

Death by PowerPoint *continued from page 3*

A 2012 study of religious sermons showed a sermon without slides was the most effective form of communication, compared to sermons using word slides, visual image slides or a combination of the 2 types of slides.³ Quoting Eric Bergman: "In other words, use as many slides as you wish, as long as you don't want the audience to remember what you said. If you want to increase what the audience remembers (and who on earth wouldn't?), turn off the projector. Don't share your slides. Simply carry on a conversation with your audience."

In a less stringently regulated time, I used to enjoy presenting on osteoporosis to primary care physicians by simply hosting a roundtable without slides, using an "Ask the Expert" format. Once the ice was broken, and the first question was posed, the time flew by. I always left feeling that the audience had driven the discussion and

had their key questions answered. Maybe we need more of that style of talk.

PowerPoint is clearly habit-forming. Will the evidence help us break this potentially bad habit? Only time will tell.

References:

1. James Thomas. Death by PowerPoint: the slide that killed seven people. Available at <https://mc-dreamiemusings.com/blog/2019/4/13/gsux1h6bmt8lqid7w2t2mtvfg81uhx>. Accessed November 16, 2022.
2. Gettysburg Cemetery Dedication presentation. Available at <https://norvig.com/Gettysburg/>. Accessed November 16, 2022.
3. Buchko AA, Buchko KJ, Meyer JM, et al. Is there power in PowerPoint? A field test of the efficacy of PowerPoint on memory and recall of religious sermons. *Computers in Human Behavior*, 2012; 28(2):688-695.

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

Encouraging Early Diagnosis and Self-management

By Trish Barbato, President and CEO, Arthritis Society Canada

I love the new year. There's renewed energy and an opportunity to focus on key priorities.

We all know early diagnosis and treatment are critical to minimizing joint damage and disability in people with arthritis. That's why we're launching a campaign in January to encourage people to take action at the first signs of joint pain. Rolling out over social media, our campaign will encourage Canadians to take our symptom checker online, discuss any symptoms with their healthcare professionals, and take steps now to self-manage their symptoms.

We were excited to announce in November the results of our first Community Action Grants competition. From radio programs in Igloolik, Nunavut, to movement classes in Shelburne, Nova Scotia, the grants

are investing in local solutions, giving people with arthritis an opportunity to connect and thrive in ways that are meaningful to them. We look forward to sharing the outcomes of these first-time projects in coming issues.

As 2023 begins, please continue to refer your patients to the wealth of resources at arthritis.ca. Our recent Arthritis Talks webinars have focused on fibromyalgia and arthritis, arthritis in the back and neck and assistive devices for arthritis. We've also introduced a six-episode yoga series adapted for people with arthritis with or without prior yoga experience.

I'm excited to be participating in person at February's Annual Scientific Meeting in Quebec City. I look forward to reconnecting with — and meeting — many of you there.



Making Medication Decisions for Family Planning and Pregnancy Among Women with Rheumatoid Arthritis (the MOTHERS Study)

By Mary De Vera, PhD

About the MOTHERS Study

The MOTHERS Study (Making Medication Decisions for Family Planning and Pregnancy Among Women with Rheumatoid Arthritis) was submitted to the 2019 CIORA Competition with the goal of addressing the question: How do females with rheumatoid arthritis (RA) make decisions related to medication use during pregnancy? It was important to address this question in response to our prior research. First, when we qualitatively analyzed threads on the social news website, Reddit, we found that female patients with RA shared challenges regarding finding information about taking medications during pregnancy and shared anxieties about making these kinds of decisions.¹ Furthermore, when we assessed perinatal medication use patterns among females with RA using administrative health data in B.C., we found substantial discontinuation of biologic originator (bo) disease-modifying anti-rheumatic drugs (DMARDs) (up to 69.5%) and conventional synthetic (cs) DMARDs (up to 59.1%) within the first trimester of pregnancy.² Understanding the treatment decision-making process during pregnancy among women with RA is needed to address these translation and information gaps and support healthy pregnancies.

Conducting the MOTHERS Study During the COVID-19 Pandemic

For the MOTHERS Study, we planned to conduct focus groups among females who were aged 18 years or older; had been diagnosed with RA; and were able to communicate in English and/or French. While we originally planned in-person focus groups in the Lower Mainland of British Columbia, with the onset of the COVID-19 pandemic in the midst of our recruitment and data collection, we pivoted to virtual focus groups. This transition to virtual focus groups proved to be a blessing in disguise that allowed us to include females with RA in other Canadian cities and provinces and had the overall effect of enriching and enhancing representation in the research.

From MOTHERS to PARTNERS

During focus groups, participants in the MOTHERS study emphasized the important roles their partners played. Participants not only suggested that we also gather perspectives from their partners, but they also offered to recruit and invite them to such a study. From these suggestions came the related PARTNERS Study (Perspectives and Experiences Making Family Planning and Pregnancy Decisions of Partners of Women with Rheumatoid Arthritis).

Knowledge Translation

From the MOTHERS and PARTNERS studies, we learned of the complexities of medication decision making for patients with RA and the roles and perspectives of their partners. We presented findings at the 2021 American College of Rheumatology Conference and in resultant peer-reviewed publications which are available open access, and we encourage everyone to read and find out more about these complexities and how patients and partners may be better supported by providers.

Website Links

For more information on the MOTHERS study, visit arthritis-research.biomedcentral.com/articles/10.1186/s13075-021-02704-7 and for information regarding the PARTNERS study visit academic.oup.com/rheumap/article/5/3/rkab040/6307276.

Mary De Vera, PhD

*Associate Professor, Faculty of Pharmaceutical Sciences,
University of British Columbia
Vancouver, British Columbia*

References:

- Chew C, Rebic N, Baldwin C, et al. "r/Thritis", Pregnancy, and Parenting: A Qualitative Descriptive Study of Reddit Forums to Explore Information Needs and Concerns of Women With Rheumatoid Arthritis. *ACR Open Rheumatology*. 2019;1(8):485-492.
- Rebic N, Sayre EC, Zusman EZ, et al. Perinatal Use and Discontinuation of Disease-modifying Anti-rheumatic Drugs and Biologics in Women with Rheumatoid Arthritis: a Cohort Study. *Rheumatology (Oxford)*. 2019;kez478.

CIORA is issuing another call for grants in 2023!

CIORA Online Grant Application System opens on **January 23, 2023**.

Letter of Intent must be submitted by **February 20, 2023**.

CIORA Online Grant Application submission deadline is **March 31, 2023**.

Abstract Review Committee Update

By Marinka Twilt, MD, MScE, PhD; and Mohamed Osman, MD, PhD, FRCPC

The abstracts have been submitted, and the 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. Attendees will have the option of attending sessions in person or virtually. We are excited to see you in Quebec!

The Annual Scientific Meeting Committee, supported by Claire McGowan (Manager, Educational Programs and Events), has worked hard to retain the multiple opportunities the CRA & AHPA Annual Scientific Meeting (ASM) offers on an ongoing yearly basis. Our meeting continues to garner interest from researchers, clinicians, trainees and industry. This year, we received 180 abstract submissions. 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 in-person poster tour and for podium presentations. Thank you to all of our reviewers!

There will be virtual poster tours during which the top-ranked abstracts will be presented. There will also be interactive in-person and virtual poster sessions where attendees will be able to discuss posters with the presenters. The top 5 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 in person (and virtual) CRA & AHPA ASM!

*Marinka Twilt, MD, MScE, PhD
Chair, CRA Abstract Review Committee
Pediatric Rheumatologist, Clinician Scientist
Associate Professor,
Cumming School of Medicine
University of Calgary
Calgary, Alberta*

*Mohamed Osman, MD, PhD, FRCPC
Vice-Chair, CRA Abstract Review Committee
Clinician Scientist, Consultant
Rheumatologist and Immunologist
Assistant Professor,
Department of Medicine
University of Alberta
Edmonton, Alberta*

News from the ASM Program Committee

By Vinod Chandran, MBBS, MD, DM, PhD

The CRA Annual Scientific Meeting (ASM) Program Committee looks forward to seeing you all at the 2023 CRA & AHPA Annual Scientific Meeting, this coming February 8-11, 2023. After 3 long years, we look forward to finally reconnecting with colleagues and friends in Québec City! Of course, for those who prefer, a virtual conference experience will also be made available.

