For You?



Vandana Ahluwalia, MD, FRCPC (Vice-President of the CRA)

In what year did you join the CRA? At that time, what made you want to become a member?

Probably in 2010. I became a member because I was doing work for the Ontario Rheumatology Association and the CRA Annual Scientific Meeting (ASM) gave me the opportunity to network with other provincial associations.

Why do you continue to renew your membership to the CRA and how have you benefited from being a member?

I realized that the CRA had changed a lot since I was a fellow in rheumatology in the 1990s – at that time it was focused on networking for academic physicians. Since I was not an academic physician, and not many community rheumatologists attended, it did not interest me. Also, it was held in "SKI" resorts and I did not ski. Over the past several years, I have noticed many changes. I used to think it was an "old boys' club" but it has developed into a great organization that also supports young people and women.

What has been the most beneficial aspect of being a CRA member thus far?

I now find the networking at the ASM to be the most beneficial. I also like the option of being on a committee that can make a difference. I like the fact that the CRA works with many stakeholders such as the Arthritis Alliance of Canada (AAC) and The Arthritis Society to help improve care.

What would you say to someone who is thinking about becoming a CRA member?

Check it out! It is not the the old CRA you knew. It has changed for the better.



Volodko Bakowsky, MD, FRCPC

In what year did you join the CRA? At that time, what made you want to become a member? It was so long ago that I no longer remember! I believe I was a resident member during 1997-1999 before completing my residency. I became a full member in 2000 and never looked back.

Why do you continue to renew your membership to the CRA and how have you benefited from being a member?

Rheumatologists in Canada are a close-knit group. I enjoy being part of something "bigger than myself." The CRA represents my interests and gives me value for my membership fees. There are many rewards to being a CRA member – collegiality, networking, the annual meeting and advocacy to name a few.

What has been the most beneficial aspect of being a CRA member thus far?

Being a member of the CRA has facilitated my involvement in endeavours that led to career development. And, it has been a lot of fun!

What would you say to someone who is thinking about becoming a CRA member?

It is money well spent. Come meet your colleagues. You will learn new things and there is much fun to be had.



Cathy Flanagan, MD

In what year did you join the CRA? At that time, what made you want to become a member? I joined in the 1990s as I wanted to be part of the community of rheumatologists in Canada; I also went to the annual CRA meeting every year to learn about developments in my field.

Why do you continue to renew your membership to the CRA and how have you benefited from being a member?

I like to go to the annual meetings when I can, participate in activities with the CRA, and receive the Journal of Rheumatology.

What has been the most beneficial aspect of being a CRA member thus far?

The collegiality among rheumatologists across Canada. It is great to meet fellow rheumatologists and learn from them and from the collaborations throughout the CRA.

What would you say to someone who is thinking about becoming a CRA member?

I think they should join and participate. They will learn a lot and will enjoy it.



An Update from CIORA

By Janet Pope, MD, MPH, FRCPC

The Canadian Initiative for Outcomes in Rheumatology Care (CIORA) is the third largest granting body for inflammatory arthritis and other rheumatic conditions in Canada. It is run by the CRA and funded through generous grants from multiple pharmaceutical companies. The 2017 competition results will soon be announced. As our nation has a landmark anniversary, we must appreciate the geographical vastness of people living with arthritis. Three recently funded CIORA grants are studying barriers to appropriate care (*i.e.*, access and treatment).

One study from the 2016 grant competition (Measuring geographic variation in access to care for rheumatoid arthritis patients and related outcomes: a patient-centered approach. Barber C. and Marshall D., *et al.*), is studying clustering of rheumatoid arthritis (RA) from the Alberta administrative database, and is designed to determine geographic regions with disparities between RA density and health services. In other words, the researchers are looking for regional disparities between RA prevalence and the services available in the region. The work can provide solutions regarding where to place needed resources and close care gaps. It is known that seniors with RA in Ontario who live in rural areas have less access to disease-modifying antirheumatic drugs (DMARDs) and less access to seeing a rheumatologist (the two seem to go hand in hand) compared to those who live in urban centres.¹

Another CIORA grant, funded in 2016, is about understanding barriers to self-management in underserved populations (Understanding the barriers to self-management support for underserved populations living with arthritis and co-morbidities and developing patient-derived tools for healthcare policy and practice. Lacaille D, *et al.*). Studying the roadblocks in access to appropriate care (including self-management) can lead to solutions in providing care in under-serviced areas.

A third funded grant (Assessing the provision, patterns, and costs of waiting for rheumatology care: a step towards optimizing the care of rheumatic diseases. Kuriya B. and Bernatsky S., *et al.*) is delving into access for rheumatology care by studying wait times and the costs of waiting, such as delay in receiving appropriate DMARDs, failure to achieve remission, etc.

These funded projects are complementary to research, done by Dr. Cheryl Barnabe, demonstrating the burden of rheumatic diseases and outcomes in the First Nations population.^{2,3} She has been funded by CIORA providing her with protected time to conduct her relevant and important research.

The highlighted studies will help us treat our patients in the vast landmass of Canada. We celebrate our universal health

2017 CRA Abstract Awards

Best Abstract on SLE Research by a Trainee - Ian Watson Award Ms. Rebecca Gole University of Manitoba Supervisor: Dr. Christine Peschken

Best Abstract on Clinical or Epidemiology Research by a Trainee -Phil Rosen Award Ms. Bailey Russell University of Toronto

Supervisor: Dr. Christian Pagnoux Best Abstract on Basic Science Research by a Trainee

Dr. Shirine Usmani University of Toronto Supervisor: Dr. Nigil Haroon

Best Abstract for Research by an Undergraduate Student Ms. Carol Dou

University of British Columbia Supervisors: Dr. Linda Li and Dr. John Esdaile

Best Abstract on Adult Research by Young Faculty Award Dr. Claire Barber University of Calgary Supervisor: n/a

Best Abstract on Research by a Rheumatology Resident Dr. Dania Basodan McGill University Supervisor: Dr. Rosie Scuccimarri

Best Abstract by a Medical Student Ms. Audrea Chen University of British Columbia Supervisor: Dr. Kim Morishita

Best Abstract by a Post-Graduate Resident Dr. Kun Huang University of British Columbia Supervisor: Dr. Antonio Avina-Zubieta.

Best Abstract by a Post-Graduate Research Trainee Dr. Ryan Lewinson University of Calgary Supervisor: Dr. Cheryl Barnabe

CRA: Call for Abstracts

You are invited to submit abstracts for presentation during the 2018 CRA Annual Scientific Meeting and AHPA Annual Meeting!

Deadline for submissions is **October 16, 2017.** Details will be available at *www.rheum.ca*.

care system, but it exists in reality only if there is appropriate access and treatment for all Canadians living with chronic rheumatic diseases.

Presidential Address

By Joanne Homik, MD, MSc, FRCPC

am writing this address as I pass the one-year mark of my two-year tenure as president of the CRA. The past year has been an exciting and productive one, as we continue to define the focus of our work, for the benefit of our members.

We have developed a strong set of guiding principles/governance policies during Dr. Cory Baillie's tenure. This allows us to now focus on planning the direction of the organization. I am proud of our efforts to seek out the opinions of our members to help develop the strategic priorities of the CRA.

We continue to prioritize key activities within Education and Research,

such as the Annual Scientific Meeting (ASM) and the CI-ORA grant program. Our members view these as important benefits of being a member of the CRA, and appreciate how they both help support the delivery of quality care in rheumatology. We have also been able to address new unmet needs of our members with the funding of members to participate in the Indigenous Competency Course (see the Editorial in this issue on page 3) and by including "non-medical expert role" topics at our ASM, such as communication strategies, the science of sleep, and harnessing the exercise trend.

We have started a process of meeting individually with the Chairs of the operational committees of the CRA (Guidelines, Human Resources, Optimal Care and Education so far). This has brought greater understanding as to how their goals and plans will help us to achieve the CRA's



strategic priorities. This has been a valuable learning exercise on both sides.

One of the more challenging goals of the CRA is to be acknowledged as the leaders in arthritis care. The original support of The Arthritis Society in the 1950s fostered the growth of rheumatology as a subspecialty in this country, and established rheumatologists as the leaders in arthritis care among their colleagues. In order to stay relevant as leaders in this field, we need to be engaged with other stakeholders in arthritis care. Policy makers, payers and regulatory bodies increasingly seek our opinions, both

through the organization and as individuals. We need to remain relevant in this space and contribute our expertise. We hope to make this a priority over the coming year and be able to report on our successes at the next ASM.

See you in Vancouver, next February 21-24, 2018, at the beautiful brand new Parq JW Marriott and the DOUGLAS hotel!

