Winter 2021, Volume 31, Number 4

CRAJ SCR

The Journal of the Canadian Rheumatology Association

Focus on:
CRA Committee & Regional Association Reports

The CRAJ is online! You can find us at: *www.craj.ca*

Pr RINVOQ® upadacitinib

Once-daily oral JAK-inhibitor therapy*

INDICATED IN RA and PsA NEW

Reach for RINVOQ

RINVOQ (upadacitinib) is indicated for the treatment of:

- adults with moderately to severely active rheumatoid arthritis (RA) who have had an inadequate response or intolerance to MTX. RINVOQ may be used as monotherapy or in combination with MTX or other nonbiologic DMARDs.
- adults with active psoriatic arthritis (PsA) who have had an inadequate response or intolerance to MTX or other DMARDs. RINVOQ can be used as monotherapy or in combination with MTX.

Consult the Product Monograph at rinvoq.ca/pm for information about contraindications, warnings, precautions, adverse reactions, interactions, dosing, and conditions of clinical use. The Product Monograph is also available by calling us at 1-888-704-8271.

* Please see the Product Monograph for additional dosing and administration information.
JAK: Janus kinase; MTX: methotrexate; DMARD: disease-modifying antirheumatic drug.

Reference: RINVOQ Product Monograph. AbbVie Corporation.

Printed in Canada
CA-RNQR-210050A – August 2021

abbvie.ca
1-888-703-3006

MEMBER OF INNOVATIVE MEDICINES CANADA

REVIEWED BY PAAB

abbvie

EDITORIAL

Second Chances

By Philip A. Baer, MDCM, FRCPC, FACR

"Sometimes life gives you a second chance because just maybe the first time you weren't ready."
– Author unknown

Our oldest functioning computer came with a free solitaire game called Freecell. I still play occasionally, but now I never register a loss. When I reach a dead end, I can reverse course, undo every card I played, and try again. So why give up when I can try over and over? Some games are frustratingly difficult to solve, but all can be won.

In medicine, some specialties provide more second chances than others. If you are a surgeon, you better get it right the first time: operate on the correct side, make sure all sponges and instruments are accounted for, and every suture is tied properly. If something goes wrong, a second surgery may correct matters, but no one will be happy.

The cognitive specialties are generally more forgiving. Some days, I'm on top of my game, recognizing a key triad of symptoms that point to a diagnosis, ordering just the right test to confirm a diagnostic hunch, and picking out the rare outliers from the many patients who have a more straightforward diagnosis. Other days, I recognize that I am tired or just not in the groove. Those days, more time is required, and nothing comes easily. If it is not an emergency, the best course may be to order appropriate tests, rebook the patient down the road, and rethink the situation. That strategy also provides time for matters to become more obvious: the patient with severe temporal headache and a high CRP develops a classic shingles rash in the V1 distribution, or the patient with apparent seronegative polyarticular rheumatoid arthritis (RA) develops clear-cut psoriasis.

A common second chance opportunity presents itself when a patient is referred back, often years after the initial consultation. I had a trio of those patients arrive in the same week recently.

The first patient had been seen in 2005 with a history of intermittent "sausage" and locking fingers, sometimes treated with antibiotics. This was followed by intermittent attacks of acute synovitis in the fingers, wrists, and knees, lasting up to 2 weeks at a time. Oral NSAIDs[1] were of limited benefit. Exam showed no evidence of psoriasis, and the only MSK[2] finding was slight tenderness of a single PIP[3]. Lab tests showed a high urate of 435, a negative RF[4], and an ANA[5] + 1:80. My working diagnosis was possible psoriatic arthritis. Palindromic rheumatism and gout appeared less likely.

The patient moved away. Sixteen years later, the patient was referred back with a 1-month history of swelling of the left hand PIPs and MCPs[6], decreased grip, and inability to make a full fist. This resolved after taking a course of an over-the-counter (OTC) NSAID. A dermatology appointment was pending regarding a scaly, flaky, itchy rash on the ears. In this case, the outcome was confirmation of the previously suspected diagnosis of psoriatic arthritis. Testing showed a normal CBC[7], ESR[8] 12, CRP[9] 5.4, negative RF and B27, and urate 366. X-ray of the hands was normal. Dermatology consult confirmed psoriasis.

The second patient was first seen in 2019 at age 70 regarding possible gout. Within the prior year, he had three acute episodes, all involving the right knee, with two ER visits. There was no redness, but he noted mild warmth, swelling, and pain on walking. Between episodes, he noted trouble kneeling. Each episode had responded to the standard ER acute arthritis prescription: Prednisone 50 mg to 0 over two weeks. Examination showed mild hand osteoarthritis (OA). The right knee was cool without an effusion or Baker's cyst, with tricompartmental crepitus, and flexion 0-110 degrees with stress pain. Gait was normal, but pain was noted in the right knee on squatting.

X-ray of the right knee showed moderate OA, particularly in the medial compartment, with meniscal chondrocalcinosis. Lab work revealed normal CBC, eGFR[10] 50, and urate currently 360 (previously no higher than 400).

With new onset of gout at age 70 being unusual, I thought most likely he was having episodes of osteoarthritis flares in the right knee, possibly related to CPPD/chondrocalcinosis. I stopped his prednisone, provided handouts about OA management, and injected the right knee with steroid. No fluid could be aspirated.

The patient was referred again recently, with episodic joint inflammation, involving the left wrist three times and the left ankle once. Short courses of colchicine 0.6 mg b.i.d. for a week and prednisone 30 mg/day helped. He had occasional pain at the right wrist and elbow, and both shoulders were limited in motion with some pain.

CBC was normal, ESR 73, CRP 57, eGFR 41, urate 350, RF negative, calcium 2.6, phosphate and other chemist-

continued on page 5

CRAJ EDITORIAL BOARD

Mission Statement. The mission of the *CRAJ* is to encourage discourse among the Canadian rheumatology community for the exchange of opinions and information.

The editorial board has complete independence in reviewing the articles appearing in this publication and is responsible for their accuracy. The advertisers exert no influence on the selection or the content of material published.

PUBLISHING STAFF

Paul F. Brand
Executive Editor

Jyoti Patel
Managing Editor

Catherine de Grandmont
Senior Medical Editor (French)

Donna Graham
Production Manager

Dan Oldfield
Design Director

Robert E. Passaretti
Publisher

Second Chances *continued from page 3*

ries normal, and TSH[11] 5.6. With recurrent episodic arthritis involving knee, wrist, ankle, elbow and shoulders, the prior diagnosis of OA with possibly incidental chondrocalcinosis pivoted to CPPD arthritis with OA manifestations. X-rays of the hands, wrists, elbows and shoulders confirmed chondrocalcinosis at the elbows and shoulders, with OA changes in the hands, wrists, and shoulders.

Lastly, a 50-year-old woman was seen in early 2020 describing a 12-month history of diffuse joint and muscle pain in the upper and lower extremities and low back, the latter mechanical in nature by description. After prior neck pain, she was told she had arthritis at C5-C6.

Exam was unrevealing. CBC, ESR and CRP were normal, and RF and anti-CCP[12] were negative. I did not think she had an inflammatory arthritis.

The patient was referred back only five months later. Now, I was told that a first cousin had recently been diagnosed with ankylosing spondylitis, was B27+, and was about to start an anti-TNF[13] agent. New labs showed she was also B27+, while ESR and CRP remained normal. She continued to complain of sleep impairment and diffuse musculoskeletal discomfort in the hands, knees, shoulders, shoulder girdles, neck, upper and lower back, without inflammatory spinal pain by description.

On exam, there was no psoriasis or eye inflammation. No peripheral synovitis was present, nor any dactylitis, enthesitis or tenosynovitis. The neck and spine showed full normal range of motion. Gait was normal.

Imaging by the family doctor now included ultrasound of both wrists, both knees and the left elbow, all of which were normal. X-rays of both feet, ankles, knees, SI[14] joints, hips, hands, and wrists were normal.

My impression in this case was unchanged. Despite being B27+ with a family history of ankylosing spondylitis (AS), her symptoms were not those of seronegative spondyloarthropathy. I felt she had myofascial pain. I provided spinal posture and exercise advice sheets, a general stretching routine, and pain management strategies.

Three second chances: one opinion confirmed, one modified, one unchanged. Nothing major missed, which is always reassuring. Or at least I don't think so, but if any of these patients turn up a third time, further review will be in order.

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

Glossary:
1. NSAIDs: non-steroidal anti-inflammatory drugs
2. MSK: musculoskeletal
3. PIP: proximal interphalangeal
4. RF: rheumatoid factor
5 ANA: anti-nuclear antibody
6. MCP: metacarpophalangeal
7. CBC: complete blood count
8. ESR: erythrocyte sedimentation rate
9. CRP: c-reactive protein
10. eGFR10: estimated glomerular filtration rate
11. TSH: thyroid stimulating hormone
12. anti-CCP: anti-cyclic citrullinated peptide
13. anti-TNF: anti-tumour necrosis factor
14. SI: sacroiliac

Update on CRA Initiatives

CRA SCR
CANADIAN RHEUMATOLOGY ASSOCIATION | SOCIÉTÉ CANADIENNE DE RHUMATOLOGIE

The Canadian Rheumatology Association (CRA) is pleased to provide the following updates on upcoming initiatives:

Indigenous Health Competency Initiative — New Format!

The CRA Indigenous Health Competency Initiative is a medical education intervention for CRA members to enhance their cultural competency. First delivered in 2018 via two interactive group workshops (Phase One at the CRA ASM and Phase Two in Calgary in the fall), it uses a "train-the-trainer" model based on an evidence-based continuing medical education program, "Educating for Equity (E4E)."

The program was delivered virtually during the pandemic, and it is currently being re-formatted into a late spring weekend workshop to replace the twice annual workshops held previously. Keep an eye on the President's Update eblast for more information and for your invitation to apply.

Youth-to-Adult Rheumatology Transition Care Position Statement

The Youth-to-Adult Rheumatology Transition Care Working Group has been working diligently for two years to advance a national strategy to ensure high quality transition care can be accessed throughout the country. This dynamic and growing group is comprised of adult and pediatric CRA members, allied health professionals and patient representatives. They have recently published a Transition Care position statement that can be used by members to lobby for the funding they require to support transition care in their jurisdiction. Visit *rheum.ca* for more information.

