ACE Clinical Link Newsletter
July 2018

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

Editor's Message

Comments or questions always welcomed - Paul.Adam@vch.ca.
Follow us on Twitter - https://twitter.com/VCHArthritis

Attention All Physiotherapists!

The world's leading researcher on lateral hip pain is coming to Vancouver to share her expert knowledge. Clinical Sports Medicine at the Centre for Hip Health and Mobility presents Dr. Alison Grimaldi for a 2-day event (September 22 & 23) on anterior hip and groin pain that unpacks the theoretical issues and teaches practical solutions to apply in your practice. For more information go to: https://events.eply.com/DrGrimaldi-2018

A Reason to follow MPAP on Twitter

Do you find the resources and study findings reported in the Clinical Link Newsletter to be of interest? If so, the first place that we mention them is on the MPAP Twitter account - https://twitter.com/VCHArthritis - for example, recent Tweets have included:

- Are you taking methotrexate (MTX) and want ideas on how to minimize side effects? The Canadian Arthritis Patients Alliance (CAPA) has recently released a one-pager called MTX Tips & Tricks based on a study of over 360 people taking MTX - https://t.co/gF63jNBpEL
- Tracking activities helps you see the relationship between actions & symptoms. Start tracking→ http://bit.ly/2LMr5mJ
- A Health Coach can support a person with arthritis in putting healthy, sustainable goals into practice (e.g., walking 10 blocks a day). Free access to a health coach is available through Pain BC (https://painbc.ca/coaching) or Self-Management BC (https://bit.ly/2pXXJap)
- The Rheumatologist reported on a network meta-analysis study of people with Knee OA. This review of 53 studies found that intra-articular steroids were the most effective at reducing pain and naproxen was the most effective at improving function - https://t.co/Eppu5xQuPA

You Asked Us about Biomechanics for Occupational Therapists

It's been a while since I have directly contacted Mary Pack Program; I'm hoping someone can help with a request. I am having some trouble with the current scissors I am using (CMC pain!) and I was wondering what type of scissors you use there? I remember not having an issue when I did the workshop in 2014. I have a pair of C.S. Osbourne Easy Cut and haven't had much luck with sharpening. If you could give me some advice on types of scissors (I mostly use orofit) and how you keep them maintained, that would be so helpful!

For low temperature thermoplastics we most frequently use Gingher Super Shears available from Performance Health. See https://www.performancehealth.ca/gingher-super-shear-left-handed for details. These are all purpose scissors that work well provided the thermoplastic is at least partially heated. We send them out regularly for sharpening to a local company. We have found these scissors to be very durable and with proper care will last for many years.

If you are cutting thick thermoplastics "cold" we use a 4 in 1 cutter or a pair of Weiss shears. The cutter gives a very clean cut however it is expensive to purchase and must be mounted on a counter so not a practical solutions for smaller departments. The Weiss shears work well but they do a more ragged cut which will then require more finishing of the edges. Weiss shears are readily available from hardware stores like Home Depot, Home Hardware, etc.

My Joint Pain: A New OA Online Management Tool by Arthritis Australia

I recently discovered *My Joint Pain*, a new free online tool that has been developed and tested for people with osteoarthritis by Arthritis Australia. The tool has a number of functions including OA risk assessment, management plan, up-to-date information, peer support, and videos and fact sheets - https://www.myjointpain.org.au/

Methotrexate Tips & Tricks

The Canadian Arthritis Patient Alliance (CAPA) has produced a 1-pager called *Methotrexate (MTX) Tips & Tricks: For Patients by Patients* that describes strategies used by patients to minimize MTX side effects. The strategies were gathered from the findings of an international study of over 360 patients taking this medication. While they are not likely new too many of you, I'd suggest that the value of this document lies in the fact that it clearly states that the handout is for patients and has been produced by patients. And as many of us know, patients are often more attuned to the advice of another patient than a health professional.

