Discussion Paper:

Advanced Practice Physiotherapy in Ontario

A Proposal for Registered Physiotherapist Extended Class – Musculoskeletal Example

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Table of Contents

1.0 EXECUTIVE SUMMARY

Ontario's health care system is currently undergoing transformation. As direct access primary health professionals, **physiotherapists are among the regulated health care providers well suited to respond to the health care needs of Ontarians in an evolving health care system**.

The combination of the evolution and growth of physiotherapy research, education and practice over the past few decades along with the current demands on our health care system, have been the impetus for **new emerging roles for physiotherapists in Ontario**. Physiotherapists across the province have already assumed advanced practice roles in a variety of health care settings. Similar to other professions, advanced practice initiatives in physiotherapy have largely been set up on a case-by-case basis at the institutional level. The process to date has been that physiotherapists with particular expertise have undertaken post-graduate interprofessional education and training to acquire additional skills and competencies. The core competencies and skill sets of physiotherapists combined with this additional training have enabled these practitioners to perform additional controlled acts (under medical directives or delegation) in fulfilling their new emerging roles as **"Advanced Practice Physiotherapists (APPs)**". Advanced Practice Physiotherapists can continue to practice using this approach of establishing medical directives at the level of the individual institution and practitioner. However, this presents tremendous burden on individual institutions to set up medical directives for each and every advanced practice clinician. Besides being cumbersome to implement, this process lacks provincial consistency and transparency for the public. To address these concerns, the Ontario Physiotherapy Association (OPA) set up a provincial task force to review the evidence and develop a discussion paper on the role of the Advanced Practice Physiotherapist (APP) in Ontario.

Recommendation 1: ***The Task Force recommends that a new class of registrants with the College of Physiotherapists of Ontario be established for Advanced Practice Physiotherapists. The proposed title for this class of registrant is: "Extended Class Physiotherapist" denoted PT(EC) for those physiotherapists who have additional competencies to work in advanced practice roles. This will allow for province-wide standards for competencies and portability of title.***

Legislative and regulatory changes are required in order to leverage existing human resources and enable all physiotherapists (i.e. entry level to practice) to maximize their contributions to the health and health care of Ontarians. **Changes to the current physiotherapy scope of practice and authorized acts for all physiotherapists are essential and form the basis upon which the extended class can be developed.** The requested changes at the entry level to practice are taught and evaluated as part of the current curricula of all 5 university programs in Ontario. Outlined in this document are both the required changes in regulation that apply to the entry level practitioner as well as those that will enable the proposed Advanced Practice Physiotherapists, registered as Extended Class Physiotherapists, to contribute to the maximum scope of their competencies. **These statutory changes are essential in order to provide consistent, high quality, evidence-based care in a manner that is transparent and best serves the needs of the public.**

Recommendation 2: ***The Task Force recommends that the current scope of practice and associated authorized acts for physiotherapists in Ontario be updated to reflect the current skills and competencies of the entry level practitioner. These changes will allow all physiotherapists to practice to the maximum of their skills and form the basis upon which the extended class can be developed.***

This discussion paper was written to provide a **framework for Advanced Practice Physiotherapy in musculoskeletal practice**, particularly as it relates to conservative and surgical management of osteoarthritis. Although written with a focus on musculoskeletal practice, it is hoped this document will provide a framework that can be used to develop similar models for Advanced Practice Physiotherapy in other areas (e.g. Neurology, Cardiorespiratory, General practice) and for broader consideration in terms of developing a consistent model for Advanced Practice Physiotherapy at a national level.

The **advantages of formalizing the role of the Advanced Practice Physiotherapist include economic benefit to the health care system**, **increased retention of physiotherapists, and improved access to specialized musculoskeletal care for Ontarians.**

2.0 INTRODUCTION

2.1 Scope of the Discussion Paper

At the current rate of escalation, linear projections suggest that health care costs in Ontario will consume the entire provincial operating budget by 2020. Cost is one of the many factors serving as a catalyst for rapid, immediate transformation of Health care in Ontario. Such changes include maximizing the use of existing health human resources and streamlining efficiencies to reduce costs while maintaining quality and improving access to health care in Ontario. This demands innovation and close collaboration among health care professionals to provide efficacious, effective, evidence-based care.

Physiotherapists are among the regulated health care providers well suited to respond to the health care needs of Ontarians in an evolving health care system. As direct access, primary health professionals, they are present in every stream of health care delivery in Ontario and provide assessment, health promotion, disease/injury prevention, rehabilitation and palliative care. Physiotherapists have extensive education and training in areas such as musculoskeletal, neurological and cardiorespiratory care and work collaboratively as a member of the client's health care team to minimize impairment and maximize activity, participation and quality of life.

