

Physical Therapy Knowledge Broker Report Year 3 September 2011 to October 2012

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 three for the Physical Therapy Knowledge Broker position.



Physical Therapy Knowledge Broker Report Year 3	Submitted by: Alison M Hoens
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1. PROGRESS ON GOALS & DELIVERABLES

Goal 1: Establish a web presence for the PT knowledge brokering initiative

- **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.**

The PT KB will develop the webpage by Sept 2009 and maintain the web page for the duration of the appointment. The funding partners will provide access to the required resources (e.g. technical assistance).

Year end report

- Both UBC Department of Physical Therapy and PABC websites house PT KB web pages (established Aug 2009). Content includes: background information on the KB role, regular updates on the respective KB projects, the research collaboration registry and an inventory of KT links and evidence-based practice resources. Notification of updates to content on the web pages is provided by e-blasts from the PABC CEO and newsletters from both the UBC Dept of PT and PABC.

- **Reach Indicator:** Google Analytics for Knowledge Broker pages on PABC website: Total number of hits Sept 30 2011 to Sept 30 2012 for the Library & Knowledge Centre = 5,158 hits and total for KB pages 2,443. The following table provides the average number of hits/month - **a 230% increase in reach over the duration of the position.**

	Sept 1 2009 – Dec 8 2009	Jan 1 2010 – Sept 10 2010	April 1 2011 – Sept 21 2011	Sept 30, 2011 - Sept 30 2012
Avg # of hits/month	61	133	141.6	203.6

*Note: inconsistency in reporting periods, particularly for 2011, are a consequence of migration to a new website platform and reorganization of content. It is also important to note that the organization of the material within the website has been changed a number of times and thus this may impact accuracy of metrics.

Next steps

- Continue to update webpages with progress reports on KB projects.
- Continue to develop evidence-based practice resources and post on websites.
- Continue to promote webpage content, especially that of UBC Dept of PT website, through public practice distribution email list, UBC newsletter, PABC newsletters and PABC e-blasts.

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 PTKB will develop (by Oct 2009) and maintain a directory of clinicians and researchers with interest and capacity for

partnerships and link members for potential collaborations. The funding partners will assist in circulating the call for directory membership and communicating with the PT KB all potential projects for collaboration.

Year end report

- Updated research collaboration registry (updated Feb 2011; originally developed May 2010). Currently more than 100 PTs across BC registered themselves as researchers, decision-makers and/or clinicians in various practice areas (eg. orthopaedics, cardiorespiratory). The registry is posted on UBC & PABC websites. The registry has been used as a resource to facilitate research partnerships and to develop special interest groups (e.g. Cancer Interest Network).

Partnerships (provincial & national)

The following table presents the number of participants, for each partner group, for the previous and current reporting period and the corresponding percentage increase between these reporting periods.

Partner Group	# participants 2010-2011	# participants 2011-2012	% increase 2010-2012
Clinicians	71	87	23%
Researchers	22	32	45%
Decision makers	11	23	109%
Students	11	24	118%

Next steps

- Continue to work with UBC Dept of PT faculty, VCHRI, PHCRI, PABC and Practice Leaders in Health Authorities to identify opportunities for clinician & decision-maker collaborators.

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

Year end report

- Performed a review of existing on-line resources (July-Aug 09) and created an inventory (Nov 09) of those which are most useful. Worked with UBC and PABC librarians to select and/or synthesize preferred resources.

- Developed (with a number of different stakeholders), disseminated, and supported the use of a number of evidence-based resources for BC PTs:

Resource	Purpose	# of hits Apr 2011 – Sept 2011	# of hits Sept 2011 - Sept 2012
Cryotherapy: Why, When & How	- Decision-making tool to guide safe and effective application of cryotherapy and other related interventions to manage pain, inflammation, edema and swelling		58
Electrophysical Agents: Contraindications and Precautions	- Decision-making tool to guide safe application of electrophysical agents	U of Toronto Press; - ~10,000 mailed - 1620 hits - 822 print orders (113 in USA) - 157 electronic orders	U of Toronto Press: 4, 403 views 1, 987 downloads 986 purchased 1383 purchased since publication PABC website: 102 views
SAFEMOB	- Decision-making tool to guide safe	87	77