ACE Clinical Exchange - The effects of compression gloves on hand symptoms and hand function in rheumatoid arthritis and hand osteoarthritis: A systematic review

The last ACE Clinical Exchange was on Thursday, May 24th. During that session, Cathy Busby and Barbara Porter reviewed an article on the use of compression gloves in RA and hand OA. The two types of recommended compression gloves were:

IMAK Arthritis Gloves Remington Medical http://www.remingtonmedical.com/ email: mail@remingtonmedical.com 1-800-267-5822	Interim Garment Gloves (previously called Transit) https://cdrm.ca/ 100 Goyer Street, Suite 101 La Prairie, Quebec J5R 5G5 1-888-944-4297

You Asked Us about Paraffin Wax as a Heat Therapy

I saw a massage therapist last year. In discussing treatments, we spoke about paraffin wax /heat therapy. She mentioned that she had used it and found it to be effective. This is also a treatment that has been requested by our community members at health fairs. I've seen a couple articles on its effectiveness for treating arthritis symptoms & increasing ROM when coupled with exercises. Is this still used as a treatment? And do you have any recommendations for a distributor for a hot wax machine?

Heat (including wax therapy) is useful for reducing stiffness; however it should not be used on an inflamed swollen joint. Not knowing what type of arthritis is being considered for paraffin wax therapy, it is best to avoid heat in cases of active inflammation such as with RA or Psoriatic Arthritis. The most recent systematic review that looked at different forms of "thermotherapy" for RA including heat and cold is a Cochrane review from 2002 (reference pasted below).

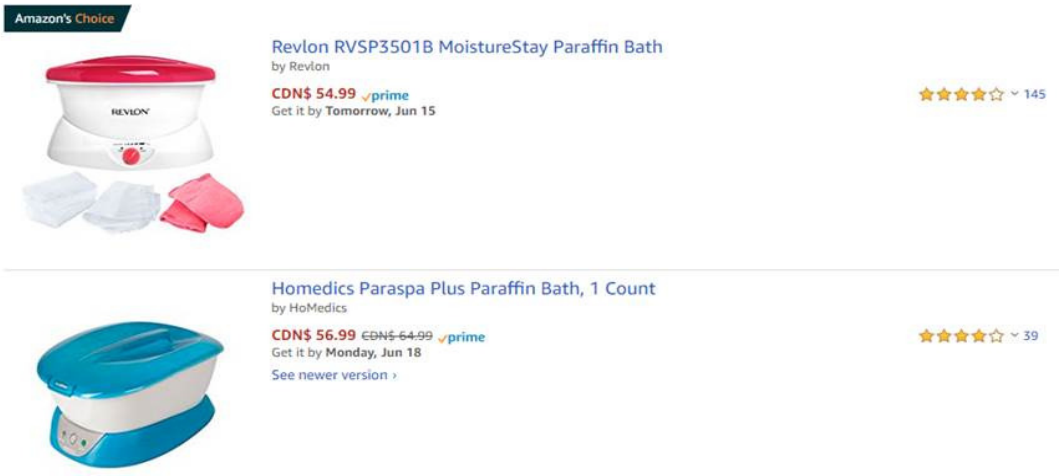
Cochrane Database Syst Rev. 2002;(2):CD002826.
Thermotherapy for treating rheumatoid arthritis.
Robinson V, Brosseau L, Casimiro L, Judd M, Shea B, Wells G, Tugwell P.

There is mixed and weak evidence for the effectiveness of wax therapy in hand OA – simply because so few studies have been done and wax treatment doesn't appear to be any better than other forms of moist heat. In a more recent randomized trial of wax therapy 5x/week for 3 weeks compared to no heat treatment for hand OA, the wax group had significant improvements in pain at rest and grip and pinch strength compared to the control group (reference pasted below).

Dilek B, Gozum M, Sahin E, et al. Efficacy of paraffin bath therapy in hand osteoarthritis: a single-blinded randomized controlled trial. Archives of Physical Medicine & Rehabilitation 2013;94:642-9.

There is a nice evidence review table and module addressing non-pharmacological treatments for RA on the RAP-*e*L website http://www.rap-el.com.au/index.html - While it is designed for physiotherapists, it is accessible to all and provides some helpful information at no cost.

Use of wax at home is more of a hassle because the equipment requires maintenance and cleaning, and so we try to help people find ways to simplify their activities. Home wax units can be purchased online at Amazon.ca (see screen shot) for less than $60.