The profession continues to evolve to meet the needs of the client, organizations and the health care system. One part of that evolution has been the emergence of advanced practice roles for physiotherapists especially in the clinical area of orthopaedics (musculoskeletal). Physiotherapists with particular expertise have undertaken post-graduate interprofessional education and training to acquire additional skills and competencies. This additional training has enabled them to perform additional controlled acts, under medical directives and/or delegation, in order to fulfill new emerging roles as Advanced Practice Physiotherapists (APPs). Such roles include triaging patients with musculoskeletal disorders to the appropriate care providers (i.e. conservative or surgical management of osteoarthritis) and to assist in the post-operative review and care of patients who have undergone total hip or knee replacement surgery.

Further development of the role and competencies of the Advanced Practice Musculoskeletal Physiotherapist in Ontario will go a long way to deal with the projected exponential increase in demand for musculoskeletal care as the "baby-boomers" age. The advantages of formalizing the role of the advanced practice physiotherapist include economic benefit to the health care system, increased retention of physiotherapists, and improved access to specialized musculoskeletal care for Ontarians.

The evolution and growth of physiotherapy research, education and practice, combined with the current demands on Ontario's health care system, have given rise to a situation where physiotherapists have already assumed advanced practice roles in a variety of health care settings. To date advanced practice initiatives in physiotherapy and other professions have largely been set up on a case-by-case basis at the institutional level. As these roles are not currently included in legislation related to physiotherapy practice,

delegation of additional controlled acts is required. This presents tremendous burden on individual institutions to set up medical directives for each and every advanced practice clinician. Besides being cumbersome to implement, this process lacks provincial consistency and transparency for the public we serve. To address these concerns, the Ontario Physiotherapy Association (OPA) set up a provincial task force to review the evidence and develop a discussion paper on the role of the Advanced Practice Physiotherapist (APP) in Ontario. This discussion paper has been prepared for use and consideration by the physiotherapy profession, other regulated health care professional associations, health care institutions, educators, regulators and policy makers such as the Ministry of Health. In addition to outlining the role and competencies of the APP we have included suggestions for legislative changes that would leverage existing human resources and enable all physiotherapists (i.e. entry level to practice) to maximize their contributions to the health and health care of Ontarians. Such statutory changes are essential in order to provide consistent, high quality, evidence-based care in a manner that is transparent and best serves the needs of the public. To this end, outlined in this document are both the required statutory changes in regulation that apply to the entry level practitioner (e.g. communicating a diagnosis) as well as those that will enable the proposed advanced practice physiotherapists who will be registered as extended class physiotherapists to contribute to the maximum scope of their competencies (e.g. ordering diagnostic tests)

The terms "Advanced Practice Physiotherapist (APP)" and "Extended Class Physiotherapist" have been used in describing this professional and the terms have slightly different meanings. The title "Extended Class Physiotherapist" denoted PT(EC) is being proposed as the protected title for physiotherapists with advanced clinical expertise who work beyond the traditional boundaries of physiotherapy in advanced practice roles. This classification has been proposed as it this term is already in use and familiar to regulatory agencies and the public (e.g. extended class nurse practitioners: RN(EC). The term "Advanced Practice Physiotherapist (APP)" is meant to describe a broader role that denotes not only an advanced clinical skill set, but also education, program development, critical appraisal, analytical, research and leadership skills that contribute to the knowledge, development and advancement of the physiotherapy profession. For the purposes of this document the term 'Advanced Practice Physiotherapist (APP)' will be used, except when referring to proposed legislative or statutory changes.

The profession has been considering the role of "specialization" for some time, and has released guidelines outlining the role of the clinical specialist in physiotherapy. The clinical specialist in physiotherapy demonstrates, within a particular clinical area, an advanced level of clinical reasoning, professional judgment and clinical skills which fall within the legislated scope of practice including specific controlled/restricted acts such as spinal manipulation and tracheal suctioning(1). Specialization and advanced practice are currently two distinct but complementary processes although they share competencies such as advanced clinical skills, professional judgment and clinical reasoning. These practices are not mutually exclusive nor are they in competition: one enhances the other. Both are on the continuum of physiotherapy practice, however the advanced practice

physiotherapist's role includes competencies that lead to the performance of additional controlled acts in the province on Ontario.