	<ul style="list-style-type: none"> mobilization of acutely ill patients - Inventory of literature and links to support SAFEMOB tool - Recording of webinar demonstrating how to use the SAFEMOB tool 		
Skin & Wound – Use of electrical stimulation and ultrasound to promote wound healing	<ul style="list-style-type: none"> - Recording of lecture outlining the theory and evidence for use of electrical stimulation and ultrasound to promote wound healing - Recording of practical demonstration - Detailed list of required equipment - Step by step guide on the application of electrical stimulation - References - Links to additional resources 	97	164
Outcome measures for Total Joint Arthroplasty	<ul style="list-style-type: none"> - Inventory of valid, reliable, sensitive and specific outcome measures including information on what it measures, who to use it for, how to use it and how to score it 	75	75
Inventory of databases for outcome measures	<ul style="list-style-type: none"> - List of links to databases for rehabilitation-related outcome measures 	Not available	79
Safe Handling of Patients	<ul style="list-style-type: none"> - A series of 4 'alerts' with key information to guide safe handling of patients in acute care settings - Inventory of resources/links with supporting information on specific lifting and handling devices 	209	52
Achilles Tendinopathy Toolkit	<ul style="list-style-type: none"> - (1) Summary of the evidence of interventions (2) Algorithm (3) Details of individual articles (4) Exercise prescription (5) Laser dosage calculation (6) Summary of medical & surgical interventions 		1102 (PABC) 2,054 from 43 countries (Physiopedia) Not available (BJSM)
Acute Exacerbation of COPD	<ul style="list-style-type: none"> - Summary of project, Link to systematic review 		76
Botox and spasticity: management algorithm and inventory of outcome measures	<ul style="list-style-type: none"> - Algorithm for evidence-informed practice for management of spasticity; Inventory of appropriate outcome measures to evaluate effectiveness of botox 		99
Guidelines for provision of wheelchairs in progressive neuromuscular disease	<ul style="list-style-type: none"> - Updated practice guideline for provision of wheelchairs in progressive neuromuscular disease 		50
Research Collaboration Registry	<ul style="list-style-type: none"> - Database of PTs in BC who wish to be contacted for potential involvement as researchers, decision-makers or clinicians in specific areas of practice 		45
Overview of the PT KB position	<ul style="list-style-type: none"> - Outline of the PT KB position (role, scope, activities) 		126

- Provision of Journal clubs via webinars for PABC members. The following table provides the metrics for PABC journal clubs demonstrating a **302% percentage increase in attendance between 2010 and 2012.**

Date	Topic	Partner(s)	Attendees/Registrants
Aug 2010	Effectiveness of mobilizations for knee OA	No partner	12/19

Nov 2010	SAFEMOB	SAFEMOB Task Force	26/33
Jan 2011	Tennis Elbow	Dr. Alex Scott	22/31
Mar 2011	Hip Protectors: Effectiveness for reducing hip fracture	Dr. Teresa Liu Ambrose	14/24
May 2011	Effectiveness of Low level LASER for Achilles Tendinopathy	Dr. Joseph Anthony	19/38
Nov 2011	Effectiveness of therapeutic ultrasound for soft tissue pathology of the shoulder	Dr. Joseph Anthony	24/53
Mar 2012	Effectiveness of orthotics for patellofemoral pain	Dr. Michael Hunt	29/56
May 2012	Mobilization and manipulation for cervical pain	Carol Kennedy	34/50
June 2012	Tendinopathy Toolkit: Why, what and how.	Tendinopathy Task Force	92/131
Feb 2013	Frozen Shoulder	Dawn Siegel	127/169

Although it is not possible to determine the number of downloads of recordings of each the webinars, the following data is available:

- Total number of pageviews of the landing page for the PABC JCs = 81 (Sept 2011- Oct 2012) and 116 pageviews from Nov 2012-Mar 2013.
- Total number of pageviews for the Frozen Shoulder journal club = 816

In **2010-2011**, the focus of the journal club webinars was to teach participants how to appraise the quality of a randomized controlled trial. Partners for presentations included Faculty from UBC Dept. of Physical Therapy.

In **2011-2012**, the focus of the journal club webinars was to teach participants how to appraise the quality of a systematic review and meta-analysis. Partners for presentations included either Faculty from UBC Dept. of Physical Therapy or clinicians with clinical postgraduate training, expertise and have instructed postgraduate clinical education courses in the topic area.

For **2012-2013**, the webinar series is entitled "The Ease (E's) of Practice: Evidence, Experience and Expertise". The purpose, using a popular topic, is to illustrate the process to access, appraise and apply evidence from the literature and integrate it with evidence from clinical expertise and patient preference.

The journal clubs include desk-top sharing of articles, complementary evidence, images (including a whiteboard), polling questions providing real-time sharing of facts and opinions and a chat box for posting questions. Additionally, key concepts from the content of the topic, methodological design and statistical analysis are highlighted.