Postgraduate Subcommittee (of the Education Committee)

The COVID-19 global pandemic has had an unprecedented impact on our healthcare system, and our approach to postgraduate education has had to be nimble to keep up with our changing reality. We have learned innovative ways to deliver virtual learning and have appreciated (and yearned for) those programs that have more impact in person.

Rheumatology postgraduate education has been transitioning into Competency-Based Medical Education (CBME). While this move has facilitated a further drive towards excellence in rheumatology training, there has been added pressure on rheumatology training programs and their directors/educational leaders to keep up with emerging standards. Members of the Postgraduate Subcommittee (of the CRA Education Committee) have been enthusiastically sharing their expertise in medical education — working hard to provide educational resources and programs to support our rheumatology trainees and educators. We have developed an education resource platform, available through the shared workspace of the CRA member portal, with excellent educational deliverables to be shared with our trainees and educators. Our next education project will be to tackle a national immunology curriculum, utilizing expertise from across the country to help guide this process.

Additionally, we have developed national education touchpoints for rheumatology trainees and programs to help them meet Royal College Standards for our specialty. This includes the Residents' Pre-course, the National Rheumatology Residents weekend (NRRW) and the NWRITE — a national written practice exam for all rheumatology residents. This year, we have modified the NRRW structure — now comprised of multiple national education events spanning the year. These sessions focus not only on medical expert content, but also encourage networking and collaboration with future rheumatology colleagues. We have a wonderful group who are dedicated to our overarching goal of ensuring that rheumatology education across the country is of the highest quality possible.

Update on the CRA Foundation (CRAF)

In August, we advised of the plan to establish the Canadian Rheumatology Association Foundation (CRAF), in order to establish legal charitable status and provide financial viability for the organization. The establishment of the CRAF will not only help to fund some of the current activities of the Canadian Rheumatology Association, such as the CIORA and summer studentship program, but it will also expand support to future initiatives through new funding opportunities. The Canadian Rheumatology Association will continue to be the organization that serves the members and will remain the voice of rheumatologists in Canada.

Over the past few months, we have been working with our consultants to advance this project and have made quite a bit of progress.

In early September, we submitted our Charitable Status application to the Canadian Revenue Agency (CRA). This process can take up to six months for approval by the CRA. We have also engaged with consultants, including The Discovery Group (governance consultants) to develop a value proposition, and The Dennis Group Inc. (TDG) to refine the operational plan, create supporting documents and develop a foundation budget.

The interim Board of Directors of the CRAF (referred to as the first Board) will hold a meeting at the end of the year to formalize recruitment of the Foundation Board Members and appoint officers. A soft launch of the Foundation is planned for early 2022, when they will unveil the new website, branding of the foundation, and giving opportunities.

The establishment of the CRAF will allow us to build financial sustainability to fund activities that are in-line with our mission, which is focused primarily on serving and representing rheumatologists, so they can continue delivering the best care.

For more information on the process or how you might be able to support the CRAF, please contact Ahmad Zbib, by email at *azbib@rheum.ca* or by telephone at 905-952-0698 extension 8.

The Annual Canadian Arthritis Research Conference Returns for a Third Year

The third annual Canadian Arthritis Research Conference (CARC) is once again giving researchers, clinicians and consumers the opportunity to network and learn about the latest arthritis research.

The conference, co-presented by the Arthritis Society, the Canadian Rheumatology Association and the Canadian Institutes of Health Research/Institute of Musculoskeletal Health and Arthritis (IMHA), takes place virtually on February 7th and 8th, 2022. CARC brings together multidisciplinary stakeholders to explore perspectives, advance knowledge and enhance Canadian leadership in the world of arthritis and rheumatic diseases.

This year's theme, Research with Impact, features a range of presentations, discussions and networking opportunities with experts, researchers, patients and emerging leaders from the arthritis community.

CARC will feature two keynote speakers and 18 presenters (all program details are available online at *arthritis.ca/carc*) delivering talks on a range of topics. In addition, the conference provides a forum for investigators to share "Best Research" presentations.

Last year's presentations covered medicine and rehabilitation in both osteoarthritis and rheumatoid arthritis, as well as a range of topics from the impact of the COVID-19 pandemic on the employment of young people with rheumatic disease to new diagnostic and therapeutic tools for intervertebral disc degeneration and back pain. There were also several "Ask Me Anything" panels, where presenters and attendees discussed presentation topics in more detail.

Dr. Jackie Whittaker of the CARC Scientific Committee says the conference is not only a great opportunity to hear about the latest arthritis research, but also an opportunity to share ideas with a goal of improving the health of people living with arthritis.

"The challenges of arthritis are varied and vast. Building on the success of the previous two conferences, we are assembling experts and stakeholders to further advance research to better the health of Canadians living with arthritis and rheumatic diseases," said Dr. Whittaker. "Opportunities like CARC allow us to collaborate and share learnings among clinicians, scientists, patients and stakeholders nationally and internationally. We look forward to some very engaging discussions."

In addition to the two-day conference, the second annual Research Presentation Day takes place on January 25 and 31, 2022. Research Presentation Day provides a public platform for research presentations including systematic reviews, all types of original research, and evidence synthesis. This day is more intimate and allows brief conversations and questions about the research with the CARC Scientific Committee and other research presenters. There will be expert tips for all presenters.

For more information about the conference or to register, visit *arthritis.ca/carc*.

CIORA ICORA
CANADIAN INITIATIVE FOR OUTCOMES IN RHEUMATOLOGY CARE | INITIATIVE CANADIENNE POUR DES RESULTATS EN SOINS RHUMATOLOGIQUES

Strategies for Implementing Decision Aids in Rheumatology Practice

By Claire Barber, MD, PhD, FRCPC; Nicole Spencer, MSc; and Glen Hazlewood, MD, PhD, FRCPC

The following is an overview of a CIORA-funded study: Barber CEH, Spencer N, Bansback N, et al. Development of an implementation strategy for patient decision aids in rheumatoid arthritis through application of the behavior change wheel. *ACR Open Rheumatol*. 2021; 3(5):312-323. doi: 10.1002/acr2.11250

What Is Shared Decision-making (SDM) and What Tools Are Available to Facilitate SDM? Shared decision-making (SDM) refers to deliberate efforts to involve patients in treatment and healthcare decisions in a way that incorporates their preferences and values.[1] Patient decision aids are tools healthcare providers (HCPs) and patients can use to facilitate SDM.[2] Effective decision aids have the following features: 1) they explain the decision and the options; 2) they describe the benefits, harms, and uncertainties of the options; 3) they clarify patient values; and 4) they do not promote one option over the others.[2] Decision aids have been developed to support guideline-based rheumatology care in Canada and elsewhere. However, strategies for their implementation have not been widely investigated.

Objective: The objective of this CIORA-funded study was to identify facilitators and barriers to decision aid use in rheumatoid arthritis (RA) within a behaviour change model to inform an implementation strategy. Using an early RA decision aid, perspectives were obtained from Canadian rheumatology HCPs and individuals living with RA about the facilitators and barriers to decision aid implementation. Data were generated through semi-structured interviews, transcribed, and analyzed by inductive thematic analysis. The lessons learned were developed and mapped to the behaviour change wheel COM-B system (where Capability, Opportunity and Motivation interact to influence Behaviour) to inform elements of an implementation strategy.[3]

Summary of Study Results: Fifteen HCPs and fifteen patients were interviewed. Five lessons were generated from their shared knowledge. The first lesson is that paternalistic decision-making is a dominant practice in early RA. Second, patient participation in SDM could be facilitated by providing patients with emotional support and access to educational tools. Next, current care models across Canada present many logistical barriers to decision aid implementation. The fourth lesson is that flexibility is necessary for successful implementation. Finally, HCPs have limited interest in training opportunities about decision aids. Implementation recommendations included the following: 1) provide patients with direct access to decision aids and SDM education; 2) create a SDM rheumatology curriculum for trainees; 3) leverage allied health team members or patient partners as peer support; 4) link decision aids to rheumatology guidelines to drive practice change; and 5) design trials of patient decision aid/SDM interventions to evaluate patient-important outcomes. Overall, a multifaceted strategy is suggested to improve uptake of decision aids.

Where to find out more: The full results of this study have been published in ACR Open: see above for citation.

References
1. Bae J-M. Shared decision making: relevant concepts and facilitating strategies. *Epidemiol Health*. 2017; 39:e2017048-e2017048.
2. Stacey D, Légaré F, Lewis K, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev*. 2017; 4(4):Cd001431.
3. Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*. 2011;6(1):42.

Claire Barber, MD, PhD, FRCPC
Associate Professor,
Departments of Medicine and Community Health Sciences,
Cumming School of Medicine,
University of Calgary, Calgary, Alberta

Glen Hazlewood, MD, PhD, FRCPC
Associate Professor,
Departments of Medicine and Community Health Sciences,
Cumming School of Medicine,
University of Calgary, Calgary, Alberta

CIORA is issuing another call for grants in 2022!
CIORA Online Grant Application System opens **January 24, 2022.**
Letter of Intent must be submitted by **February 25, 2022.**
CIORA Online Grant Application submission deadline is **April 8, 2022 at 17:00 (Pacific Time).**

Update from the Equity, Diversity and Inclusion Task Force

By Nicole Johnson, MD, FRCPC

Over the past year, the Equity, Diversity and Inclusion (EDI) Task Force of the Canadian Rheumatology Association (CRA) has been working to establish collaborative relationships with the various CRA committees to help embed diversity within CRA projects.

Early progress from the Task Force was featured in the Fall 2021 edition of the *Canadian Rheumatology Association Journal (CRAJ)*. We have collaborated with the Human Resources Committee regarding the workforce survey with respect to data around diversity and look forward to the final publication. Through dialogue with the Communications Committee, we have helped to highlight and plan for diversity topics. You can listen to the previously recorded *Around the Rheum* podcast on Indigenous Health by Dr. Cheryl Barnabe that highlights issues around health inequities. In collaboration with the CRA Board, the Task Force was able to recommend a training session from an external presenter, Dr. Tanya de Mello, on unconscious bias to the CRA's Directors and Committee Chairs.

The Task Force is pleased to see the Annual Scientific Meeting theme being centered around equity, diversity and inclusion: "Towards Equity: Rheum for Everyone." Members of our Task Force will lead engaging workshops at the Annual Meeting. We look forward to enhancing the knowledge of the participants and to shared learning around the diversity topics of Allyship and Cultural Competency in the Care of non-binary patients.