As we celebrate the 77th anniversary of the CRA and move toward new beginnings, this year's meeting theme, Reconnect, Renew, Reimagine, will focus on our collective strength in leading change. We will once again provide unparalleled educational and networking opportunities, centered on a program that will deliver leading-edge science, interactive programming, and insights from Canadian and international experts.

In addition to the Distinguished Investigator lecture that will be announced in the coming months, the ASM will feature 3 keynote addresses: Dr. Fiona Rawle from the University of Toronto-Mississauga will present her lecture, titled "Communicating Science to Patients: Complexities & Caveats"; Professor John Isaacs from Newcastle, UK, will discuss precision medicine in rheumatoid arthritis; and the CRA's own Dr. Rae Yeung will present the 2023 Dunlop-Dottridge Lecture called, "The Evolution of Juvenile Idiopathic Arthritis".

This year's ASM format has changed, with core educational content featured from Wednesday afternoon to Friday evening (Wednesday prior to the start of the ASM and Saturday morning will be reserved for small group and committee meetings). The meeting will commence the afternoon of Wednesday, February 8th, 2023, with discussion on mysterious cases and clinical pearls and will end on

Friday, February 9th, 2023, with the gala dinner and awards ceremony. Each day will offer a full day of safely delivered formal, in-person events, with adequate time for networking. As an added bonus, all delegates will have the opportunity to watch on-demand sessions afterwards!

The meeting will of course feature all of the compelling content you have come to expect. We will bring back the live poster session and poster tours for trainees and investigators to showcase their research activities; state-of-the-art, paired specialty and crowd-sourced workshops; satellite symposia; as well as favourites including Clinical Pearls and Mysterious Cases, RheumJeopardy and The Great Debate! This year's debate topic is "Be It Resolved That Canadians with New Inflammatory Arthritis Should Have Access to all Therapeutic Options at Disease Onset to Induce Remission." Opportunities to celebrate our award-winning colleagues will be featured throughout the meeting. Satellite meetings include 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 interested stakeholders and colleagues from around the world to join us. We look forward to reconnecting with you all and celebrating our achievements together in February!

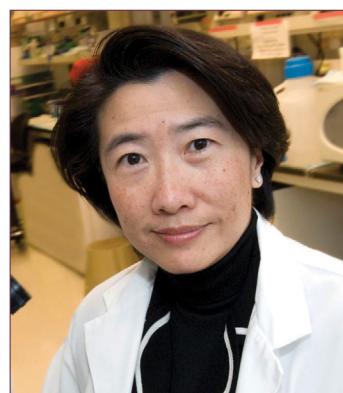
*Vinod Chandran, MBBS, MD, DM, PhD
Chair, CRA ASM Program Committee
Associate Professor, Department of Medicine,
Division of Rheumatology,
University of Toronto
Scientist, Krembil Research Institute,
University Health Network
Toronto, Canada
Adjunct Professor, Memorial University
St. John's, Newfoundland*



Dr. John Isaacs



Dr. Fiona Rawle



Dr. Rae Yeung

Pediatrics Committee News

By Roberta Berard, MD, MSc, FRCPC

The CRA Pediatrics Committee is a diverse and active group of 95 (and growing) pediatric rheumatologists, trainees and researchers. Heading this committee is the Pediatrics Executive Committee, which oversees the work of several subcommittees including Human Resources, Education, and a number of working groups. Dr. Bobbi Berard became Chair of the Pediatrics Executive Committee in February 2022, with Dr. Nadia Luca stepping into the role of Vice-Chair, and Dr. Julie Barsalou as Secretary. We would like to thank Dr. Ron Laxer for his dedication to our committee and to the CRA community, having served two terms as Chair, and Dr. Deb Levy, who has completed her term as Past-Chair. Our newest Executive members include Dr. Lily Lim (member-at-large) and Dr. Lillian Lim (CRA board liaison).

The Pediatrics subcommittees have been very busy over the last twelve months, offering a variety of educational opportunities in addition to producing manuscripts and guidance materials.

Here is a summary of some of the important work they have done over the past year:

- The Canadian Autoinflammatory Case Rounds (CANaC) Steering Committee offered three presentations for pediatric members and invited guests on Cryopyrin Associated Periodic Syndrome (CAPS), presented by Susa Benseler in March, on interferonopathies, presented by Yanick Crow in June, and on Tumor Necrosis Factor Receptor Associated Periodic Syndrome (TRAPS), presented by Lori Tucker in September.
- The Education Subcommittee offered two accredited National Grand Rounds webinars: Lupus Nephritis, hosted by Deb Levy and Sean Jackson in May, and Temporomandibular Joint (TMJ) disease in juvenile idiopathic arthritis (JIA), hosted by Marinka Twilt in October.
- The HR subcommittee surveyed division heads at academic centres to determine potential job opportunities in the next year and the next 5 years, and results will be forthcoming. Members of the subcommittee are also spearheading a qualitative study evaluating clinical care resources, structures and processes that are in place within Canadian pediatric rheumatology clinics and institutions.

- Pediatric members of the CRA Transition Working Group contributed to the position paper which was published on the CRA website in August, titled "Bridging the Gaps: Optimizing the Transition from Pediatric to Adult Rheumatology Care."
- In collaboration with the Guidelines Committee and the Cochrane Musculoskeletal Group, the CRA's Recommendations for the Screening, Monitoring and Treatment of Juvenile Idiopathic Arthritis-Associated Uveitis were recently published in the *Journal of Rheumatology* and on MAGICapp, led by Bobbi Berard and Deb Levy.
- The Choosing Wisely recommendations for pediatric rheumatology and pediatric sport and exercise medicine are now available on the Choosing Wisely Canada website. A draft manuscript will be submitted shortly for publication.
- The Pediatrics Committee was pleased to collaborate with the Therapeutics and Stakeholder Engagement Committees to advocate for an extension of the Trispan™ expiry date from August 2022 to August 2023. We will continue to be active until a more permanent solution is found.
- The Pediatrics Committee and the Therapeutics Committee also collaborated to update the Biosimilars position statement and the Citrate-Free Adalimumab position statement, both of which were published last fall.

Finally, we would like to celebrate our extraordinary colleagues, mentors, and friends who have retired this year, Drs. Ciaran Duffy, Karen Duffy, and Rayfel Schneider. We wish them the very best in their well-deserved retirements.

Roberta Berard, MD, MSc, FRCPC

Chair, CRA Pediatrics Committee

Associate Professor of Pediatrics, Western University

Division Director, Pediatric Rheumatology,

London Health Sciences Centre

London, Ontario

Update from the Therapeutics Committee

By Alison Kydd, MD, PhD, FRCPC

Over the past year, the CRA Therapeutics Committee has continued to work on issues related to COVID-19. We have also been working on new initiatives for the CRA involving the review and approval of Canadian Agency for Drugs and Technologies in Health (CADTH) submissions for rheumatic medications. Some of the highlights over the past year include the following:

- Updates on the CRA Position Statement on COVID-19 Vaccination — last updated in March 2022
- Communication sent to CRA members on May 10th regarding triamcinolone and Depo-Medrol shortages.
- E-blast sent to members Sept 9th regarding the triamcinolone hexacetonide shelf-life extension
- Communications with Amgen regarding changes in access to Enbrel for pediatric patients.
- Development of a review process for CADTH clinician input applications for submission by the CRA.
- CRA Position Statements on Biosimilars and Citrate-Free Adalimumab — published in November 2022.
- Work on a provincial framework to aid with communication and dissemination of information regarding drug access issues.
- Initial meetings regarding the development of a Drug Access and Adjudication (Pharmacare) Subcommittee.