Each journal club is preceded by a pre-webinar questionnaire to establish the spectrum of knowledge and self-efficacy with evidence-based skills. Further it provides an opportunity for participants to articulate their 'burning questions' regarding the topic. The post-webinar questionnaire provides a means to measure how 'effective' the webinar was in enhancing this knowledge and self-efficacy of participants. Finally, it provides participants with an opportunity to articulate the components that they most and least appreciated in the format of the session. The following table provides the mean and range of improvement of a sample of outcomes from the pre/post evaluations of the all the webinars presented in 2011/2012.

Indicator (% change pre to post webinar)	Mean	Range
% positive change in confidence in appraising the overall quality of an article	35.8%	12.7 - 47.4%
% positive change in confidence in appraising the quality of a lit review	42.9%	37 – 46.1%

% positive change in confidence in appraising the quality of the methods	43.4%	35 - 54.2%
% positive change in confidence in appraising the quality of the statistical analysis	28.9%	23.8 – 35.2%
% positive change in confidence in applying the findings to clinical practice	38.2%	30.9 – 47.6%

The following comments are a selection of those obtained from journal club participants for webinars in 2011-2012:

“I don't know how I answered these questions before but now I think I know more about what I don't know. I might have been blissfully ignorant before!”

“It let me find holes in my own knowledge base. I really liked the 'take home' messages/summaries”

“I liked most having a clinical take home message that I can apply”

“I personally got better understanding what to look for when I read articles”

“I appreciated the step by step approach to critiquing the article, simple but enlightening. Not just having the article to read; the supplements really helped get a good understanding prior to the webinar.”

“I thought it was clearly and systematically presented and the information was easy to follow and understand. It definitely gave me a much better insight on how to review an systematic review and how to apply it to my patient population”

“I will now make sure the population in the study is like the population I treat. I will also pay attention to NNT and use the forest plot for a quick visual reference of whether or not the intervention had a positive effect ...”

“ I now see how important it is to use the right outcome measure at the right stage of treatment in order to assess properly whether treatment is useful or not”

Next steps

- Continue to develop, post and ‘market’ learning opportunities and resources that enhance knowledge and build skills for evidence-informed practice.

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) and provide input on draft documentation.

Year end report

Project & Partners	Objectives	Status
Total joint arthroplasty: Enhancing utilization of outcome measurement (TJAOM)	3 synergistic projects with the following objectives: (1) To establish a baseline of current utilization of outcome measurement (OM) in TJA care (2) To document clinician identified barriers and solutions to use of OM in TJA care (3) To develop learning resources and tools	Completed chart audit focus group and survey. Submitting first manuscript and initiating second manuscript. Developed KT plan and have initiated the process of implementing

<p>- Partners: UBC Dept of PT, PABC, RAMP, VCH, PHC</p>	<p>necessary to facilitate use of OM in TJA care (4) To disseminate, implement, and evaluate the uptake of the learning resources and tools using the information from objectives #1 and #2 in conjunction with evidence from implementation science</p>	<p>the KT plan.</p>
<p>Enhancing physiotherapy best practice in issues of skin & wound care</p> <p>- Partners: PABC, VCH, PHC, PT Skin & Wound Care Committee, Interdisciplinary Skin & Wound Care Committee; UBC Dept of Occupational Science & Occupational Therapy</p>	<p>(1) To increase the awareness of BC PTs regarding the role of PTs in the prevention, assessment & management of skin & wound care issues. (2) To increase the number of BC PTs who undertake a basic risk assessment and utilize basic interventions for prevention & management of skin & wound care issues. (3) To provide information to BC PTs on where to find guidance on and training in advanced assessment and intervention techniques.</p>	<p>Completed. An array of resources (lectures, practical demonstrations, handouts, equipment list, reference list) has been developed and posted on the PABC website.</p>
<p>SAFEMOB Safe mobilization of the acutely ill patient</p> <p>- Partners: UBC Dept of PT, PABC, VCH, PHC</p>	<p>(1) To develop a concise tool which guides physiotherapy clinicians in evidence-informed-decision-making (EIDM) relevant to the safe mobilization of the acutely ill patient.</p>	<p>Completed. Supporting resources were also developed, disseminated and posted. A recorded webinar providing case histories demonstrating how to utilize the resource is also posted. Shared nationally.</p>
<p>Seating GAWG: Seating Guideline Adaptation Working Group for provision of wheelchairs in progressive neuromuscular disease</p> <p>- Partners: BCC&W, Sunnyhill Hospital, GF Strong, UBC Dept of PT, UBC Dept of Occupational Science & Occupational Therapy</p>	<p>(1) Appraise the 2006 UK guideline using the AGREE instrument (2) Evaluate, synthesize and incorporate evidence from an updated comprehensive literature review and local consensus. (3) Incorporate information appropriate for specific progressive neuromuscular diseases. (4) Ensure the update guideline reflects the needs and practice environment of BC therapists.</p>	<p>This project is in the final stages of editing. It is anticipated that the amended guideline will be completed by April 2013. It will be loaded on appropriate websites (eg. www.childdevelopment.ca and cross linked to www.therapybc.ca) and disseminated to paediatric OTs and PTs throughout BC.</p>
<p>AECOPD project</p> <p>Partners: UBC Dept. of PT PHCRI VCHRI</p>	<p>Given that SAFEMOB could not adequately address the needs for safe and effective exercise prescription for the unique, and costly, population of Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD), the AECOPD project grew from the SAFEMOB project. The AECOPD team, under the direction of Dr. Pat Camp, successfully secured funding from the Canadian Institute of Health Research Knowledge Synthesis Grant for this project.</p>	<p>Undertook a systematic review of systematic reviews which has been published on an open access site and has received over 5000 hits.</p> <p>Undertook a Delphi with researchers & clinicians from multiple disciplines, as well as patients and families, to</p>

