

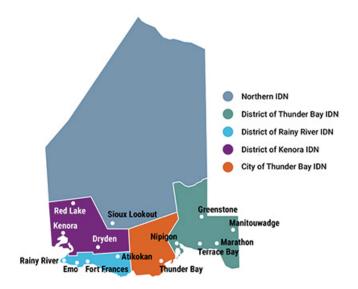
Arthritis is a chronic disease that affects more than 4.6 million (16.6%) Canadians with typical symptoms including joint pain, stiffness, and swelling^{1,2}. It is well known that recognition of and initiating treatment for inflammatory arthritis *early* in the disease is critical to ensure the most favourable disease outcomes^{3,4}. Adequate patient access to rheumatologists or those skilled in the detection of inflammatory arthritis is essential given the importance ascribed to the early treatment of rheumatoid arthritis with disease-modifying drugs known as DMARDs and biologic agents⁵. While there is a heavy utilization of human health resources across the stages of the disease it is well known that collaborative care is most beneficial for medical management, education and to support patient selfmanagement⁶ and safety⁷.

In Ontario, the prevalence of rheumatoid arthritis is increasing with changing demographics such as an increase in the aging background populations and increasing survival/longevity^{8,9}. The current availability of resources and models of care delivery are insufficient in more remote regions such as the North West Local Health Integration Network (NW LHIN) to meet the growing need for rheumatology services. In order to meet the needs of patients with arthritis in the region, innovative models of care are required to facilitate timely access to the most appropriate care, alleviate pressure on rheumatology providers¹⁰, and to contribute and embrace best practice efforts for interprofessional collaborative and patient-centred management.

WHAT ARE THESE BARRIERS TO ARTHRITIS CARE IN THE NORTH WEST LHIN?

Geography and Population

- According to the Canadian Community Health Survey 2013, the prevalence of arthritis in the NW LHIN is 21.5% in those aged 15+ and 50.2% in those 65+. This is higher than the incidence in the rest of Ontario (17.2% and 44.4%)¹¹.
- The NW LHIN is geographically immense. Northwestern Ontario (NWO) has a land mass of 47% of the province of Ontario. The distance between the eastern and western boundaries is slightly over 1000km with a land mass of 526,355km. Some remote NWO communities are accessible by fly-in only. The NW LHIN has the largest population of First Nations people of all Ontario LHINs. The arthritis prevalence for First Nations people is higher than the national estimate for arthritis in the Canadian population¹².
- The population of the NW LHIN is 235,046 (nwlhin.on.ca). The city of Thunder Bay, the largest urban centre in the NW LHIN, has a population of 121,596¹³.



NEW MODELS OF ARTHRITIS CARE INCORPORATING ACPAC PROGRAM TRAINED EXTENDED ROLE PRACTITIONERS (ERPS)

In Canada, during the past two decades successful new models of arthritis/musculoskeletal care have been developed by utilizing physiotherapists and occupational therapists in extended roles^{14,15,16}. The advanced clinician practitioner in arthritis care (ACPAC) program was developed in 2005 at the University of Toronto to provide formal and advanced clinical and academic training in arthritis care for experienced healthcare professionals to prepare them to take on extended roles in arthritis care. Since that time significant system level evaluation of ACPAC Program trained extended practitioner roles (ERPs) supports their involvement in ongoing management and triage leading to increased access to arthritis care^{17,18,19,20,21}, increased patient satisfaction²², delivery of specialized arthritis care²³ and patient education²⁴.

CURRENT RESOURCES IN THUNDER BAY

There are now three ACPAC trained practitioners – two physiotherapists and one occupational therapist, and one rheumatologist – in Thunder Bay. The opportunity exists to further develop and streamline integrated models of arthritis care that would benefit patient care throughout the NW LHIN.

- Thunder Bay is the centre for healthcare in the NW LHIN.
 It has an acute care hospital, Thunder Bay Regional Health
 Sciences Centre, and a chronic care/rehabilitation hospital,
 St. Joseph's Hospital part of St. Joseph's Care Group.
- Referrals for rheumatology services in NWO are paper triaged through the Arthritis Referral Service (ARS) managed by an ACPAC trained occupational therapist (OT). In 2015, approximately 1000 new patients were triaged through the ARS. In 2016 the numbers are projected to be higher with already 600 new referrals received by June 2016 since January 2016. Continued on page 8 >>

ACPAC continued >>

The referals are divided into Priority #1 (P#1) high/low, Priority #2 (P#2) high/low and Priority #3 (P#3).