Monitoring drug shortages and advocating for CRA members and their patients are always our top priorities. We will 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, who are all very busy with their numerous other roles. They have been highly committed and have always impressed me with their quick response and expert guidance. My Co-Chair Rosie Scuccimarra and I greatly appreciate their ongoing support. We have recently added trainee member Glynnis Byrne and look forward to her involvement on the committee. In addition, we have recently welcomed Sarah Webster, a CRA staff member, who is proving to be excellent in her new role. We send a heartfelt thanks to Sue Ranta who worked with our committee for a number of years.

*Alison Kydd, MD, PhD, FRCPC
Co-chair, CRA Therapeutics Committee
Clinical Associate Professor, Rheumatology
University of British Columbia
Vancouver, British Columbia*

Update from the Guidelines Committee

By Glen Hazlewood, MD, PhD, Chair of the CRA Guidelines Committee

The Guidelines Committee continues to be very active. In 2021-22, guidelines for COVID-19 vaccination, rheumatoid arthritis and juvenile uveitis were all published. We've launched "living" guidelines, which will be the new model for CRA guidelines moving forward. These guidelines will be kept updated on a continual basis over time. New recommendations will be continually added, and individual recommendations will be added or updated as needed. In addition to being published in the *Journal of Rheumatology*, guidelines are being hosted in MAGICApp (with links through the CRA website), an online platform for guideline publishing, that will allow for "living" updates. All of the CRA guidelines can be found here: rheum.ca/resources/publications/

We've also incorporated a formal approach to considering health equity throughout our guidelines and have started to develop decision aids linked to key preference-sensitive recommendations (our first for tapering of advanced therapy in rheumatoid arthritis is available here: rheum.ca/wp-content/uploads/2022/07/RA_decisionaid_July-20-2022.pdf). Our "Guidelines Corner" section of the CRAJ launches in this issue (see page 13) and will highlight selected recommendations from our guidelines.

The Guidelines Committee would like to thank all the people who have contributed to the success of the committee over the past year: Sue Ranta and Sarah Webster for the amazing administrative support to the committee; Jordi Pardo and Cochrane Musculoskeletal for providing methodological support; Arnav Agarwal and the MAGICApp team; GRADE and GRADEPro; and of course all members of the Guidelines Committee and panelists, including the dedicated patients who participate in the guideline panels.

There are many opportunities to be involved in evidence reviews or guidelines through the CRA, either as a trainee or a practicing rheumatologist. CRA members, please reach out to Sarah Webster at swebster@rheum.ca.

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

Guidelines Corner – Living Guidelines in the CRA

On behalf of the CRA Guidelines Committee

Did you know the CRA has transitioned to a “living” guideline model? This means that guideline recommendations can be updated as needed when new evidence becomes available. Guidelines are available and maintained online at rheum.ca/resources/publications/

Guidelines

- COVID-19 vaccination (released 2022)
- Rheumatoid arthritis (RA) (released 2022)
- Juvenile idiopathic arthritis (JIA) Uveitis (released 2022)
- Axial Spondyloarthritis (in development)
- Transition care (in development)
- Immune-Mediated Adverse Events (in development)

This section of the *CRAJ* will highlight recommendations from the CRA’s living guidelines. In this installment, we focus on rheumatoid arthritis and treatment tapering.

Clinical case: Diane is a 56-year-old woman with seropositive RA, who comes in for an annual appointment. She has been taking etanercept for 6 years as monotherapy and has been in remission for most of that time, with the occasional mild flare, that resolves on its own without needing a change in disease-modifying anti-rheumatic drugs (DMARDs)/steroids.

Would you?

- A) Stay the course, renew her etanercept
- B) Discuss tapering her etanercept
- C) Discontinue (stop) her etanercept
- D) Discuss tapering only if she asks about it

Answer: B

The CRA recommendation is to suggest offering a stepwise reduction in the dose of biologic/targeted synthetic (b/ts) DMARD without discontinuation, in the context of a shared decision, provided patients are able to rapidly access rheumatology care and re-establish their medications in case of a flare.

In patients where rapid access to care or re-establishing access to medications is challenging, we conditionally recommend against tapering.

Discussion

In this situation, Diane has been in a prolonged remission, is not taking corticosteroids (which would be tapered first, if possible), and would be a suitable candidate to reduce her biologic therapy. There is moderate certainty evidence that people with RA who are in remission for at least 6 months can reduce their biologic therapy with little impact on their disease control. Most patients who do flare can regain control promptly when medications are re-established. Whether tapering is right for Diane will depend on her preferences. A decision aid (rheum.ca/wp-content/uploads/2022/07/RA_decisionaid_July-20-2022.pdfclick) has been developed to provide more information for patients and help them choose the best option considering their values and preferences. A typical way to reduce etanercept would be to increase the dosing interval from every week to every 10 days, then (if tolerated) to every 14 days after a period of 3-6 months. Stopping abruptly is linked to additional flares and is generally not recommended. Prior to tapering, it would be important to discuss a flare management plan.

Rapid access to care and the ability to re-establish medications was highlighted as a particularly important consideration when deciding whether to taper. In situations where access to care is challenging, tapering may be difficult. Implementation of the recommendation would therefore be supported with models of care that allow rapid access to care from a rheumatology care team, including in populations at risk for inequity, and reimbursement policies that facilitate immediate re-escalation of doses in case of a flare.

Are you a CRA member interested in getting involved with guidelines? E-mail Sarah Webster at swebster@rheum.ca to express your interest.



Report from the Human Resources Committee

By Claire Barber, MD, PhD, FRCPC; Hengameh Kheirkhah, MD; Nicole Hartfeld, MC, MSc; Jessica Widdifield, PhD; and Dana Jerome, MD, MEd, FRCPC

The recent Canadian Rheumatology Association's (CRA) Workforce and Wellness survey¹ highlighted several challenges in our workforce which threaten optimal rheumatology care delivery including i) a national deficit of full-time equivalent (FTE) rheumatologists to meet the benchmark of 1 rheumatologist per population of 75,000; ii) high numbers of retirements in the next 5-10 years; and iii) over half of the respondents reported burnout. While the survey was conducted over the pandemic, which could have contributed to the high rates of burnout, other studies have also reported high rates of burnout in rheumatologists pre-pandemic.²

Beyond the personal impact of burnout, high rates of burnout can impact the workforce in many ways including impacts on the quality of care provided as well as productivity, job turnover, and early retirement.³ Physician burnout is a public health problem. To address this, the Human Resources Committee is developing recommendations about what strategies may be most effective to address burnout in rheumatologists. For this work, we have conducted a systematic review of published systematic reviews on interventions to address physician burnout based on Cochrane guidance. This work has been led by Dr. Hengameh Kheirkhah and Registered Provisional Psychologist Nicole Hartfeld, and has been submitted to the CRA Annual Scientific Meeting. This endeavor will be supplemented by a review of resources currently available either provincially or nationally to manage physician burnout. The Human Resources Committee will then review available resources and evidence to make recommendations about effective potential strategies to address rheumatologist burnout and identify areas in need of future research. This work will be finalized over the fall and winter months, and results will be shared with the broader CRA community when available through social media, a publication, and on the Human Resources website.

If you or a colleague needs help, please review physician support services available at cma.ca/supportline.

References:

1. Kulhavy-Wibe SC, Widdifield J, Lee JJY, et al. Results From the 2020 Canadian Rheumatology Association's Workforce and Wellness Survey. *J Rheumatol*. 2022;49(6):635-643.
2. Tiwari V, Kavanagh A, Martin G, Bergman M. High Burden of Burnout on Rheumatology Practitioners. *J Rheumatol*. 2020;47(12):1831-1834.
3. Patel RS, Bachu R, Adikey A, et al. Factors Related to Physician Burnout and Its Consequences: A Review. *Behav Sci (Basel)*. 2018;8(11).

