

Created and distributed by the Mary Pack Arthritis Program: A newsletter for health professionals working with people with arthritis

Editor's Message

Are we doing enough to assist our patients who are overweight or obese? A publication by Schulman et al. (2018) in the *Articles of Interest* section crystalized for me the relationship between Canada's increasing weight size and the profound risk of persistent disease activity that this places on RA patients. On a related note, a paper by Groven et al. (2018) examined how physical therapists approach "obese" patients. This study has relevance and applicability to all disciplines, as well as a degree of generalizability to patients' non-weight related problems. For example, the finding that obese patients often comment on the differences between their bodies and the bodies of their therapists reminded me of when an elderly patient once told me that I was a "nice young man." As I was in my early- to mid-20s at the time, what I think she meant was how was I to understand the problems that she was experiencing given our considerable age difference.

Comments or questions always welcomed - Paul.Adam@vch.ca.
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Save the Date!

The final ACE Clinical Exchange for 2018 will occur on Wednesday, October 10th from 12:10 pm - 12:55 pm. The topic, pre-reading material and information on how to participate will be disseminated by email shortly.

Resource Reminder: Health Systems Evidence

Health Systems Evidence is an initiative of the McMaster Health Forum. It is a continuously updated repository of syntheses of research evidence and about implementation strategies that can support health care change. For example, I used "Arthritis Models of Care" as my search term and found 16 results including:

- Self-management interventions for chronic disease: A systematic scoping review (2013)
- The outcome and cost-effectiveness of nurse-led care in people with rheumatoid arthritis: A multicentre randomized controlled trial (2013)

And a search using the term "Arthritis Rehabilitation" found the following:

- Design and effects of supportive followup interventions in clinical care of patients with rheumatic diseases: A systematic review with meta-analysis (2013)
- Effectiveness of nonpharmacologic interventions in systemic sclerosis: A systematic review (2014)
- Telemedicine for patients with rheumatic diseases: Systematic review and proposal for research agenda (2016)
- Web-based rehabilitation interventions for people with rheumatoid arthritis: A systematic review (2017)
- Physical activity-based interventions using electronic feedback may be ineffective for

reducing pain and disability in patients with chronic musculoskeletal pain: A systematic review with meta-analysis (2017)

- The efficacy of electronic health-supported home exercise interventions for patients with osteoarthritis of the knee: Systematic review (2017)

The one downside to this website is that it only provides an abstract of the research and one has to look elsewhere to find the original journal article.

Medication Discontinuation Prior to Arthroplasty

Last year the American College of Rheumatology in collaboration with the American Association of Hip and Knee Surgeons published guidelines for the perioperative management of anti-rheumatic medication in rheumatic disease patients undergoing elective total hip or total knee arthroplasty. The guidelines recommended the discontinuation of biologic DMARDs prior to surgery because of the increased risk of prosthetic joint infections in people with RA. The June 2018 issue of The Rheumatologist reported on a recent study on this topic

<https://bit.ly/2JvkrQ6>

Study participants were evaluated 0 - 2 weeks before surgery and 6-weeks post-surgery. Various measures were utilized including but not limited to the DAS28, MD-HAQ, RAPID-3, and the RA Flare Questionnaire. One hundred and twenty RA patients participated in the study. Participants stopped taking biologics before surgery, but glucocorticoids and methotrexate were usually continued. Patient characteristics, disease characteristics, and flare rates were comparable between those receiving hip vs. knee arthroplasty surgery. The results showed that 63% of participants experienced a disease flare with a median time to flare after surgery of 2 weeks. Median flare severity was 7 on a scale of 1 - 10 with a median duration of 4 - 7 days. Flare risk was higher in participants with higher disease activity at baseline. The study also found that at baseline and at 6 weeks, those who flared had significantly worse MD-HAQ function scores. One study take-home message was that optimal disease control prior to surgery reduces the post-surgical flare risk.

Why and How to Pursue Shared Decision Making with Your Patients

The June Issue of The Rheumatologist also had an interesting article on shared decision making - <https://bit.ly/2Ki2Rzj> - that argued that shared decision making may improve adherence and lead to better health outcomes. Research has also found that use of shared decision making increased patient confidence in the decisions made and increased patient knowledge. In shared decision making, clinicians and patients collaborate on reaching treatment decisions. Clinicians bring their knowledge and expertise to the discussion, while patients bring their personal experiences, values, preferences and goals. For shared decision making to be effective, patients need to have relevant, accurate and reliable information related to the decision in question. It is also crucial that patients have realistic outcome expectations, i.e., understand the rationale for the treatment and expected outcomes. The Mayo Clinic (<https://mayocl.in/2vrKvqq>) is recommended as a useful resource, as their Shared Decision Making National Resource Center includes medication summary guides (English, Spanish, and Chinese), as well as multi-lingual medication decision aids, and more.