This document was written to provide a basis for advanced practice through changes to the scope and authorized acts for all physiotherapists in Ontario and a framework for advanced practice physiotherapy in musculoskeletal practice, particularly as it relates to conservative and surgical management of osteoarthritis, for reasons outlined later in this document. Although written with a focus on musculoskeletal practice, it is hoped this document will provide a framework that can be used to develop similar models for Advanced Practice Physiotherapy in other areas (e.g. cardio respiratory, neurology, general practice) and for broader consideration in terms of developing a consistent model for Advanced Practice Physiotherapy at the national level.

2.2 Background – Evolution of Practice towards Advanced Practice Roles for Physiotherapists

The Government of Ontario is moving forward with a transformation agenda that is designed to improve health care in Ontario. The Ministry of Health and Long Term Care (MOHLTC) has three main priorities (2):

- To improve the health of Ontarians;
- To reduce wait times; and
- To provide better access to care.

This initiative has been the major impetus for many significant, rapid changes in Ontario's health care delivery system. Realization of this agenda demands new, innovative approaches to health care delivery. Some of the current initiatives include:

- Family Health Teams (FHT) – a model of interprofessional, collaborative primary care,
- Wait times strategies – institutional and regional total joint replacement assessment centres, and
- HealthForceOntario – enabling health professionals to work to the full potential of their scope of practice and encourage expanded roles for health care providers - designed to maximize the potential of the health human resources currently working in Ontario.

Physiotherapists are self-regulated, autonomous health care professionals with established educational, practice, research and professional standards. As professionals who serve patients across the entire continuum of care (i.e. from primary prevention and conservative chronic disease management through to post-injury and post-operative rehabilitation), physiotherapists are positioned and well-prepared to play an integral role in this transformed health care system. Not only do 94% of licensed/registered physiotherapists in Ontario engage in direct patient care as their primary role (3), but they are also formally trained and tend to practice clinically in interprofessional, collaborative models of care.

In response to a referral from the Minister of Health and Long-Term Care of Ontario (Hon. George Smitherman) the Health Professions Regulatory Advisory Council (HPRAC) recently (April 2006) published their review entitled "Regulation of Health Professions in Ontario: New Directions". The report identified that a review of professions' scopes of practice and controlled acts was necessary because:

- they have not been reviewed since the proclamation of the RHPA in 1993,
- they needed to be updated to address the health human resource needs & to enable health professionals to practise to the maximum scope of their profession,
- they needed to be updated to address the use of new technologies,
- they need to address the barriers to collaboration and interprofessional practice.

The HPRAC report further suggested that consultations begin to explore the role of "physiotherapy orthopaedic specialists" in order to make recommendations to MOHLTC. This initiative is linked to the Ministry's priority to manage the wait lists for total hip and knee replacement surgery. Physiotherapists with advanced skills in orthopaedics are currently playing key roles in multidisciplinary assessment clinics and teams that have been formed to efficiently and effectively manage care (conservative and surgical) for individuals with osteoarthritis. These models of care have already been introduced out of necessity and pressure to manage total joint replacement wait lists. However, these initiatives are not fully supported within the current authorized acts of many of the professions providing the direct patient care. Thus, many of the activities performed within this interprofessional, collaborative model of care must be performed as delegated acts using medical directives. This results in significant expenditure of resources to develop delegation protocols within individual institutions, resulting in wide-ranging disparity in how these activities are delegated, no portability of title, no standardization of competencies, and may be confusing to the public. This issue was discussed by leaders with the physiotherapy profession at the "Evolving Physiotherapy Practice Forum" hosted by the College of Physiotherapists of Ontario on May 26, 2006. A decision was made that the Ontario Physiotherapy Association (OPA) would lead a task force to explore and develop a discussion paper on an "Advanced Practice Model for Physiotherapy in Ontario". The mandate was to explore evolving practice models in physiotherapy and make recommendations as to the necessary changes to the authorized acts that would enable physiotherapists and physiotherapists (extended class) to practice to the maximum scope of their capabilities.

A Task Force was formed with representation from the OPA, the Canadian Physiotherapy Association, the Ontario University Physical Therapy Academic Council , (representing the Ontario University Physiotherapy programs), the College of Physiotherapists of Ontario, and those with expertise in the area of advanced/extended practice models of care. The purpose of the task force was to provide overall strategic direction, to review the evidence and to develop the framework for advanced/extended physiotherapy practice in Ontario. While this paper presents a framework for advanced practice physiotherapy in musculoskeletal care, it is conceivable that as physiotherapists evolve further into more primary health care models of service delivery, similar advanced practice models may be

developed in other clinical areas such as generalist, cardiorespiratory and neurology for example.