We continue to work on incorporating feedback from the Joint Count survey on Diversity, Equity and Inclusion (the summary of which was published in the Fall 2021 issue of the *CRAJ*) and the annual needs assessment data to inform next steps for developing strategic goals for the CRA specific to diversity and inclusion. A future goal is the development of organizational values relevant to diversity and inclusion. We also hope to partner with external diversity professional(s) to work in collaboration with the Task Force to help guide the CRA further on our inclusive journey. We are also still looking for additional members to join our Task Force, so please reach out if you would like to join our team. You can reach out to Kevin Baijnauth at *kbaijnauth@rheum.ca* if interested.

Nicole Johnson, MD, FRCPC
Pediatric Rheumatologist,
Clinical Associate Professor
University of Calgary
Chair, Equity, Diversity and Inclusion Task Force, CRA
Calgary, Alberta

News from the ASM Program Committee

By Vinod Chandran, MBBS, MD, DM, PhD

The CRA ASM Program Committee looks forward to hosting you all at the CRA and AHPA's Annual Scientific Meeting (ASM), to be held in a virtual format on Wednesday February 2 – Saturday February 5, 2022.

With the rapidly rising COVID-19 cases in Canada and the uncertainty posed by the Omicron variant, the CRA has made the decision to host the ASM exclusively online. We are taking this step out of an abundance of caution, to protect the health and safety of the rheumatology community. The conference can now be enjoyed from the comfort of your own home or office and, as an added bonus, you will have the opportunity to watch on-demand sessions afterwards! For more information on how the switch from an in-person to virtual conference may affect you, please visit *asm.rheum.ca*.

The pandemic has put the inequalities in our society in stark relief. As we celebrate the 76th anniversary of the CRA, our meeting will showcase how we address equity, diversity, and inclusion within our extended rheumatology community, captured by the theme of our meeting, Towards Equity: Rheum for Everyone. At the upcoming ASM, you can look forward to an exciting lineup of speakers who will deliver a breadth of leading-edge content. The program will feature keynote lectures, debates, workshops, with podium and poster presentations and tours, to view the full conference agenda, please visit *asm.rheum.ca*.

The ASM keynote lectures include the following:

- Dunlop-Dottridge Lecture, to be delivered by Dr. Simon Carette, who is a rheumatologist and Professor of Medicine at the University of Toronto. He trained at Laval University, McGill University, the University of Toronto, the National Institutes of Health, and the University of Cambridge. His area of clinical expertise is vasculitis, and he is the director of the Vasculitis Program at Sinai Health Network since 2001. Dr. Carette will speak on the advances made in the management of vasculitis.
- State-of-the-Art Lecture, to be delivered by Dr. Tuhina Neogi, Professor of Medicine and of Epidemiology at Boston University Schools of Medicine and of Public Health, and Chief of Rheumatology. As a rheumatologist and epidemiologist, her research focuses on osteoarthritis, gout, and pain mechanisms. Dr. Neogi will speak on pain in adult and pediatric rheumatic diseases.
- Keynote Lecture, to be delivered by Dr. Grace Wright, rheumatologist and founder and President of the Association of Women in Rheumatology (AWIR). In 2014, Dr. Wright founded the AWIR which has since grown to more than 30 local chapters throughout the United States as well as a growing number of international chapters. Dr. Wright has served as the President of AWIR since its inception. Dr. Wright will speak on equity, diversity, and inclusion within the rheumatology community.

Dr. Simon Carette

Dr. Tuhina Neogi

Dr. Grace Wright

We will of course feature abstracts and poster tours for trainees and investigators to showcase their research activities; state-of-the-art and crowd-sourced workshops; satellite symposia; as well as the not-to-be-missed crowd favourites including Clinical Pearls and Mysterious Cases, *RheumJeopardy* and The Great Debate! Opportunities to celebrate our award-winning colleagues will be featured throughout the meeting, and satellite meetings will feature the Residents' Pre-Course, CRA Review Course, AHPA Pre-Course, and the Canadian Arthritis Research Conference.

We welcome all CRA and AHPA members, as well as all interested stakeholders, and colleagues around the world to join us for this exciting event. We look forward to celebrating with you in February!

Vinod Chandran, MBBS, MD, DM, PhD
Chair, CRA ASM Program Committee
Associate Professor, Department of Medicine,
Division of Rheumatology, University of Toronto,
Scientist, Krembil Research Institute,
University Health Network, Toronto, Canada
Adjunct Professor, Memorial University,
St. John's, Newfoundland

Abstract Review Committee Update

By Marinka Twilt, MD, MScE, PhD

The abstracts have been submitted and the Canadian Rheumatology Association (CRA) Abstract Review Committee has begun the hard work of reading and scoring the abstracts, ably supported by Virginia Hopkins, Manager, Research & Innovation. The committee selects the abstracts worthy of poster or podium presentation. Our meeting will be converted to a virtual meeting this year, and the Annual Scientific Meeting (ASM) team supported by Claire McGowan (Manager, Educational Programs and Events) has worked hard to retain the multiple opportunities the CRA & Arthritis Health Professions Association (AHPA) ASM offer on an ongoing yearly basis. Our meeting continues to garner interest from researchers, clinicians, trainees and industry. Even during these unprecedented times, more than 200 abstracts were submitted. Each abstract will be scored by three reviewers, and the best in each category are chosen based on the average score; the chair will break any tie for a spot on the virtual poster tour and podium presentation. Thank you, reviewers!

The top 14 podium presentations will be presented. There will be 12 virtual poster tours during which the top-ranked abstracts will be presented. There will also be interactive virtual poster sessions where attendees will be able to discuss posters with the presenters. The top five abstracts in each award category will be judged during the poster session for the following awards:

- Best Abstract on Quality Care Initiatives in Rheumatology
- Best Abstract on Research by Young Faculty
- Best Abstract on Pediatric Research by Young Faculty
- Best Abstract on Basic Science Research by a Trainee
- Best Abstract on Clinical or Epidemiology Research by a Trainee – Phil Rosen Award
- Best Abstract on SLE Research by a Trainee – Ian Watson Award
- Best Abstract by a Medical Student
- Best Abstract by a Rheumatology Resident
- Best Abstract by an Undergraduate Student
- Best Abstract by a Post-Graduate Research Trainee
- Best Abstract by a Rheumatology Post-Graduate Research Trainee
- Best Abstract on Spondyloarthritis Research Award

We look forward to seeing you all during the CRA & AHPA ASM!

Marinka Twilt, MD, MScE, PhD
Chair, CRA Abstract Review Committee
Pediatric Rheumatologist,
Clinician Scientist,
Alberta Children's Hospital
Associate Professor,
Department of Pediatrics,
Cumming School of Medicine,
University of Calgary,
Calgary, Alberta

Pediatrics Committee News

By Ronald M. Laxer, MDCM, FRCPC

The CRA Pediatrics Committee is a diverse and dynamic group of 92 (and counting) pediatric rheumatologists, trainees, and researchers. The Pediatrics Executive Committee oversees the work of several subcommittees including Human Resources (HR), Community Rheumatology, Education, and Choosing Wisely.

These subcommittees have been very busy and productive over the last year, producing a number of manuscripts, guidance materials and educational offerings. Here's a snapshot of some of their incredible work:

- Publication of seven **Choosing Wisely recommendations** for Pediatric Rheumatology, developed by a working group under Nadia Luca's leadership.
- The Education Subcommittee offered two accredited National Grand Rounds webinars, and the CANAC[1] steering committee offered two Canadian Autoinflammatory Case Rounds Zoom presentations for pediatric members and invited guests. Topics for both offerings included JAK inhibitors featuring Dr. Hermine Bruner, pediatric rheumatologist at the Cincinnati Children's Hospital Medical Center; Juvenile Myositis featuring Dr. Adam Huber, Pediatric Rheumatologist at IWK Health Centre; Familial Mediterranean Fever with Dr. Dilan Dissanayake, Pediatric Rheumatologist from The Hospital for Sick Children; and PFAPA[2] with Dr. Herman Tam, Pediatric Rheumatologist from Stollery Children's Hospital.
- The Community Rheumatology Subcommittee continues to grow membership and introduced a Journal Club
- Herman Tam, Nadia Luca and others collaborated with the Therapeutics and Guidelines Committees on updating the **COVID-19 Vaccination Decision Tool** to include guidance for pediatric patients.
- Annual HR surveys were sent to both academic and community members to keep a finger on the pulse of pediatric rheumatology in Canada.
- Uveitis Guidelines have been developed and will likely be published by the time this article appears in print. This was a collaborative effort with the CRA Guidelines Committee and Ophthalmology colleagues, led by Deb Levy and Bobbi Berard.

Ron Laxer is stepping down as Chair in 2022, and will be replaced by Bobbi Berard, with Nadia Luca as Vice Chair and Julie Barsalou as Secretary. Thank you to Deb Levy, Past Chair who has made invaluable contributions not only to the Pediatrics Committee but to the CRA at large through her active engagement and leadership. The Pediatrics Committee is in great hands going forward and we're excited for new and expanded initiatives in 2022!

1 CANAC: CANadian Autoinflammatory Case rounds
2 PFAPA: Periodic fever, aphthous stomatitis, pharyngitis, adenitis

Ronald M. Laxer, MDCM, FRCPC
Chair, CRA Pediatrics Committee
Professor, Departments of Pediatrics and Medicine, University of Toronto
Staff Rheumatologist, The Hospital for Sick Children
Toronto, Ontario

Update from the Therapeutics Committee

By Rosie Scuccimarri, MD, FRCPC

The pandemic has continued to dominate the agenda of the CRA Therapeutics Committee, and we have been busy developing guidance for members on urgent and emerging issues related to COVID-19. Some of the highlights over the past year include:

- CRA Position Statement on the Safety of Hydroxychloroquine in the Treatment of Rheumatic Diseases, published January 27th, 2021.
- CRA Position Statement on COVID-19 Vaccination — updated April 16th to include the AstraZeneca and Johnson & Johnson vaccines, as well as advocate for prioritization and expedited second dose for patients with rheumatic disease; updated May 20th to include the use of Pfizer-BioNTech vaccine for 12–15-year-olds; and updated September 27th to include addition of Moderna vaccine to recommendations for individuals between 12 and 18 years old, and to advocate for a third dose in immunosuppressed patients.
- Contribution to the updated Decision Tool for COVID-19 Vaccination and participation on the CRA COVID-19 Vaccination Guidelines panel.
- Letter sent on April 21st to the National Advisory Committee on Immunization (NACI) advocating for prioritization of the COVID-19 vaccine and expedited second dose for patients with rheumatic disease.
- Communication sent to CRA members October 18th regarding Actemra IV shortage due to global supply chain challenges as well as COVID-19 use, and recommendation to switch patients to subcutaneous where possible.

