

Physical Therapy Knowledge Broker Report Year 7 September 2015 to December 2016

PURPOSE OF THE DOCUMENT:

The purpose of this document is to provide the Steering Committee / funding partners with a report on the outcomes of year seven, and the preceding 6 years, for the Physical Therapy Knowledge Broker position.



Physical Therapy Knowledge Broker Report Year 6	Submitted by: Alison M Hoens
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1. EXECUTIVE SUMMARY

- 1. Web presence:** Established a web presence with sustained engagement from relevant stakeholders (**62,000** [~ **17,000/yr**] combined views from PABC and UBC websites). **Social media** presence with Twitter (**>515 followers**), using targeted campaigns to key influencers, has expanded the stakeholder network (e.g. catalyzing new collaborations) and extended the reach of PT KB facilitated resources and activities.
- 2. Stakeholder engagement:** Facilitated engagement of **>350** patients, clinicians, researchers and decision makers in projects to bring clinically-relevant research into practice.
- 3. Development and reach of resources:** Facilitated development of **23 resources** which have been accessed over **88,000** times this year and over **232,000** times over 7 years.
- 4. Update of resources:** Facilitated **updates of 4 resources** to incorporate new literature.
- 5. PABC Webinars:** Provided **21** webinars with **19** co-presenters which have been accessed **>8,000** times by PABC's ~ 2500 members.
- 6. Projects:** Led 10 and participated in 16 projects for a total of **26** over 7 years. These have included physical therapy specific as well as interdisciplinary topics including neurological, orthopaedic, medical, cardiovascular, paediatric, geriatric, patient engagement in research, and evidence-informed decision-making domains. Recognition of the work has been conferred through awards (4), blogs (5), and interviews (4). Nine included collaboration with all 4 PT KB funders; 18 included external collaborators.
- 7. Organization-specific activities:** Participated in organization-specific committees/activities/projects for each of the funding partners (e.g. committee work)
- 8. Additional activities:** **> 60** presentations over 7 years. Reviewer for **9** journals and grant funding competitions; Year 7: panelist for KT Videos for MSFHR and presenter for KT Connects webinar for MSFHR/ARC.
- 9. Publications:** Published **25** peer-reviewed papers (**9** in process) with **172 citations**. Year 7: Silver Quill Award for best clinical manuscript.
- 10. Grants:** Participated in **80** grant submissions over 7 years with **~36%** successfully funded (typically, Principle Investigators report ~15% success) for a total of **> \$3 Million**.
- 11. Support for KT in BC** – Contributed to developing and sustaining (1) 2 KT Community of Practices (BC KT CoP & PHC KT CoP), (2) KT Research (PHC KT Challenge) (3) KT infrastructure (MSFHR KT pathway, PHC KT Hub, BC SPOR SUPPORT Unit).

12. **Partnerships:** Initiated new partnerships with stakeholders e.g. BC Healthy Living Alliance, BC Parks and Recreation, Personalized Medicine Initiative, Pain BC, Osteoporosis Canada etc.
13. **Continuing Professional Development:** Enhanced knowledge, skills & networks in relevant areas (e.g. KT, research skills etc) through pursuit of continuing education via > **100** courses, webinars, workshops etc. throughout 7 years.
14. **Budget:** Managed all activities while consistently remaining in the black for the allotted budget. Over 7 years: total income generated = \$3260.73, total expenditures = \$12,480.44; remaining balance = \$6,180.35

2. PROGRESS ON GOALS & DELIVERABLES

Goal 1: Establish a web presence

Develop and maintain a web page for KT within the UBC Department of Physical Therapy and PABC websites with links to funding partners. The page will host documentation from projects associated with the PT KB role, KT resources for clinicians /decision-makers / researchers, and links to other pertinent KT sites.

PABC website: Total number of views Sept 30 2015 to Sept 30 2016 = **5551** (avg =462.6/month); Total views over 7 years = **44,542 = avg of 6,643/yr** (representing ~3X/yr for each of 2,200 members).

UBC website: Total number of views Sept 30 2015 to Sept 30 2016 = **15,833** (avg = 1319.4/month). Total views over 4 years (analytics only available starting in 2013) = **41,753 = avg of 10,438/yr**

Social media: Developed a social media profile with Twitter starting in 2015/2016 (Year 7) with Twitter Handle "PhysioKTBroker". Currently >**500** followers. Comparators: Knowledge2Practice = 219; Vicky Ward= 475; BCKTCoP = 240; KTECOP= 604; Implementation Science= 2,327

Key Messages: Both websites are well accessed. Some 'dwell times' are impressive e.g. the Lateral Epicondyle Tendinopathy Toolkit on the UBC website demonstrates an incredible 9:17 minutes (typical dwell times for websites are ~1-2 minutes). The support provided by both UBC and PABC is critical to ensuring that the websites are updated. The greatest challenge for the PT KB is securing the time to write progress reports on each of the projects. The addition of the social media profile with Twitter has enhanced stakeholder networks through targeted campaigns to key influencers who have large followings. Several (4) new collaborations have been established through Twitter.