The Task Force on behalf of Ontario Physiotherapy Association (OPA) presents this paper outlining a proposed model for advanced/extended practice for physiotherapists in Ontario with a focus on musculoskeletal practice. The proposed model will form the basis for discussions towards a provincial certification and title assignment (Physiotherapist Extended Class)[1] to allow portability of title, skills and competencies throughout Ontario and across the continuum of care for advanced physiotherapist practitioners.

2.2 Guiding Principles

The Proposed Framework for the Advanced Practice Physiotherapist (APP) was established based on the following guiding principles:

That the framework and role for the APP will promote:

- Responsiveness at the levels of the client, organization and the health system
- Timely, efficient access to evidence-based health care
- Effective interprofessional, collaborative models of care
- Creative, innovative strategies that make effective use of valuable health human resources
- Evidence-based practice and practice-based evidence
- Leadership, education and program development
- Research and translation of knowledge into clinical practice

That the framework and role for the APP will be:

- Flexible to enable changes in practice to accommodate implementation of new advances in knowledge and technology
- Based on competencies of an extended role for physiotherapists
- Founded on interprofessional education and evaluation of advanced physiotherapists' competencies
- Province-wide, allowing for portability of title across work environments and geographic areas
- Responsive to evolving health human resources demands
- A template for advanced practice models in other areas of clinical practice as these needs are identified

[1] The term "Advanced Practice Physiotherapist (APP)" refers to the title of the position within organizations, while the term "Physiotherapist Extended Class (PT(EC)) is the proposed protected title to be used for regulatory purposes.

Attributes or characteristics of an APP include:

- Extensive clinical experience with sound clinical judgement, analytical and decision-making skills
- Breadth and depth of knowledge, clinical skills, and expertise in the specified area of practice
- An understanding of the broader health care context and environment
- Effective communicator
- Collaborator who consults appropriately and effectively with clients, their families and other health care team members
- Self-directed – life-long learner who is able to self-evaluate areas of strengths and weaknesses
- Academic clinician/clinician scientist – a critical thinker who is able to analyze information and translate knowledge into clinical practice, contributes to development of new knowledge
- Professional – delivers high quality of clinical care in an ethical manner with integrity and honesty

2.3 Efficacy and effectiveness of Advanced Practice Physiotherapists

2.3.1 The International Experience

The concept of extended class practitioners is not new. The use of this category of practitioner has burgeoned since its documented origin in Exeter Health Authority (UK) in 1986 when specially trained physiotherapists were used as in a triage role for orthopaedic patients awaiting consultations with Orthopaedic Surgeons(4) Since then, the use of advanced practice physiotherapists has become strongly entrenched within the National Health System (NHS) in the United Kingdom (UK). The Chartered Society of Physiotherapy (CSP), the professional, educational and trade union body for the UK's 45,000 chartered physiotherapists, provides a clear description of extended scope physiotherapists (terminology used in the UK)(5). In the UK, extended role physiotherapists are clinical specialists with an extended scope of practice. This means that they can undertake duties such as ordering investigations (e.g. X-rays or blood tests) and can refer to other health care professionals. The UK also implemented in-hospital rapid response teams. These teams include a physiotherapist extended class in cardiorespiratory care who is able to order/administer inhalations, order/interpret chest x-rays and draw arterial blood gases (ABGs). More recently, this extended class of physiotherapists has spread to Scotland, Wales, Australia, and the United States.

In many countries, including Canada, physiotherapists function as primary care practitioners, meaning that patients have direct access to their care. Evaluation suggests that there exists public support for direct access to physiotherapy as 73% of individuals report that they would seek care from a physiotherapist without a physician's referral(6). Fundamental to the protection of the public is whether extended class physiotherapists, or other such practitioners, have the training and expertise to provide such primary care services. Evidence has clearly demonstrated that experienced physical therapists have

higher levels of knowledge in managing musculoskeletal conditions than medical students, physician interns and residents, and all physician specialists except for orthopaedists(7). Indeed the diagnostic accuracy of physical therapists for clients with musculoskeletal injuries is equally as good as that of orthopedic surgeons and significantly better than for non-orthopedic providers, when magnetic resonance imaging (MRI) was used as the gold standard(8). These skills enable physiotherapists to provide safe, effective musculoskeletal care in direct access or primary care models (9-13).

In terms of effectiveness, both uncontrolled(12-14) and randomized controlled(15) studies have consistently demonstrated that the use of extended class physiotherapists, such as in multidisciplinary assessment clinics to triage patients with orthopaedic conditions, provides timely comprehensive evaluation and care for patients. A controlled trial in the UK(15) demonstrated that extended role physiotherapists were equally as effective as sub-consultant surgical staff in their assessment and initial management of new referrals. However, patients seen by the physiotherapists had lower indirect hospital costs (likely associated with reduced ordering of radiographs or reduced referral for orthopaedic surgery) and reported greater levels of satisfaction with care. The use of extended role physiotherapists in these collaborative models of care have consistently demonstrated a 19 to 29 week reduction in waiting time for total hip and knee replacement surgery in the UK(16) (e.g. Aintree Hospital in Liverpool, Somerset Coast & Southampton NHS), Scotland, Wales, and Australia.