Monitoring for drug shortages and advocating for CRA members and their patients are always our top priority. To that end, we plan to develop a provincial framework in 2022 to aid with communication and dissemination of drug access issues. And, as always, we'll continue to respond to emerging issues on behalf of our members through position statements.

This work is only possible through the dedication of our volunteer committee members. Over the last two years, there have been many demands on them. They have been highly committed and have always impressed with their quick response and expert guidance. In addition, we have recently welcomed Dr. Alison Kydd as Vice Chair and we appreciate the initiative and leadership she demonstrates in this new role. A heartfelt thanks to the committee members and to Sue Ranta for the tremendous support that she provides to this committee.

Rosie Scuccimarri, MD, FRCPC
Chair, CRA Therapeutics Committee
Associate Professor, Department of Pediatrics,
McGill University
Pediatric Rheumatologist,
Montreal Children's Hospital
Montreal, Quebec

Quality Care Committee Report

By Amanda Steiman, MD, MSc, FRCPC

They say that the more things change, the more they stay the same. I have reflected on how the converse may be truer of 2021. Indeed, an observer from another planet could easily interpret 2021 as another year that was much like the last, and very different than those that came before, with ongoing masking, social distancing, decreased movement — to and from places of work, places of travel, and social gatherings. What has changed, however, is the mounting collective hope that there will be a flip side to the pandemic, that vaccines and public health measures have allowed for some cherished aspects of our lives to cautiously resume, and that life will get back to a (new) normal that is less foreign.

In this spirit, the initiatives of the Quality Care Committee's membership over the past year seem to reflect a shift from reactive support of a new frontier to visionary progress in support of the practice of rheumatology in Canada for many years to come, and in a changed world. I highlight but a few in this update. Claire Barber, Shirley Lake, and Cheryl Barnabe continue to nimbly and effectively lead the Quality, Resource Stewardship and Equity Subcommittees, respectively, and I continue to lead Access. I would also like to take the opportunity to thank Sue Ranta for her steadfast commitment to and (seemingly prescient!) support of the committee.

Through 2021, members of the Quality Care Committee have worked towards the development of a transition care-related suite of resources, in collaboration with the Pediatrics Committee, to provide consistent and streamlined knowledge translation and support for local advocacy and care delivery. Appreciating that elements of virtual care are here to stay, a Virtual Care Best Practices consensus statement has been published. A Choosing Wisely recommendation on palliative rheumatic disease care was published in the spring. Two Indigenous Health Initiative workshops were delivered virtually.

We look forward to a year-to-come that brings opportunities for collaboration, growth, and application of lessons learned to best support the CRA membership in a familiar — but forever changed — practice milieu.

Amanda Steiman, MD, MSc, FRCPC
Chair, CRA Quality Care Committee
Assistant Professor of Medicine,
University of Toronto
Clinician in Quality and Innovation
Rheumatologist,
Sinai Health System/University Health Network
Toronto, Ontario

Communications Committee Update

By Dax G. Rumsey, MD, MSc, FRCPC

As hard as it is to believe, another year of the pandemic has come and gone. Although we are not entirely out of the woods yet, there is light at the end of the tunnel. Through it all, the CRA Communications Committee has been steadily working away behind the scenes.

Our biggest initiative has been *Around the Rheum*: the official podcast of the CRA. Now in its second season, our podcast has branched out to feature several recurring segments. The first of these is an "Ask the Expert" segment, featuring Dr. Janet Pope, one of the gems of the CRA and Canadian rheumatology community. On these episodes, Dr. Pope has informal chats with Dr. Daniel Ennis (our host) and shares her wealth of knowledge on topics ranging from methotrexate to Raynaud's to systemic lupus erythematosus (SLE). She always brings wisdom, humour, and practicality to these discussions, which have been much appreciated by our listeners.

The second segment that we have launched this year is an Indigenous series. For our first episode, we had Dr. Cheryl Barnabe, a Metis rheumatologist who works with Indigenous people. For the next episode, our guest is Dr. Lindsay Crowshoe, a Blackfoot primary care physician and researcher. Both physicians live and work in Alberta. (The second episode has not yet been released at the time of this writing.) This is an important series and we can all learn a lot from listening to it.

The third segment that we have piloted is a long-awaited French version of *Around the Rheum.* This is hosted by Dr. Hugues Allard-Chamard from the *Université de Sherbrooke.* His first guest was Dr. Louis Bessette from *Université Laval* talking about "Comorbidities in Rheumatoid Arthritis: A Growing Concern Among Rheumatologists." This was well received by our community!

Stay tuned for more of these and other episodes in 2022 and beyond!

Many thanks to Dr. Daniel Ennis, our main host, David McGuffin, our producer, Kevin Baijnauth from the CRA, our many guests and guest hosts, and our generous sponsors.

Dax G. Rumsey, MD, MSc, FRCP(C)
Chair, CRA Communications Committee
Zone Section Chief, Paediatric Rheumatology,
Alberta Health Services – Edmonton Zone
(Stollery Children's Hospital)
Division Director, Paediatric Rheumatology,
Associate Professor, University of Alberta
Edmonton, Alberta

Update from the Guidelines Committee

By Glen Hazlewood, MD, PhD, FRCPC

This has been another busy year for the CRA Guidelines Committee and the various guideline panels, not only due to the urgency for COVID-19 guidance, but due to the high level of member engagement driving the process of guidelines development. We have made tremendous strides in the past year on a number of clinical guidelines, and I'm pleased to provide this snapshot of our accomplishments in 2021:

COVID-19 Vaccination Guidelines: In May, we published an update to the CRA Recommendation on COVID-19 Vaccination to include the AstraZeneca and Johnson & Johnson vaccines, and this recommendation was updated again in November to include adolescents. The CRA COVID-19 Vaccination Decision Tool was updated in May to include pediatric guidance. In addition to these updates, a new conditional recommendation for three doses of mRNA COVID-19 vaccine was published in November.

JIA Uveitis Guidelines: Co-chaired by Dr. Roberta Berard and Dr. Deb Levy, the Juvenile Idiopathic Arthritis (JIA) Uveitis Guidelines panel has been collaborating with colleagues from the Canadian Ophthalmological Society in the development of these clinical guidelines.

RA Guidelines: Chaired by Dr. Glen Hazlewood, the rheumatoid arthritis (RA) guidelines are an adolopment of the Australian guidelines, and the first recommendation on tapering of disease-modifying anti-rheumatic drugs (DMARDs) is being finalized for publication on MAGICapp.

SpA Guidelines: Chaired by Dr. Sherry Rohekar, the spondyloarthritis (SpA) guidelines are an adolopment of the American College of Rheumatology (ACR) guidelines and work is ongoing on the Evidence-to-Decision tables.

The year 2022 will see much of this important work published, and we expect to add Transition from Pediatric-to-Adult Care Guidelines to that list as work is already in full swing, co-chaired by Dr. Elizabeth Stringer and Dr. Nadia Luca.

A sincere thank you to the Guidelines Committee members for their continued guidance and expertise, and to the various guideline panels whose hard work benefits us all. A special thanks to Jordi Pardo and Peter Tugwell from Cochrane Musculoskeletal, who provide expert methods support to the CRA. We are also grateful to the patient representatives from the Canadian Arthritis Patient Alliance (CAPA) who sit on various guideline panels. We approved a patient representative reimbursement and training policy in recognition of their contributions to developing equitable guidelines.

Glen Hazlewood, MD, PhD, FRCPC
Chair, CRA Guidelines Committee
Associate Professor,
Departments of Medicine and Community Health Sciences,
Cumming School of Medicine,
University of Calgary,
Calgary, Alberta

It takes community...

Pfizer Canada strives to profoundly impact the health of Canadians through the discovery, development and delivery of medicines and vaccines.

We believe in supporting the people in the communities where we work and live through our community investment partnerships. We bring essential medicines to the vulnerable and we lend a hand to those in need.

Through our partnerships we offer the possibility of a healthier world.

Pfizer

BIOTECanada MEMBER

INNOVATIVE MEDICINES CANADA

pfizer.ca

Report from the Human Resources Committee

By Claire Barber, MD, PhD, FRCPC; and Jessica Widdifield, PhD

The Canadian Rheumatology Association (CRA) Human Resources Committee has completed several major projects over the last year, which have helped us gain a better understanding of the issues facing the workforce.

Publication of study on factors influencing rheumatology residents' decisions regarding future practice location:[1]

This study reports on the results of a rheumatology resident survey on factors influencing future practice location. The main findings were that the majority of residents plan to practice in the same province where they completed their training. There were some training gaps identified, including limited training in telehealth and travelling clinics, and few electives in smaller centres. The work highlights that further strategies need to be developed to increase exposure of rheumatology trainees to underserved areas and populations to address the regional maldistribution of rheumatologists.

CRA Workforce and Wellness Survey Finalized:[2]

The workforce survey was completed in March 2021. The findings highlight an ongoing deficit of rheumatologists across Canada and high levels of burnout among Canadian rheumatologists during the pandemic. The results were presented at the American College of Rheumatology Annual Scientific Meeting, and the manuscript is presently under review for publication at the *Journal of Rheumatology*. The study will also be disseminated at the CRA Annual Scientific Meeting in 2022. The committee will look to develop strategies to address the findings of the survey in the upcoming year.

CRA Workforce Technical Report and Position Paper Finalized:

The HR committee's workforce technical report has been finalized, and the position statement has been approved by the CRA's board. A manuscript describing this work is in preparation and the full report and a summary of the position statement will be available on the CRA's website shortly. The position statement endorses six statements including the need to:

1) Increase recruitment of clinical full-time equivalent rheumatologists;
2) Improve the regional distribution of rheumatologists across Canada;
3) Enhance retention of rheumatologists within the workforce;
4) Promote and enhance workforce capacity with interdisciplinary healthcare providers;
5) Promote and support research to provide data about the rheumatology workforce to plan for the future healthcare needs of Canada's population; and
6) Support equity, diversity and inclusion in rheumatology.