<p>PABC University of Toronto University of Saskatchewan</p>		<p>provide recommendations for best practice in this area. Data has been analyzed. *An MPT group contributed to the Delphi process.</p> <p>Using the results of the SR and the Delphi, a decision-making tool (similar to that of SAFEMOB) has been developed and usability testing is to start soon with the assistance of an MPT group.</p> <p>A KT plan has been developed and 2 manuscripts have been published.</p>
<p>Tendinopathy Toolkit</p> <p>Partners: PABC UBC Dept. of PT VCHRI</p>	<p>As a result of a call for proposals for PT KB projects, the Tendinopathy Task Force was struck to create a toolkit to guide PTs in evidence-informed practice for patients with Achilles Tendinopathy. Subsequent to the success of the Achilles Tendinopathy Toolkit, the Task Force decided to undertake the same process for Tennis elbow.</p>	<p>Completed Achilles Tendinopathy Toolkit. - Posted on the websites of PABC, UBC Dept. of PT, Physiopedia, British Journal of Sports Medicine - Developed into a web app at Hacking Health 2013 - Presented at the International Tendinopathy Symposium and the Canadian Physiotherapy Association Congress</p> <p>Tennis Elbow Toolkit - Currently completing first draft Next steps: - send for input from BC PTs</p>
<p>Cervical Spine Trauma: Use of Canadian Cervical Spine Rules</p> <p>Partners: Dr. Linda Li UBC Dept .of PT PABC VCHRI PHCRI</p>	<p>The overarching goal of this project is to ensure appropriate referral to a medical doctor for imaging (X-ray), BC PTs of patients with acute neck pain secondary to trauma. Specifically, we aim to assess PTs knowledge and current practice in the management of acute neck pain in relation to the Canadian Cervical Spine Rule (C-Spine Rule). The results will be used to identify the need for, and inform the design of, learning resources and tools to increase awareness and/or use of the C-Spine Rule in clinical practice</p>	<p>- Survey of 889 PTs in BC re current practice in cervical trauma, awareness of C-spine rule and perceptions of barriers to use of the rule - Attendance at "Foundations of KT Course " (VCHRI/MSFHR) to develop KT plan</p> <p>Next steps; - Analysis of survey - Implementation of KT plan</p>
<p>FEATHERS Functional Engagement in Assisted Therapy through Exercise</p>	<p>The funding is provided by the Peter Wall Solutions Initiative.</p> <p>The objective is to develop social gaming</p>	<p>- Focus groups with OTs and PTs have been undertaken to identify current use of technology, barriers and benefits for</p>