2.3.2 The Canadian Experience

In Canada, the Alberta Bone and Joint Institute has successfully implemented similar assessment clinics in Alberta and achieved a 29 week reduction (from 35 weeks down to 6 weeks) in wait time for the initial review with an orthopaedic surgeon, and a 42 week reduction (from 47 weeks down to 4.7 weeks) in wait time for surgery following the initial review.(17 2005, 18, 19) The significantly greater reduction in wait times achieved by the Alberta group may reflect the fact that only those patients deemed to be fit for surgery within 20 weeks are placed on the wait list. Though the role in this case was not an advanced practice role the data clearly demonstrate reduced wait times for patients triaged and the added value that physiotherapists bring to the management of conditions being referred to orthopaedic surgeons.

2.3.3 The Ontario Experience

The role of the advanced practice practitioner was first introduced in Ontario in 1995 with the development of the program to train physical and occupational therapists at the Hospital for Sick Children to become specialists in paediatric rheumatology(18, 19). Campos and colleagues (20) demonstrated that "…client and parent satisfaction with services provided by the physiotherapist practitioner is equal to the physicians in providing care and management." Since then, the program has expanded in scope to include training of advanced practice physiotherapists in adult rheumatology and

orthopaedics. This program, known as the Advanced Clinician Practitioner in Arthritis Care Program (ACPAC), was developed in response to the well-recognized need for an interdisciplinary approach to efficiently manage individuals presenting with osteoarthritis (OA) as well as in the early detection of rheumatoid arthritis (RA). This well-established program is now a partnership between the Hospital for Sick Children, St-Michael's Hospital, the Arthritis Society, the Department of Continuing Education at the University of Toronto and sponsorship from Amgen and Wyeth Pharmaceuticals. The ACPAC program offers an extensive curriculum, advanced competencies and stringent evaluation methodologies. The ACPAC program has now trained 13 advanced practice physical and occupational therapists who are currently practising throughout Ontario.

The MoHLTC has recently announced initiatives designed to improve access to key health care services by December 2006. A crucial component of this strategy is reducing wait times for total hip and knee replacements. This has resulted in hospitals and other institutions hiring physiotherapists to receive education and training towards assuming advanced practice roles within multidisciplinary teams to manage the care for individuals with osteoarthritis. The MoHLTC has requested that the Local Health Integration Networks (LHINs) in Toronto Central and Hamilton Niagara Haldimand Brant establish multidisciplinary total joint replacement assessment centres with a view to expanding this model across the Province of Ontario. Advanced practice physiotherapists will play a key role in the assessment clinics to screen out patients that do not require surgery and refer them on to the appropriate care provider for conservative management of their disease. For those patients who likely require total joint replacement, the APP will assist in assuring that all appropriate investigations (i.e. medical status, diagnostic imaging, ECG, laboratory measures etc.) are completed to facilitate review with an orthopaedic surgeon for surgical consult. This strategy will serve to improve access to total joint replacement surgery by enabling those without a general practitioner to access care, reducing access times for initial review, ensuring that all pre-operative medical screening tests are completed, screening out the 20-40% of patients who do not require surgery, and managing the post operative follow up of patients following surgery. This will leave the limited number of Orthopaedic Surgeons in Ontario(21) with more time to operate (Orthopaedic surgeons currently spend only about 1/3 of their time in the operating room(22)) and to follow up complex revision cases as they will spend less time screening and managing soft tissue and other non-surgical cases.

Several hospitals and organizations have hired physiotherapists with expertise in musculoskeletal assessment and care to work in these initiatives. To date, physiotherapists have been hired to be trained in APP roles in the Greater Toronto Area (University Health Network, the Holland Orthopaedic & Arthritic Centre, North York General Hospital), Hamilton (Hamilton Health Sciences) and Kingston regions. Each institution is currently establishing their own procedures to train and evaluate the competencies required by the APP for their particular institution. A standardized approach to training APPs would be beneficial as it is expected that the demand for the APP role will increase over the next decade. This will occur as musculoskeletal conditions are so common and their impact so pervasive that they are the leading cause of severe long-term pain and physical disability worldwide.(23) Osteoarthritis, a slowly

progressive disorder of unknown cause and obscure pathogenesis, is the most common musculoskeletal disorder. It is estimated that such conditions cost the Canadian Health care system between $16 and $23 billion annually. The combination of baby boomers entering their osteoarthritis years and life expectancies being steadily prolonged, the number of patients with disabling osteoarthritis is expected to double by the year 2020(24).