Joanne Homik, MD, MSc, FRCPC President, Canadian Rheumatology Association Associate Professor of Medicine, University of Alberta Edmonton, Alberta

An Update from CIORA (Continued from page 6)

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Janet Pope, MD, MPH, FRCPC Professor of Medicine, Division Head, Division of Rheumatology, Department of Medicine, St. Joseph's Health Care Western University London, Ontario

Distinguished Rheumatologist: Dr. Michel Zummer

Why did you become a rheumatologist? What or who influenced you along the way to do so?

Back then, during our internal medicine residency, we had two-month rotations in each specialty. Most of us had no clue about rheumatology. I was impressed by the amazing attitude of the patients who adapted to significant disabilities, even though we had very little to offer in the way of disease-modifying antirheumatic drugs (DMARDs) compared to today. Since we are not a hit-and-run speciality, we develop lifelong relationships with our patients. The ability to make a

diagnosis based primarily on history and physical exam is still true today. We remain mostly low-tech. Half my career has been pre-biologic medications and half post-biologics including optimized treatment strategies. It has been really exciting to see the positive impact on our patients, who have experienced amazing improvements in symptoms and function. I am looking forward to the next era, using new targeted oral medications.

You have served in leadership roles within the CRA. You joined as a board member in 2000 and served as president from 2004-06. You've helped organize joint CRA-Mexican College of Rheumatology (MCR) meetings and have been vice-president of the Pan-American League of Associations for Rheumatology (PANLAR) since 2012.

(a) Why was getting involved so important to you?

I was "dragged" into the CRA after making a phone call to Dr. Glen Thomson, who was then president, about an economic issue we had in Quebec. Before I knew it, he had



me chairing a committee. That lit the fire and I got more engaged and interested in what the CRA could do to facilitate change in each province. We learned to adapt to the changing therapeutic landscape and evolve our interactions with industry. I like to think that national leadership and knowledge shared between the different jurisdictions have improved care for people with arthritis.

(b) How has your work helped shape the field of rheumatology here and elsewhere?

I have had the privilege to work with

hundreds of incredible rheumatologists and other individuals at the CRA and at the Arthritis Alliance of Canada (AAC) to develop a framework for the delivery of musculoskeletal (MSK) care to people with arthritis. It is very satisfying to see the start of many significant changes and improvements in various provinces, which have used the resources or the influence of the AAC to further their cause.

What is the greatest professional and organizational challenge you have faced, and how did you address/ overcome this?

While most of my organizational work has occurred on the national level, I did hold leadership positions in Quebec. Much success has been achieved by the hard work of many rheumatologists in other provinces, especially Ontario, Alberta and British Columbia. However, instituting change in Quebec has been extremely difficult, despite the strong leadership of our recent presidents. Our provincial government refuses to acknowledge arthritis as a chronic disease, and therefore has not dedicated any planning or resources to our patients. Recently, all point-of-care decision-making



Dr. Zummer receiving his award from Dr. Joanne Homik, Dr. Carter Thorne, and Dr. Vandana Ahluwalia.

capabilities have been removed, and healthcare delivery has been homogenized. I believe that this will lead to further erosion of the quality of care that we are able to provide.

What do you foresee as challenges to Canadian rheumatologists in the future and what can individual rheumatologists and the CRA do to meet these challenges?

Canadian rheumatologists, as well as all physicians, must maintain our professionalism, respect our responsibilities and resist becoming public servants obedient to system administrators. We must identify and act on opportunities to push partnerships with governments and all stakeholders to include the views and needs of our patients and our healthcare providers. This has started in several provinces and the CRA should continue to help foster these activities.

What do you most enjoy about living and working in Montreal?

Sandra and I are both born and bred Montrealers, who love our city (if you can ignore politics, crumbling infrastructure, and construction nightmares). We live in a walkable city, which has many great and varied cultures, and amazing food.

Michel Zummer, MD, FRCPC Chief of Rheumatology, CH Maisonneuve-Rosemont Associate Professor, Université de Montréal Montreal, Quebec

Distinguished Investigator: Dr. Jacques Brown

What was your first thought when you learned that you would receive this award?

I first heard about this award on a voicemail – I was travelling and the CRA office couldn't reach me in time to make an official announcement. I was highly surprised and delighted since my area of research is somewhat outside the usual fields of expertise found in Canadian rheumatology.

Why did you become a rheumatologist? What or who influenced you along the way to do so?

As a first year trainee in Internal Medicine at Laval University in Quebec City, I was attracted by two subspecialties, rheumatology and neurology, which both at that time offered great diagnostic opportunities, but limited therapeutic options. I ended up choosing rheumatology because I had an excellent rotation in the Rheumatology Division at Le Centre Hospitalier de l'Université Laval (CHUL) headed by Dr. Lucien Latulippe. I have been most impressed by Dr. Gilles Mathon's passion and Dr. Jean-Yves Lang's wisdom. Together with Dr. Monique Camerlain in Sherbrooke, they convinced me that rheumatology was a subspecialty where we pay enormous attention to patient needs. My interest for clinical research was nurtured by Drs. André Lussier and Henri Ménard when I trained in rheumatology at Sherbrooke University. As a research fellow of the Arthritis Society, Dr. André Lussier mentored me through a two-year postdoctoral training in metabolic bone diseases at the Institut National de la Santé et de la Recherché Médicale (INSERM) unit directed by Professor Pierre J. Meunier in Lyon, France.

What do you believe are the qualities of a distinguished investigator?

First, you need a great deal of passion for what you do, to



make your hard work enjoyable and sustainable. As physicians, our research questions come from clinical unmet needs and a high level of confidence that if you don't address the problem yourself, there is a risk that no one else would do so. Collaborators are key to your success since you can't have all the expertise needed in a single researcher, no matter how talented he or she is. Finally, improvement of patient care should always be at the centre of our research activities.

You established the Groupe de recherche en rhumatologie

et maladies osseuses that became the catalyst for a productive research program that combined innovative laboratory-based research, clinical trials and large cohort studies. You have been coprincipal investigator on the Canadian Multicenter Osteoporosis Study (CaMos). What are some of the major breakthroughs you've had with your research? The most important one was the discovery in 2001, of the first and (still) only gene associated with Paget's disease of bone on Chromosome 5q35 tel: a recurrent mutation of the gene encoding sequestosome 1 (SQSTM1/p62). The enormous cost associated with the phenotypic characterization of close to one thousand subjects was covered by reinvesting the money generated from clinical research grants received from the pharmaceutical industry. This discovery has favoured the establishment of a young researcher in our institution, Dr. Laëtitia Michou, who now leads our research program on the genetics of Paget's disease of bone and rare genetic bone diseases.

I am also very proud of our epidemiological cohort research CaMos and the Recognizing Osteoporosis and its Consequences in Quebec (ROCQ) programme which brought back an esteemed young researcher to our unit, Dr. Louis Bessette. Both studies provided unique epidemiological data on osteoporosis, defining fragility fractures, clinically meaningful vertebral fractures, morbidity and mortality as well as financial costs associated with this debilitating disease.

All this was made possible by the dedicated and hard work provided by our talented clinical research nurses, our manager, as well as our administrative assistant, who all handled the growing complexity of clinical research standard operating procedures.

Are there other areas of interest you would like to investigate in the future? What projects will you be undertaking in the near future?

Over the last few years, I have investigated the causes of atypical femur fractures (AFFs), a very rare but serious adverse event affecting patients on long-term bisphosphonate therapy for osteoporosis. AFFs are "insufficiency" or "stress" fractures related to impaired bone material properties. In parallel, I have identified a family suffering from spontaneous AFFs in adults. We are currently investigating the genetic factors involved, with the hope of finding genetic markers that could be used to screen patients at risk of developing AFF when treated with bisphosphonates.

How does your research influence the clinical care of patients? What are you able to translate from research lab to examining room?

Early identification of patients with Paget's disease of bone and those at risk for AFF will greatly improve clinical care. Our epidemiological research contributed to improved knowledge of the disease processes and clinical management of osteoporosis and related fractures.

What have been the most rewarding aspects of going into the field of rheumatology and what have been some of the most challenging aspects?

The most rewarding has been to observe and contribute to the fabulous growth in our knowledge of the various rheumatic disease processes and the development of numerous new therapeutic options improving our patient care, as well as receiving gratifying recognition from our patients.

The most challenging aspect was to somewhat fail in moving osteoporosis and metabolic bone diseases to a higher priority level among the funding agencies and healthcare stakeholders.



Dr. Jacques Brown received his award from Dr. Joanne Homik and Dr. Laëtitia Michou.

You are marooned on a desert island? What book would you like to have on hand with you?

The Bible, being a practicing Roman Catholic. On a darker note, I would also like to re-read "The Godfather" by Mario Puzo, which illustrates the deleterious consequences of "the end justifies the mean" – something to always keep in mind during a successful career in a very competitive environment!