<p>Robotics</p> <p>Partners: UBC Mechanical Engineering, Physical Therapy, Occupational Science and Occupational Therapy, Kinesiology BC Center for Abilities, Abilities Neurological Rehabilitation</p>	<p>programs, supported by upper-limb robotics, that will enable and motivate children with cerebral palsy, and older adults after stroke, to practice their home exercises.</p>	<p>future use and desired features.</p> <ul style="list-style-type: none"> - Developed preliminary versions of software and hardware - Tested powered orthoses - Submitted 3 manuscripts <p>Next steps include:</p> <ul style="list-style-type: none"> - Focus groups with patients/families to identify barriers and needs - Development of prototype devices and systems - Testing of devices and systems in clinics - Focus groups with therapists, patients and families regarding their feedback on devices and systems.
<p>ANSWER 2</p> <p>Partners: Dr. Linda Li Arthritis Research Center VGH VCH</p>	<p>Funded by a CIHR Catalyst Grant for eHealth Innovations, this project is an extension of the successful ANSWER decision aid tool 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.</p> <p>ANSWER-2 will be integrated into an online RA Patient Passport that tracks patients' health status and allows them to communicate this information with their health professionals.</p>	<p>The development process of ANSWER-2 will involve:</p> <ol style="list-style-type: none"> 1) Creating a storyline and scripts based on the best evidence on the use of biologics and other management options in RA, and the contextual factors that affect a patient's decision to use a treatment. 2) Developing the ANSWER-2 prototype 3) Conducting usability tests and refining the prototype 4) Conducting a study with 55 patients with RA, who have received a new prescription of a biologic agent to determine their decisional conflict, medication knowledge and self-efficacy before and after using the ANSWER-2.
<p>Prospective Surveillance of Arm Morbidity post Breast Cancer surgery</p> <p>Partners: Dr. K Campbell PHC Fraser Health BC Cancer Research Institute Simon Fraser University</p>	<p>This project builds on preliminary work that the study team has undertaken to manage the significant arm morbidity for women following breast cancer surgery.</p> <p>Specific aims:</p> <ol style="list-style-type: none"> 1) improve the quality of research to inform a change in practice with a proactive PT monitoring program to reduce arm morbidity 2) quantify the cost of delivering the intervention and possible cost-savings to the health care system 3) understand the local barriers and facilitators to a change in clinical practice from the point of view of decisions makers, clinicians & patients. 	<p>Completed preliminary phases:</p> <ul style="list-style-type: none"> - community engagement workshop - pilot <p>Currently initiating RCT</p> <p>Next steps:</p> <ul style="list-style-type: none"> - Complete RCT - KT plan: workshop and online handbook

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.

Year end report

Email updates of the progress on the goals are communicated intermittently to the Steering Committee. Updates are also provided every 6 months on the PABC and UBC Dept of PT websites. The 6 Month report was undertaken December 9 2009 , Year 1 report September 13, 2010 and Year 2 report October 20 2011.

Next steps

Continue intermittent updates via email, annual reports and 6 monthly updates on websites.

2. ADDITIONAL ACTIVITIES / DELIVERABLES

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

Meetings with Steering Committee

- No meetings undertaken between annual reviews of Year 2 and Year 3 (3 month sick leave followed by 3 months gradual return to work)

Needs Assessment

- Undertook a needs assessment in Year 1 for clinicians, academics and faculty & posted executive summary & results. Results informed Action Plan. No assessment performed in Year 2. A needs assessment will be undertaken in Year 4 in conjunction with the PABC Knowledge Team.

Activities for The UBC Department of PT

- Promoted to Clinical Professor
- Participation at Faculty meetings
- Discontinued role as PT rep on FOM Clinical Faculty Affairs Committee (3 year term expired)
- Member: Dept. of PT Clinical Faculty Appointments, Reappointments and Promotions Committee
- Submission of articles for newsletters
- Advisor for MPT 'Virtual Patient Project'
- Co-supervisor MPT project 2013 MPT project PHTH 526: 2012-2013 What are the parameters for prescription of safe and effective physical activity in hospitalized patients with an acute exacerbation of chronic obstructive pulmonary disease?
- Member – WICKED: West coast Interprofessional Clinical Knowledge Evidence Disseminator
- Assist Faculty for KT components of grants and projects
- Co-investigator for research program on effect of modalities on blood flow (Dr. D Reid)
- Interviewed by Accreditation team re PT KB role

Activities for PABC

- Submission of articles for newsletter
- Assist PABC 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 eblasts and website
- Provision of webinar journal clubs
- Presentation at Provincial Practice Forum: "Stretching our minds about stretching"

Activities for VCHRI & PHCRI

- Participation on PT and Interdisciplinary Skin & Wound Committees
- Mentor/advisor for 3 PHC and 1 VCH Research Challenge Teams
- Consultant for PHCRI for KT issues
- Consultant for VCHRI for KT issues
- Presentation at VCH/PHC STEP UP PT Education & Research Day; invited speaker. Outcome Measures: Why bother?