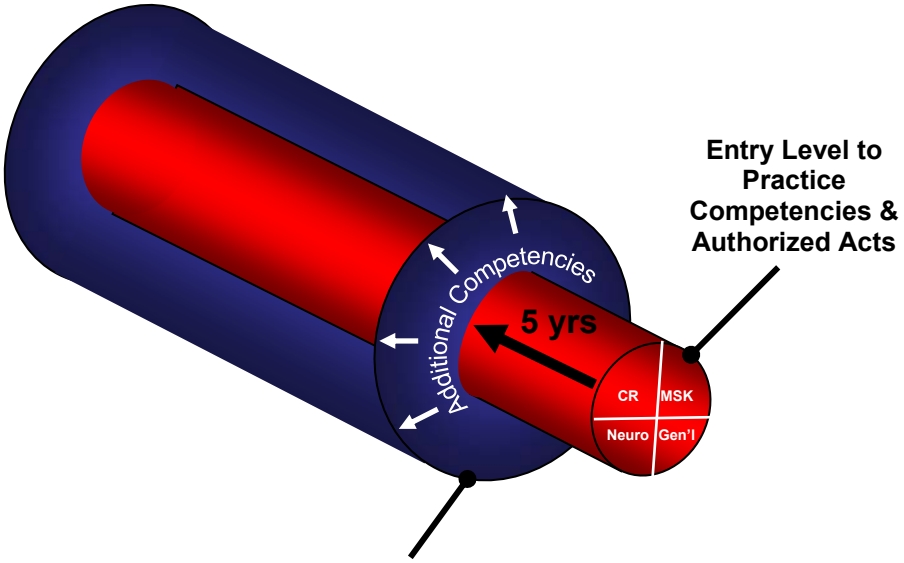
In order to address wait list issues, many institutions have begun to examine interdisciplinary collaborative models of care. A Kingston study examined the effectiveness of expanding the role of the physiotherapist in the out-patient orthopedic clinics to provide pre- and post-operative consultation to patients with hip and knee complaints in order to save surgeons' time, and improve patient through-put, thereby reducing wait times. A collaborative model of care was successfully implemented in these clinics. Results indicated that the clinical caseload for the surgeon was reduced by 30% pre-operatively and 70% post-operatively. This resulted in increased time for the surgeon to assess more new patients, to spend more time performing surgery, and reduced the length of wait lists. The Holland Orthopaedic and Arthritic has hired two Advanced Practice Physiotherapists (with imminent expansion to n=4) to work in assessment clinics screening and triaging patients with osteoarthritis preoperatively, as well as to manage their post-operative follow-up care. To evaluate the impact of the new APP role at Sunnybrook's Holland Orthopaedic & Arthritic Centre a 9-item satisfaction survey was administered to a sample of 123 patients reviewed post operatively. Satisfaction was high with no significant difference in patient satisfaction between the orthopaedic surgeon (n=60) and APP-led (n=63) patient care clinics.

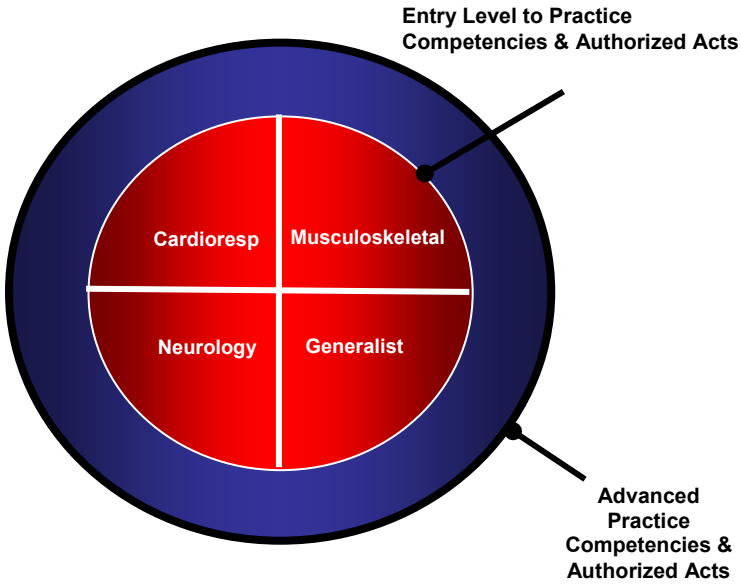
3.0 FRAMEWORK FOR ADVANCED PRACTICE PHYSIOTHERAPY

The framework for advanced practice physiotherapy in Ontario was developed by the Task Force with the understanding that it would:

- Be flexible enough to respond to health care needs – benefit the client, the organization and the health system
- Identify extended competencies required to respond to those needs
- Achieve those competencies through recognized advanced, interprofessional training programs
- Facilitate reasonable access to those education programs by physiotherapists throughout Ontario
- Include evaluation and certification of the program and/or individual practitioner that is recognized by the College of Physiotherapists of Ontario; and
- Result in advanced practice physiotherapists with portability of title (PT(EC)) and certification across the province and the continuum of health care system.

3.1 Graphic Depiction of Advanced Practice Physiotherapy (Extended Class Designation)





The graphic depiction of the Advanced Practice role is meant to depict the following concepts:

- that Advanced Practice Physiotherapists have additional competency requirements over and above the core competencies of the Entry to Practice Physiotherapist that lead to the performance of additional authorized acts within the RHPA

- that a minimum of 5 years of practice is required before a physiotherapist would undertake training for the additional competencies to become an Advanced Practice Physiotherapist
- that the potential areas for Advanced Practice may include: musculoskeletal, cardiorespiratory, neurology and general practice

4.0 ENTRY LEVEL PHYSIOTHERAPY PRACTICE

The entry level competencies for physiotherapists in Canada are described in the Essential Competency Profile for Physiotherapists in Canada (July 2004) and are further elaborated on in the curricula of each of the 13 University programs that deliver entry level education for physiotherapists in Canada. Each university program must satisfy the accreditation standards set by the Accreditation Council for Canadian Physiotherapy Academic Programs (ACCPAP). In most provinces, including Ontario, graduates must pass a rigorous national examination prior to being registered to practice as a physiotherapist. Physiotherapists practice either as a generalist or in one of three areas of: musculoskeletal, neuromuscular or cardiorespiratory clinical practice.

In Ontario physiotherapists are self-regulated under the Regulated Health Professions Act and the Physiotherapy Act of 1991. To enable entry-level physiotherapists to practice to the competency level to which they are currently educated and examined the following changes are required to the Physiotherapy Act, 1991.

4.1 Entry Level Physiotherapy Practice: Changes to the Current Scope of Practice Statement and Authorized Acts

As noted in the introduction to this discussion paper, efficiencies can be generated within the health system if professionals are allowed to work to the full extent of their scope of practice and competencies. The profession-specific act for physiotherapy has not been revisited since its drafting in the late 1980's. As the profession has evolved, the education and training of physiotherapists has changed from an undergraduate degree in physiotherapy to a professional master's degree. These changes reflect the evolution of skills and competencies of the profession that must be recognized within legislation in order to maximize the workforce of the over 6500 physiotherapists in Ontario.

Physiotherapists are currently trained and tested at entry level to demonstrate clinical skills and competencies that are not reflected in their scope statement and the authorized acts assigned to them within the Physiotherapy Act, 1991. At entry level, physiotherapists are skilled in performing diagnosis within their scope of practice, the debridment of wounds and burns, the titration of oxygen, and the treatment of incontinence.

Changes are proposed to the existing scope of practice statement and additional authorized acts are sought to reflect these skills and to remove barriers to access to these

needed services. These changes are intended to clarify that diagnosis of physical disorders and diseases and the above-stated skills have long been core competencies of Canadian physiotherapy educational programs and clinical practice.

The proposed scope statement is currently under review by the profession. One proposed wording to reflect the inclusion of diagnosis within the scope of physiotherapists is:

The practice of physiotherapy is the assessment of neuromuscular, musculoskeletal and cardiorespiratory systems to:

i). diagnose, treat and prevent disorders or diseases that cause or are associated with physical dysfunction, injury and/or pain
ii). develop, maintain, rehabilitate or augment function,
iii) relieve pain, or
iv) promote mobility and health

4.1.1 Current Authorized Acts for Entry Level Physiotherapists

Entry-level physiotherapists registered to practice in the Province of Ontario are currently authorized to perform the following controlled acts:

1. Moving the joints of the spine beyond a person's usual physiological range of motion using a fast, low amplitude thrust, and
2. Tracheal suctioning.