Claire Barber, MD, PhD, FRCPC

Associate Professor,

Departments of Medicine and Community Health Sciences,

Cumming School of Medicine,

University of Calgary

Calgary, Alberta

Hengameh Kheirkhah, MD

Rheumatology Resident, Department of Medicine,

Cumming School of Medicine, University of Calgary

Calgary, Alberta

Nicole Hartfeld, MC, MSc

Department of Medicine, Cumming School of Medicine,

University of Calgary, Calgary, Alberta

Jessica Widdifield, PhD

Scientist, Sunnybrook Research Institute, ICES

Associate Professor, University of Toronto,

Institute of Health Policy, Management & Evaluation

Toronto, Ontario

Dana Jerome, MD, MEd, FRCPC

Chair, CRA Human Resources Committee

Program Director, Rheumatology Training Program

Assistant Professor of Medicine,

University of Toronto

Toronto, Ontario

CRA Equity, Diversity, and Inclusion Task Force Update

By Nicole Johnson, MD, FRCPC

Equity, Diversity, and Inclusion Continue To Be Leading Priorities of the Canadian Rheumatology Association

The CRA Equity, Diversity, and Inclusion (EDI) Task Force has been working diligently to advance the CRA's journey in EDI. We are pleased to announce that the Task Force has engaged an EDI consultant to co-facilitate with the Task Force in advancing EDI efforts throughout the organization. Amorell Saunders N'Daw will assist the group in focusing our initiatives in the short term to further embed EDI principles within the organization, and will aid in guiding our work towards a framework for a long-term EDI strategic plan for the organization. To learn more about Amorell Saunders N'Daw's dynamic experiences and successful career, please visit the following link amorell.com/about/.

The Task force members have been active with several educational offerings. One such activity was an introduction to EDI in the CRA Leadership Program (LEAP) presentations. During the Annual Scientific Meeting taking place in February 2023, Task Force members are inviting you to attend our workshops on the principles of an inclusive education in rheumatology

and on how to incorporate trauma-informed care into our clinical rheumatology practices.

Finally, look out for our periodic distribution of EDI resources through the President's update. The Task Force also welcomes any feedback, comments, and ideas from our CRA members, so please reach out by emailing our coordinator, Erin Stewart at estewart@rheum.ca.

CRA EDI Task Force Members:

- Dr. Nicole Johnson, Chair
- Dr. Aurore Fifi-Mah
- Dr. Natasha Gakhal
- Dr. Raphael Kraus
- Dr. Manisha Mulgund
- Dr. Trudy Taylor
- Dr. Alan Zhou
- EDI consultant: Amorell Saunders N'Daw
- Administrative Support: Erin Stewart and Kevin Baijnauth



Members of the CRA EDI Task Force during their virtual meeting in October 2022. From left to right, top row: Erin Stewart, Dr. Nicole Johnson, Dr. Raphael Kraus, and Dr. Alan Zhou. Middle row: Dr. Trudy Taylor, Dr. Natasha Gakhal, Dr. Manisha Mulgund, and Kevin Baijnauth. Bottom row: Dr. Aurore Fifi-Mah and Amorell Saunders N'Daw.

Quality Care Committee Update

By Amanda Steiman, MD, MSc, FRCPC

You can't miss the headlines and the bleak healthcare future foretold: ever-expanding healthcare demand in the face of fiscal, psychic, and infrastructure implosion: the healthcare universe, and its spectacular supernova. I have 300 words to share a Quality Care Committee update in this context. I find it impossible to ignore the stark contrast between the headlines, on the one hand, and the ingenuity, energy, and passion that have driven countless initiatives to improve the quality of care delivered to patients with rheumatic diseases by colleagues from coast to coast. From the study and promotion of models of and approaches to care, nuanced to suit the needs of Indigenous patients, or those transitioning from pediatric to adult care, to Choosing Wisely (and choosing wisely, more generally), from supporting virtual care in our evolving COVID landscape and beyond, to leveraging electronic medical records (EMRs) to ensure care delivery is optimized, there is a palpable passion for and investment in doing better, working smarter, and creating systems that support our colleagues, and our patients.

Initiatives supporting quality care come in all shapes and sizes, and we want to learn more about the work being done nationally, today, and what might grow from this tomorrow. We thus look forward to gaining further understanding of the clinical quagmires, the recurrent themes and pain points, and more of the work being done to address these through our recent Joint Count survey (see page 23 of this issue). In better understanding the Canadian rheumatologic quality care climate, we will work towards forging connections among those working toward common goals, recognizing opportunities, and building networks.

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

News from SOAR

By Alexa Smith, MD, FRCPC, MEd

Rheumatologists and allied health professionals from across the Atlantic provinces attended the 38th Annual Meeting of the Society of Atlantic Rheumatologists (SOAR) on June 24th–26th, 2022, at the beautiful Dalvay by the Sea on Prince Edward Island. The gathering offered outstanding education along with a welcome opportunity to reconnect in person with regional colleagues.

Dr. Christian Pagnoux (MD, MSc, MPH), an Associate Professor at the University of Toronto, Mount Sinai Hospital, delivered this year's David Hawkins Lecture in Rheumatology entitled "Vasculitis in 2022: What are the Remaining Challenges?" He followed this with an engaging presentation called "Vasculitis Playground".

The second speaker, Dr. Laura Cappelli, MD, MHS, MS, an Assistant Professor of Medicine and Oncology at the Johns Hopkins University School of Medicine, presented

on the evolving field of rheumatologic adverse effects of cancer immunotherapy. She started with an illuminating talk entitled "Immune Checkpoint Inhibitors and the Rheumatologist" and then led us through the nuances of "Autoimmune Disease and Cancer: Many Intersections".

Dalhousie University's two rheumatology trainees, Drs. Nicole Beckett and Zach Shaffelburg, as well as incoming trainee Dr. Mary Purcell, presented three interesting case-based presentations which sparked thought-provoking discussions.

At the Business Meeting, the members voted unanimously to return to Dalvay by the Sea on Prince Edward Island again next year, June 23-25, 2023. Save the date!

Alexa Smith, MD, FRCPC, MEd
President, SOAR
Saint John, New Brunswick

AMRQ Update

By Frédéric Morin, MD

Hope Springs Eternal...

Last year in this annual update from Quebec, I told you about the possibility of thinking about a more modern rheumatology practice integrated into a model approved by the Quebec Ministry of Health and Social Services. After much work and canvassing, we are finally at the point of a needs analysis and the possible introduction of a rheumatology practice support model. It goes without saying that this model, if approved by the highest authorities, will be sustainable and will, without a doubt, improve access to and quality of care for our patients. The Quebec rheumatology community is ready to transform itself to serve the public better. We remain dependent on the government and its political actions, and it is with hope that we enter this process. Maybe in 2023, I will be able to tell you that a supported practice for rheumatologists in Quebec has been implemented.

The year 2022 was a time of great reunions with the 25th annual AMRQ conference. We really missed seeing each other and talking about science and other things.

Better still, Quebec rheumatologists' group spirit has not died out — quite the opposite. This quarter-century milestone allowed us to review the history of rheumatology in Quebec with all of the AMRQ presidents in attendance: Drs. Éric Rich, Michel Zummer, François Couture, Denis Choquette, Frédéric Massicotte, Nathalie Langlais and myself.

Also, it was quite an honour to have awarded the 2022 AMRQ Merit Award to Dr. Jean-Pierre Raynauld, a rheumatologist recognized by his peers for his expertise, his teaching skills, his contagious enthusiasm, and his magnetism on the dance floor.

With the pandemic behind us to some extent, we all look forward to seeing you again.