Goal 2: Facilitate PT clinician / researcher partnerships in BC

- Identify PT clinicians and researchers for potential clinician / researcher partnerships
- Link PT clinicians and researchers for integrated KT and end-of-grant KT collaboration opportunities

The online research collaboration registry (developed May 2010; updated Feb 2011, Nov 2013 & Dec 2014) and is **now auto-updated** with each new registration). Currently **139** PTs across BC registered themselves as researchers, decision-makers and/or clinicians in various practice areas (e.g. orthopaedics). The registry has been used to (1) facilitate research partnerships (2) identify clinical questions for MPT student research projects (3) develop special interest groups (e.g. Cancer Interest Network) and (4) create distribution lists for calls for interest in specific projects. The registry was accessed **113 and 11 times respectively** from the UBC and PABC websites during the past year.

Key Message: This resource continues to play an important role in enabling partnerships. However, annual reminders are required in order to trigger new registrations.

Partnerships (provincial & national)

Over 350 clinicians, researchers, decision-makers, students and patients have enthusiastically and graciously given of their time and talents to partner on the PT KB projects.

Key message. Approximately 1/3 of the clinician partners, after contributing to one project, volunteer to contribute to another project. Drop out of partners is rare. Patient partners have played an increasingly important role in projects. It is anticipated that the patient engagement infrastructure at BC SPOR SUPPORT Unit will permit more opportunities for recruitment and enhanced opportunities for relevant training in patient engagement for both health care providers and patients.

Goal 3: Enhance access to evidence-based learning resources and knowledge products for PTs in BC

- Identify existing and develop new learning resources and on-line guides to assist clinicians in acquiring, appraising, synthesizing and applying knowledge into practice
- Provide on-line access to the learning resources, guides and other knowledge products

23 resources have been developed over 7 years. Four have been updated to include new evidence. Total access of these resources have exceeded **223,000** views.

The following lists the resources developed:

- Series of lectures (recorded) on the most up-to-date evidence for the selection and application of electrophysical agents
- Evidence-informed practice recommendations for management of lymphedema
- Canadian Cervical Spine Rule Toolkit: Toolkit of resources to support appropriate identification of patients who require x-ray after cervical spine trauma
- Decision-tree & information for physicians re appropriate referral to PT for patients with arthritis
- Recommended resources for PTs managing patients with arthritis
- Decision-tree & information for pharmacists re appropriate referral to PT for patients with arthritis
- Cryotherapy: Why, When & How: Decision-making tool to guide safe and effective application of cryotherapy to manage pain, inflammation, edema and swelling
- Electrophysical Agents Contraindications and Precautions: Decision-making tool to guide safe application of electrophysical agents
- Outcome measures for Total Joint Arthroplasty: Toolkit of resources to support use of outcome measures in the continuum of total knee and hip arthroplasty including recommended measures, 1 page summaries; discharge letter templates & online modules
- Achilles Tendinopathy Toolkit: An array of resources derived from synthesized and translated evidence to support management of Achilles Tendinopathy
- Lateral Epicondyle Tendinopathy Toolkit: Toolkit An array of resources from synthesized and translated evidence to support management of Tennis Elbow
- Exercise in Acute Exacerbation of COPD: Evidence-informed decision-making tools to support safe & effective exercise in AECOPD
- Guidelines re provision of wheelchairs for progressive neuromuscular disease
- SAFEMOB: Decision-making tool to guide safe mobilization of acutely ill patients in addition to an inventory of supporting resources and a webinar (recorded)
- Skin & Wound – Use of electrical stimulation and ultrasound to promote wound healing: Array of resources to support care of wounds including a recorded lecture, practical demonstration, list of required equipment, guide to the application of electrical stimulation, references & additional links
- Inventory of databases for outcome measures: Collection of databases for rehabilitation-related outcome measures
- Safe Handling of Patients: A series of 'alerts' & inventory of resources with key information to guide safe handling of patients in acute care settings
- Botox and spasticity: Algorithm for evidence-informed practice for management of spasticity; Inventory of appropriate outcome measures to evaluate effectiveness of Botox
- Research Collaboration Registry: Database of PTs in BC who wish to be contacted for potential

involvement as researchers, decision-makers or clinicians in specific areas of practice

Key messages:

- **23 resources** have been developed over the 7 years of the position.
- The **resources have collectively been viewed 88,000 times this year** and a total of > **232,000 times locally, nationally and internationally over 7 years.**
- 4 of the resources developed have been updated to reflect current literature: Achilles Tendinopathy Toolkit, Lateral Epicondyle Tendinopathy Toolkit, Incentive Spirometry Evidence-informed Practice, Secretion Clearance Evidence-informed practice
- It is important to recognize that these metrics reflect only those that can be tracked through website analytics – it is possible that there has been informal sharing of these resources after downloading.
- These **metrics reflect outcomes but not impact.** Whilst acknowledging that it is challenging to measure true change in practice (ideally involving an RCT with randomized exposure and non-exposure to the resource), a more intermediary, yet feasible, metric is to assess 'possible' impact on practice. Accordingly, last year a team, facilitated by the PT KB, completed a 2 year evaluation of the effect of the Achilles Tendinopathy Toolkit. The survey included vignettes of hypothetical case histories. The findings revealed that **those familiar with the toolkit were twice as likely to use the recommended evidence-informed strategies to manage this condition.**

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Provision of **Journal clubs via webinars** for PABC members.