You are handed a plane ticket to anywhere in the world. Where do you go?

I would go to Scotland with my family to visit the homeland of our ancestors.

What advice would you give to someone looking to pursue a career as an academic rheumatologist?

Not everyone needs to pursue an academic career to be an excellent practicing rheumatologist, but if you're passionate and a hard worker, it is the easiest way to achieve excellence.

Are you considering retirement? What would you do if you were not a rheumatologist?

I am considering retirement within the next five years. I would have loved to be an airplane pilot.

Jacques Brown, MD, FRCPC Clinical Professor of Medicine, Department of Medicine, Laval University Rheumatologist, CHU de Québec-Université Laval Quebec City, Quebec

Teacher-Educator: Dr. David Robinson

What do you believe are the qualities of a good educator? How do these apply to you?

The things that I note about a good educator are depth of knowledge, passion about the subject that inspires learners, flexibility and clarity in delivery, and an understanding of and interest in the students. How this relates to me is a mystery.

Can you recall a teacher in your own past who inspired you and directed your own course into education?

Many, but the most memorable is my

wife Enid Brown who was a highly-respected Instructor at the University of Winnipeg. She was a key person whose "teaching style" I emulated and still do to this day. She made hard things seem easy and inspired her students.

In addition to clinical teaching, you've held a number of education positions including Program Director for 10 years and Undergraduate Medical Director for Rheumatology at the University of Manitoba for more than 15 years. From your vantage point, how has the nature of medical education changed?

Boy has it ever changed. Love it or hate it, post-graduate education has changed from being an apprenticeship-type experience to being much more "professional" with stricter accreditation standards, development of CanMEDS, restrictions on duty hours, and many more changes to come with competency-based programs. Undergraduate education has moved from didactic lectures and note-taking to self-learning and on-line material. Most of the medical students now skip out lectures to learn at high speed online. Adapt or perish!



You have a great interest in rheumatic diseases in First Nations and participate in outreach clinics with First Nations groups in Manitoba. How does the presentation and epidemiology of rheumatic diseases differ in First Nations?

Rheumatic disease, particularly RA has a unique biology in First Nations. This includes unique genetics, young age at presentation, high titers of autoantibodies and a predilection for larger joints. In 2017 these are easily surmountable with our current medications. Unfortunately, geography,

social determinants of health, and First Nations' complex relationship with the health care system means we still see the natural history and destruction of these diseases. It is very rewarding to make a difference in these communities.

It is noted time and again that there is a disparity in access to quality healthcare for First Nations groups. Why does this gap in access continue to exist and what steps must be taken (by government and leaders) to eliminate this gap?

Gaps in care continue because of geography, social determinants of health and the historic disenfranchisement of First Nations. Outreach clinics definitely help narrow this gap. In the communities I visit, everyone who wants care can receive it, although many have competing life priorities. There are still huge deficits in things like access to physiotherapy. The dialogue the CRA has developed with the federal Non-insured Health Benefits (NIHB) program has definitely streamlined access to medications for our rheumatic disease patients. There are several more jurisdictional roadblocks that need breaking down between provinces and the federal government. Long-term solutions will only come with adequate funding of education in First Nations communities. Elimination of the gap will truly take a generation or more.

What do you most love about living and working in Manitoba?

Great colleagues and fascinating work. Family ties. The City of Winnipeg is not too big and not too small. Awesome summers. Cottage country is close by – and you can afford to own one.

As a respected teacher-educator, what would your advice be to a prospective rheumatologist?

Find a mentor – maybe a couple. Be willing to explore less common practice settings (um – like in Winnipeg, for example). Specialize in something – even if it's only a tiny piece of your practice. It will make it more rewarding. Have fun. Rheumatology is a great gig.

You are marooned on a desert island? What book would you like to have on hand with you? Dummy's Guide To Boat Building.

What talent do you have that is not utilized successfully in your workplace?

Stand-up comedy. No one seems to get the jokes.



Dr. Joanne Homik and Dr. Cory Baillie presented Dr. David Robinson with his award.

If you had one free hour each day how would you use it?

Exercise. Either that or drink the other half of the bottle of wine.

David Robinson, MD, MSc, FRCPC Associate Professor, Department of Medicine, University of Manitoba Winnipeg, Manitoba

WELCOME TO THE RHEUM Welcome to the following new members:

Nouf Alhammadi, Toronto, ON Adam Amlani, Calgary, AB Sibel Zehra Aydin, Ottawa, ON Pul King Chiang, Toronto, ON Jean-Philippe Deslauriers, Sherbrooke, QC Georgina Tiller, Vancouver, BC Paul Tsoukas, Pittsburgh, PA Brett Toombs, Montreal, QC

The CRA would also like to announce that the 2018 CRA Annual Scientific Meeting (ASM) and Arthritis Health Professionals Association (AHPA) Annual Meeting will be held in Vancouver, British Columbia. Please visit www.rheum.ca for more information.

Young Investigator: Dr. Vinod Chandran

What compelled/inspired you to become a rheumatologist and a clinician-scientist?

I completed my clinical immunology-rheumatology training in the early 2000s in India. At that time, rheumatology was an emerging specialty. It was seen as a natural subspecialty to train in for those inclined to undertake advanced training in internal medicine, and the management of complex and sometimes obscure systemic diseases. I therefore applied and was accepted to the only centre in India offering such training.

The training at the Sanjay Gandhi

Institute of Medical Sciences, Lucknow, was structured to allow time for thoughtful reflection on cases encountered, translational research, and close collaboration with basic scientists and PhD students in immunology. We learned basic immunology from the immunologists and they learned clinical relevance of their research from us. We also had to spend a year in the laboratory doing bench research. This set the stage for me to become a translational researcher. My subsequent fellowship and PhD training at the University of Toronto set me up on the path of becoming an independent clinician-scientist in translational research in my chosen field of spondyloarthritis and related diseases.

What was your first thought when you learned that you would receive this award?

Clerical error! Better wait for a few days before I let other people know...

One aspect of your current research is focused on developing a soluble biomarker-based screening and prognostic tools for psoriatic arthritis,



a potentially debilitating inflammatory arthritis. What would be the clinical implications of your research? How could it change the way a diagnosis is perceived?

There is considerable subjectivity in the diagnosis and assessment of the spondyloarthrides, including psoriatic arthritis. It is often uncertain if the patient seen in the clinic has the disease, or if the disease is active requiring escalation of therapy. I believe that valid and reliable biomarkers will help the clinician be more confident in the diagnosis and assessment of

psoriatic arthritis and thus lead to better care of patients with this heterogeneous disease.

What has been your proudest accomplishment in your research to date?

Identification of putative soluble biomarkers through proteomic analyses of synovial fluid and skin biopsies from patients with psoriatic disease.

You've published 144 journal articles, two books and seven book chapters and achieved an H-index of 32-your work on genetics, classification criteria and soluble biomarkers being the most cited. How has your research influenced the international and Canadian research landscape within rheumatology? It is still early days yet, but my current research has opened up new avenues for biomarker discovery, and complements genomic, transcriptomic and metabolomic studies in psoriatic disease. Simultaneously, my research has also identified possible new drug targets, better methods of assessment of disease and treatment, barriers for referral and diagnosis of psoriatic arthritis, and will eventually lead to better outcomes for patients with psoriatic disease.

You are handed a plane ticket to anywhere? Where do you go?

One ticket will not do – I need two – and we will fly off to Bhutan, the land of the thunder dragon, the last Shangri-la...

If you had an extra hour in the day, how would you spend it? Reading non-fiction.

What would your advice be to a student considering the possibility of pursuing research into rheumatic diseases?

Rheumatic diseases are common and have a significant adverse impact on a large proportion of people in Canada and across the globe. There are a number of unmet needs when caring for patients with rheumatic diseases. If one is passionate about making a difference for a large number of people, tremendous opportunities in doing so exist because of the recent progress in technology and scientific methods. Ultimately, rheumatic disease research will be extremely satisfying.

What are some of the highlights and challenges you have experienced thus far in your career? How have you overcome these challenges?

The Siminovitch-Salter award for my PhD thesis and the CRA Young Investigator awards have been the highlights of my training and career thus far. My challenge has been to find my own independent path in the current intensely competitive environment. Having a mentor, as well as identifying unique research avenues through networking and collaborations beyond my core fields of rheumatology,



Dr. Chandran receiving his award from Dr. Heather McDonald-Blumer, Dr. Dafna Gladman, and Dr. Joanne Homik.

immunology and genetics will help me overcome my current challenges.

What do you most love about living in Toronto?