Frédéric Morin, MD

President, Association des médecins rhumatologues du Québec
Montreal, Quebec

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

By Jason Kur, MD, FRCPC

As 2022 nears its close, it is a time to reflect on some of the successes in B.C.

We have seen the impact of COVID slowly decline, which has allowed our members to re-engage in the important work of strengthening rheumatologic care in the province. And finally, this work is happening both in person and remotely.

B.C. continues to be a leader in emerging models of care. The crisis in primary care has highlighted the need for multidisciplinary teams in the community more than ever. We have now had 10 years of experience in the evolution of rheumatology nursing in community practice, and the field continues to expand. Drs. Tommy Gerschman and Michelle Teo have been granted \$1.385M from the Specialist Services Committee (a Joint Collaborative Committee of the Doctors of B.C.) to help specialists develop and implement an interprofessional team care model in their outpatient fee-for-service clinics. Eleven participants, from 8 different specialties (4 surgical and 7 medical, with one being pediatric rheumatology) from all health regions in B.C. are participating in this change model based on the Institute for Healthcare Improvement (IHI) Breakthrough Series Collaborative.

At the time of this writing, a proposed new Physician Master Agreement is being presented by the Doctors of B.C. for ratification. While the details are just now emerging, there is a considerable shift in the payment model for family physicians in an effort to stem the crisis in primary care. The impact of this potential agreement on specialist care has yet to be articulated, and we will be watching developments closely.

The 17th annual British Columbia Rheumatology Invitational Educational Series (BRIESE)

The BRIESE conference took place in September. The sessions were back in person and more impactful than ever. The outstanding program included international guests Professor Georg Schett from Germany and Dr. Maria Dall'Era from the University of California San Francisco (UCSF). Canadian content was represented by



Award winners (from left to right):
Drs. Anne Marie Colwill, Diane Lacaille
and Maziar Badii

Dr. Janet Pope from the University of Western Ontario (UWO) and Dr. Benjamin Lai from the University of British Columbia (UBC).

Dr. Antonio Aviña-Zubieta also led a lively lupus panel that included all the invited guests. After several years of Zoom fatigue, the B.C. rheumatology community was eager to reconnect, learn and celebrate in record-breaking numbers.

We also took the opportunity to praise some of our finest with the Annual BCSR/UBC Award presentations in September. The Innovation Award was given to Dr. Maziar Badii for his longstanding innovation and collaboration with radiology in the areas of gout and knee osteoarthritis

using genicular artery embolization. Dr. Ann Marie Colwill was awarded the UBC BCSR Teaching Award for her outstanding contributions to the medical training program notably in the area of anatomy teaching. Dr. Diane Lacaille received the Advocacy Award. Her work, known worldwide, has focused on patient empowerment, work success, and advocating for improved models of care.

B.C. is also blessed with some outstanding leadership. I would like to congratulate Dr. Antonio Aviña-Zubieta on his recent appointment as the UBC Rheumatology Division Head, as well as Dr. Michelle Teo and Dr. Barb Blumenauer for their terms on the Board of Directors of the Doctors of BC this past year.

Lastly, I would be remiss without acknowledging the outstanding contributions to B.C. rheumatology made by Dr. John Esdaile. Dr. Esdaile recently announced his retirement. He has guided a generation of trainees throughout the country. His vision and commitment to patients and Arthritis Research Canada have left a legacy beyond compare. He leaves behind at Arthritis Research Canada (ARC) the largest clinical arthritis research centre in North America!

*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 Felix Leung, MD, FRCPC, ORA President

Greetings from the Ontario Rheumatology Association (ORA)! I'm pleased to tell you that the past year has been a very successful one for the ORA! Despite the ongoing pandemic, we have been able to meet our goals as an organization.

I'm proud to say that the ORA executive, board, and committee chairs and members have been working very hard in the face of challenges and unpredictable changes. It doesn't seem that long ago when we thought we'd never be able to touch grass again. As we are now transitioning to a post-pandemic world, I am happy to see people I have not seen in a long-time, including colleagues at our hybrid Annual Scientific Meeting this past May.

Over the past year, we produced virtual town halls to educate our members on several important topics including the treatment of COVID-19, providing virtual care to rheumatology patients, and accessing medications. We will continue to offer virtual town halls as our members have found them to be extremely valuable.

We have continued to build relationships with the Ontario Ministry of Health and with private payers. We have provided members with information about drug



shortages, and we have created a biosimilar fact sheet and a biosimilar position paper, both available on our website ontariorheum.ca.

The Informatics Committee, chaired by Dr. Tom Appleton, has made exciting progress with the ORA Rheumatic Diseases Evaluation Registry (ORDER) to help Ontario rheumatologists improve the care provided to patients. A product launch is imminent! The Northern Ontario Committee chaired by Dr. Sahil Koppikar has made great strides in setting up a structure to enhance rheumatological care in this underserviced area.

The ORA has also created a new dedicated Pediatric Rheumatology Committee co-chaired by Dr. Jennifer Lee and Dr. Piya Lahiry. I'm looking forward to great things from this committee!

I am very excited for the 2023 ORA Annual Scientific Meeting which will be the first fully in-person meeting since 2019. We have a slate of world-class speakers lined up and I know our members are eager to attend. It will be bigger and better than ever! It will be open to all rheumatologists, so please join us May 26-28, 2023, at the Kingbridge Centre just north of Toronto. Please visit and bookmark our website ontariorheum.ca as details will be coming soon.

All these events and initiatives are made possible through the hard work of our ORA leadership team, ORA members, and our Executive Director Sandy Kennedy, to whom I am deeply grateful.

All the best for the coming year,

Felix Leung, MD, FRCPC
President, ORA
Rheumatologist
Toronto, Ontario



Hybrid ORA Annual Scientific Meeting, in Toronto, May 2022.

Transformation: CRA Education Committee Development

By Raheem B. Kherani, BSc (Pharm), MD, FRCPC, MHPE

During my tenure as the CRA Education Committee chair, I have had the privilege to witness the transformation of our Education Committee from a group that met annually and was able to discuss education-related issues to a project-oriented group that meets regularly and has been able to advance the CRA's educational mandate through its numerous projects and activities.

The Undergraduate subcommittee developed and led the foundation of a national undergraduate rheumatology curriculum that hopes to provide advice and guide medical schools with the delivery of rheumatology and musculoskeletal education. This is currently being prepared for publication. The committee is now working on other ways to promote the practice of rheumatology to medical students.

The Postgraduate subcommittee continues to support our rheumatology residents by developing tools to facilitate the delivery of a robust Educational Curriculum and Resources (rheum.ca/students/cra-resident-programs/) to support Program Directors in the delivery of the Royal College Competence By Design Framework (www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e), which was launched in 2019. Their latest project is to design and develop a multi-disciplinary National Immunology Curriculum.

The Continuing Professional Development (CPD) subcommittee has renewed its commitment (rheum.ca/education/aims-goals-and-mission-statement-of-the-cra-cpd-subcommittee/) to being a Royal College-Accredited CPD Provider (www.royalcollege.ca/rcsite/cpd/royal-college-accredited-cpd-providers-e) with the growth of training material for reviewers within the team and active accreditation of internal and external rheumatology activities, providing reassurance for members regarding the quality of continuing professional development materials. The subcommittee has also taken strides to ensure members are educated about the opportunities within the Royal College Maintenance of Certification Program (www.royalcollege.ca/rcsite/cpd/maintenance-of-certification-program-e). Over the last decade, there has been ongoing support for the Practice Reflection Award, just one of the projects aiming to help CRA members obtain valuable Section 3 credits.



LEAP 2020-2022 cohort at their final meeting.

In addition, the Education Committee supports important educational opportunities for members at all stages of their careers, including the annual Review Course, LEAdership Program (LEAP), Residents' Pre-Course, National Rheumatology Residents' Curriculum (NRRC) events, national OSCE, and NWRITE exam for residents. We have been able to deliver 2 CRA COVID Webinar Series through

the pandemic and provide input into CRA Annual Scientific Meeting (ASM) planning. For further information on any of these programs, visit rheum.ca.