3D Assistive-Device Printing Comes to British Columbia

The Neil Squire Society, a BC-based non-profit organization has been providing assistance to people with disabilities for almost 35 years. Their most recent project is 'Makers Making Change,' a non-profit initiative that connects people needing assistive devices with volunteers in the community who use open source designs and 3D printers to make those devices. Users only pay for the material costs. The eventual aim is to create an international community of makers who support people with disabilities within their communities by creating accessibility solutions.

The Makers Making Change web site - <https://www.makersmakingchange.com/> - has a searchable list of makers from across Canada. Each maker has their qualifications listed. For example, some makers have expertise in computer-aided design, engineering, and software, whereas others do not have any specific qualifications beyond having access to a 3D printer. From my search of makers in BC, it appeared as if there is 1 maker in the Kootenays, 4 in the Okanagan, 1 in Northern BC, and 38 in the Lower Mainland of BC.

The website also has a project library that a health care professional or person with arthritis can browse to find an assistive device. Assistive devices are grouped in the following categories; agility/dexterity, cognitive, mobility, pain, vision, and other. If the required device is in the library, a request can be directed to a volunteer maker who has access to a 3D printer. For devices that need customization or which are not in the library, a request can be made to a maker who has the required areas of expertise.

Finally, the web site also has a list of events. One of the more recent events was a Makers Making Change workshop that took place in Vancouver this past June at the CAOT annual conference. During the 3-hour workshop, OT participants were taught makers skills, soldering, making a simple switch circuit, and the use of 3D modelling to create customized assistive technology solutions.

This is a very exciting initiative that can benefit people with arthritis by providing access to affordable assistive devices that can be customized, if needed.

Digital Health - Apps for people with rheumatoid arthritis to monitor their disease activity: a review of apps for best practice and quality

Over the past decade there has been a rapid expansion of online health and lifestyle tools to support patient self-management. These range from web-based tools for computers and tablets, to smartphone apps, wearable technology, and beyond. One of the functions addressed is tools to help people with RA monitor their disease activity. Unfortunately, many health apps do not adhere to evidence-based guidelines and do not involve medical experts during development. Therefore, health care provider advice can be invaluable in helping patients to differentiate high-quality online tools from those that are of questionable value.

In this study by Grainger et al. (2017), apps were evaluated using two methods. Apps were first assessed to determine their adherence to relevant ACR and EULAR recommendations for monitoring RA disease activity in clinical practice. A quality rating for each app was then obtained using the Mobile App Rating Scale (MARS), a tool that has been developed to classify and rate the quality of health-related apps. MARS rates the quality of apps on 4 dimensions:

engagement, functionality, aesthetics, and information quality, as well as a fifth subjective quality rating.

Nineteen apps were included in the study, of which 18 were freely available. Eight of the apps included at least one of the recommended composite measures of RA disease activity. And of the 6 apps that scored $\geq 4/5$ on the overall MARS rating, only 1 (RheumaHelper) included a composite disease activity score endorsed by ACR and EULAR. Unfortunately, it did not have a data tracking function. The 1 app (Arthritis Power) that included an ACR and EULAR-recommended disease activity score and tracked results had an overall MARS score of 3.41.

Arthritis Power was created through collaboration between CreakyJoints and a team of rheumatology researchers at the University of Alabama at Birmingham. ArthritisPower is a non-profit, patient-inspired and patient-managed research initiative.

Arthritis Power website - <https://arthritispower.creakyjoints.org/>

Arthritis Power on Android App Store -

<https://play.google.com/store/apps/details?id=com.csdg.uab.arpower>

Articles of Interest

Snell DL, Hipango J, Sinnott KA, et al. Rehabilitation after total joint replacement: a scoping study. *Disability and Rehabilitation* 2018;40(14):1718-1731. The purpose of this scoping study was to map what is known from the existing scientific literature related to the effectiveness of rehabilitation following total hip replacement (THR) and total knee replacement (TKR) for people with osteoarthritis. The study examined research published between January 2013 and December 2016. After a process of elimination, 30 studies and 7 systematic reviews were included in the analysis. Of these, 8 studies and 3 systematic reviews solely focused on THR, 20 studies and 4 systematic reviews targeted TKR, and 2 studies included both THR and TKR participants. Studies evaluating effectiveness of rehabilitation after THR suggested physiotherapy-based exercise programs were beneficial whether clinic-based, home-based or monitored by phone. And there was some specific support for early full weight bearing approaches. Observational studies did not exhibit associations between duration and intensity of rehabilitation, and outcomes after THR. More relevant were such factors as age, comorbidity and functional disability. Comparisons were more difficult to make in the TKR studies because of variable study quality, and the use of different interventions, outcome measures and outcomes. As with THR, TKR studies suggested that any follow-up, regardless of the setting, type intensity, or method of delivering rehabilitation appeared to confer benefit. There was also some specific support for the benefits of biofeedback, sensorimotor training and focus on walking and pain. Although research is limited, monitoring progress and recovery, even when done remotely, has value.