New Committee Members and Chair:

The committee would like to thank exiting members for their service, including Drs. Jane Purvis, Janet Pope, Karen Adams, Rachel Shupak, Mark Harrison, Carter Thorne, Mark Matsos, and Jason Kur. We also wish to welcome new members including Drs. Sahil Koppikar, Ashley Sterrett, and Michelle Teo who have joined the remaining members on the committee (Drs. Michelle Batthish, Stephanie Kulhawy-Wibe, Janet Roberts, Justin Shamis, Jennifer Lee, Elaine Yacyshyn, Konstantin Jilkine, and Jennifer Burt). We are also thrilled to announce that Dr. Dana Jerome has been chosen as the new HR Committee Chair.

References:
1. Shamis J, Widdifield J, Batthish M, et al. Factors influencing rheumatology residents' decision on future practice location. *Can Med Ed J* 2020. *https://doi.org/10.36834/cmej.70348.*
2. Kulhawy-Wibe SC, Widdifield J, Lee JL, et al. Results from the 2020 Canadian Rheumatology Association's Workforce and Wellness Survey. *J Rheumatol* (submitted) 2021.

Claire Barber, MD, PhD, FRCPC
Associate Professor,
Departments of Medicine and Community Health Sciences,
Cumming School of Medicine,
University of Calgary, Calgary, Alberta

Jessica Widdifield, PhD
Co-chair, CRA Human Resources Committee
Scientist, Sunnybrook Research Institute, ICES
Assistant Professor, University of Toronto,
Institute of Health Policy, Management & Evaluation
Toronto, Ontario

Education Committee Report: Engaging While Emerging from the Pandemic!

By Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE; and Elizabeth M. Hazel, MD, FRCPC

Engaged and committed! The Education Committee has addressed challenges that have arisen during the pandemic, through innovation, collaboration and delivery of important educational support and programs. We have continued to meet regularly and build on feedback to further address member needs.

The Education Committee at their most recent virtual meeting.

Innovation

The Undergraduate Subcommittee plans to disseminate the National Learning Outcomes of the National Undergraduate Rheumatology Curriculum to assist stakeholders from across the country. Meanwhile, the Postgraduate (PG) Subcommittee has been actively modifying the National Rheumatology Residents Weekend to a novel format with a year-long curriculum. The Continuing Professional Development (CPD) Subcommittee developed a second series of the COVID-19 Response Webinar Series, recently recognized by the Canadian Society of Association Executives with the Award of Excellence, noted for this best practice.

Collaboration

The Education Committee has collaborated with other CRA Operations Committees to facilitate the delivery of Indigenous Health Initiatives (with the Quality Care Committee), development of podcasts on Indigenous Health (with the Communications Committee) and with assisting the Annual Scientific Meeting (ASM) Program Committee in the mammoth task of planning this critical opportunity for our members. In addition to internal committee collaborations, we have assisted physician-led organizations with CPD accreditation of programming targeted to rheumatologists.

Delivery

The PG Subcommittee highlights their ongoing educational initiatives and supports on page 6 of this issue. The LEAdership Program (LEAP) seeks to identify and promote leadership of rheumatologists at an early career stage who are likely to become leaders in research, education or advocacy in Canada, with the next application cycle in April 2022. The upcoming CRA Review Course was well received the last two years and is being offered in conjunction with the 2022 CRA ASM.

We look forward to upcoming post-pandemic education that will build on virtual and in-person collaboration.

Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE
Chair, CRA Education Committee
Clinical Associate Professor,
Program Director, Adult Rheumatology
University of British Columbia,
Vancouver, British Columbia

Elizabeth M. Hazel, OLY, MD, FRCP(C)
Vice-Chair, CRA Education Committee
Associate Professor of Medicine,
Division of Rheumatology,
McGill University Health Centre
Montreal, Quebec

B.C. Society of Rheumatologists (BCSR) – Update from the Pacific

By Jason Kur, MD, FRCPC

This past year has seen the BCSR work through challenges related to the mandated biosimilar transition of rituximab and subsequently adalimumab. The adalimumab transition concluded in October 2021. British Columbia (B.C.) has now completed biosimilar switching for etanercept, infliximab, rituximab and adalimumab from 2018-2021. These transitions have come with significant strain on physician practices and unique challenges for patients. We continue to monitor the process and provide feedback to Pharmacare. The partnership with Pharmacare has resulted in some shared gain for rheumatologists in BC, notably added support for outpatient nursing care.

Dr. Kam Shojania introducing award winners.

This year has also seen the establishment of a rural rheumatology training grant. Trainees from across Canada interested in electives in under-serviced areas will be eligible for support. The BC Rheum 2 Grow group is composed of rheumatologists in Chilliwack, Cranbrook, Kamloops, Kelowna, Nanaimo, Penticton, Golden and Prince George, B.C. The grant will support Canadian rheumatology residents in furthering their education in rural patient care and enable residents to experience rural patient care within clinic and hospital settings with a University of British Columbia (UBC) faculty member. By exposing the rheumatology residents to a supportive, clinically stimulating and fulfilling experience, it is hoped that many of them will consider a future working in one of these underserved but dynamic areas of the province.

The 16th annual British Columbia Rheumatology Invitation Educational Series (BRIESE) continued online in September but also included the addition of a well-attended, in-person event in Vancouver that saw many rheumatologists safely together in the same room for the first time since the pandemic began. The outstanding program included international guests Dr. Laura Coates, Dr. Andrea Singer, Dr. Alfred Kim, Dr. Jean Lieu and Dr. Sharon Chung. Canadian content was provided by Dr. Kun Huang and Dr. Mahesh Nagarajan. Dr. Nagarajan, Senior Associate Dean, Research Professor, Operations and Logistic Division of the UBC School of Business was our guest speaker for the evening gathering and enlightened us with stories and lessons on the intersection of business and medicine.

We also took the opportunity to celebrate some of our finest with the Annual BCSR/UBC Award presentations in September. The Innovation Award was given to Dr. Mo Bardi for his work on ultrasound and giant cell arteritis (GCA). Dr. Daniel Ennis was awarded the UBC BCSR Teaching Award and was named a 2020 UBC Honour Roll Recipient in Clinical Teaching Excellence: Postgraduate Inpatient for his outstanding contributions to the medical training program. Dr. Stuart Seigel received the Advocacy Award. Stuart has been a strong leader for rheumatology in the Okanagan and has been instrumental in creating a collegial and vibrant rheumatology community in Kelowna.

I would also like to congratulate Dr. Kam Shojania on his tenure as the UBC Rheumatology Division Head. As his term nears completion, we know it will be hard to replace his confident leadership and unique brand of humour.

Dr. Stuart Seigel accepts the Advocacy Award.

Jason Kur, MD, FRCPC
Artus Health Centre
University of British Columbia
President,
B.C. Society of Rheumatologists
Vancouver, British Columbia

Report from the ORA

By Philip A. Baer, MDCM, FRCPC, FACR, ORA President

"Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds."

– Unofficial motto of the US Postal Service

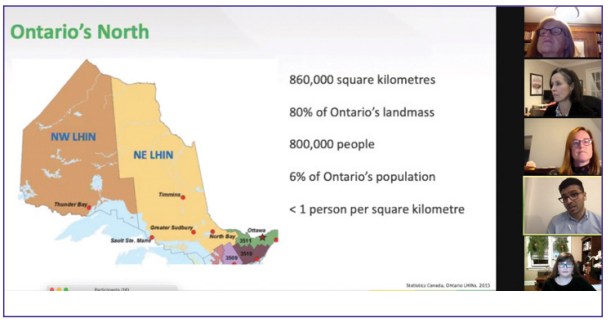
No pandemic can stop the activities of the Ontario Rheumatology Association either, as we have proven over the past year. Our leadership group and our committees have met exclusively via Zoom since March 2020, but the work continues to get done and our influence grows perceptibly.

We held a very successful virtual Annual Scientific Meeting (ASM) in late May 2021. I was on-site for the duration at the state-of-the-art bbBlanc studios just north of Toronto, with my co-host Dr. Janet Pope participating virtually from London. Drs. Felix Leung, Ashley Sterrett and Deb Levy hosted a session each, giving Janet and myself a welcome break, and providing my only in-person close encounters with fellow rheumatologists in the past year. Our star-studded roster of speakers included Drs. Joseph Smolen, Maya Buch, Michelle Petri, Jeffrey Curtis, Christopher Ritchlin, Robert Inman, Shahin Jamal, Robert Bell and Jason Lee.

We also ran two ORA Town Halls in September 2021. The first updated members on the evolving pandemic situation, featuring the ORA's go-to infectious diseases expert, Dr. Zain Chagla, speaking on vaccine efficacy, third doses and variants. The second introduced the SADIE online portal, to which all requests for public funding of exceptional access drugs in Ontario will be directed as of January 2022, when the Ministry of Health "axes the fax." These events are recorded and archived on the ORA website *www.ontariorheum.ca* (members-only portion), where we also house links to multiple practice-related and COVID-19 resources, and an archive of all ORA e-blasts to members.

Meanwhile, all ORA committees continue to persevere and deal with their mandates. Drug shortages, biosimilar transitioning, virtual medicine, mentoring of early career rheumatologists, and rheumatologist shortages remain key areas of focus. The Informatics Committee led by Dr. Tom Appleton continues work on the ORDER project, aiming to create a dashboard for a rheumatology electronic medical record (EMR), which will allow participants to visualize their individual practice benchmarks, and compare themselves to the aggregate of participating rheumatologists within the province. The ultimate goal remains to develop an enhanced EMR user experience, while improving patient outcomes in a measurable fashion.

Our Northern Ontario Committee, chaired by Dr. Sahil Koppikar, is actively developing a funded model of rheumatology care to enhance access, integrating rheumatologists and arthritis health professionals (AHPs). Indigenous cultural sensitivity training, pioneered by the CRA, will be mandatory for participants. We are also working to address rheumatology shortages in Eastern Ontario.



Dr. Jane Purvis, the ORA's dynamo, has revitalized our Government Affairs Committee. We are engaged in further training in advocacy for the committee members. In partnership with the Ontario Medical Association (OMA), where Jane and several ORA members hold key positions, we have already been successful in establishing fee parity between in-person and virtual medicine visits, extending virtual medicine fee codes to September 2022, and obviating the need for our members to provide patients with letters certifying that they qualify for third COVID vaccine doses.