21 'journal club' webinars have been provided:

- Child's Play: Physical Activity in children with Cerebral Palsy or obesity
- Tween Knees; PT management of Anterior Cruciate Ligament injuries and patellofemoral pain in teenagers
- Tech Talk: using technology for enhancing rehabilitation in stroke
- Putting out fires – Management of Acute Inflammation
- Better Bones – the pharmacological and non-pharmacological management to enhance bone health
- Dings in the Brain: What brain imaging can tell PTs about concussion
- The Tip of the Iceberg: the icing controversy
- Sticking your neck out: Canadian Cervical Spine Rule
- OM #1: How to Find, Select, Apply & Interpret Outcome Measures
- OM #2 Outcome Measurement for Shoulder Dysfunction
- OM #3: Outcome Measurement for Total Joint Arthroplasty
- Closed versus Open Kinetic Chain Exercise
- Kinesiotaping: what does the evidence say
- Frozen Shoulder
- Mobilization and manipulation for cervical pain
- Effectiveness of orthotics for patella-femoral pain
- Tennis elbow
- Effectiveness of therapeutic ultrasound for soft tissue pathology of the shoulder
- Effectiveness of Low level LASER for Achilles Tendinopathy
- Hip Protectors: Effectiveness for reducing hip fracture
- Effectiveness of mobilizations for knee OA

There have been **19 partners co-presenting** the webinars. These have included UBC faculty and clinician leaders (PTs, pharmacists, physicians) thus providing the opportunity to highlight PTs and other disciplines clinical and research experts.

Throughout the webinar there are a series of polling questions to enable interaction with participants – participants consistently state that this is an appealing and effective way to engage. Each journal club is bookended by a pre and post webinar questionnaire. The pre-webinar questionnaire is used to inform the development of the content and the post-webinar to determine whether there has been a change in knowledge, intent to change practice and confidence in clinical application of the knowledge.

Key messages:

- There have been a total of **8621 real time participants** and subsequent views of the webinars. This is impressive given that these webinars are for members only and there are ~2500 PABC members
- Feedback from participants has included appreciation of: (1) the combined perspectives of research and clinical domains (2) polling questions to facilitate participation; (3) free, easy and 'just in time' access to synthesized and translated information bridging research and clinical experience.
- Post-webinar questionnaires reveal that >85% feel more confident in both knowledge and application; >88% 'intend to change practice' (Groth, 2011 demonstrated that intent to change practice is predictive of 40% of actual change in practice) and >60% can state specifically how they would do so.

Goal 4: Identify and facilitate a KT initiative for each of the funding partners

- Identify and facilitate an achievable project that is relevant for PT practice for each funding partner
- Ensure representation from all relevant funding partners for each KT initiative
- Ensure that the selected projects are congruent with the CIHR framework for knowledge translation

The PT KB will facilitate the collaboration between partners for development of resources/tools, implementation of resources/tools and the evaluation of the effectiveness of the interventions. The funding partners will ensure that there is assistance with resources (personnel, meeting rooms, technical support).

Projects

1. **Hyperbaric Oxygen Post Established Stroke (HOPES).** UBC Dept of PT, VCH, PHC, UBC, PHCRI, VCHRI. To determine the effects of hyperbaric oxygen on ischemic stroke in patients 6 to 36 months after stroke.
2. **Prehab in the colorectal surgery patient.** UBC Dept of PT, VCH, VCHRI. To determine the relative effectiveness of two types of implementation support for pre-surgical physical activity on post-surgical outcomes and quality of life in persons with colorectal surgery.
3. **SAVE BC Study to Avoid cardiovascular Events in BC** – PHC, PHCRI, VCH, VCHRI. To develop and implement a program to identify, manage and longitudinally follow patients with extremely premature atherosclerotic disease, their first degree relatives and spouses to better understand the factors and implement interventions to reduce risk in high risk individuals.
4. **Patient Engagement in Research Scale (PEIRS)** – UBC Dept PT, ARC – To develop and validate of a tool to evaluate patient engagement in research.
5. **It Is ABOUT us! Patients' Perspectives on Patient Engagement in Health Research** – UBC Dept of PT, ARC. To 1) explore patients' views & experiences of engagement in health research, 2) understand the barriers and facilitators to patient engagement in health research, and 3) develop a user-friendly resource to support patient-researcher partnerships based on the findings for # 1 and #2.
6. **Effective Quality Indicator Implementation for Patients (eQUIP)**– VCH, VCHRI, CHHM, PHC To develop innovative quality indicator tools that empower patients to actively engage in the rehabilitation process and make informed decisions about their options during their knee and hip replacement journey. The long-term goal is to improve the patient experience and overall quality, consistency and outcomes of total joint arthroplasty care.
7. **Walk10Blocks** – UBC Dept of PT, Alzheimers Society, Canadian Association of Retired Persons, Arthritis Consumer Experts, Apple Canada; To develop an app to encourage the general public to