The committee continues to build on past development with ongoing opportunities for more interactive meetings, collaboration with a variety of CRA operational committees, and plans for ongoing transformative change as we transition to new leadership under Dr. Elizabeth Hazel. I invite members to continue to support her, in the way that you supported Education Committee initiatives during my term as Chair. It has certainly been a privilege to serve our national association and work with fantastic staff and volunteers. Merci pour cette opportunité!



"Team Education" at the 2022 virtual CRA ASM.

Raheem B Kherani, BSc (Pharm), MD, FRCPC, MHPE
Chair, CRA Education Committee (2017-2023)
Head, Division of Rheumatology, Richmond Hospital
Medical Lead, Intensive Collaborative Arthritis Program,
Mary Pack Arthritis Program
Clinical Associate Professor and Program Director,
Adult Rheumatology, UBC
Vancouver, British Columbia

Joint Count Survey Results: The Quality Care Landscape Across Canadian Rheumatology

This issue's Joint Count survey, in collaboration with the CRA's Quality Care subcommittee, sought to find out what members feel to be the most significant gaps in and barriers to the delivery of optimal care in their practices. They were asked to consider the domains of equity, access, quality, patient management, resource stewardship/Choosing Wisely, telehealth and care transitions. A total of 60 members from across the country responded to the survey.

There were many gaps in and barriers to quality care mentioned by members. Below is a list of some of the most common issues that were brought up:

- lack of nurses and other allied healthcare professionals (physiotherapists, occupational therapists, etc.)
- access — long waitlists and very high volumes of referrals
- geographic disparities in access
- shortage of rheumatologists and lack of primary care physicians
- misuse/overuse of laboratory and imaging tests
- lack of financial assistance from the government
- inadequate information transfer from referring physicians
- lack of interoperability between EMRs/EHRs
- lack of adequate mental health supports
- inadequate pain management
- administrative responsibilities
- pandemic impacts on support staff
- inability to obtain timely access to specific biologics for pediatric patients
- access issues related to transitions from pediatric to adult care

Regarding barriers, one respondent wrote: "Barrier: Time — Patients now can access us via email (multiple ways), phone and office, and seem to want same-day answers for their questions. I have a great deal of difficulty in doing this, despite working long hours. In the relative absence of family physicians for many patients, many of the issues raised by patients are not specifically rheumatologic and this poses other challenges. Another barrier: EMR — It takes way longer to do anything and many tasks not required of physicians have been downloaded. Technology — many of our older, immigrant (English not a first language), or financially less advantaged patients do not have ready access to or are not comfortable with video platforms so although this helps reach some communities, it is a barrier for others."

The second question asked members if they were engaged in quality improvement (QI) work. Thirty-seven percent responded affirmatively. Respondents were involved through organizations such as the Canadian Early Arthritis Cohort (CATCH); by sitting on committees involved in reducing the number of unnecessary tests or being involved with their local Choosing Wisely group or sitting on committees that allocate funds to quality QI initiatives or being involved in QI research. Some are involved in EMR development, conducting chart reviews/audits, or training nurses. Others mentioned being involved in the Children's Arthritis and Rheumatology Research Alliance (CARRA), the Juvenile Dermatomyositis (JDM) Quality of Care (QoC) committee, or the Pediatric Rheumatology Care and Outcomes Improvement Network (PR-COIN).

With a better understanding of the present quality care landscape, the CRA Quality Care subcommittee can work toward finding solutions and ways to improve the quality of care. For any feedback regarding the survey, please reach out to Sarah Webster at swebster@rheum.ca.

A Wandering Arthritis and Mind

By Bijalpen Patel, MD; and Jennifer Shiroky-Kochavi, MD, MPH

Case Presentation:

A 20-year-old university student, originally from Chicago, presented to our primary care clinic for an emergency room (ER) visit follow-up. His medical history was notable for pneumonia complicated by acute respiratory distress syndrome 3 years prior. Over the previous 6 weeks, he had multiple urgent care visits for left hip, knee, and ankle pain and swelling associated with fevers and chills. These symptoms were preceded by abdominal discomfort, nausea, vomiting, and rectal pain that he assumed was due to a hemorrhoid. Generalized arthralgias and myalgias had more recently developed in addition to his left lower extremity articular pain and swelling. Within this time period, he experienced an unintentional 40-pound weight loss.

The morning of the emergency room visit he had consulted with an orthopedic surgeon who recommended an autoimmune workup. Later that day, the patient presented to the ER due to intolerable pain with his chief complaint documented as "I have an undiagnosed autoimmune disease." During the visit, he was found to have a 2.9 cm left perianal abscess on computed tomography (CT) scans of the abdomen and pelvis. The abscess was incised and drained, and he was discharged with a recommendation for sitz baths and non-steroidal anti-inflammatory drugs (NSAIDs) as needed for pain relief. He was not prescribed antibiotics. Unfortunately, wound cultures were not sent.

At the time of presentation to our clinic, his exam was notable for tachycardia, hypotension, painful oropharyngeal ulcers, cervical lymphadenopathy, swelling along multiple nail folds, mild tenderness and swelling of the left knee and ankle, and tender nodules on both heels (Figures 1 and 2). We directly admitted him to the hospital for expedited infectious and autoimmune workup. Infectious workup, including urine and serum sexually transmitted infection studies and extensive stool studies, were all negative. Anti-nuclear antibodies (ANA) were negative, rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) undetectable, and HLA-B27 screen was negative. CT chest visualized subtle subcentimeter ground-glass opacities. Magnetic resonance imaging (MRI) of the lumbar spine and pelvis was negative for axial inflammatory changes. Inpatient endoscopy and colonoscopy did not visualize any findings to suggest inflammatory bowel disease. He was discharged with a suspected diagnosis of reactive arthritis (ReA) presumpitively triggered by gastroenteritis and the perianal abscess. Fevers and migratory arthritis resolved over the following 4 weeks with daily ibuprofen.

Following this hospitalization, he developed new daily anxiety and a sense of hopelessness in the setting of a prolonged acute illness without definitive diagnosis and his complicated hospitalization. He described the multiple procedures during his hospitalization as traumatizing. He reported having difficulty sleeping with frequent awakenings from nightmares about the hospitalization and fears surrounding his illness. Mood symptoms improved in the following months with initiation of a selective serotonin reuptake inhibitor (SSRI) and consulting with a psychologist for Cognitive Behavioral Therapy.

His diffuse arthralgias recurred 1 month after resolution, with once again an elevated erythrocyte sedimentation rate (ESR) of 49, but undetectable C-reactive protein (CRP). His symptoms again improved with ibuprofen. His working diagnosis transitioned to chronic non-radiographic axial and peripheral spondyloarthritis, currently being managed with meloxicam as needed. Imaging studies continued to be negative for inflammatory changes.



Figure 1.



Figure 2.

Introduction

Reactive arthritis (ReA) is a subset of spondyloarthritis defined as inflammatory arthritis triggered by a gastrointestinal or genitourinary tract infection.^{1,2} Due to the absence of agreed-upon clinical criteria, specific diagnostic findings, and variable disease course, ReA remains a challenging diagnosis to make, requiring a clinician well-versed in rheumatology.