Schulman E, Bartlett SJ, Schieir O, et al. Overweight, obesity, and the likelihood of achieving sustained remission in early rheumatoid arthritis: results from a multicenter prospective cohort study. *Arthritis Care & Research* 2018;70(8):1185-1191. The aim of this study was to use cohort study data to compare demographic and clinical characteristics, and initial treatment in early RA patients with healthy, overweight, and obese body mass index (BMI). Participants included

adults ≥ 18 years of age enrolled in the Canadian Early Arthritis Cohort (CATCH) between January 2007 and November 2014. BMI was calculated from height and weight measurements recorded by clinic staff and classified according to WHO standards for normal weight (BMI 18.5 - 24.9 kg/m²), overweight (BMI 25 - 29.9 kg/m²), and obese (BMI ≥ 30 kg/m²). The primary outcome was sustained remission, defined as achieving DAS28 < 2.6 over two consecutive visits. A total of 982 patients were included in the study. The sample was primarily female (72%) and white (85%), with a mean \pm SD age of 53 ± 15 years, symptom duration of 6 ± 3 months, and DAS28 of 5.3 ± 1.4 . Approximately one-third had a healthy BMI, and two-thirds were overweight or were obese. Overweight and obese patients were more likely to be older and male, and to have less education, a higher number of comorbid conditions, a higher CRP level, and worse function. There were no significant differences across BMI groups in the frequency of MTX usage, dose, or route. There were also no significant differences in initial treatment strategies or treatment escalation to biologics over time by BMI group. Sustained remission was achieved by 355/982 patients (36%) within the 3-year follow-up period. In general, obese patients were the least likely to achieve sustained remission (26%), followed by overweight patients (37%) and healthy weight patients (45%) ($P < 0.0001$). Further analysis showed evidence of a dose-response relationship between unhealthy weight and sustained remission. Compared to patients who had a healthy weight, overweight patients were on average 25% less likely to achieve sustained remission, obese I (BMI 30-34.9) patients were on average 43% less likely, and obese II/III (BMI ≥ 35) patients were 53% less likely.

Groven KS, Heggen K. Physiotherapists' encounters with "obese" patients: Exploring how embodied approaches gain significance. *Physiotherapy Theory and Practice* 2018;34(5):346-358. The purpose of this study was to determine how the attitudes of Norwegian physiotherapists providing clinical care to patients diagnosed with obesity changed over time. The study participants were 8 physiotherapists who all had at least three years of experience providing group-based lifestyle interventions for people diagnosed with obesity. Each therapist participated in semi-structured individual in-depth interviews. The first theme related to "*finding one's own style of communication*." The therapists described the strategies utilized to communicate with their patients in a way that was not off-putting or induced blame. Some therapists listened to the words used by their patients and then used those same words. Others were more direct in asking their patients about their weight and height, but assessed their patient's comfort with the conversation before proceeding further. Several therapists described sharing their personal experiences as a way of "breaking the ice." One therapist attempted to relate to his unresponsive patients by telling them he had once been 30 kg heavier. And when patients spoke of not being able to do certain exercises because of pain, another therapist described how sports injuries had once limited her until realizing that she could still do certain activities and exercises. Another theme called "*relating to bodily discrepancies*" described the challenge therapists felt when patients made comments about the therapists' fit and slim bodies. Several therapists took a similar approach, which was to minimize the difference between them and their patients. This was often done by clarifying that they also had to work at keep their weight under control. And in one instance, the therapist also admitted to not always eating healthy and wanting to skip exercising. A third theme was "*developing clinical competence through bodily encounters*." This theme described the challenge that therapists faced in trying to find a balance between pushing and not pushing their patients into new activities. Prior to finding this balance the therapists first

had to identify when their patients were feeling overly pushed. While some patients felt comfortable with communicating this message, in other cases the therapists learned to read non-verbal cues like facial expressions, eyes, and breathing patterns. Once the therapists sensed reluctance or perceived that a line had been crossed, they would suggest a different intensity of exercise. The final theme was “*gaining insight into the dilemmas of group-based lifestyle programs.*” One of the dilemmas that this theme alludes to is that several therapists initially lacked an understanding of the emotional challenges related to food and dieting, such as the dynamics of anxiety and emotional eating. Other dilemmas included patients who regained weight or who lost their motivation. The therapists responded to these challenges in a variety of ways like offering encouragement or downplaying the importance of weight loss as an indicator of success.