- walk in order to improve cognitive and joint health.
8. **Move More. Sit Less Physical Activity Support Kit Initiative (PASKI)**- PABC, UBC Dept of PT, VCHRI, PHCRI, Physical Activity Line of BC, Patient Voices, Fraser Health To create a repository of “the best of the best” resources to facilitate physical activity and reduce sedentary time in persons living with chronic disease
 9. **West Coast Interprofessional Clinical Knowledge Evidence Disseminator (WICKED)** - UBC Depts of PT, OT, Family Practice. To develop and evaluate the outcomes for five web-based, interactive modules to teach students the steps of evidence-informed health care.
 10. **Monitor OA** - UBC Dept of PT, ARC, MPAP; To determine whether a model involving 1) the use of Fitbit® Flex™, physical activity tracker, 2) a group education session, and 3) remote coaching by a PT can improve physical activity and reduce sedentary time in pts with knee OA.
 11. **SuPER: Supporting Patient care with Electronic Resources (SuPER)**: UBC Dept of PT, Arthritis Research Canada, Boston University; To develop and test an online decision aid for patients considering biologic therapy for rheumatoid arthritis.
 12. **LungFIT** - UBC Dept of PT, Lionsgate Technologies, BC Lung Assoc, ECEM. initiative to address the limited access to pulmonary rehabilitation through use of telecommunication technologies, including videoconferencing, web-based tools, and smartphone applications.
 13. **Improving Cognitive & Joint health Network (ICON)** - UBC Dept of PT, ARC, School of Interactive Art & Technology (SIAT), Grand NCE Center for Digital Media, QxMD, KinDuct, Laval, U of Alberta. To foster knowledge translation based initiatives to optimize mobility independence in older adults using digital technologies.
 14. **Recommendations for optimal parameters for application of Neuromuscular Electrical Nerve Stimulation (NMES)** - PABC, UBC Dept of PT, EPA experts from across Canada. Special issue of journal with summary, critical analysis and clinical implications regarding the use of neuromuscular electrical stimulation for neurological, musculoskeletal and critical care populations.
 15. **ANSWER2** – UBC Dept of PT, UBC, VCH, Grand NCE. Online decision aid to help patients who have rheumatoid arthritis (RA) decide whether to proceed with medication treatment using “biologics” (genetically engineered proteins) as recommended by their doctors.
 16. **Prospective Surveillance of Arm Morbidity post Breast Cancer Surgery** – UBC Dept of PT, PHC, PHCRI, VCHRI, FHS, BCCA, SFU; Feasibility, outcomes and costs of a proactive monitoring program to reduce arm morbidity after breast cancer surgery.
 17. **Total Joint Arthroplasty: Enhancing use of outcome measurement (TJAOM)** – UBC Dept of PT, PABC, VCH, PHC, FHA. Online toolkit (and supporting online modules) to support use of recommended outcome measures in Total knee & hip arthroplasty.
 18. **Safe and effective mobilization of patients with acute exacerbation of COPD (AECOPD-Mob)** – UBC Dept of PT, PABC, VCH, PHC, FHA. Decision-making tools (including app and online modules) to support clinicians in optimizing exercise prescription in this vulnerable population.
 19. **Achilles Tendinopathy Toolkit** – UBC Dept of PT, PHC, VCH, PABC. Toolkit of synthesized and translated evidence (summary statements, algorithm, appendices with detailed resources).
 20. **Lateral Epicondyle Tendinopathy Toolkit** - UBC Dept of PT, PHC, VCH, PABC. Toolkit of synthesized and translated evidence (summary statements, algorithm, appendices with detailed

resources).

21. **Cervical Spine Trauma: Use of Canadian Cervical Spine Rule** – UBC Dept of PT, PABC, Toolkit (video, algorithm, template of letter to physicians) to support appropriate referral to a physician for imaging (X-ray) after Cspine trauma.
22. **Functional engagement in Assisted Therapy through Exercise Robotics (FEATHERS)** - UBC Mechanical Engineering, PT, OT, Kinesiology, BC Center of Abilities, Abilities Neurological Rehabilitation. Development of social gaming programs, supported by upper-limb robotics, to support children with cerebral palsy and adults post-stroke to practice their home exercises.
23. **Seating Guideline Adaptation (GAWG)** – BCC&W, Sunnyhill Hospital, GF Strong, UBC Depts of PT & OT, VCH Appraisal, adaptation, update of wheelchair seating guideline for children with neuromuscular disease.
24. **SAFEMOB**:- UBC Dept of PT, PABC, VCH, PHC Development & dissemination of a clinical decision making tool to support safe mobilization of the acutely ill patient.
25. **Enhancing best practice in skin and wound care.** PABC, VCH, PHC, BC PT Skin & Wound Care Committee. Development, dissemination and implementation support of resources to support effective skin & wound management.
26. **Assessing recovery from concussion with exertion testing (ARCET).** To (1) more precisely characterize recovery from concussion, (2) clarify the mechanisms underlying exertion intolerance after concussion, and (3) develop a novel biomarker for concussion in patients who pass conventional clinical tests. *Not currently active – seeking funding.

Key messages

- **Led** (n=10) or participated in (n=16) [total = 26] projects over 7 years.
- **9** were partnerships between all PT KB funders; **18** involved collaborations external to the PT KB funders
- Increase in the number of projects being undertaken simultaneously and in the percentage of those which are interdisciplinary and led by PIs outside of Physical Therapy and those incorporating patient engagement
- The TJAOM project won an **award for clinical innovation**: Arthritis Health Professionals Association for Clinical Innovation.
- The Achilles Tendinopathy Toolkit was selected for **special mention** in a blog by an international expert in Achilles Tendinopathy <http://tendinopathyrehab.com/why-you-should-use-seated-calf-raise-in-achilles-tendinopathy/>

Goal 5: Provide progress reports and a year-end report to the funding partners

- Intermittent email updates on the progress on each of the goals
- Coordinate a meeting of funding partners in December 2009 providing a progress report and opportunity for discussion
- Provide a year-end report detailing the successes achieved in the inaugural PT KB position and recommendations for the future growth of the role

The PT KB will provide all documentation to funding partners with sufficient opportunity to review prior to meetings and will revise, within 2 weeks of receipt of revisions requested by the funding partners.