Epidemiology

ReA typically affects young adults between the ages of 18 and 40 years with no difference in incidence among males and females with gastrointestinal triggers, and increased incidence in males with preceding genitourinary infection. White individuals appear to be at increased risk of developing ReA, which is attributed to the higher frequency of the HLA-B27 gene in this demographic.^{3,4} Gastrointestinal infections due to *Shigella*, *Campylobacter*, and *Yersinia* have about a 1-1.5% incidence of leading to ReA, while genitourinary infections, such as *Chlamydia trachomatis* have a 4-8% incidence.⁵

Clinical Features

Rheumatic symptoms often present 1-4 weeks after the infection has resolved, which can make it challenging to identify an association.^{2,4} ReA most commonly presents as an acute asymmetric oligoarthritis that can involve both small and large joints, as well as the axial skeleton. Joint involvement can exhibit an additive or migratory course. Extra-articular musculoskeletal manifestations include enthesitis, bursitis, and dactylitis.^{1,2,4}

Mucosal and ocular involvement are common. Ocular symptoms typically present as uveitis or conjunctivitis. Mouth ulcers are typically painless. Rashes unique to ReA include keratoderma blennorhagicum, a pustular lesion commonly seen on the plantar surfaces, and circinate balanitis, painless psoriasiform lesions over the glans or shaft of the penis.^{1,2,4} Cardiac symptoms are uncommon and include conduction abnormalities, aortic regurgitation, and pericarditis.¹

Diagnosis

No diagnostic criteria have been established for ReA. The American College of Rheumatology last issued general guidelines in 1999, which were restricted to symptoms following an enteritis, urethritis and cervicitis with positive cultures for *Chlamydia* or *enterobacteria*, or persistent synovial infection.^{2,4,6} In practice, the diagnosis is made based on the totality of the clinical picture, with increased likelihood in the setting of positive infectious work-up.⁷ Given the non-specific arthritic pattern, work-up often includes investigating multiple autoimmune and infectious etiologies, with ReA ultimately being a diagnosis of exclusion.

ReA may be a self-limiting disease but it does not always fully resolve. About 65% of patients progress into the chronic arthropathy category with persistent symptoms for greater than 6 months.^{2,3} Therefore, it is important to recognize the disease early and provide appropriate counselling and treatment for patients.

ReA should be suspected in individuals with sudden onset inflammatory arthropathies following a recent infection. However, a prodromal infection cannot always be identified; asymptomatic or minorly symptomatic infections can trigger ReA. A thorough history should include any preceding infections and a sexual history. There are no pathognomonic lab results or imaging findings for ReA. ESR and CRP will be elevated in the acute phase, and trend down in the chronic stage of the disease. Radiographs may visualize joint space narrowing, swelling, erosions, or bony spurs.^{2,7}

Approximately 50-80% of patients with ReA also test positive for the HLA-B27 gene. The presence of HLA-B27 has been associated with an increased risk of severe symptoms and progression to chronic disease.^{2-4,6} HLA-B27 genes contribute to the persistence of bacteria within the body, which is suspected to be the reason behind the high risk of developing severe ReA in these patients.³

Therapeutic Approach

The goals of treatment focus on decreasing pain and inflammation, minimizing disability and monitoring for relapse or progression to chronic disease.

Patients are initially managed with NSAIDs until the episode resolves. In situations where NSAIDs are contraindicated, such as renal impairment, a history of gastrointestinal disease, or significant cardiovascular disease, intra-articular glucocorticoid injections are preferred. When ReA has progressed and the disease involves multiple joints, patients may benefit from systemic glucocorticoids. In this case, it is important to provide peptic ulcer disease prophylaxis and assess risks for osteoporosis as well.²

Although ReA is most likely to occur following an infection, antibiotics are only indicated if evidence of missed, untreated or persistent infection is found.

When symptoms are uncontrolled despite initial therapy or if they last longer than 6 months, it is reasonable to introduce disease-modifying antirheumatic drugs (DMARDs). Sulfasalazine and methotrexate are most often the preferred agents. In severe cases of ReA where there is no improvement after 12 weeks of DMARD therapy, patients may be candidates for initiation of biologic therapy with anti-tumor necrosis factor agents.^{2,5} In several studies looking at patients' responses to biologic therapy, it is important to note that patients had significant improvements in their symptoms without major side effects reported.³

Adjusting to Uncertainty and Chronic Illness

Fears surrounding what an autoimmune disease could mean prompted our patient's emergency room visit. Following his subsequent hospitalization, our patient struggled with disabling anxious and demoralizing thoughts following his clinical presentation, ultimately leading him to take a short-term break from university and return home. He had requested a leave of absence, which was unfortunately denied by his academic institution. Like many rheumatologic conditions, including ReA, adjustment disorders (AD) are a slippery and difficult diagnosis to make.

All individuals experience and respond to stressful events throughout their lifetimes, including issues with their health. AD refers to maladaptive emotional or behavioural responses to a stressor that lead to excessive distress and daily functional impairment. The responses are either discordant from the socially or culturally expected reactions and/or cause marked distress or impaired functioning.⁵ It fills a unique space along the spectrum of psychological conditions as a transitional, subsyndromal, or subclinical disorder. Similar to ReA, either the disorder resolves or it persists and after a certain time meets criteria for a more well-defined mental health condition.⁸⁻¹¹

The similarities between ReA and AD do not stop with their tempo. Both respective clinical specialties have long worked with vague and understudied understandings of these conditions. In the past decade the mental health community has increasingly acknowledged the lack of research on AD and pushed to better define the disorders. Both the Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-5) and the International Statistical Classification of Diseases and Related Health Problems, 11th edition (ICD-11) have recently provided clearer frameworks for this historically vague condition.⁸⁻¹¹

Back to the Case

Preparing this review allowed the opportunity to revisit how we might have approached this case differently if we were given another chance. Knowing what we know now, it would have been helpful to have had results from urethral and rectal swabs to assess for Chlamydia trachomatis further, and wound cultures from the perianal abscess. Results from knee or ankle arthrocentesis would have also helped solidify a diagnosis.

Like many stories of the presentation and progression of autoimmune conditions, our case does not comfortably fit within the illness script for ReA. While ReA progressing to chronic non-radiographic axial and peripheral spondylarthritis remains the working diagnosis, the patient continues to lack definitive findings. The patient was lost to follow-up for 6 months due to improvement in symptoms. He returned to university without issue. While preparing this manuscript, he reconnected with us due to recurrence of fatigue and arthralgias similar to his presentation last year, and a new erythematous rash around his neck and upper chest. He reported that, in the interim, the only symptom that did not resolve was very difficult to treat acne, primarily on his face and scalp, but also appearing along his chest, back and extremities. He reports ancestry from Italy and Ireland. He is currently undergoing workup for other uncommon autoinflammatory diseases, including Behçet Disease, Familial Mediterranean Fever, and Adult-onset Still's Disease.

Like ReA, AD requires an astute and experienced clinician within the field to make a diagnosis. However, specialized training is not required to assess and address psychological struggles within our patients. Mental health disorders are common among individuals with chronic inflammatory disease and carry significant morbidity.¹²⁻¹⁴ Providers who care for individuals with chronic inflammatory conditions should feel comfortable screening for mood disorders, prescribing common treatments, and connecting patients with psychiatry and psychotherapy, treating disorders in tandem.

Conclusion

ReA, as well as adjustment disorders, largely remains a clinical diagnosis relying on clinical acumen. Both conditions provide poetic examples of what it means to practice medicine. To practice the art of medicine is the privilege to journey alongside a patient. We cannot always prevent, predict, or cure, but we can make the journey easier. We can acknowledge the psychological and emotional impacts on those living with the diagnoses we make, the uncertainty we navigate and the guidance we provide. In caring for this patient, we were unable to predict his disease course with certainty. However, it was critical to simultaneously acknowledge the psychological and social impact of his symptoms, along with addressing the physical distress in order to care for him appropriately.