Presentations

- Provincial Physiotherapy Practice Forum
- International Tendinopathy Symposium
- American Congress of Rehabilitation Medicine. 1 course (co-presenter) & 1 panel discussion (panelist): Promoting Adoption of Outcomes Data Collection in Rehabilitation Practice

Professional Development

- Core Committee, Professional Development Committee & Member: BC Knowledge Translation Community of Practice (with MSFHR)
- VCHRI / MSFHR Knowledge to Action workshop
- CHNET webinars: Measuring the effectiveness of partnerships; Critical appraisal skills
- Hacking Health

Publications

Year 1: None

Year 2: 5 (4 published; 1 submitted)

Year 3: 10 (3 published; 1 in press; 4 submitted; 2 in process) ***150% increase from the preceding year.**

Published

Reid WD, Yamabashi C, Goodridge D, Chung F, Hunt MA, Marciniuk DD, Brooks D, Chen YW, Hoens AM, Camp PG. Exercise prescription for hospitalized people with chronic obstructive pulmonary disease and comorbidities: a synthesis of systematic reviews. *International Journal of Chronic Obstructive Pulmonary Disease*. 2012;7, 297-32. **(As of March 31, 2013 3,831 abstract views and 1,262 pdf downloads)**

Simms AM, Li LC, Geddes EL, Brooks D, Hoens AM, Reid WD. Impact of a Behavioral-based Intervention on Inspiratory Muscle Training Prescription by a Multidisciplinary Team. *The Journal of Continuing Education in the Health Professions*. 2012 32(2), 116-125.

Reid WD & Hoens AM. Clinician Commentary You et al. *Physiotherapy Canada*. 2012: 64(2)176-7.

In press

Scott A, Docking S, Vicenzino B, Alfredson H, Zwerver J, Lundgren K, Finlay O, Cook J, Fearon A, Purdam C, Brasher P, Hoens A, Robinson J, Danielson P. Sports and exercise-related tendinopathies: A review of selected topical issues by participants of the 2nd International Scientific Tendinopathy Symposium (ISTS) - Vancouver 2012. *British Journal of Sports Medicine*.

Submitted

Camp, PG, Reid WD, Yamabayashi C, Brooks D, Goodridge D, Chung F, Marciniuk D, Neufeld A, Hoens, A. Safe and Effective Prescription of Exercise in Acute Exacerbations of Chronic Obstructive Pulmonary Disease: Rationale and Methods for an Integrated Knowledge Translation Study. *Canadian Respiratory Journal – KT Special Issue*. 2013.

Hoens A, Camp PG, Reid WD. Knowledge Brokering: An Innovative Model for Supporting Evidence-Informed Practice in Respiratory Care. *Canadian Respiratory Journal – KT Special Issue*. 2013

Shadgan B, Pakravan AH, Hoens A, Reid WD. Effects of local cold spray on subcutaneous and intramuscular blood flow and oxygenation. *Journal of Science and Medicine in Sport*

Li LC, Cott C, Jones CA, Badley EM, Davis AM, PEOPLE Meeting Participants. Improving Primary care in Chronic Musculoskeletal Conditions through Digital Media: The PEOPLE Meeting. JMIR Research Protocols.

In process

McAuley C, Westby MD, Hoens A, Troughton D, Field R, Duggan M. Reid WD. A Survey of Physiotherapists' Use of Outcome Measure in Total Hip and Knee Arthroplasty.

Bech M, Cho M, Moorhen J, Stothers K, Hoens A. A comparison of the effectiveness of 48 hours of cooling and compression versus intermittent icing on pain, ROM, swelling, nausea, blood loss and function in acute total knee arthroplasty.

3. RESEARCH GRANT ACTIVITY

Year 1: 3/7 grant applications successful; Total funding secured = \$374,319
 Year 2: 2/7 grant applications successful: Total funding secured = \$370,000
 Year 3: 2/10 grant applications successful: Total funding: \$441,991

Year 3

TITLE	FUNDING AGENCY	PI	PT KB Role	\$	RESULT
ANSWER 2 – A biologic decision aid for patients with rheumatoid arthritis	CIHR Catalyst	Dr. L. Li	KT support	\$96,991	Funded
Prospective Surveillance of arm morbidity in breast cancer rehabilitation	Canadian Cancer Society Research Institute	Dr. K Campbell	KT support Additional author	100,000	Awaiting result
Disseminating best practice recommendations for hip and knee arthroplasty rehabilitation	CIHR dissemination event	Dr. A Jones Dr. M Westby	KT support	250,000	Not funded
West coast Interprofessional Clinical Knowledge Evidence Disseminator (WICKED)	UBC Teaching and Learning Enhancement Fund 2013/14	Dr. A Greig	Co-applicant	51,342	Not funded
Prospective Surveillance in Breast Cancer Rehabilitation	Canadian Cancer Research Institute	Dr. K Campbell	Co-applicant	200,000	Not funded
Patient Oriented Guidelines Project	CIHR Meetings & Dissemination Grant	Dr. M. Dawes	Co-applicant	24,940	Not funded