I love the anonymity that living in a large bustling city provides to an introvert like me. The ability to experience the diversity of the human form and spirit within a few square kilometres is fascinating!

Vinod Chandran, MB, BS, MD, DM, PhD Assistant Professor of Medicine, Division of Rheumatology Department of Medicine University of Toronto Staff Physician, University Health Network Mount Sinai Hospital Toronto, Ontario

WHEN METHOTREXATE ALONE IS NO LONGER ENOUGH, CONSIDER "**XELJANZ**".

Simple, twice-daily oral dosing

XELJANZ (tofacitinib) in combination with methotrexate (MTX) is indicated for reducing the signs and symptoms of rheumatoid arthritis (RA) in adult patients with moderately-to-severely active RA who have had an inadequate response to MTX. In cases of intolerance to MTX, physicians may consider the use of XELJANZ as monotherapy.

Use of XELJANZ in combination with biological disease modifying anti-rheumatic drugs (DMARDs) or potent immunosuppressants such as azathioprine and cyclosporine is not recommended.

Most serious warnings and precautions:

Risk of Serious Infections: Patients treated with XELJANZ are at increased risk for developing serious infections that may lead to hospitalization or death. Most patients who developed these infections were taking concomitant immunosuppressants such as methotrexate or corticosteroids. If a serious infection develops, interrupt XELJANZ until the infection is controlled. Reported infections include: active tuberculosis, invasive fungal infections, bacterial, viral, and other infections due to opportunistic pathogens.

Treatment with XELJANZ should not be initiated in patients with active infections including chronic or localized infection.

Patients should be closely monitored for the development of signs and symptoms of infection during and after treatment with XELJANZ, including the possible development of tuberculosis in patients who tested negative for latent tuberculosis infection prior to initiating therapy.

Malignancies: Lymphoma and other malignancies have been observed in patients treated with XELJANZ. Epstein Barr Virus-associated post-transplant lymphoproliferative disorder has been observed at an increased rate in renal transplant patients treated with XELJANZ and concomitant immunosuppressive medications.

Other relevant warnings and precautions:

• Risk of gastrointestinal perforation. Use with caution in patients who may be at increased risk for gastrointestinal perforation.



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- Risk of viral reactivation, including herpes zoster.
- Risk of malignancies, lymphoproliferative disorder, and nonmelanoma skin cancer.
- Risk of lymphopenia, neutropenia, anemia, and lipid elevations.
 XELJANZ should not be used in patients with severe hepatic
- VLEDAVZ should not be used in patients with severe nepatic impairment, or in patients with positive hepatitis B or C virus serology.
 Use with caution in patients with a risk or history of interstitial lung
- disease (ILD).
- XELJANZ can increase the risk of immunosuppression. Concurrent use with potent immunosuppressive drugs is not recommended.
- Concurrent use with live vaccines is not recommended.
- Use with caution in patients with impaired renal function (i.e., CrCl <40 mL/min).
- XELJANZ should not be used during pregnancy.
- Women should not breastfeed while being treated with XELJANZ.
- The safety and effectiveness of XELJANZ in pediatric patients have not been established.
- Caution should be used when treating the elderly and patients with diabetes because of an increased risk of serious infections.
- Use with caution in Asian patients because of an increased risk of events including: herpes zoster, opportunistic infections and ILD.
- Treatment with XELJANZ was associated with increases in creatine kinase.

Demonstrated efficacy where response to methotrexate was inadequate

In MTX-IR patients, XELJANZ + MTX showed significantly greater symptom reduction vs. placebo + MTX at 6 months (as measured by ACR response rates).^{1*}

This study was not designed to compare XELJANZ to adalimumab.



Improvements from baseline in physical functioning were significantly greater in patients receiving XELJANZ + MTX vs. placebo + MTX at 3 months (as measured by decreases in HAQ-DI scores).^{1*}

Mean HAQ-DI decrease from baseline at 3 months: -0.56 XELJANZ 5 mg BID or -0.51 adalimumab 40 mg QOW vs. -0.25 placebo (*p*<0.0001). This study was not designed to compare XELJANZ to adalimumab.

- XELJANZ causes a decrease in heart rate and a prolongation of the PR interval. Caution should be observed in patients with a low heart rate at baseline (<60 beats per minute), a history of syncope or arrhythmia, sick sinus syndrome, sinoatrial block, atrioventricular (AV) block, ischemic heart disease, or congestive heart failure.
- Treatment with XELJANZ was associated with increased incidence of liver enzyme elevations.

For more information:

Please consult the Product Monograph at http://pfizer.ca/pm/en/XELJANZ.pdf for important information relating to adverse reactions, interactions, and dosing information which have not been discussed in this piece. The Product Monograph is also available by calling us at 1-800-463-6001.

Reference: 1. Pfizer Canada Inc. XELJANZ Product Monograph. September 15, 2015. 2. Arthritis Society. June 2014 Impact - Ease of Use. Available at http://www.arthritis.ca/page.aspx?pid~7650. Accessed July 22, 2014. BID = Twice daily; QOW = Every other week; MTX-IR = Methotrexate Inadequate Responders

- * Multicentre, randomized, double-blind, placebo-controlled study in patients ≥18 years with active RA according to ACR criteria. Patients received MTX and were randomized to receive XELJANZ 5 mg BID (n=196), adalimumab 40 mg QOW (n=199), or placebo (n=106). The primary endpoints were the proportion of patients who achieved an ACR20 response at month 6, mean change from baseline in HAQ-DI at month 3, and the proportion of patients who achieved DAS28-4 (ESR) <2.6 at month 6.</p>
- The Arthritis Society's Ease-of-Use Commendation recognizes products, like the XELJANZ bottle cap, that have been independently tested for easy use and handling for people living with arthritis. The Arthritis Society does not determine the therapeutic value of products and the designation is not intended as a general product endorsement that are designed for ease of use in patients with arthritis.

PAAB



The XELJANZ bottle cap was awarded The Arthritis Society's Ease-of-Use Commendation.^{2†}





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The 2017 Practice Reflection Award

By Sahil Koppikar, MD; and Henry Averns, MB, ChB, FRCP (UK), FRCPC

Co-winners of Gold

Henry Averns, MB, ChB, FRCPC; and Sahil Koppikar, MD

Firstly, we would like to thank the CRA for this award and for recognizing the importance of practice reflection in improving patient care. Whilst clinical audits are common practice in many countries, the Royal College of Physicians and Surgeons of Canada (RCPSC) does not currently mandate them. Recently, the CRA has recognized that a self-regulating profession must clearly engage in reflection and practice change. This has resulted in various self-assessment continuing medical education (CME) programs as the CRA aims to develop a repository of projects. However, it still remains unclear how many Canadian rheumatologists actually participate in self-reflection programs.

We first evaluated rheumatologists' perceptions around clinical audits. An anonymous survey across eastern Ontario showed that only one rheumatologist had practice reflection embedded as part of their practice. All rheumatologists agreed that clinical audits have the potential to improve patient care and achieve the standard of care. However, lack of time, staff shortages, and lack of experience with clinical audits were key barriers.

To help clinicians less confident in the process, we developed an audit that could be easily applied on a broad scale. Ten Eastern Ontario Rheumatology Association (EORA) members participated in a clinical audit around appropriate hydroxychloroquine (HCQ) dosing and toxicity screening. Each clinic received screening forms, audit standards, and a questionnaire to be filled during clinical encounters. Each form added only 30 seconds to a patient encounter. We found that rheumatologists are consistently below recommended standards. Therefore, a simple intervention was conducted by providing each clinic with HCQ dosing charts that could be easily applied during each visit. Feedback suggested that this audit was beneficial in improving prescribing habits to meet standards of care. Further, rheumatologists were willing to consider more self-assessment programs in the future.

It is clear that rheumatologists recognize the importance of practice reflection. Providing clinicians with audit standards, forms and some guidance will eliminate barriers and allow for reflection programs to be applied broadly in a



Dr. Averns and Dr. Koppikar, co-winners of the gold Practice Reflection Award, pose with Dr. Christopher Penney.

straightforward and cost-effective manner. Furthermore, as a trainee, this project instilled an early culture of reflection that will be carried throughout my career.

We would like to thank the EORA and all participants including Drs. Davis, Doris, Karsh, Kraag, Liu, Midzic, Purvis, Schellenberg, and Thomson.

Sahil Koppikar, MD Rheumatology Resident, University of Toronto Toronto, Ontario

Henry Averns, MB, ChB, FRCP (UK), FRCPC Consultant Rheumatologist President, Ontartio Rheumatology Association Kingston, Ontario

RheumJeopardy! 2017

By Philip A. Baer, MDCM, FRCPC, FACR

amification is a hot topic in medical education currently. *RheumJeopardy!* premiered at the 2016 CRA Annual Scientific Meeting (ASM) in Lake Louise. Patterned on the popular TV show hosted by Canadian expatriate Alex Trebek, the initial attempt featured a battle between the older Dr. Geezers and the youthful Dr. Youngs. I moderated with the assistance of Dr. Evelyn Sutton and Dr. Chris Penney.