The successes of the ORA would not be possible without our hard-working Executive Director, Sandy Kennedy, as well as our numerous committee members and our engaged general membership. Dr. Nikhil Chopra, our long-time Treasurer, has provided steadfast guidance as we navigate a challenging financial environment. We also continue to work smoothly in concert with Drs. Ahmad Zbib and Evelyn Sutton and the CRA secretariat to share learnings and enhance the activities of our overlapping organizations.

Going forward, we look forward to a successful 2022 ASM in late May, format to be determined. My term as ORA President will conclude there, and Dr. Felix Leung will take over from me and guide the ORA to future successes.

There are always opportunities for ORA members to participate in ORA activities and committees. Check out our website at *www.ontariorheum.ca* for more information.

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

Update from the AMRQ

By Frédéric Morin, MD

Like all of our Canadian colleagues, Quebec's rheumatologists are hoping we are approaching the end of this long pandemic cycle. Nonetheless, there are many challenges and there is considerable work to be done in *La Belle Province*. In particular, the *Association des médecins rhumatologues du Québec (AMRQ)* has submitted a project, through the *Institut de la pertinence des actes médicaux (IPAM)* set up by the Quebec government, with the goal of better supporting the clinical work done by rheumatologists. This is a major undertaking in which the *Ministère de la Santé et des Services sociaux* could reinvest more than $7 million to support the clinical practice of rheumatologists by providing them with practice supports. These supports could be not only nurses, but also physiotherapists, occupational therapists, nursing assistants, and other allied health professionals. Eventually, more than 70 full-time equivalent practice supports could be deployed for the 140 rheumatologists in Quebec. This is a complex process but one that is vital to increasing the public service provided by rheumatologists. Other specialists have benefited from technological upgrades to improve their practices. Rheumatologists need to have a supportive environment in order to achieve a optimal practice. For too long, we have remained sclerotic in a 20th-century environment. Despite a wage reduction agreement between medical specialists and the Quebec government, this promising project will hopefully be completed by 2022.

At the AMRQ's virtual annual conference in September 2021, we had the pleasure and honour of presenting a merit scholarship to our colleague, Dr. Évelyne Vinet, a rheumatologist at the McGill University Health Centre in Montréal. Though still in the early stages of her career, Dr. Vinet has set herself apart through her influential expertise in reproductive health for women with rheumatic diseases, in addition to being a valued resource for her colleagues throughout Quebec.

In closing, I would like to recognize the extraordinary contribution of my colleague, Dr. Nathalie Langlais, to Quebec's rheumatology community. Nathalie was the Association's first female president and has set herself apart through her commitment, integrity and ability to move issues forward. Although she had to leave her role after only one year for professional reasons, we are all extremely grateful for her involvement in promoting rheumatology in Quebec.

The year 2022 will mark the *Association des médecins rhumatologues du Québec's* 25th anniversary. We hope we can celebrate in person.

Hoping to see you all soon,

Frédéric Morin, MD
President, Association des médecins rhumatologues du Québec

AWARDS, APPOINTMENTS, AND ACCOLADES

The *CRAJ* would like to recognize the contributions of its readers to the medical field and their local communities. To have any such awards, appointments, or accolades announced in an upcoming issue, please send recipient names, pertinent details, and a brief account of these honours to *JyotiP@sta.ca*. Picture submissions are greatly encouraged.

Arthritis Needs Innovation

By Trish Barbato, President and CEO, Arthritis Society

We all know arthritis represents a group of diseases in need of solutions. Through research, we have made progress in treatment and management, but there is still so much we have to do.

At the Arthritis Society, we're embracing innovation like never before. And as part of our new innovation strategy, we want to bring everyone in the arthritis ecosystem together – to tackle the problems in arthritis, large and small.

Our innovation strategy has three pillars.

Through our new **Ignite Research grants**, we're supporting researchers pursuing high-risk, high-reward ideas. The first of these grants was announced in November 2021. We believe this research will lead to unlocking better diagnosis, better treatment and, ultimately, a cure.

We want to collaborate with researchers and clinicians across Canada to deploy innovative therapies, programs and interventions through our new **Social Impact Program**. We are currently reviewing the expressions of interest we received, with the aim of helping bring one or two programs to fruition over the next year.

Our exciting new **Arthritis Ideator Program** is also underway. Entrepreneurs from across the country have submitted ideas and products they think could help improve the lives of people with arthritis. The finalists will be announced in early 2022 and will then present at our Arthritis Ideation Den™ in April 2022. Four innovators will each receive a $50,000 grant to help get their idea to the people who need it.

If we're going to create the kind of transformational change that people with arthritis deserve, we have to do things differently. We look forward to partnering with you on this journey. Learn more and join us at *arthritis.ca/innovation.*

News from SOAR

By Elana Murphy, MD, FRCPC

After the pandemic forced a cancellation in 2020, rheumatologists and allied health professionals from across the Atlantic provinces attended the 37th Annual Meeting of the Society of Atlantic Rheumatologists (SOAR) on June 19th, 2021. The gathering took place virtually and offered outstanding education along with a welcome opportunity to connect with regional colleagues.

Dr. Janet Pope, MD, MPH, FRCPC, from the University of Western Ontario Schulich School of Medicine, delivered this year's David Hawkins Lecture in Rheumatology entitled "What's New in Scleroderma." She followed this with an engaging presentation on "New Strategies in Lupus Treatment."

The second speaker, Dr. Andrew Mammen, MD, PhD, from the National Institute of Arthritis and Musculoskeletal and Skin Diseases/National Institutes of Health (NIAMS/NIH) and Johns Hopkins, presented on the evolving field of myositis. He started with an illuminating talk entitled "Autoimmune Myopathy Update" and then led us through the nuances of "Statin-Induced Myopathy."

Dr. Caroline Barry, MD, FRCPC, has taken the reigns as SOAR President. She is busy planning the next annual meeting which will be held at Dalvay by the Sea on Prince Edward Island from June 24-26, 2022. Save the date!

Elana Murphy, MD, FRCPC
Past President, SOAR
Halifax, Nova Scotia

AWARDS, APPOINTMENTS, ACCOLADES

Dr. Susa Benseler
Fellow of the Canadian Academy of Health Sciences

Congratulations to Dr. Susa Benseler on being elected a Fellow of the Canadian Academy of Health Sciences. A Professor at the University of Calgary and pediatric rheumatologist at the Alberta Children's Hospital, Susa is an international leader in inflammatory diseases research. She trained at Sickkids in Toronto and established BrainWorks, a global precision medicine research program for children with brain inflammation advancing early recognition, effective treatment, and improved outcomes world-wide.

Her current work in the Understanding Childhood Arthritis Network (UCAN) aims to transform care and optimize outcomes for children living with arthritis. UCAN advances precision health strategies by integrating genomic research, innovative eHealth, and economic evaluations. Susa serves as the leader of the Child Health and Wellness Strategy and the Chair of the Canadian Maternal and Child Health Research Institutes Forum. She is the director of the Alberta Children's Hospital Research Institute – a dynamic community of researchers and partners accelerating outcomes for children.

WHO'S WHO IN POSTGRADUATE RHEUMATOLOGY TRAINING

Dr. Keltie Anderson
Adult Rheumatology Program Director

Keltie Anderson attended medical school at the University of British Columbia (UBC) as a student in the Island Medical Program. She then moved to Saskatoon to complete internal medicine residency and rheumatology subspecialty training. Since making this move, she has put down roots in the province and is happy to call this beautiful place home! She is a community rheumatologist with a busy clinical practice who is engaged in clinical research. She is involved in local initiatives to improve care, including a combined connective tissue disease-associated interstitial lung disease (CTD-ILD) clinic and virtual care pilot projects. She is also passionate about resident/medical student education.

She took on the role of program director of the Adult Rheumatology program at the University of Saskatchewan in 2018. Since then, she has seen the program through the roll-out of Competency by Design (CBD), the introduction of virtual care and virtual education, and an external review which took place in the middle of the COVID-19 pandemic. She is pleased to count practicing rheumatologists in four provinces among her former trainees!

Keltie is deeply grateful to the rheumatology community at large, and particularly to the Saskatchewan group, who have been unfailingly supportive during her time as program director. She looks forward to more challenges in the years to come!