PEOPLE first: Partnership to Enable Optimal Primary healthcare by Leveraging digital media in musculoskeletal health	CIHR	Dr. L. Li	KT support	24,770	Not funded
Improving Musculoskeletal Health and Mobility in Canadians: A Knowledge Translation Network using Digital Media to Make a Difference	CIHR	Dr. L. Li	KT support	200,000	Not funded
FEATHER: Functional Engagement in Assisted Therapy Through Exercise Robotics	NSERC	Dr. M Van der Loos	KT support	537,600	Not funded
FEATHERS: Functional Engagement in Assisted Therapy through Exercise Robotics	Peter Wall Solutions Initiative	Dr. M Van der Loos	KT support	384,000	Funded \$345,000
FEATHER: Functional Engagement in Assisted Therapy through Exercise Robotics	MSFHR Knowledge Translation Supplemental Funding	Dr M Van der Loos	KT Support	25,000	Not funded

4. EVALUATION OF THE IMPACT OF PT KB ROLE

In February 2013 a survey regarding the impact of the PT KB role was undertaken utilizing an online questionnaire. The invitation to participate was disseminated via email distribution lists of PABC, the UBC Dept. of PT academic and clinical faculty and the leaders of physiotherapy practice in health authorities throughout BC. A summary of the findings is provided below (full report available upon request).

- 248 responses:

- 76% clinicians, 8% administrators, 6% researchers, 4% educators, 5% other
- 67% Lower Mainland, 14% BC Interior; 9% Vanc Island; 4% Northern BC; 4% Fraser Valley; 2% other

- Involvement with the PT KB

- **51% worked directly with the PT KB**

- Reasons for not working with the PT KB included: not knowing or uncertain when to approach the PT KB for participation (41%); insufficient time to explore working with the PT KB (19%); role does not require collaboration with PT KB (5%); other – e.g. projects/resources not applicable to their area of practice, not knowing the role existed (23%)

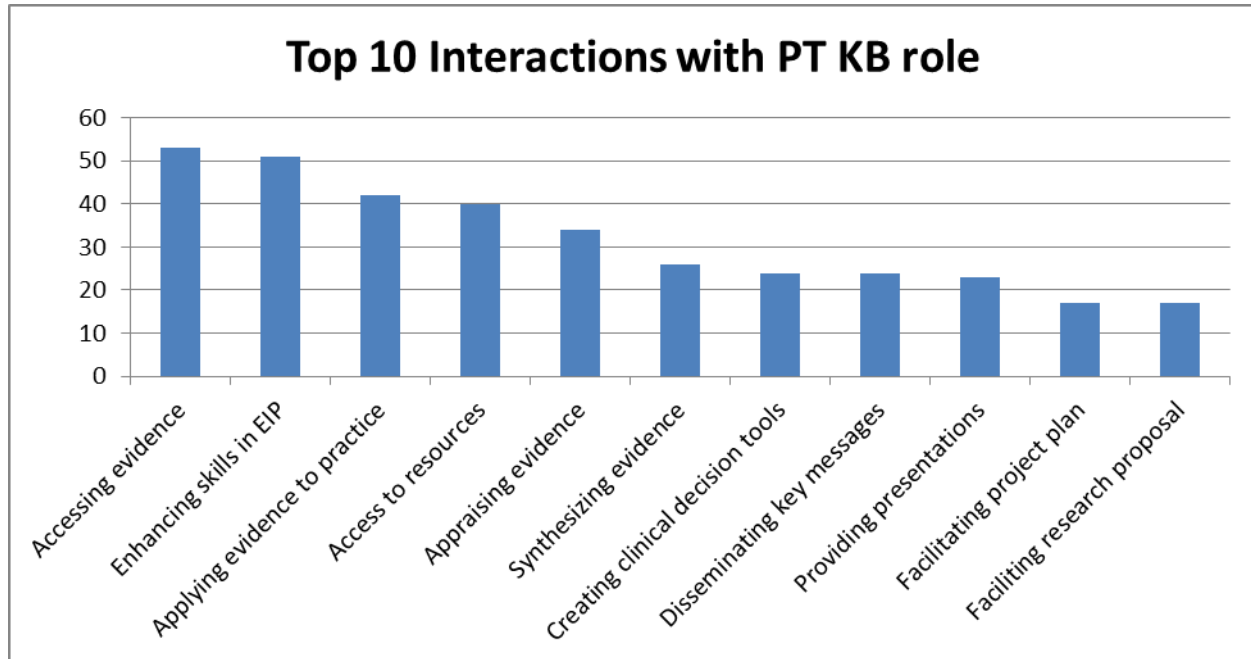
- Use of the resources developed by the PT KB