Key messages

This goal has consistently been met. Despite challenges in coordinating schedules of Steering Committee members, the annual reports and discussions have been undertaken and the required degree of guidance achievable.

3. ADDITIONAL ACTIVITIES / DELIVERABLES

In addition to activities related to fulfilling the above-stated goals, the following activities and key events have been undertaken / occurred:

Needs Assessment & Call for New Proposals

- Year 1: Needs assessment undertaken and results & summary posted. Results informed Action Plan.
- Call for proposals in Spring 2011 and Fall 2014.

Activities for The UBC Department of PT

- Member: Dept. of PT Clinical Faculty Appointments, Reappointments and Promotions Committee
- Assist faculty in knowledge translation components of grant applications and development of knowledge translation plans
- Member – WICKED: West coast Inter-professional Clinical Knowledge Evidence Disseminator
- Member – Continuing Professional Development Advisory Group
- Member – UBC FOM Revenue Generating Committee
- Examiner for MMI for incoming cohort of Masters of Physical Therapy students
- Faculty meetings (intermittent attendance)
- Submission of articles for newsletters twice per year

Activities for PABC

- Submission of articles for quarterly newsletters
- Assist PABC Knowledge Broker task force members in writing articles for newsletters
- Assist PABC members with requests for and interpretation of evidence for practice
- Assist PABC staff with specific requests for information from PABC members
- Assist PABC librarian with selection of resources for monthly member emails and for the website
- Develop curriculum, coordinate presenters and co-present webinar journal clubs
- Present at PABC Practice Forum
- Input, at the request of the CEO, on issues that arise that may benefit from PT KB.

Activities for VCHRI & PHCRI

- Center for Health Evaluations & Outcome Sciences CHEOS Research Associate
- Member: SPH Re-design: Academic Task Force
- Co-prepare & facilitate KT presentation at PHC/PHCRI Leaders Forum and facilitated breakout session
- Present at VCHRI/MSFHR KT courses
- Facilitating development of KT Hub vision
- PHCRI Research Leaders monthly meetings
- Member: KT & Community Engagement Committee for VCHRI
- Member of Healthcare Education and Research Rounds (HEARR) Action Team
- Subject Matter Expert (SME) for Cerner/CST electronic medical record project
- Consultant for PHCRI KT issues
- Consultant for VCHRI KT issues
- Present at VCH/PHC STEP UP PT Education & Research Day
- Mentor and advisor for PHCRI and VCHRI Research Challenge projects
- Co-lead PHC KT Community of Practice with 3 components: (1) KT concept (2) Brag & Steal (3) Share & Solve
- KT consultant for SAVE-BC project with Drs Liam Brunham & Simon Pimstone

Other Activities

- Facilitate implementation of evidence-based intervention for management of knee/hip OA (GLA:D) with GLA:D™ Canada BC Division Steering Committee in conjunction with Bone & Joint Canada, PABC, FHA, VCH
- MSFHR Panel member 2017 Convening and Collaborating (C2) Awards Evaluation Committee

- KT Encounters video series for MSFHR “Terminology: KT traditions and disrupters”
www.msfhr.org/ktencounters.
- Panel member of Electrophysical Forum <http://electrophysicalforum.org/> - International initiative of experts to facilitate evidence-informed application of electrophysical agents.
- Interview for International Foundation for Autoimmune Arthritis
<https://www.facebook.com/IFAutoimmuneArthritis/videos/713367878811651/>

Presentations

- KT Connects Webinar series (MSFHR & ARC): How does a Knowledge Broker ‘fit’ in the world of KT?
<http://www.msfhr.org/ktconnects>
- American College of Rheumatology /Association of Rheumatology Health Professionals Annual Meeting, Washington. (1) Session Moderator: Quality Indicators and Tools: Program Evaluation (2) Oral presentation “Consistent, credible and compelling messaging about Physical Activity and Panel member.
- Arthritis Alliance Canada Conference: (1) Research Workshop Committee and small group facilitator “Knowledge Translation Research and Practice in Disseminating and Implementing Arthritis Models of Care into Practice.(2) presenter & facilitator for Consumer Coalition Workshop “Patients in Patient-oriented research: What should it look like?”
- Canadian Physiotherapy Congress: (1) Optimal Stimulation: Best Practice in NMES for MSK, Neuro and Critical Care Populations ; (2) TJAOM Toolkit to Support Use of Outcome Measures for Joint Arthroplasty Rehabilitation
- Outcome Measures in Rheumatology: Capturing What Matters. OMERACT 2016
- It is about us! The patient’s experience from 16 years of research partnership at Arthritis Research Canada. Patient Engagement Community Workshop PHCRI/VCHRI workshop
- Personalized Medicine Initiative: Knowledge Translation, Knowledge Brokering and Personalized Medicine
- VCHRI Management: PT KB role and activities
- PABC BC Provincial PT Practice Forum. Move More. Sit Less
- Move More. Sit Less Physical Activity Support Kit Initiative. STEP UP. VCH/PHC
- Knowledge Translation, Knowledge Brokering and the Personalized Medicine Initiative
- West Coast Hand Therapy Association: EPAs for inflammation/edema/swelling
- Simon Fraser University HSCI 472 Special Topics: Knowledge Translation
- Contributed to 2 other presentations but was unable to co-present: (1) Engaging Physiotherapist in Effect knowledge translation - International Federation of Manual Therapy (IFOMPT) and (2) Capturing What Matters: the patient perspective on patient-reported outcome measures - OMERACT