Articles of Interest

Tedeschi SK, Bathon JM, Giles JT, et al. Relationship between fish consumption and disease activity in rheumatoid arthritis. *Arthritis Care & Research* 2018;70(3):327-332. The aim of this study was to assess whether more frequent fish consumption was associated with lower rheumatoid arthritis (RA) disease activity scores. The primary outcome in this RA cohort study was the Disease Activity Score in 28 joints (DAS28) and using the C-reactive protein level (CRP). Food consumption was measured using the 120-item food frequency questionnaire. For each food item, participants recorded frequency of use on a 9-point scale from "never to <1

time/month" to "≥2 times/week." Participants also indicated survey size (i.e., small, medium or large) for each item. Fried fish, non-fried shellfish, and fish in mixed dishes were not included in the assessment of fish consumption. The study involved 176 participants. Thirty-five individuals (19.9%) reported infrequent fish consumption (never to <1/month), and at the other end of the scale, 31 (17.6%) reported frequent fish consumption (≥2 times/week). The median DAS28-CRP of all study participants was 3.5 (2.9 - 4.3) representing moderate disease activity. After adjusting for age, sex, and possible confounders, participants consuming fish ≥2 times/week had significantly lower DAS28-CRP compared to never to <1 time/month by an average of 0.49 (95% CI -0.97, -0.02). For each additional serving of fish per week, DAS28-CRP was significantly reduced by an average of 0.18 (95% CI -0.35, -0.004). As a comparison, the Swedish pharmacotherapy trial found that mean DAS28 decreased by 1.2 among 258 subjects after 3-4 months of methotrexate.

Li LC, Shaw C, Lacaille D, et al. Effects of a web-based patient decision aid on biologic and small-molecule agents for rheumatoid arthritis: results from a proof-of-concept study. *Arthritis Care & Research* 2018;70(3):343-352. The purpose of this study was to assess the extent to which ANSWER-2, an interactive online decision aid, reduces patients' decisional conflict and improves their medication-related knowledge and self-management capacity. ANSWER-2 poses interactive questions to help clarify patients' preferences regarding treatment attributes. It then presents treatment information in an order that matches patients' preferences regarding treatment administration, costs, and the amount of available evidence. Eligible participants were those who had a diagnosis of RA and who had been advised by their rheumatologist to consider adding or switching to a new biologic/small-molecule agent. The primary measure was the Decisional Conflict Scale (DCS scores range from 0 [no decisional conflict] to 100 (extremely high decisional conflict). Other measures used were the Medication Education Impact Questionnaire (MeiQ) and the Partners in Health Scale (PIHS). Participants were also interviewed following their use of ANSWER-2. Fifty people with RA participated in the study, and of these, 46 were interviewed. The mean ± SD DCS score was 45.9 ± 25.1 preintervention and 25.1 ± 21.8 postintervention (change of -21.2 of 100 [95% CI -28.1, -14.4], P <0.001; effect size of 0.84). Similar results were found for the self-management subscale of the MeiQ, but not on the information quality, active communication, and coming to terms with diagnosis and treatment subscales. A modest effect was also observed on the PIHS (change of -3.7 of 88 [95% CE -6.3, -1.0], P = 0.009; effect size of 0.25). The interview data showed that many participants, especially those who were new to biologic agents, stated that ANSWER-2 improved their knowledge of RA treatment. Some participants also found that they were able to communicate more effectively and confidently with their physicians. ANSWER-2 was less helpful to participants who were switching between biologic agents, as these participants were generally more knowledgeable. Other reasons why ANSWER-2 was found to be unhelpful were when participants felt that it should be the "rheumatologist's job" to educate about biologics, or when ANSWER-2 suggested a different biologic from what the rheumatologist had recommended.

Note: It is expected that ANSWER-2 will be available for use this summer.