- At present Thunder Bay has one rheumatologist who services most of NWO's rheumatology needs from a practice located in St. Joseph's Hospital. The rheumatologist also serves some patients via telemedicine. The volume of patients under the rheumatologist's care or who are awaiting services is substantial. The wait time to see the rheumatologist is variable depending on the priority of the referral. At present P#1 referrals are seen within approximately 6 to 9 months and P#2 referrals within 2 to 3 years. P#3 referrals (typically osteoarthritis and fibromyalgia) are currently not seen by the rheumatologist and are ideally referred to the appropriate allied health services. The wait time benchmark set by the Canadian Rheumatology Association (CRA) for
- someone with suspected rheumatoid arthritis is 4 weeks and the ideal wait time to start disease-modifying anti-rheumatic drugs (DMARDs) once diagnosis is confirmed is 2 weeks (AAC, 2014). The provincial median for seeing a rheumatologist for prioritized patients is 66 days²⁵.
- Recently, Thunder Bay's second rheumatologist closed their practice leaving the majority of the caseload and those on the waitlist to be transferred or referred to the remaining rheumatologist. There is one visiting rheumatologist from Newmarket who sees patients in Kenora at the hospital.
- physiotherapist (PT) who currently sees new referrals and follow-up patients in the rheumatology office in Thunder Bay. The ACPAC PT is also starting to do triage clinics in office. The waitlist to see the rheumatologist continues to grow because of limited access to a single rheumatologist. While St. Joseph's

- Hospital is actively recruiting another rheumatologist, an ACPAC trained practitioner could viably magnify the effort of the existing and any further rheumatologist's practice in terms of triage, followup, and monitoring of patients.
- St. Joseph's Hospital has a Rheumatic Disease Program (RDP) where clients have a PT and OT assessment, are provided with individualized exercise and treatment, participate in group exercises including pool, practice self-management goal setting and attend education lectures. The program services patients from the city and the region. There is also an Arthritis Society office in Thunder Bay that provides education and individual treatment for patients with arthritis.

PROPOSED INTEGRATED NET-WORK OF ARTHRITIS CARE

There is preliminary data available from a recent study carried out using

FIGURE 1 | ACPAC TRIAGE MODEL OF CARE

ACPAC= Advanced Clinical Practitioner in Arthritis Care P#1=Priority 1 P#2=Priority 2 P#3=Priority 3 CPM=Chronic Pain Management CDSM=Chronic Disease Self Management RDP=Rheumatic Disease Program RJAC=Regional Joint Assessment Centre ISAEC=Inter-professional Spine Assessment and Education Clinic

P#1 to see Rheumatologist

or ACPAC trained therapist in office

gy clinic Suggest referral from prima-

focused fibromyalgia education and

ry care provider to CPMP with

information about CDSM

Arthritis
Referral
Service
(ACPAC paper triage)

P#2 Query inflammatory
arthritis/connective tissue disease
ACPAC triage clinic

P#3 Confirmed Osteoarthritis Not
currently seen as primary diagnosis in
Rheumatology clinic

P#3 Fibromyalgia Not currently seen
as primary diagnosis in Rhetumatolo-

If from triage assessment highly suspect inflammatory arthritis / connective tissue disease increase to **P#1** to see Rheumatologist

If triage assessment does not change priority of referral, remain **P#2** to see rheumatologist

If triage assessment indicates non-inflammatory arthritis, move to **P#3** which are not seen by Rheumatologist. If appropriate suggest to primary care provider referral to TAS for education, RDP, CDSM. If do not suspect arthritis source of symptoms indicate to primary care provider

Arthritis Society ACPAC trained therapists to do triage assessments to expedite referrals to rheumatologists. Thunder Bay was a site used in the study. The triage resulted in a high number of patients with suspected inflammatory arthritis being correctly prioritized for an expedited rheumatology consultation and for prioritized patients, the wait time was less than the provincial median¹⁷.