During the summer of 2016, I had the chance to review the evaluations from our attendees. These were generally favourable, but a number of valid issues were raised, including the need for more focus on rheumatology and less on rheumatologists, more questions with a French language component, and more questions on the extra-curricular activities of rheumatologists. When the invitation came to run *RheumJeopardy*! at the 2017 CRA ASM, I seized the chance to implement the requested changes.

We convened on a cold Friday afternoon in Ottawa. Dr. Tom Appleton chaired, I moderated, and the team captains were Dr. Vinod Chandran (East) and Dr. Raheem Kherani (West). To balance the teams, the East-West dividing line was the western border of Toronto. We debuted a new polling system, PollEverywhere, allowing all audience members to answer each question. Thanks to Mark Atkinson for his technical expertise in programming all the questions and answers.

The team captains showed a penchant for selecting the high-value questions on the board. Categories included "What's in a Name", "Rheumatology Places", "Celebrity Rheumatology", "Rheumatology Potpourri", "Osteoarthritis", and "Mixed Bag".

The contest was very tight throughout. The Groove and Sandwich signs were well known, but the pre-marketing name changes for Celebrex (celecoxib) and Xeljanz (tofacitinib) were not. The meaning of trial acronyms such as DESIR and AMBITION also proved difficult. We learned that Bursa is a place in Turkey and that a town in Texas is now called DISH (after the satellite company, not the spinal condition). The actor who played Darth Vader (David Prowse, not James Earl Jones) had juvenile idiopathic arthritis (JIA), while Harold Ramis of "Ghostbusters" fame died of vasculitis. The fact that HLA-B27 protects against HIV infection was not widely known to either team. Osteoarthritis (OA) therapies proved



Dr. Baer, our editor-in-chief, organized and hosted RheumJeopardy! 2017.

difficult, with neither team believing that intra-articular ozone therapy would be useful (Abstract 311 at ACR 2015), while methotrexate and spironolactone had some evidence of benefit, though unloading shoes did not. Pachydermodactyly was too easy a sight diagnosis for this audience, but "biomimics" (unapproved attempts at making biosimilars) were a new construct. Finally, the use of dermal temperature over joints as a predictor of radiographic damage in RA was literally a foreign concept. As the authors of this study stated (ACR 2016; 68(8):1201-05), it could be used "from Uganda to Uruguay", apparently leaving out Canada!

After a tense hour, Final Jeopardy arrived, with East leading West 8,200 to 6,800. Both teams risked everything on one last question on the topic of "Hobbies of Canadian Rheumatologists". The answer revolved around bird watching, with both teams knowing this had to refer to Dr. Nigil Haroon (*www.nigilharoonphotography.com/nature/birds*). Thus, the East team emerged triumphant with a final score of 16,400 to 13,600 for the West.

Evaluations are pending, but we may be back for another session of *RheumJeopardy*! in Vancouver at the 2018 CRA ASM.

Philip A. Baer, MDCM, FRCPC, FACR Editor-in-chief, CRAJ, Scarborough, Ontario

CPD for the Busy Rheumatologist: What Makes a Good Trilogy? Maximizing Your Learning and Building Your MOC Credits

By Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE; Jerry M. Maniate, MD, M. Ed, FRCPC; and Craig M. Campbell, MD, FRCPC

Section 1

Do you remember the sessions you went to at the 2017 CRA Annual Scientific Meeting (ASM) in Ottawa? Reflecting over the past few months, you enjoyed meeting colleagues in February, and even got a chance to skate on the canal during Winterlude festivities! That opening keynote talk by Dr. Jonathon Fowles on "Exercise is Medicine" was meaningful in what to do to help patients progress further in engaging with exercise. At the time, you thought about the fact that you have often suggested exercise, but patients have come back and said it is too difficult, or they do not have sufficient time. Because of these reflections at the conference, you may have tried to see if there was room in his workshop so that you could apply this further and learn more about practical ways to implement prescribing exercises for individual patients. All these learning activities qualify for Maintenance of Certification (MOC) Section 1 credits (www.royalcollege.ca/rcsite/cpd/moc-program/ moc-framework-e) (1 hour =1 credit).

Section 2

Over the months since the ASM, you have seen several patients in your clinical practice that would benefit from simple exercises. These patient interactions may have stimulated you to ask what specific tools or strategies are effective in promoting patients to engage in exercise. As part of this learning project, you may have reviewed the Exercise is Medicine website (*http://exerciseismedicine.org/canada/*) and some of the tools for patients – specific strategies to prescribe exercise, handouts for patients and videos on teaching simple resistance band exercises. Based on this material, you decided how you would use these tools for patients who would benefit from exercise. This is a personal learning project which qualifies for MOC Section 2 credits (*www.royalcollege.ca/rcsite/cpd/moc-program/moc-framework-e*) (1 hour = 2 credits). And, there is more...

Section 3

At the end of a busy day in clinic, you sit back and wonder if prescribing exercise helps patients? There is evidence that it certainly helps patients. But what you are wondering is does it help my patients? Can I help other similar patients? This stimulates exploration through a chart audit. After reviewing the Royal College guidelines on clinical audit (www.royalcollege.ca/rcsite/documents/continuing.../clinicalaudit-guidelines-e.pdf), you decide to review the last 10 patients for whom you have prescribed exercise to find out how such a prescription has improved their functional status (with a Patient Global Score or a Health Assessment Questionnaire [HAQ]) three months later. Some patients did not comment on any benefit, or at least it was not noted in your chart notes. Some patients reported a 20 to 30 point improvement in their Patient Global Score (out of 100)! You review these findings with a colleague, who gives you feedback and stimulates your reflection on how prescribing exercise is currently helping patients and ways in which these prescriptions can be enhanced to help your patients even further. The time spent on this clinical chart audit that incorporate feedback and reflection with a colleague, qualifies for MOC Section 3 credits (www.royalcollege.ca/rcsite/cpd/moc-program/moc-framework-e) (1 hour = 3 credits).

Looking back, all these learning activities were stimulated by the one-hour keynote session you attended in Ottawa in February, all the while furthering the care of your patients!

Sequential learning with multiple activities from different MOC sections helps translate knowledge from theory into practice, while evaluating its impact on patient outcomes. We all have busy lives with competing personal and professional interests. This utilization of a single educational session can indeed result in a good trilogy, not only for your MOC Program participation, but also for your personal development and enhancement of patient care. For more questions about the MOC Program, please consult the Royal College's web pages on Continuing Professional Development (CPD) activities (www.royalcollege.ca/rcsite/cpd/moc-program/cpd-activities-can-record-e) and FAQs. If you have stories or tips to share, please email Claire McGowan at claire@rheum.ca.

Acknowledgement: To Dr. Barry Koehler (former CRA Past-President), for the initial discussion that lead to this article, immediately following the 2017 CRA ASM.

Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE CRA Education Committee Chair Clinical Associate Professor, University of British Columbia Medical Lead, Arthritis Program, GF Strong Rehabilitation Centre Vancouver, British Columbia Rheumatologist, West Coast Rheumatology Associates Richmond, British Columbia Jerry M. Maniate, MD, M. Ed, FRCPC Chief, Medical Education, Research and Scholarship St. Joseph's Health Centre Assistant Director of Researchers, Wilson Centre, University of Toronto Toronto, Ontario

Craig M. Campbell, MD, FRCPC Director, Continuing Professional Development, The Royal College of Physicians and Surgeons of Canada Ottawa, Ontario

Indigenous Studies (Continued from page 3)

This was led by Dr. Lynden Crowshoe, author of the *CMAJ* diabetes article listed above, a member of the Piikani First Nation, and a family physician and Associate Professor in the Department of Family Medicine, Cumming School of Medicine at the University of Calgary. The workshop featured two simulated patients and allowed several participants to interact with them, followed by insight from Dr. Crowshoe and the group on best practices in this setting. The workshop was videotaped as a resource for CRA members and medical school teaching. The atmosphere was welcoming and non-threatening, and provided an opportunity to put the course learnings into action in a safe setting.

I gained a great deal from participating in this novel exercise. Whether or not funding a later-in-career rheumatologist with a limited Indigenous practice was a wise investment could be argued, but I certainly appreciated the opportunity I was afforded. The value of being a CRA member was reinforced. I would highly recommend the course and the time investment required if it is offered again through the CRA. The lessons learned can be applied to all patients whose culture differs from our own, whether Indigenous or not.