Other

- Member: MSFHR KT Training Program Advisory Group
- International Electrophysical Agents Taxonomy Framework Advisory Group
- Co-Chair: Arthritis Patient Advisory Board – Arthritis Research Canada
- Physical Literacy Initiative Bone & Joint Canada
- Patient Panel for Patient Role in Research: Arthritis Alliance Canada
- Informed Western University MPT student research project
- Shaw TV interview: Use of electrical muscle stimulation
- Responding to requests, locally, nationally and internationally, for information and/or linking people/resources
- Facilitating partnerships: eg. BC Healthy Living Alliance, BC Parks and Recreation, Dr Gladys Cheng from Hong Kong Polytechnic; Dr Andre Brussieres & Dina Gaid McGill University
- Electrophysical Agents Taxonomy Framework International Panel
- Note: Honoraria for activities for external organizations = \$600 for Year 7; Total for 7 years = \$2765

Professional Development

- KT Connects Webinar series: How to write a KT Grant. L Li.
- KTECOP webinar "Knowledge Mobilization, Research Impact, and the Changing Nature of Academic Work"
- A losing battle: Health science in the age of celebrity. C2E2 Annual Lecture. T Caufield.
- Implementation Strategies: Tools and Toolkits
- KT Connects Webinar series: Adventures in KT: Travel tips for researchers & trainees. Holmes & Steinberg

- Considering researchers as KT Stakeholders: exploring health researchers understanding and experiences with KT K Sibley
- Physiotherapy, Exercise and Physical Activity course (30 hrs online) Physiopedia
- Practicing KT: Implementing Evidence; Achieving Outcomes
- KT Canada: KT professional development in Canada
- KT Canada: How do we get evidence into practice
- KT Canada: Patient-mediated knowledge translation interventions for clinical encounters: a systematic review
KT Canada
- NIH webinar: Advancing implementation science through measure development and evaluation
- NIH webinar :Balancing adaptation and fidelity
- NIH webinar: Use of theory in implementation research – KTA Process
- NIH webinar: Use of theory in implementation research – Interactive Systems Framework
- KT Canada webinar: When it worked and when it didn't: Tales from a pragmatic KT scientist
- KT Canada webinar: Evaluating research impact: from General to Specific
- Second opinions: What I have learned in 20 year K Shojania

Journal reviewer:

- Implementation Science
- BMJ Rapid Recommendations
- Canadian Respiratory Journal
- British Medical Journal Case Reports
- Physiotherapy Canada
- Canadian Journal of Sports Medicine
- Physician and Sports Medicine
- Physical Therapy
- Canadian Journal of Rehabilitation

Publications

Year 7: 15 (2 published, 1 in press, 4 submitted, 9 in process)
Year 6: 11 (5 published, 1 in press, 3 submitted, 2 in process)
Year 5: 13 (4 published, 4 in press, 2 submitted, 3 in process)
Year 4: 11 (6 published, 1 in press, 2 submitted, 2 in process)
Year 3: 10 (3 published; 1 in press; 4 submitted; 2 in process)
Year 2: 5 (4 published; 1 submitted)
Year 1: None

Published (peer-reviewed)

Ezzat AM, Schneeberg A, Huisman ES, White LD, Kennedy C, Levesque LA, Scott A, **Hoens AM**. A cross-sectional evaluation examining the use of the Achilles tendinopathy toolkit by physiotherapists in British Columbia, Canada. *Disability and Rehabilitation*. 2016. March, 1-6. DOI10.3109/09638288.2016.1160447
*subsequent online blog <http://tendinopathyrehab.com/why-you-should-use-seated-calf-raise-in-achilles-tendinopathy/>

Glegg S, **Hoens AM**. Role domains of knowledge brokering: A model for the healthcare setting. *Journal of Neurologic Physical Therapy*. 2016;40: 115–123). doi.org/10.1097/NPT.000000000000122. Video abstract: https://youtu.be/udp8JNu_tL4.. Note: this was selected for a subsequent journal club blog https://researchimpact.othree.ca/forums/journalclub/role_domains_of_knowledge_brokering_a_model_for_the_health_care_sett

Published (not peer-reviewed)

Langford, D, Lozinsky L, **Hoens AM**. The Total Joint Arthroplasty Outcome Measures (TJAOM) Toolkit: How to Choose What to Use. *The Rheumatologist*. <http://www.the-rheumatologist.org/article/total-joint-arthroplasty-outcome-measures-toolkit-helps-rheumatologists-post-surgical-assessments/>

Benari O, **Hoens A**, Camp P. AECOPD-Mob: A Clinical Decision-Making Tool. *Gas Exchange. Cardiorespiratory Division Newsletter re: AECOPD-Mob*. Fall 2015.

In press

Nussbaum EL, Houghton PE, Anthony J, Rennie S, Shay BL, Hoens AM. Neuromuscular electrical stimulation for treatment of muscle impairment: Critical review and recommendations for clinical practice. Physiotherapy Canada. In press.