A triage system where the patient is assessed in person by an ACPAC ERP allows patients to be screened for inflammatory versus noninflammatory arthritis, a model exemplified elsewhere 18,20. For those patients presenting with inflammatory conditions their care is expedited and their appropriate lab work and imaging complete-accomplished through medical directives-prior to the rheumatology visit. This model also provides a means of offering patients education, direction to self-management programs, and assist in advising the primary care provider with options for treatment and referral if appropriate.

The model of care of using ERPs to facilitate timely client-centred care for chronic disease fits with the strategic priorities of St. Joseph's Hospital²⁶. As mentioned previously there is an increased prevalence of inflammatory arthritis in the Aboriginal population and developing services to meet the needs of the Aboriginal population in a timely manner fits with St. Joseph's Hospital's goal of client-centred care. A large number of patients with arthritis are seniors and supporting excellence in seniors' care is also a priority for St. Joseph's Care Group.

CONCLUSION

The model of arthritis care proposed for St. Joseph's Hospital and beyond is a working model and involves an enhanced network of resources including The Arthritis Society to optimize streamlined service delivery. Utilization and optimized deployment of ACPAC trained practitioners to their full potential has shown to be effective across numerous settings in managing ongoing care and triage of arthritis patients. There exists tremendous

potential to better streamline the access to quality care of the patient with arthritis by fully utilizing the three highly trained and competent ACPAC program trained ERPs working within an interprofessional model of care with existing rheumatologist(s) in Thunder Bay. Their presence, with careful planning, increases the capacity to ease system burdens for rheumatology services in the NW LHIN.*

References

- 1. Bombardier C, Hawker G, Mosher D. Arthritis Alliance of Canada. "The Impact of Arthritis in Canada: Today and Over the Next 30 Years." October 2011.
- The Arthritis Community Research & Evaluation Unit (ACREU). July, 2013. http://www.acreu.ca.
- 3. Breedveld F and Combe B. Understanding emerging treatment paradigms in rheumatoid arthritis. Arthritis Research and Therapy. 2011; 13:S3: 1-10.
- 4. Bykerk V and Emery P. Delay in receiving rheumatology care leads to long-term harm. Arthritis and Rheumatism. 2010; 62(12): 3519-3521.
- Badley E, Canizares M, Gunz A, Davis A. Visits to rheumatologists for arthritis: the role of access to primary care physicians, geographic availability of rheumatologists, and socioeconomic status. Arthritis Care and Research. 2015; 67(2): 230-9.



ANNE MACLEOD BSCPT, MPH, ACPAC

Anne graduated from Queen's Physiotherapy in 1994, Masters of Public Health

in 2007, ACPAC in 2009. Since completing ACPAC she has worked in an ERP role with The Arthritis Society (triaging one day a week) and in a collaborative practice with Dr. W. Fidler assessing and managing patients (3 days). She is an Assistant Professor at the Northern Ontario School of Medicine and an Associate Professor in the McMaster School of Rehabilitation.



NOEL HEATH BMR OT, ACPAC

Noel Heath OT Reg. (Ont.) ACPAC works in the Rheumatic Diseases Program at St.

Joseph's Hospital in Thunder Bay and does the paper triage, based on the Comprehensive Arthritis Referral Tool (CART- Dr. Andy Thompson) of clients referred for rheumatology services for Northwestern Ontario. Clients may be triaged to the local rheumatologist and/or referred on to appropriate allied health services available in the area. She has piloted remote clinics in the fly-in community of Fort Hope, seeing new clients with mainly musculoskeletal complaints who may have arthritis; and following up with current rheumatology clients.



SHANA MAGEE BSCPT, BSC BIO, ACPAC

Shana is a recent 2016 graduate of the ACPAC program. She is a

graduate of the University of Western Ontario Physical Therapy program. Currently, Shana is working as a full-time physiotherapist with the Rheumatic Disease Program at St. Joseph's Hospital in Thunder Bay. She looks forward to utilizing her ACPAC training in an extended practitioner role.