For a taste of the course and the San'Yas program, you can listen to the podcast from Dr. Brian Goldman's CBC

Radio show White Coat, Black Art, entitled "I am a white settler: Why that matters in healthcare" originally broadcast in December 2016 (Reference 6 below).

Treating everyone exactly the same, regardless of culture, may not be the best model of care.

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Philip A. Baer, MDCM, FRCPC, FACR Editor-in-chief, CRAJ Scarborough, Ontario

Conservative Management to Reduce the Symptoms of Hip and Knee OA: GLA:D[™] Canada

By Aileen Davis, BScPT, PhD; and Rhona McGlasson, PT, MBA

Today and Over the Next 30 Years," published by the Arthritis Alliance of Canada (AAC), indicates that, with a new diagnosis of osteoarthritis (OA) every 60 seconds, there will be more than ten million (or one in four) Canadians with osteoarthritis (OA) within a generation.

OA is a disease of the whole joint, which often develops over many years. Starting with minor fluctuating symptoms – which can include swelling and/or pain and/or stiffness in the joint – the disease can progress to severe pain and physical limitations. These changes can prevent individuals from participating in their everyday physical activities, including recreational activities and going to work. Only 12% of people with hip or knee OA meet the minimum requirements for physical activity as identified in the Canadian Guidelines for Physical Activity. The pain and disability from OA not only leads to reduced quality of life, but is associated with a significant increase in all-cause mortality and serious cardiovascular events.

The clinical assessment and diagnosis of patients with hip and knee OA is difficult due to the lack of correlation between symptoms and X-ray findings. Many people with

extensive X-ray changes experience no pain or problems with function, while others with minimal X-ray changes experience extensive pain and a resultant loss of function. As such, the diagnosis and associated treatment recommendations need to be made based on symptoms, clinical findings and risk factors, irrespective of the X-ray findings. In fact, when the clinical presentation clearly reflects OA, X-rays are now often not required.

The first line of treatment for individuals presenting with OA is conservative management including education about the disease, exercise, and weight control. There are a number of different types of exercises, including aerobic and strengthening exercises. Neuromuscular exercises are a form of strengthening exercise which focus on stabilizing the joint using biomechanical principles and sensorimotor feedback. These are extremely important exercises for individuals with hip and knee OA, as they address the abnormal movement patterns that occur as a result of the disease process.

Many individuals will respond to a treatment regime of education, exercise and weight control and require no further intervention. A few will require additional manage-

> ment and may choose to take oral medications or use assistive devices, such as braces or orthotics. A small percentage of these individuals will experience progression of their disease and require consultation with an orthopedic surgeon to discuss surgical options. With extensive research now showing the limited effectiveness of arthroscopic surgery of the knee, the surgical option that is available for individuals with hip or knee OA is total joint replacement (TJR) surgery.

> Whatever the status of the disease or medical management options, education, exercise and weight control are essential components of treatment. A program has been developed in Denmark called Good Life with Osteoarthritis in Denmark or GLA:D[®] to help individuals with knee and/or

hip OA to reduce their symptoms and increase their physical activity levels. The GLA:D® program includes two (or three, with a program participant serving as a motivational speaker) education sessions and 12 supervised neuromuscular exercise sessions over six weeks. The program is undertaken in a group format to facilitate positive group dynamics and participant motivation. Certified therapists provide participants with individualized exercises targeted at controlling the movements of their joints to facilitate stability and control of the core and lower extremities. The exercises reflect every day activities that require coordinated movements of the knee and hip, such as sitting to standing and going up and down steps. By training muscle control in a supervised exercise environment, individuals are taught to apply these skills to their daily activities. This results in a reduction in the abnormal stresses occurring through the joint structures, which leads to reduced symptoms, improved strength, and confidence in the stability of the joint.

The program is effective for individuals who have mild, moderate and severe symptoms, including individuals waiting to undergo joint replacement surgery. GLA:D[®] program training has been provided to over 900 physiotherapists across Denmark, and outcome data are collected from participants at baseline, three and 12 months post program. Over 21,000 individuals have received the standardized program, which has been shown to effectively reduce symptoms by 32%, sustained over one year.

The Canadian Orthopedic Foundation (COF) has brought the program to Canada through a licensing agreement with program developers from Denmark. It is currently being implemented across Canada under the title "GLA:DTM Canada" through training provided by Bone and Joint Canada (BJC), a knowledge-translation division of COF. Under the agreement, the program content reflects Denmark's, including two (or three) education sessions, 12 exercise sessions and data collection, which occurs at baseline, three months and one year. All materials were adapted to reflect the Canadian context.

To ensure the results of the program were transferable to Canada, a pilot project was undertaken at the Holland Orthopedic and Arthritic Centre at Sunnybrook Health Sciences Centre in Toronto. It was offered to individuals who had been assessed and deemed non-TJR candidates for both hip and knee surgery, and who had decided to continue to access conservative management. The results



of the study were similar to those from Denmark, with very positive qualitative comments from the therapists and patients, providing confidence that the program is appropriate for Canada.

The GLA:D[™] Canada program has now been launched across Canada. Training sessions to certify eligible healthcare professionals have been provided across the country, including Ontario (supported by the Ontario Trillium Foundation), Alberta (supported by Alberta Health Services) and British Columbia (supported by The Arthritis Society). The program will reach the Prairies in June and the Atlantic region in the fall of 2017.

Further information about the program as well as clinic locations can be found on the website at *http://gladcana-da.ca*, and questions can be directed to Rhona McGlasson at *rhonaamcglasson@gmail.com*.

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Difficult Lupus: A Heart-wrenching Case

By Stephanie Keeling, MD, MSc, FRCPC

Case: A previously well 31-year-old Vietnamese female, who moved to Canada ten years ago (G2TA1), delivered a healthy son at 41+ three days in October 2016 by cesarean section after failing to progress despite oxytocin augmentation. Her pregnancy was uneventful other than group B streptococcal positivity requiring penicillin predelivery. She had an older sister with systemic lupus erythematosus (SLE) and was on L-thyroxine for hypothyroidism.

Two months postpartum, she presented to her family doctor with sore throat and slight facial rash treated with amoxicillin. Due to worsening of her symptoms, she presented two days later to a local community hospital. She received supportive care (acetaminophen and dimenhydrinate) and was discharged with a diagnosis of an influenza-like illness. She returned several days later with increased cough, high fever, worsening facial rash, myalgias, and arthral-gias. She was admitted for presumed pneumonia, worsening leg edema and treated with intravenous ceftriaxone, although pancultures were negative. Despite discharge, she presented several days later to the University Hospital in biventricular failure (Brain Natriuretic Peptide (BNP) > 3000 [very high]) and was admitted to the coronary care unit (CCU) for therapy with milrinone, bilevel positive airway pressure (BiPAP) support, blood transfusion and close monitoring by the cardiac transplant team.

Rheumatology and nephrology were consulted due to suspicion of SLE based on her acutely worsening malar rash and labs, including worsening renal function with active urinary sediment. She was anti-nuclear antibody (ANA) positive, extractable nuclear antigen (ENA) negative, strongly positive for double-stranded DNA, significantly hypocomplementemic (C3/C4), pancytopenic (hemoglobin 83 g/L, platelets 92,000 per mcL, white blood cells 1.0 x 10⁹/L with 0.5 10⁹/L neutrophils). Antiphospholipid antibodies (*i.e.,* anticardiolipin and lupus anticoagulant) were negative. A renal biopsy showed diffuse proliferative nephritis (Class 4). Echocardiogram showed left ventricular ejection fraction [EF] of 10-15%.

In addition to supportive therapies for her profound heart failure, she received 1 g methylprednisolone pulse daily for three days, followed by prednisone 1 mg/kg/day. After lengthy discussions between multiple specialists debating between cyclophosphamide and mycophenolate mofetil (MMF), MMF was initially prescribed at 1000 mg twice a day (targeted dose of 1500 mg bid; patient weight 50 kg) in addition to hydroxychloroquine 300 mg daily. Due to initial poor response of her cardiac status and concern that her cardiomyopathy was related to her acute new presentation of SLE, rituximab 1000 mg doses two weeks apart were added; the first dose was given within two weeks of presentation.

A cardiac magnetic resonance imaging (MRI) was performed approximately four weeks after her SLE therapies were initiated and showed no delayed gadolinium enhancement, infarct or infiltrates and no valvular abnormalities. She had a small anterior pericardial effusion, severely dilated left ventricle (EF 22%) with preserved right ventricle. The delay in obtaining cardiac imaging reflected the significant instability of the patient who remained too tachycardic and renally insufficient to perform the test earlier.