De Thurah A, stengaard-pedersen K, Axelsen M, et al. Tele-health followup strategy for tight control of disease activity in rheumatoid arthritis: results of a randomized controlled trial. *Arthritis Care & Research* 2018;70(3):353-360. The EULAR treat-to-target strategy for RA recommends up to monthly monitoring for patients with high/moderate disease activity or less frequently (e.g., every 6 months) for patients in sustained low disease activity or remission. This study had two aims: 1) test the effect of a patient-reported outcome (PRO) based telehealth follow-up in monitoring disease activity compared to standard care, and 2) determine if the effect varied depending on whether it was conducted by a rheumatologist or a rheumatology nurse. Study eligibility was a diagnosis of RA for 2 or more years. The study had 3 arms: 1) PRO-based telehealth follow-up by a rheumatologist (PRO-TR), 2) PRO-based telehealth follow-up by a nurse (PRO-TN), and 3) conventional rheumatologist-led follow-up (control). Every 3 - 4 months, participants in the first two arms were asked to complete an online version of Flare-RA, an 11-item questionnaire for assessing disease activity. They then received a telephone consultation with the rheumatologist or nurse. Participants were scheduled for an outpatient clinic visit if the Flare-RA score was ≥2.5 and/or the patients' C-reactive protein (CRP) level was ≥10 mg/liter. Control group participants were seen in the outpatient clinic every 3 - 4 months. All participants were allowed acute outpatient visits, if required. The primary study outcome was the DAS28 score, with a range of 0 to 9.4 and disease activity defined as follows: DAS28 <2.6 (remission), ≤3.2 (mild disease activity), >3.2 (moderate disease activity), and >5.1 (high disease activity). All participants had a DAS28 assessment at baseline and at the 52-week follow-up. Flare-RA was also completed every 3 - 4 months by all participants. Secondary measures were radiographs of the hands and feet pre- and post-study, as well as the HAQ, EQ-5D, General Self-Efficacy scale, and 3 ad hoc questions to assess DMARD adherence. Two hundred and ninety-four patients enrolled in the study and 275 participants had sufficient date for analysis. There were no differences between the telehealth interventions and the control group in terms of the primary outcome (DAS28) or secondary outcomes (HAQ, EQ-5D, or self-efficacy). During the study the mean ± SD total number of visits to the outpatient clinic was 4.15 ± 1.00 for control group participants, 1.75 ± 1.03 for PRO-TR participants, and 1.72 ± 1.03 for PRO-TN participants. In conclusion, tight control of disease activity in RA obtained by PRO-based telehealth follow-up is comparable to conventional outpatient follow-up in patients with low disease activity or in remission. And telehealth is equally effective whether conducted by a rheumatologist or a rheumatology nurse. Finally, the fact that the telehealth follow-up groups had >50% fewer visits than conventional follow-up suggests that this intervention may save patient time and result in reduced health care costs.

Losina E, Collins JE, Deshpande BR, et al. Financial incentives and health coaching to improve physical activity following total knee replacement: a randomized controlled trial. *Arthritis Care & Research* 2018;70(5):732-740. The rationale for this study is that adherence to physical activity guidelines by people with knee OA is poor and there is typically minimal improvement following surgery. The postoperative period, which is marked by intensive involvement with physical therapy, offers an opportunity to change patients' attitudes and behaviours. The aim of the study was to determine whether financial incentives and health coaching would improve physical activity in people undergoing TKR surgery. Patients were ineligible if they were <40 years of age, were scheduled to undergo a contralateral TKR or other surgery requiring hospitalization within 6 months, were previously diagnosed with an inflammatory arthritis or

osteonecrosis affecting the knee, or had a comorbidity that might impede the safe performance of moderate ambulatory physical activity. The primary outcome was the mean number of steps/day at 6 months post-TKA that was measured using a Fitbit Zip. Other measures were a 27-item "daily discounting" (impulsivity), KOOS, EQ-5D, a general health VAS, Risk Taking Index, Work Productivity and Activity Impairment questionnaire, the Yale Physical Activity Survey and several components of the SF-36. Study questionnaires were completed at baseline, 3 months, and 6 months. Participants were also asked to wear their Fitbit for 1 week at each of these time points. The study began the week following surgery. Participants were discharged to either a rehabilitation facility or to their home where they received physical therapy according to normal postoperative practice. The study had 4 arms: attention control, telephonic health coaching (THC), financial incentives (FI), or THC + FI. Participants were discontinued if they underwent any surgery requiring overnight hospitalization or if they asked to withdraw. Participants in all 4 arms received regular calls: weekly for weeks 2 - 5 following TKR and biweekly for weeks 7 - 24, for a total of 14 contacts. Two hundred and two individuals were eligible, agreed to participate, and were randomized into one of the 4 study arms. Of these, 150 participants (74%) provided both pre-TKR and 6 months post-TKR Fitbit data. In this group, the mean daily step count ± SE (Standard Error) at 6 months ranged from 5,619 ± 381 in the THC arm to 7,152 ± 407 in the THC + FI arm. Daily step count 6 months post-TKR increased by 680 (95% CI -94, 1,454) in the control arm, 274 (95% CI 1473, 1,021) in the THC arm, 826 (95% CI 89, 1,563) in the FI arm, and 1,808 (95% CI 1,010, 2,606) in the THC + FI arm. Weekly physical activity increased by means ± SE 14 ± 10, 14 ± 10, 16 ± 10, and 39 ± 11 minutes in the control, THC, FI, and THC + FI arms, respectively.