Patient Portrait: Rob Lackie

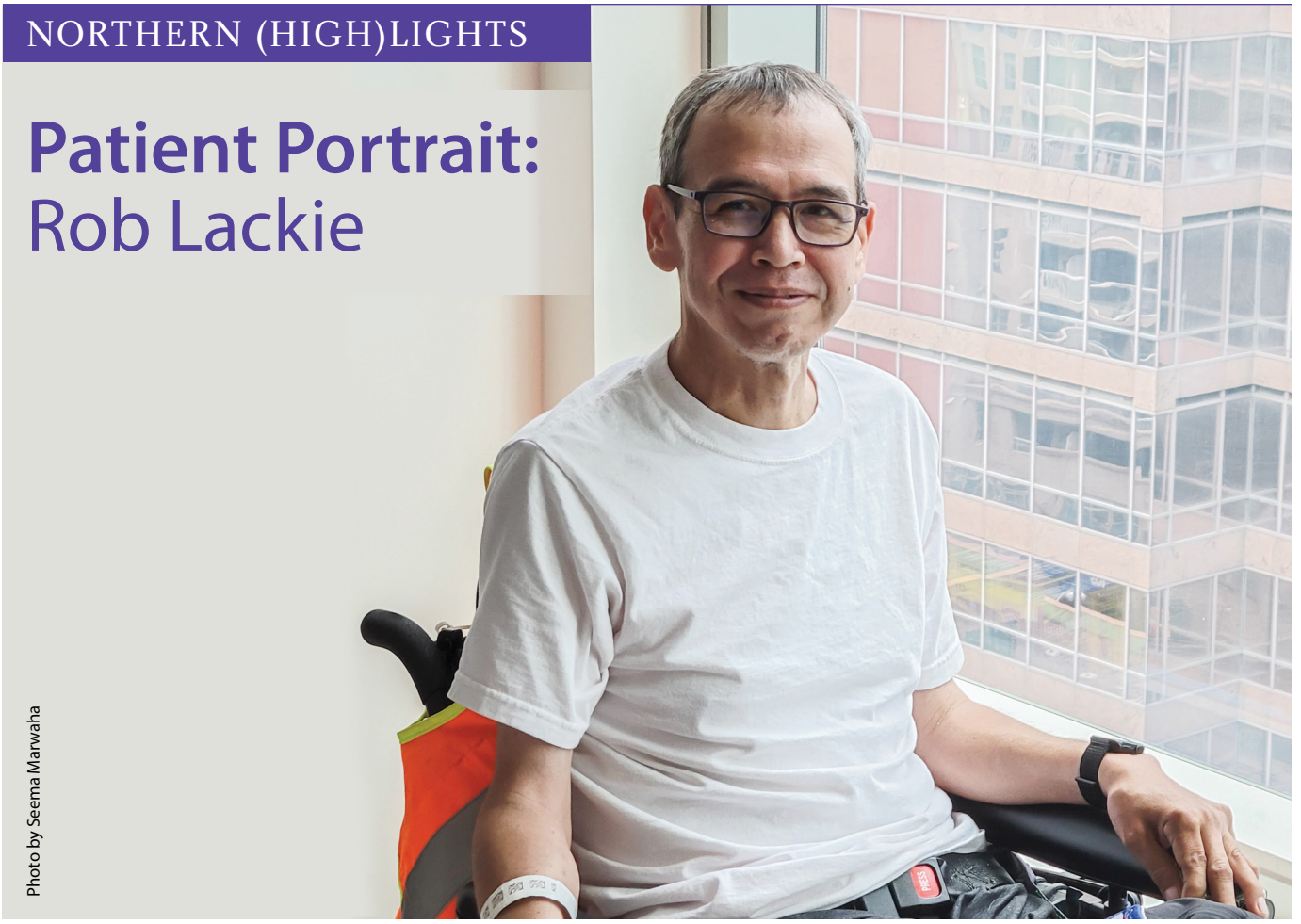


Photo by Seema Marwaha

I am Inuit. I was born in Happy Valley, Newfoundland and Labrador, the most southern community in our ancestral territory. My mom is a residential school survivor. When I was born, the Canadian government deemed her unfit to be a mother (which was not true), and I was placed into foster care. I didn't meet my mom until I was in my mid-30s. I didn't know I had any siblings. Now I know I have a younger sister. I was in my fourth foster home when I was adopted by a non-Indigenous family in Ontario. This is what consecutive generations of assimilation looks like. The Government of Canada has torn many Indigenous families apart this way.

I studied business administration and worked for big banks before moving to the education sector. I wanted to make a bigger impact on people's lives and think about more than just being a part of the bottom line for big business. My focus has been to help Indigenous youth access education from elementary to postsecondary. It's really challenging for so many of them to progress in their education without adequate resources. I won an award from Aboriginal Affairs for this work in 2011.

I was diagnosed with severe rheumatoid arthritis in 1989 and I've had 15 surgeries, mostly in relation to this. My last major surgery was in 2018, which has led me to require a powered wheelchair.

When in a hospital, I am rarely asked if I'm Indigenous (many assume I am from the Philippines). When I have had a bad hospital experience, I wonder if my race is the main factor.

Recently, I was admitted to a stroke unit because I had difficulty moving the left side of my body. I'm deaf in my right ear and have only partial hearing in my left. When I would press the call button, I could not hear when the call was being answered. Eventually, the staff member answering the calls got upset with me for calling so many times and hung up on me when we finally connected. It is harmful to discourage people to ask for help when they are sick.

My pain medication was stopped abruptly by a doctor in training without any discussion with me, my admitting doctor or even my family physician. I was in such severe pain from the sudden stop that I couldn't get out of bed. Just because I'm Indigenous does not mean I will get addicted to pain medications. Any culture or race is at a similar risk of addiction.

I posted about my pain on social media and some prominent community advocates stepped in. It's unfortunate that Indigenous people need to have advocates involved to make our health care better. We don't know if this is just the way the system works or if we are being labelled, prejudged and racialized by the system. Either way, it's deeply unfair and the system needs to be fixed now.

CRA SCR AHPA

ANNUAL SCIENTIFIC MEETING | ASSEMBLÉE SCIENTIFIQUE ANNUELLE

CRA & AHPA
ANNUAL SCIENTIFIC MEETING
FEB 2-5, 2022 ONLINE

Join us for the 2022 Annual Scientific Meeting

Conference delegates can expect to enjoy **unparalleled education** and **networking opportunities** centered around a program that will deliver **leading-edge science**, **interactive programming**, and insights from Canadian and international **experts**.

This year's theme, **Towards Equity: Rheum for Everyone**, will highlight diversity, equity, and inclusion within healthcare systems and the rheumatology workforce.

REGISTER NOW!

Learn more and register at asm.rheum.ca

DON'T MISS THESE SATELLITE PROGRAMS!

CRA SCR Canadian Rheumatology Association | Société canadienne de rhumatologie

REVIEW COURSE

JAN 28 2022 VIRTUAL

The **CRA Review Course** is for practicing rheumatologists interested in updating their knowledge base with hot topics in the rheumatology world.

» **Register at asm.rheum.ca**

FEB 7-8 2022 VIRTUAL

CANADIAN ARTHRITIS RESEARCH CONFERENCE

Société Arthrite Arthritis Society | CRA SCR | CIHR IRSC Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

The 3rd annual **Canadian Arthritis Research Conference** features presentations, discussions, and networking opportunities with experts, researchers, consumers, and emerging leaders in the community.

» **Register at arthritis.ca/carc**

Survey Results: CIORA

The Canadian Initiative for Outcomes in Rheumatology cAre (CIORA) is a unique granting division of the CRA committed to being a catalyst for improving the care of Canadians living with all rheumatic diseases.

For this issue's Joint Count, the CRA surveyed its members regarding their perspectives on CIORA, its structure, and potential areas of focus to reflect the current gaps and needs in rheumatology in Canada. A total of 93 responses were received, equating to a response rate of 17% (97/578).

As it currently stands, CIORA's grant program supports sustainable projects related to rheumatic diseases that promote the following (also known as pillars): (1) awareness/advocacy/education (health economics/sustainability of health care/quality improvement); (2) early access for rheumatic disease patients; (3) multi-disciplinary care teams; and more recently (4) community rheumatology.

When asked if they would be in favour of removing the CIORA pillars and simply promoting excellence in clinical research, 82% of respondents were in favor of removing the pillars (see Chart 1). One member commented that CIORA has become a major funder of rheumatology research, so the focus should be on excellence. Another said, "I say yes, but I think the question is why were the pillars established to begin with (e.g. was it to fill a gap or promote research areas that were less represented but felt to be important)? It's hard to answer this question without understanding the background of the pillars."

Members were also asked whether CIORA should have research grants in priority areas (e.g., cannabis research, COVID, Indigenous health, etc.). Half of the survey-takers said no, while 21% said yes and 29% were unsure (see Chart 2). Those who responded affirmatively suggested priority topics such as pediatrics; pregnancy and rheumatic disease; treatment interventions and effects on function/daily life; research focused on marginalized or under-served populations (e.g., Indigenous communities, recent immigrants, transgender persons); equity, diversity, and inclusion; COVID-19;and telemedicine.

Most respondents (75%) confirmed that they are aware that all CRA members including community rheumatologists can apply for a CIORA grant, that there are reserved funds for grants to community rheumatologists, and that there is support available on how to write a grant. Approximately, 37% of survey-takers said that they had already submitted a CIORA grant. Those who hadn't submitted a grant stated that they had not done so due to time constraints or that research wasn't a priority focus for them at the present time; a few explained that they were still in the early stages of their careers, and others said that they would be interested in submitting in the future.

For any questions or feedback regarding CIORA, write to Virginia Hopkins at *vhopkins@rheum.ca*, and to find out more about CIORA, visit *rheum.ca/ciora/*.

CHART 1

Are you in favour of removing the CIORA pillars and simply promoting excellence in clinical research in future competitions?

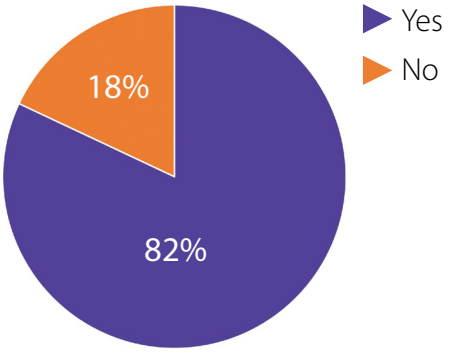
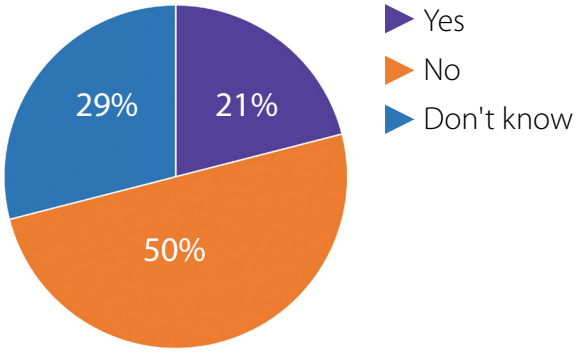


CHART 2

Do you think CIORA should have research grants in priority areas (e.g. cannabis research, COVID, Indigenous health, etc.)?



Tribute to Dr. Peter Dent

By Tania Cellucci, MD, FRCPC, MScCH; Michelle Batthish, MD, FRCPC, MSc; and Maggie Larché, MBChB, MRCP(UK), PhD

1936-2021

It is with deep sadness that we announce that our colleague, mentor and friend Dr. Peter Dent has passed away after a long illness. Peter was extraordinarily humble, and many of you may be unaware of his extensive contributions to our community in Hamilton and beyond.

After training in both rheumatology and immunology, Peter started his career at McMaster in 1967 as a research scientist. He created Canada's first multidisciplinary program in immunology and virology. While he was chair of McMaster's Department of Pediatrics between 1980 and 1990, he had a vision of interdisciplinary collaboration and integrated non-MD scientists into the department of pediatrics, which remains one of its strengths. He advocated fiercely against government and other barriers to found what is now known as McMaster Children's Hospital in 1988. Soon after, he also established Hamilton's Ronald McDonald House to support the families of sick children at the hospital. He has been Vice-President of Medicine for Chedoke McMaster Hospitals, Director of Research for Hamilton Health Sciences from 1990 to 1997, and Associate Dean of Clinical Services for the Faculty of Health Sciences at McMaster University from 2002 to 2012.