Despite a hospital course complicated by profound suicidal ideation (brain MRI normal), the patient stabilized over four weeks in hospital and a repeat echocardiogram showed improved left ventricle (LV) EF of 30-35%. Clinically, her heart failure symptoms markedly improved to a New York Heart Association (NYHA) Class II status post-discharge on carvedilol, ramipril, and spironolactone. Other than steroid side effects including moon facies, she had no persistent manifestations of lupus, including no acute or chronic cutaneous lupus, pancytopenia, or arthritis. Her renal function normalized with no active urinary sediment. Complement levels and double-stranded DNA also normalized.

The patient returned to her new business running a beauty salon within two weeks of discharge and continued to care for her four-month-old son. She had ongoing questions regarding her diagnosis, the need for long-term medications, as well as confusion about the etiology of her cardiac diagnosis, which was officially deemed to be post-partum cardiomyopathy by cardiology. In contrast, the multiple rheumatology consultants involved in her care attributed the cardiac manifestations to her active SLE. This complex case of new-onset SLE in a young post-partum female presented many challenges for the multiple consultants and trainees involved in the case, all of which cannot be done justice in this Hallway Consult. These challenges included: a) attribution of the cardiac manifestations; b) urgent therapeutic interventions for active SLE including cardiac manifestations; c) etiology of her suicidal ideation; d) limitations in conducting the best cardiac evaluations during her CCU stay due to instability; e) lack of congruence between patient and physician expectations for prognosis and long-term medications; and f) communicating with the patient and other specialists when specific diagnoses were questioned.

Postpartum cardiomyopathy (PPCM) is diagnosed in women without past history of heart disease, within one month before delivery or up to five months postpartum, and can account for up to 11% of maternal deaths.¹ While full recovery is expected within six months of disease onset in approximately 50% of women, long-term sequelae include heart failure and death, and recurrence of PPCM can be seen in up to 50% of women in a subsequent pregnancy.¹ The etiology of PPCM is unclear but may include inflammation, autoimmune processes, apoptosis, viral infections, malnutrition, hormonal abnormalities, stress-activated cytokines and endothelial dysfunction.² Moreover, an important role of prolactin has been postulated whereby cathepsin D cleaves prolactin leading to oxidative stress on the endothelium, cardiac vasculature and cardiomyocyte function.^{3,4}

Cardiac disease in SLE encompasses the spectrum of coronary artery-related and non-coronary artery-related diseases. Specific non-coronary artery diseases include valvular vegetations (*e.g.*, Libman Sacks), antiphospholipid antibodies and valvular disease, pericardial disease, myocarditis and conduction abnormalities.^{5,6,7} Lupus myocarditis, cardiomyopathy and heart failure are uncommon in lupus.⁸ The prevalence of lupus myocarditis is discrepant between biopsy studies in autopsy studies compared to clinical diagnoses of myocarditis and findings in clinical series.⁹ Extrapolating to our patient, other factors rather than myocardial inflammation may have had a causal pathophysiologic role inducing a stress-like cardiomyopathy^{8,10,11}.

In the case of our patient, she received urgent interventions for cardiac failure and acute severe lupus at the same time. She was unable to have a myocardial biopsy due to her clinical instability, and was well into therapy and improved when she might have tolerated the procedure. The choice of MMF versus cyclophosphamide reflected the totality of her lupus manifestations, young age (although everyone agreed she should never pursue another pregnancy), and concerns voiced by several colleagues about the risk of cyclophosphamide inducing heart failure (albeit rare and arguably controversial in this clinical situation). Evidence for treating SLE-related cardiomyopathy/myocarditis remains observational and largely based on case reports and case series.^{12,13}

Fortunately, our patient recovered within the expected window where her SLE medications including rituximab, MMF, and hydroxychloroquine would be expected to work and while also continuing on moderate prednisone doses and congestive heart failure medications. Her clinical resolution also fell into the expected time period where PPCM typically improves. While the attribution of her cardiac failure differed between rheumatology and cardiology, a unifying theory may be that the acute onset of SLE was enough of a stress-like state to trigger PPCM. However, the acuity of her presentation and knowledge that SLE can lead to significant cardiac failure are difficult to ignore.

Recognizing the serious morbidity and mortality of both PPCM and SLE-related cardiomyopathy, it is extremely fortunate that she is trending towards recovery at this time, given how guarded her prognosis was. Further monitoring of her heart function in conjunction with cardiology is planned, and assessments in lupus clinic continue. Critical pieces to her long-term prognosis include education on her medications – especially given the questions she asked on her most recent follow-up as she walked out the door: "When can I stop my hydroxychloroquine?" and "Are you sure I cannot get pregnant again?"

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Top Ten Things Rheumatologists Should (And Might Not) Know About the NIHB Program

By Cheryl Barnabe, MD, FRCPC, MSc; Karen Fortin, BScPhm, ACPR; Susan Pierce, BScPharm, ACPR; Henry Averns, MB, ChB, FRCP (UK), FRCPC; and David Robinson, MD, MSc, FRCPC

The CRA, through the Optimal Care Committee (formerly Access to Care Committee), maintains a relationship with the First Nations and Inuit Health Branch of Health Canada to ensure that rheumatology patients covered under the Non-Insured Health Benefits (NIHB) Program have equitable access to necessary therapy. This *Top Ten* will review aspects of coverage relevant to rheumatologists.

- The NIHB Program provides benefits for registered Indians (recognized by Indian and Northern Affairs Canada) or an Inuk recognized by Nunavut Tunngavik Incorporated, Inuvialuit Regional Corporation or Makivik Corporation. The NIHB Program does not cover benefits for First Nations without Treaty Status, nor Métis patients. As the payer of last resort, any coverage patients may have through private plans or provincial public agencies should be accessed first.
- 2. There are five types of benefits addressed by the NIHB Program: i) pharmacy benefits; ii) medical transportation; iii) vision care; iv) dental care; and v) medical supplies and equipment.
- 3. NIHB has recently joined the Pan-Canadian Pharmaceutical Alliance (PCPA) which will guide future formulary listings. For pharmacy benefits, the NIHB Formulary is published annually, and quarterly updates are provided. The available agents are listed at the following website: www.hc-sc.gc.ca/fniah-spnia/nihb-ssna/provide-fournir/pharma-prod/med-list/index-eng.php. The Optimal Care Committee maintains a regularly updated file of access criteria and response criteria on the CRA website: https://rheum.ca/en/members/non_insured_health_benefits_nihb. The other benefit areas are also found on the NIHB website: www.canada.ca/en/health-canada/services/non-insured-health-benefits-first-nations-inuit.html
- 4. Disease-modifying antirheumatic drugs (DMARDs, including pre-filled methotrexate syringes), corticosteroids, nonsteroidal anti-inflammatory drugs (NSAIDs) and allopuri-

nol are open benefits, do not require prior approval, and can be dispensed at the pharmacy visit. For Limited Use agents such as biologics and targeted synthetic DMARDs, a prior approval process is in place. Once the prescription is submitted to the pharmacy, a claim is initiated and this will generate the forms for completion that are faxed to the prescriber/physician. Once the forms are returned by the prescriber, the information provided on the forms is reviewed by a claims specialist, a dispensing history is checked, and a decision is made on whether the request is approved or denied. Figure 1 provides an overview of this approval process.

- 5. For access to Limited Use agents in rheumatology indications, the prescriber must be a rheumatologist. If the Limited Use criteria are met, approval for at least a one-year period is provided. The NIHB Formulary and the CRA "cheat sheet" contain the most updated information on initial access criteria, but Table 1 provides a general overview of the Limited Use criteria for different indications.
- 6. For renewal of Limited Use criteria, a new prescription is required, which will reinitiate the approval process. The NIHB Formulary and the CRA "cheat sheet" contain the most updated information on renewal criteria, but Table 2 provides a general overview of the Limited Use criteria for different indications. A one-year renewal period is provided, but for patients with a continuous demonstrated response to an agent, approval up to five years will be provided depending on the indication being treated.
- 7. An appeal process can be initiated when coverage for a benefit is denied. Appeals are submitted by the client, parent/ legal guardian or representative of the client. Thus, some rheumatologists obtain written consent at the initiation of therapy to act as a representative. At the first level of appeal, a written and signed letter is submitted by mail indicating the client information (Indian/Inuit registration number



Chart adapted from: https://rheum.ca/images/documents/NIHB_process_for_CRA_April_2017.pdf

Table 1.	
Initial Access Criteria	
Rheumatoid Arthritis	Refractory to methotrexate, and methotrexate in combination with at least two other DMARDs for at least 12 weeks. If there is a contraindication or intolerance of methotrexate, then a combination of at least two other DMARDs must be tried.
Psoriatic Arthritis	For peripheral disease:
	At least two of the following features are present: Five or more swollen joints or at least one joint proximal to or including wrist or ankle; erosion; dactylitis of two or more digits, refractory tenosynovitis or enthesitis to oral NSAIDS and injections excluding the Achilles tendon, + daily steroid use, opioids > 12 hours per day for inflammatory pain. Refractory or intolerant to NSAIDs (trial of two different NSAIDs for a combined total of 4 weeks), plus a minimum of two DMARDs. For axial disease: Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) ≥ 4 AND refractory or intolerant to NSAIDs (trial of two different NSAIDs for a combined total of 4 weeks).
Anklylosing Spondylitis	For axial disease: BASDAI > 4 and refractory or intolerant to NSAIDs (trial of two different NSAIDs for a combined total of 4 weeks).
	For peripheral disease: BASDAI > 4 and refractory or intolerant to NSAIDs (trial of two different NSAIDs for a combined total of 4 weeks) and trials of both methotrexate and sulfasalazine (doses and durations of trials specified in the formulary).
Polyarticular Juvenile Idiopathic Arthrits (JIA)	All of the following features are present: Five or more swollen joints, three or more joints with limited range of motion (ROM) and/or pain/tenderness, and refractory to methotrexate.
Systemic JIA	Inadequate response to NSAIDs and systemic steroids due to intolerance or lack of efficacy.