Submitted - in review

Trenaman L, Boonen A, Guillemin F, Hilgsmann M, **Hoens A**, Marra C, Taylor W, Barton J, Tugwell P, Wells G, Bansback N. OMERACT QALY Working Group: Do QALY measures capture what matters to patients. Journal of Rheumatology.

Hoens AM, Belot M, Kennedy C, Li LC. Does Every Patient After Cervical Spine Trauma Need An X-ray? Description of the Process Undertaken for A Knowledge Translation Project to Support Evidence-informed Practice for Physiotherapists. Physiotherapy Canada.

Inskip JA, Novak Lauscher H, Li L, Dumon G, Garde A, Ho K, **Hoens AM**, Road JD, Ryerson CJ, Camp PG. Patient and health care provider perspectives on using telehealth to deliver pulmonary rehabilitation. COPD Journal of Chronic Obstructive Pulmonary Disease.

Dhillon S, Sima CA, Cheng J, Kirkham AR, Horii C, McKnight B, Petts K, **Hoens A**, Lynd PJ, Monillas R, Cook W, Camp PG. Can a home-based exercise program in community-dwelling older adults improve mobility and balance. Clinical Rehabilitation.

In process

Li LC, Shaw C, Lacaille D, Yacyshyn E, Jones AC, Adam PM, Koehn C, **Hoens AM**, Geldman J, Sayre EC, Macdonald G, Leese J, Bansback N. Effects of a Web-Based Patient Decision Aid on Biologic and Small Molecule Agents for Rheumatoid Arthritis, *ANSWER-2: A Proof-of-Concept Study*.

Leese J, Tran B.C., MacDonald G, Wong R, Backman C.L., Townsend AF, Davis A, Jones A, Gromala D, Avina-Zubieta J.A., **Hoens, AM**, Li, LC. A Qualitative Study of Facilitators and Barriers to Arthritis Patients' Use of Physical Activity Monitoring Tools from their Perspectives

Macdonald G.G., Leese J., Backman C.L, Townsend A, Davis A, Wong R, Jones A, Gromala G, Gromala D, Avina-Zubieta J.A, **Hoens AM**, Li LC. Use of Mobile and Wearable Physical Activity Monitoring Tools in Rehabilitation Practice for Patients with Arthritis: the Healthcare Professional Perspective.

Chan c, Inskip JA, Kirkham AR, Anserimo M, Dumont G, Li L, Ho K, Novak-Lauscher H, Ryerson CJ, **Hoens AM**, Chen P, Garde A, Road zJD, Camp PG. Usability, validity and reliability of a smartphone monitoring application for exercise training in pulmonary rehabilitation in individuals with chronic lung disease.

Valdes BA, Schneider A, Lohse K, Bernard R, Marr J, **Hoens AM**, Glegg S, Shirzad N, Van der Loos M. Home-based rehabilitation gaming for hemiparesis: Challenges and lessons learned.

Shadgan B., Pakravan A.M., **Hoens AM.**, Reid W.D. The effects of contrast baths on intramuscular hemodynamics and oxygenation, measured by near infrared spectroscopy. Journal of Athletic Training, 2017.

Rafn BS, Hung S, **Hoens AM**, McNeely ML, Singh C, Kwan W, Dingee C, McKeivitt , Kuusk U, Goldsmith CH Campbell KL. Prospective surveillance of arm morbidity after breast cancer surgery pilot randomized controlled trial of surveillance and physiotherapy treatment to women with breast cancer.

Miller K, Feehan L, Westby MD, Visanji Z, Singh C, **Hoens AM**. What do patients with chronic disease want in order to support physical activity?

Westby MD, Langford D, Longstaff S, Sweeney P, Field R, **Hoens AM**. Use of a knowledge translation plan to address practice factors influencing physiotherapists' use of outcome measures in total joint arthroplasty

Other Works

- British Journal of Sports Medicine invited blog post April 2016

<http://blogs.bmj.com/bjbm/2016/04/24/struggling-to-provide-evidence-based-care-to-your-patients-a-knowledge-broker-can-help-case-study-of-the-achilles-tendinopathy-toolkit/>

- Physiopedia invited blog post March 2016

<http://www.physiospot.com/physiopedia/tendinopathy-toolkits-with-alison-hoens/>

- Physiopedia interview Feb 2016

<https://www.youtube.com/watch?v=ovmTiS6MznQ>

- Video abstract Knowledge Brokering Role Domains Model Nov 2015
https://www.youtube.com/watch?v=udp8JNu_tL4&feature=youtu.be

AWARDS

- **2016 Canadian Physiotherapy Association Honorary Membership Award**
- **2016 Canadian Physiotherapy Association Silver Quill Award** for the top clinical manuscript in Physiotherapy Canada in 2015 "Bech M, Moorhen J, Cho M, Lavergne MR, Stothers K, Hoens AM. DEVICE OR ICE: The effect of consistent cooling using a device compared to intermittent cooling using an ice bag after Total Knee Arthroplasty. Physiotherapy Canada 2015; 67(1), 48–55"
- **Arthritis Health Professional Association Clinical Innovation Award** (for Total Joint Arthroplasty and Outcome Measures Toolkit)

Key messages:

- Over 7 years: 25 peer-reviewed publications (1 in press; 4 in review; 9 in process); 4 non-peer reviewed publications; 14 conference proceedings, 5 'other works' (e.g. blogs)
- ResearchGate:: Total citations = 172; h-index = 8; RG score = 22.80 "higher than 75% of members"; RG reach = 3,178
- The 'Device or Ice' manuscript received the **Silver Quill Award** for the best clinical paper of the year. This was particularly impressive as this RCT was undertaken by an interdisciplinary front-line clinicians, unfunded, over 5 years, and this was their first research experience and first manuscript
- The 'Role Domains of Knowledge Brokering' manuscript was **selected for a subsequent online journal club** and was reported to have made a novel and important contribution to the field of knowledge brokering
https://researchimpact.othree.ca/forums/journalclub/role_domains_of_knowledge_brokering_a_model_for_the_health_care_sett

4. RESEARCH GRANT ACTIVITY

Year 7: 7/15 grant applications successful; Total funding \$876,196
 Year 6: 8/20 grant applications successful; Total funding \$282,670
 Year 5: 3/15 grant applications successful; Total funding: \$83,501.60
 Year 4: 4/6 grant applications successful: Total funding: \$853,196
 Year 3: 2/10 grant applications successful: Total funding: \$441,991
 Year 2: 2/7 grant applications successful: Total funding secured = \$370,000
 Year 1: 3/7 grant applications successful; Total funding secured = \$374,319

Funding Agency	Title	PI	PT KB Role	\$	RESULT
Arthritis Health Professions Association	The PEIRS Study: Development of a measure of meaningful patient engagement in research through an arthritis patient-researcher partnership	C Hamilton	Co-I	5 K	Funded
The Arthritis Society	Empowering active self-management of arthritis: Raising the bar with OPERAS (an On-demand Program to Empower Active Self-management)	Dr L Li	Collaborator	360 K	Funded
CIHR Network Catalyst Grant	Improving Quality of Life in People with Chronic Musculoskeletal Conditions: Musculoskeletal Rehabilitation Network (MSK-RENEW)	Dr L Li	Co-I	600 K	Not funded
Genome BC User Partnership	SAVE BC, the Study to Avoid cardioVascular Events in British	Dr L Brunham	Co-A KB	400 K	Funded

Program	Columbia				
CIHR	Empowering active self-management of arthritis: Raising the bar with OPERAS (an On-demand Program to Empower Active Self-Management)	Dr L Li	Knowledge User Co-I	555 K	Not funded
UBC TLEF	Improving the Assessment of Evidence informed Health Care Competence: A 5 step approach	Dr A Greig	Co-applicant	21540	Funded
CHRP	Beyond Dissemination: A knowledge translation study to implement and evaluate a tool to support safe and effective activity in AECOPD	Dr P Camp	Co-I	25 K	Not funded
College of Physicians and Surgeons of BC	WICKED	Dr. A Greig	Co-applicant	6 K	Funded
PCORI	Using knowledge brokers to support enhanced use of patient reported outcomes in rehabilitation professions	Dr. P van der Wees	Co-investigator		Not funded
UBC TLEF	Improving the Assessment of Evidence informed Health Care Competence: A 5 step approach – Evaluation Tool	Dr A Greig	Co-applicant	33656	Funded
Sciences and Humanities Research Council of Canada Partnership Development Grants	Arthritis Partnerships at Work: Web-enabled interventions for Canadians with arthritis to support productivity and health at work	Dr D Lacaille	Co-applicant	150K	Not funded
VCHRI/PHCRI Innovation & Knowledge Translation	Effective Quality Indicator Implementation for Patients and Total Joint Replacement Rehabilitation (EQUIP-TJR)	Dr M Westby	Co-investigator	50 K	Funded
CIHR	OPERAS – an On-demand Program to Empower Active Self-management for community dwelling seniors to improve functional independence	Dr L Li	Co-investigator	200 K	Not funded
CIHR Partnerships for Health System Improvement PHSI	SAVE BC: an initiative to improve the care of patients with extremely premature cardiovascular disease and their family members	Dr L Brunham Dr S Pimstone	Co-investigator	400 K	Not funded
Heart & Stroke Foundation	SAVE BC: an initiative to improve the care of patients with extremely premature cardiovascular disease and their family Members	Dr L Brunham Dr S Pimstone	Co-investigator	100 K	Not funded

Key messages

- Total grant funding for year 7 = **\$876,196**
- Total number of grant applications over 7 years: **80**
- Total number funded over 7 years: 29 (**36.25%**)
- Total funding over 7 years: **\$3,027,469**

BUDGET

- Income from honoraria Year 7= **\$1095.73**; Total over years = **\$3260.73**
- Expenses Year 7 **\$3,178.67**; Total over 7 years = **\$12,480.44** avg = **\$3,120/year**
- Remaining balance = **\$6,180.35**

5. Summary

This position has served as the catalyst for knowledge creation, synthesis, translation into resources/tools, dissemination and uptake of interdisciplinary, clinically relevant research. This has been possible as a result of over 350 partners (clinicians, researchers, patients and decision-makers) who have willingly, and without financial compensation, given of their time and talents to projects which clearly resonated with their values.

The funding partners are to be commended for taking the leap of faith to initiate this position over 7 years ago and to consistently support it over the subsequent years. The PT KB has been consulted repeatedly by other organizations provincially, nationally and internationally for assistance in replicating this model in other settings.

As I move into my secondment at the BC SPOR SUPPORT Unit (KT Methods Cluster) I look forward to (1) watching the position thrive under the leadership of the individual who will adopt this role and (2) returning to the PT KB position in January 2019 bringing new knowledge, skills and connections.