References:

1. Garcia-Kutzbach A, Chacon-Suchite J, Garcia-Ferrer H, et al. Reactive arthritis: update 2018. *Clin Rheumatol*. 2018;37(4):869-874.
2. Jubber A. & Moorthy A. Reactive arthritis: a clinical review. *J R Coll Physicians Edinb*. 2021;51(3): 288-297.
3. Zeng H, Luo B, Zhang Y, et al. Treatment of reactive arthritis with biological agents: a review. *Biosci Rep*. 2020; 40(2).
4. Selmi C. & Gershwin ME. Diagnosis and classification of reactive arthritis. *Autoimmun Rev*. 2014; 13: 546-9.
5. Wendling D, Prati C, Chouk M, et al. Reactive arthritis: treatment challenges and future perspectives. *Curr Rheumatol Rep*. 2020; 22(7):29.
6. Sieper J, Braun J, Kingsley GH. Report on the fourth international workshop on reactive arthritis. *Arthritis Rheum*. 2000;43:720-34.
7. Sieper J, Rudwaleit M, Braun J, et al. Diagnosing Reactive Arthritis. *Arthritis Rheum*. 2002;46: 319-27.
8. American Psychiatric Association. Trauma- and stressor-related disorders. In Diagnostic and Statistical Manual of Mental Disorders, 5th ed.; American Psychiatric Association Publishing: Washington DC, USA, 2013.
9. World Health Organization. World Health Organization International Statistical Classification of Diseases and Related Health Problems, 11th ed.; World Health Organization: Geneva, Switzerland, 2019.
10. O'Donnell ML, Agathos JA, Metcalf O, et al. Adjustment disorder: current developments and future directions. *Int J Environ Res Public Health*. 2019;16:2537.
11. Bachem R, Casey P. Adjustment disorder: A diagnosis whose time has come. *J Affect Disord*. 2018; 227:243-53.
12. Benros ME, Waltoft BL, Nordentoft M, et al. Autoimmune disease and severe infections as a risk factor for mood disorders: a nationwide study. *JAMA Psychiatry*. 2013;70(8):812-20.
13. Moussavi S, Chatterji S, Verdes E, et al. Depression, chronic diseases, and decrements in health: Results from the World Health Surveys. *Lancet*. 2007;370:851-858.
14. He Y, Zhang M, Lin EHB, et al. Mental disorders among persons with arthritis: Results from the World Mental Health surveys. *Psychological Medicine*. 2008;38(11):1639-50.

Bijalpen Patel, MD

Internal Medicine Resident

*University of South Florida Morsani College of Medicine
Tampa, Florida*

Jennifer Shiroky-Kochavi, MD, MPH

Assistant Professor, General Internal Medicine

*University of South Florida Morsani College of Medicine
Tampa, Florida*

AWARDS, APPOINTMENTS, ACCOLADES



Aileen Davis, BScPT, MSc, PhD *ARP Distinguished Scholar Award*

Dr. Aileen Davis is the recipient of the 2022 Association of Rheumatology Professionals (ARP) Distinguished Scholar Award, which recognizes a member who demonstrates exceptional achievements in scholarly activities pertinent to arthritis and the rheumatic diseases. As a physiotherapist and clinical epidemiologist, she has published and lectured extensively on patient evaluation and outcomes in arthritis. Her research focused on models of care for osteoarthritis (OA) including development, implementation and evaluation of care pathways to improve access to services for people having total hip or knee replacement, and implementation and evaluation of evidence-based non-surgical management for people with hip and knee OA. Aileen was a Senior Scientist at the Krembil Research Institute, University Health Network, and is currently Professor Emeritus at the University of Toronto.



Sue MacQueen, PT, BScPT, ACPAC *ARP Ann Kunkel Advocacy Award*

Sue MacQueen received the 2022 Association of Rheumatology Professionals (ARP) Ann Kunkel Advocacy Award which recognizes an ARP member who has provided extraordinary service to advocate for patients with arthritis and rheumatic diseases or for health professionals in rheumatology. Sue is also a member of the Arthritis Health Professions Association (AHPA) and was the AHPA President 2018 – 2020.

Over her career, Sue has advocated for models of care that improve access to care for people living with arthritis. As an Advanced Clinician Practitioner in Arthritis Care (ACPAC)-trained therapist, she has provided support for the Pediatric Rheumatology Program at Children's Hospital in London, Ontario, and many of the local rheumatologists in Waterloo and Wellington counties. Sue recently retired after 33 years as a physiotherapist with the Arthritis Society but remains active within AHPA.



Proton Rahman, MD, FRCPC *Order of Newfoundland and Labrador*

The Order of Newfoundland and Labrador is the province's highest honour for "demonstrated excellence and achievement in any field of endeavour benefiting in an outstanding manner Newfoundland and Labrador and its residents." Dr. Rahman was recognized for his many contributions to rheumatology care and research locally, nationally, and internationally, as well as his efforts in leading the COVID-19 Predictive Analysis Team that helped shape and guide the province's pandemic response. Dr. Proton Rahman is a clinician scientist in St. John's Newfoundland. He is a practicing rheumatologist and a University Research Professor at Memorial University.

Tribute to Dr. Vincent Mak

By Allan Kagal, BSc (Hons), MD, FRCPC

It is with great sadness that we announce the passing of our dear friend and colleague Dr. Vincent Mak, who died suddenly on August 3, 2022. The loss of this extraordinary gentleman created an enormous hole affecting the rheumatology community and the patients he has helped in York Region, Ontario, for over 25 years.

Vincent was born in Hong Kong in 1960. He graduated from the University of Hong Kong with a Bachelor of Medicine and Vascular Surgery in 1984. In 1988, he immigrated with his wife Teresa to start a new life in Canada. After completing his fellowship in rheumatology at the University of Toronto, he joined York Central Hospital (now Mackenzie Health) as a staff internist and rheumatologist.

I had the distinct honour of working closely with Vincent since 2005. He was an incredible mentor and outstanding rheumatologist, helping thousands of patients throughout his career. He was one of the co-founders of the Early Arthritis Program at York Central Hospital. His dedication led to the success of this program. Vincent was known for being a brilliant diagnostician. He was the one from whom we would seek advice for the complex medical mysteries we would encounter. In



1960-2022

addition to being a brilliant physician, Vincent had many passions and talents, including singing and playing the keyboard and guitar. He cherished travelling, especially experiencing the great Canadian outdoors. Despite all his talents, Vincent was extremely humble. He always had a calming presence and had an impeccable sense of humor.

Vincent's family was most important to him; he always spoke highly of his wife of 37 years, Teresa, and his children, Rachel, Vivian, and Calvin.

We will dearly miss our friend, especially the toasts we shared during Journal Club and at all our holiday parties.

In honour of Dr. Vincent Mak's impact on the well-being of patients with rheumatic disease in York Region, a legacy fund was set up at Mackenzie Health: <https://supportmackenziehealth.ca/ui/DrVincentMak/donations/start>

May Vincent's memory always be a blessing!

*Allan Kagal, BSc (Hons), MD, FRCPC
Rheumatologist, Mackenzie Health
Toronto, Ontario*

NT-NU

Update from the Northwest Territories and Nunavut

By Steven Katz, MD, FRCPC

Over the last few decades, rheumatology care for those in the Northwest Territories and Nunavut has been provided by rheumatologists based out of Edmonton. Dr. Dale Sholter provided amazing care to these remote communities for 20 years until 2019, regularly



From left to right:
Tammy Connors, Adelina Voevoda, Andrea Johnson, Jenny Hong, and Gregory Koller

traveling to Yellowknife. It has been a struggle to find someone to assume this large traveling practice since then, with the COVID-19 pandemic and a lack of resources being major barriers. Dr Steven Katz, along with new Edmonton-trained rheumatologists Drs. Jenny Hong, Greg Koller and Andrea Johnson have held a few travelling clinics to Yellowknife to bridge the gap, but a more sustainable model is needed to ensure continuity and quality of care. With the NWT Health Authority, there is a plan to establish a new multidisciplinary Arthritis Program which will enhance the resources available for patient care. We continue to work on identifying one or more rheumatologists to lead this program. Should there be any interest, please follow up with Dr. Katz.

Steven Katz, MD, FRCPC
Associate Professor, Department of Medicine
University of Alberta
Edmonton, Alberta