Table 2.	
Renewal Criteria	
Rheumatoid Arthritis	> 20% reduction in the number of tender and swollen joints AND > 20% improvement in physician global and patient global scores OR > 20% reduction in the erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP).
Psoriatic Arthritis	Improvement in at least two of the four psoriatic arthritis response criteria (PsARC): tender joints, swollen joints, Physician Global Assessment, or Patient Global Assessment; one of which has to be joint tenderness or swelling score; and with no worsening in any of the four criteria. A response in joint count is determined by a reduction of \geq 30%. A response in the Physician or Patient Global Assessment scale is determined by a reduction of 1 point.
Ankylosing Spondylitis	Improvement of at least 50% or 2 units in the BASDAI score.
Polyarticular Juvenile Idiopathic Arthritis	30% improvement in 3 of 6 clinical parameters of: active joints, joints with loss of range of motion, ESR, Physician Global, Patient/Parent Global, CHAQ
Systemic JIA	30% improvement in 3 of 6 clinical parameters of active joints, joints with loss of range of motion, ESR, Physician Global, Patient/Parent Global, CHAQ
Vasculitis	Case by case review

and date of birth); name and address of the prescriber; the pharmacy where the medication was denied; the condition for which the medication is being requested; the diagnosis, prognosis and alternatives tried; relevant diagnostic test results, and other supporting information such as case notes. Level 1 appeals are reviewed by the manager of the Pharmacy Policy Development Division; Level 2 appeals are reviewed by the Director for the Benefit Management and Review Services Division; and Level 3 appeals by the NIHB Director General. Details on the appeal process are found at: http://healthycanadians.gc.ca/health-system-systeme-sante/services/non-insured-health-benefits-services-santenon-assures/appealing-decision-faire-appel/index-eng.php. Appeals for vision care, medical transportation, medical supplies and equipment and mental health counselling are submitted to the NIHB Program in the province or territory of residence.

8. Coverage for osteoarthritis management includes intra-articular steroid preparations. Intra-articular hyaluronic acid preparations are only approved as an Exception for osteoarthritis of the knee when other treatments have failed. Topical NSAIDs (Pennsaid 1.5% and compounded) are covered but a Limited Use form will need to be completed. Assistive devices (canes, braces, *etc.*) are provided on a limited provision basis, and providers must submit claims and require receive approval for the devices before they are dispensed.

9. Recently, an opioid equivalent limitation has been set in place in the program. Oral adjunctive pain treatments that are open benefit include serotonin-specific reuptake inhibitors (SSRIs), gabapentin, duloxetine, tricyclic antidepressants and anticonvulsants, such as valproate and topiramate. Pregabalin and nabilone are Limited Use therapies.

10. If you are having difficulty with any aspect of NIHB Program coverage, the number for the Drug Exception Centre is 1-800-580-0950 (Press 2 to speak with a supervisor). Patients may also contact their NIHB Navigator to assist with the process.

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On behalf of Karen Fortin, BScPhm, ACPR; Susan Pierce, BScPharm, ACPR; Henry Averns, MB ChB, FRCP (UK), FRCPC; and David Robinson, MD, MSc, FRCPC

REGIONAL NEWS



Update from Dr. Paul Dancey, Newfoundland and Labrador

was briefly lost in the woods the other day. I was impressed at how easily it happened after crossing too many junctions on the snowy trail on my fat tire bike. It was to be a short ride after finishing in the rheumatology clinic, so I didn't plan very well. As the sun was setting, I made a mental list of the things I should have brought along, including a bike light. I was able to retrace my route but it was the encroaching darkness that worried me until I was back at the car-not even late for supper!

That is one of the things I continue to enjoy about working here. I can look out my office window and see the edge of the park where many people enjoy skiing, biking or hiking. You would think that we'd be overflowing with job applications. To be sure the, recruitment for the adult rheumatology positions is looking up. In addition to the steady presence of Drs. Sean Hamilton, Proton Rahman, and Majed Khraishi, we are happy to have Dr. Sam Aseer who has signed up for a permanent position after a one-year locum. There are also hopeful signals of possibly two or three additional rheumatologists to be hired in the future.

Outside of St. John's there are travelling clinics to Corner Brook, Gander and Labrador City. Those clinics are important with the population spread widely over $405,000 \text{ km}^2$, and travel from one coast to another can be very expensive for patients.

This province is a great place to work, explore and occasionally get lost.Come join us!

Dr. Paul Dancey



The sunset from Pippy Park in St. John's, Newfoundland, as seen last February.

hoto credit: Dr. Paul Dan

Tribute to Dr. Bill Bensen

By Rick Adachi, MD, FRCPC

r. Bill Bensen, MD, FRCPC, who passed away on March 15, 2017, was a doctor and rheumatologist who had a vision of rheumatology: physicians leading a team of allied health professionals, including nurses, occupational therapists, physiotherapists, pharmacists and social workers, working cooperatively with The Arthritis Society and devoted to the care of those with arthritis. Bill was constantly striving to improve care through innovation. He recognized that the major limitation to care was the human-resources shortage of trained rheumatologists. As a result, he introduced

the use of nursing staff to help co-manage those with inflammatory arthritis. In addition, with his son, Rob, he had integrated specialty pharmacy services into rheumatology practice to improve patient education, simplify access to therapies and ultimately, to improve patient outcomes.

Bill's father was a family doctor in Hamilton, who was struck down early in his life from complications of rheumatoid arthritis. This was Bill's inspiration for becoming a rheumatologist. Dr. Bensen was passionate about providing the best care possible for those who suffered from arthritis in Hamilton.

As an educator, Bill was a titan. Indeed, he was one of the major influences in my decision to become a rheumatologist and to stay in Hamilton. He was a knowledgeable and charismatic speaker, who could communicate equally well with the public, with medical students and residents, and with fellow physicians. Indeed, so great were his skills that he was invited to address the United Nations.

In addition, Bill recognized the complexities of medicine. He simplified problems that were complex, improving care and patient outcomes. By way of example, Bill worked with his wife, Wynn, and developed Bone Destiny, an innovative fracture-risk assessment tool, well before the World Health



1950-2017

Organization (WHO) developed FRAX, their tool for the assessment of fracture risk. Bone Destiny was deemed to be one of the promising simple new tools when it was introduced at the Annual Scientific Meeting of the American Society for Bone and Mineral Research, the premiere international scientific meeting. Bone Destiny has since proven to be as effective in assessing fracture risk as any other tool, yet simpler to apply.

He continued to influence, not just the rheumatology community, but McMaster Medical School through his involvement with the White Coat Ceremony and the

Annual Founder's Dinner. He also introduced the Joy of Rheumatology celebration to attract medical students into our specialty.

Bill was never shy with his opinions, and many of us were beneficiaries of his advice. Bill will be remembered for the significant contributions he made to the care of patients with rheumatic diseases. Certainly, we, in the rheumatology community, will endeavour to make sure that his legacy lives on.

Rick Adachi, MD, FRCPC Professor, Department of Medicine, McMaster University Rheumatologist, St. Joseph's Healthcare Hamilton Hamilton, Ontario The first and only anti-TNF indicated in nr-Ax SpA^{1*†}

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* Non-radiographic axial spondyloarthritis

+ Comparative clinical significance has not been established.

References: 1. SIMPONI® Product Monograph, Janssen Inc., August 8, 2016. 2. Hochberg, MC, Silman, AJ, Smolen, JS, et al. (2015). Rheumatology. Philadelphia: Mosby/Elsevier.

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