Throughout this career, he remained a dedicated, caring clinician, looking after children and teenagers with immune deficiencies and rheumatic diseases before retiring in 2017. He developed a pediatric rheumatology listserve in 2001, which is still facilitating pediatric rheumatologists from around the world to share challenging cases, resources and experiences. He served as chair of the section of Pediatric Rheumatology of the American College of Rheumatology (ACR) and on the sub-board of Rheumatology of the American Board of Pediatrics. In 2004, he received the James T. Cassidy Award for excellence in teaching and care and became a Master of the ACR. For his many achievements, he was invested to the Order of Canada in 2017.

As the founder of pediatric rheumatology at McMaster, mentorship was exceptionally important to him. He was always able to find time to guide us, and many others before us, through challenges during our professional lives. Thoughtful words of wisdom were expressed with clarity and deep understanding. He was unfailingly supportive of any initiative that we proposed to expand the clinical and research programs in pediatric rheumatology. He gave the best advice and had a knack for asking exactly the right questions to expand our thought process.

On a personal note, Peter was a remarkably kind, thoughtful, and wise leader and friend. Conversations with Peter were never dull, whether they covered personal, professional or world matters. He would often pop into our offices to share a story, to check on us if we were going through a difficult time, or to congratulate us on an accomplishment. We will forever miss his passion for medicine, his compassion for people, his warm smile, his big hugs, his surprisingly mischievous sense of humour, and everything that made him such an inspiration. We hope to follow his example and make him proud that he left this ship in our hands.

Our thoughts and prayers are with his wife, Diane, his three daughters, Jennifer, Ashley and Rebecca, his family, and his friends during this difficult time.

In celebration of the deep impact of the work of Dr. Peter Dent in the areas of education, research and clinical practice, a collaborative fund is being created at McMaster University and Hamilton Health Sciences Foundation. The funds will be used to honour the legacy of Dr. Peter Dent, as guided by the Dent family, the Department of Pediatrics and the McMaster Children's Hospital. For more information, please visit *www.hamiltonhealth.ca/dent.*

Tania Cellucci, MD, FRCPC, MScCH
Associate Professor,
Department of Pediatrics, McMaster University
Staff Pediatric Rheumatologist, McMaster Children's Hospital
Hamilton, Ontario

Michelle Batthish, MD, FRCPC, MSc
Associate Professor,
Department of Pediatrics, McMaster University
Head, Division of Rheumatology & Immunology,
McMaster Children's Hospital
Hamilton, Ontario

Maggie Larché, MBChB, MRCP(UK), PhD
Professor, Department of Medicine, McMaster University
Head of Service, St. Joseph's Healthcare Hamilton
Hamilton, Ontario

NB

Update from New Brunswick

By Sylvie Ouellette, MD, FRCPC

The Challenge:
In late April, the New Brunswick Prescription Drug Plan notified prescribers that they had 6 months to switch patients taking Enbrel, Remicade, Humira, and Rituxan to their respective biosimilars.

The Opportunity:
The Chronic Disease Management Unit at the Department of Health recognizes the importance of continuing access to virtual care in a post-pandemic world.

The Cherry on Top:
Dr Ellen MacDonald will be joining the Rheumatology Division at The Moncton Hospital in the fall of 2022.

Ballet by the Ocean (Atlantic Ballet of Canada).

View of the Dieppe Marsh during the morning commute.

Pr RINVOQ® upadacitinib

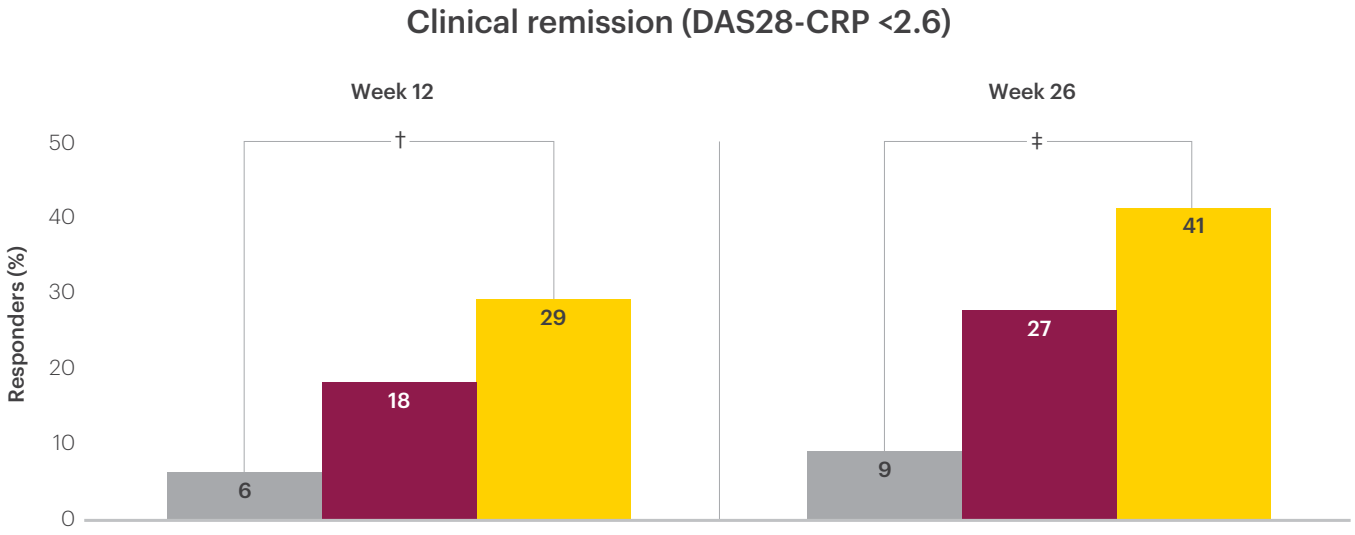
Once-daily oral JAK-inhibitor therapy*

INDICATED IN RA and PsA NEW

RA

Clinical remission (DAS28-CRP <2.6; secondary endpoint) shown in the SELECT-COMPARE trial at Weeks 12 and 26 in MTX-IR patients*

From Week 14, non-responding patients on RINVOQ could be rescued to adalimumab, and non-responding patients on adalimumab or placebo could be rescued to RINVOQ in a blinded manner.



Adapted from the Product Monograph

* No conclusions can be drawn regarding the superiority of upadacitinib + MTX vs. adalimumab + MTX.
† $p \leq 0.001$ RINVOQ vs. placebo comparison; included in multiplicity adjustment for overall type I error control.
‡ $p \leq 0.001$ RINVOQ vs. placebo comparison; not included in multiplicity adjustment for overall type I error control.

CA-RNQR-210050A – August 2021

abbvie.ca
1-888-703-3006

Reach for RINVOQ

RINVOQ (upadacitinib) is indicated for the treatment of:

- adults with moderately to severely active rheumatoid arthritis (RA) who have had an inadequate response or intolerance to MTX. RINVOQ may be used as monotherapy or in combination with MTX or other nonbiologic DMARDs.
- adults with active psoriatic arthritis (PsA) who have had an inadequate response or intolerance to MTX or other DMARDs. RINVOQ can be used as monotherapy or in combination with MTX.

Clinical use not discussed elsewhere in the piece

RINVOQ should not be used in combination with other Janus kinase (JAK) inhibitors, biologic DMARDs, or with potent immunosuppressants such as azathioprine and cyclosporine.

Caution should be used when treating geriatric patients with RINVOQ.

Most serious warnings and precautions

Serious infections: Patients treated with RINVOQ 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 RINVOQ until the infection is controlled. Reported infections include active tuberculosis (TB), which may present with pulmonary or extrapulmonary disease; invasive fungal infections, including cryptococcosis and pneumocystosis; and bacterial, viral (including herpes zoster), and other infections due to opportunistic pathogens. Test patients for latent TB before RINVOQ use and during therapy. Consider treatment for latent infection prior to RINVOQ use. Do not initiate treatment in patients with active infections including chronic or localized infections. Carefully consider the risks and benefits of treatment prior to initiating therapy in patients with chronic or recurrent infections. Closely monitor patients for signs and symptoms of infection during and after treatment, including the possible development of TB in patients who tested negative for latent infection prior to initiating therapy.

Malignancies: Lymphoma and other malignancies have been observed in patients treated with RINVOQ.

Thrombosis: Thrombosis, including deep venous thrombosis, pulmonary embolism, and arterial thrombosis, has occurred in patients treated with JAK inhibitors, including RINVOQ, for inflammatory conditions. Consider the risks and benefits prior to treating patients who may be at increased risk. Patients with symptoms of thrombosis should discontinue RINVOQ treatment and should be promptly evaluated and treated appropriately.

Other relevant warnings and precautions

- Increases in lipid parameters, including total, low-density lipoprotein, and high-density lipoprotein cholesterol
- Gastrointestinal perforations
- Hematologic events
- Liver enzyme elevation
- Patients with active hepatitis B or C infection
- Patients with severe hepatic impairment
- Concomitant use with other potent immunosuppressants, biologic DMARDs, or other JAK inhibitors
- Immunizations
- Viral reactivation, including herpes (e.g., herpes zoster) and hepatitis B
- Malignancies
- Increases in creatine phosphokinase
- Monitoring and laboratory tests
- Pregnant women
- Women of reproductive potential
- Breast-feeding
- Geriatrics (≥65 years of age)
- Asian patients

For more information

Please consult the Product Monograph at rinvoq.ca/pm for important information relating to adverse reactions, drug interactions, and dosing information which have not been discussed in this piece. The Product Monograph is also available by calling us at 1-888-704-8271.

* Please see the Product Monograph for additional dosing and administration information.

JAK: Janus kinase; MTX: methotrexate; DMARD: disease-modifying antirheumatic drug; DAS28-CRP: 28-joint disease activity score using C-reactive protein; IR: inadequate responder.

Reference: RINVOQ Product Monograph. AbbVie Canada.

abbvie

It takes community...

Pfizer Canada strives to profoundly impact the health of Canadians through the discovery, development and delivery of medicines and vaccines.

We believe in supporting the people in the communities where we work and live through our community investment partnerships. We bring essential medicines to the vulnerable and we lend a hand to those in need.

Through our partnerships we offer the possibility of a healthier world.

Pfizer

BIOTECanada MEMBER

INNOVATIVE MEDICINES CANADA

pfizer.ca