- **69% have used the resources** developed by the PT KB role

- Reasons for not using the resources included: not aware of what is available (38%); not relevant to their role (29%); resources relevant but did not meet their specific needs (19%); other – eg. Did not have time to be aware of what was available (26%)

- Specific use of the PT KB role

The following figure provides the 10 most common interactions with/use of the PT KB role (*note: 11 interactions are included in the graph as the final two received equal weighting by respondents):



Other less common interactions included: Facilitating the creation of a team (16%), facilitating feedback from stakeholders (16%), engaging stakeholder involvement (15%), developing key messages (13%), developing a knowledge translation plan (12%), and participating in a grant submission (9%) or ethics submission (8%).

- Impact of the PT KB role

- **54% of respondents stated that the PT KB role had a moderate or significant impact** on their work.

- Key messages from comments regarding perceptions of the impact of the role included:

- Important 'neutral bridge' between research and practice

- Significant impact on the PT profession in BC moving forward in multiple areas of practice

- Some areas of practice have not yet benefited from the development of specific resources

- Resources that have been developed are being used to guide patient care

- The activities and outcomes of the PT KB role help PTs in BC to feel confident/competent and to keep abreast of new developments

- There is a desire to make time to take better advantage of the resources

- The survey itself helped clarify exactly what the PT KB does

Stakeholder specific comments included:

- Researchers:

"As a researcher, I am well-schooled in the manner of how to present my scientific data but very poorly prepared to presenting this information to clinicians in an accurate and yet useable fashion. I have learned a lot from [the PT KB] about what is relevant to clinicians. She has also reinforced how invaluable their input is

to our research programs. If we as researchers are ever going to have an impact on health care for British Columbians, a knowledge broker with [this] skill set is absolutely essential.”

“Both end –of-grant and integrated knowledge translation is highly valued by all funding agencies. In the last several years it has been necessary to describe a strong and novel KT plan or process in grant proposals. The expertise of most of us researchers is on the scientific aspects of health research; therefore they benefit from the knowledge and assistance of a knowledge broker in defining a strong KT plan or process in the grant proposals in order to be successful in obtaining funding.”

- Decision makers:

“Having a KB has facilitated staff members to advance the evidence base to their practice with guidance and relative ease and access to information ... despite the difficulties and demands of patient care that often inhibit moving practice forward.”

“Extremely valuable to enhancing clinical practice, as well as motivating and supporting clinicians in doing research. This position definitely helps advance our practice during this period of increasing time constraints and cuts to budgets. Without it the clinicians and patients would be at a huge loss”.

- Clinicians:

“As a busy mom, I never seem to have time to review everything and to stay on top of it all. The PT Knowledge Broker is my new best friend!”

“It greatly helps my practice as a private clinician and in public service. So far the materials given are easy to understand and useable in my everyday practice.”

Implications: This position (1) assists PTs throughout the province and in many areas of practice to build their skills and knowledge in evidence-informed practice and (2) provides opportunities for teams of clinicians, researchers and decision-makers to work on projects together which make a meaningful contribution to clinical practice.

5. REQUESTS AND RECOMMENDATIONS

- **Extension of funding of the position:** The current funding agreement expires Dec 31, 2013. Given the evident needs as well as the extent and degree of impact of the activities and outcomes, renewal of funding for a further 5 year period is requested.
- **Establishment of a process for complementary funding needs:** The current funding structure is responsible for salary support only. A process needs to be identified to clarify procedures for securing additional support that is required for activities such as: conference participation (to present outcomes of the role), professional development, and project specific costs (such as the migration of the web app for the Tendinopathy Toolkit).
- **Vision for the future:** There is a need and opportunity for further enhancing KT in BC. It is recommended that an additional goal for year 4 (2013/14) of the PT KB position will be to explore the development of significant and sustained infrastructure for KT in BC - specifically a center for Knowledge Translation similar to that of the Li Ka Shing Institute in Ontario. This would require collaboration for a shared vision with multiple funders. This pursuit would be in synchrony with the CIHR Strategy for Patient-Oriented Research (SPOR).