4.1.2 Proposed Additional Authorized Acts for Entry Level Physiotherapists

Given the current level of education and clinical training, it is recommended that entry level physiotherapists registered to practise in the Province of Ontario be authorized to perform the following four (4) additional controlled acts to reflect the skills and competencies taught and tested at entry level:

1. Communicating a diagnosis identifying a physical dysfunction, disease or disorder as the cause of a person's symptoms
2. Cleansing, soaking, irrigating, probing, debriding, packing, dressing a wound, inserting needles in subcutaneous tissue for myography, and performing other procedures below the dermis or a mucous membrane that are prescribed
3. Administering oxygen to maintain a patient's oxygen saturation level.
4. Putting an instrument, hand or finger beyond the labia majora or the anal verge for the purpose of assessment or treatment.

5.0 ADVANCED PHYSIOTHERAPY PRACTICE – EXTENDED CLASS

5.1 Extended Class Physiotherapists

Extended class physiotherapists working in a musculoskeletal setting require additional competencies and four (4) additional associated controlled acts to fulfill their expanded roles within the current health system.

In addition changes to the Physiotherapy Act will be needed to establish the extended class and the following additional authorized acts will need to be assigned to this class:

1. Setting or casting a fracture of a bone or a dislocation of a joint when:
   - the fracture or dislocation is of a bone or joint in an extremity, and
   - the fracture or dislocation is set without the use of surgical technique.

2. Applying or ordering the application of electricity for electromyography and nerve conduction studies.

   Ordering the application of:
   - electromagnetism for magnetic resonance imaging
   - sound waves for diagnostic ultrasound and
   - other forms of energy prescribed in regulations made under this Act.

3. Prescribing drugs designated in the regulations.

4. Aspirating fluid from a joint.

Changes will also be required to the Healing Arts Radiations Protection Act (HARP) (for ordering of x-rays) and the Laboratory and Specimen Collection Centre Licensing Act (for ordering of diagnostic laboratory tests) to implement a province wide extended class for musculoskeletal physiotherapists.

The task force recommends that the additional competencies related to these additional authorized acts be achieved through a recognized training program that is described later in this section.

5.1.1 Dimensions of Advanced Practice Physiotherapists

The task force recommends that the advanced practice physiotherapist in all clinical settings be based on demonstration of competence in each of three (3) dimensions of advanced practice:

Dimension One: Extended Diagnostics
Accesses extended diagnostic testing to assess a client's physical status, functional abilities

Dimension Two: Extended Therapeutics
Plans and implements extended treatment/therapeutic approaches as appropriate

Dimension Three: Extended Practice Consultation
Refers to specialist level physicians directly and participates in advancing best practices and knowledge translation

5.1.2 Elements and Performance Criteria for Advanced Practice in the Orthopaedic/Musculoskeletal Clinical Area

5.1.2.1 Dimension One: Extended Diagnostics

To diagnose a disease or disorder within the scope of practice, the advanced practice physiotherapist must :

- complete a comprehensive health assessment, including a complete medical history, biomechanical, physical and functional assessments
- modify the assessment based on medical history, clinical findings and the functional assessment
- use evidence-based clinical reasoning and objective outcomes to formulate a differential diagnosis
- determine the necessity for, and order from an approved list of screening and diagnostic laboratory tests and interpret the results for diagnosis or to monitor clients with a previously diagnosed disease, disorder or functional deficit
- determine the need for and order reports of X-rays, ECGs, EMGs, and diagnostic ultrasounds for diagnosis, or to monitor clients with a previously diagnosed disease, disorder or functional deficit, and
- communicate clinical findings and/or the diagnosis, the prognosis and treatment options for the existing condition

This dimension is demonstrated in the following elements:

Element 1: Orders diagnostic imaging as appropriate based on the findings of the physiotherapy assessment.

Performance Criteria: The physiotherapist has knowledge of the indications and contraindications for the following investigations and can apply the results of these tests as part of their assessment of the client: X-ray, computerized tomography (CT) Scan, Diagnostic Ultrasound, magnetic resonance imaging (MRI) and dual energy x-ray absorbtiometry analysis (DEXA).

Element 2: Orders diagnostic laboratory tests as appropriate based on the findings of the physiotherapy assessment.

Performance Criteria: The physiotherapist has knowledge of the indications and contraindications of the following investigations and can apply the results of these tests as part of their assessment of the client: complete blood count (CBC), comprehensive blood biochemistry panel, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and 12 lead resting electrocardiogram (ECG).

Element 3: Performs or orders the diagnostic evaluation that requires the application of electricity for electromyography (surface and indwelling electrodes) and nerve conduction tests

Performance Criteria: The physiotherapist has knowledge of the indications and contraindications of the following tests, the competency to order or perform the tests and can apply the results of these tests as part of their assessment of the client: Electromyography and nerve conduction tests.

Element 4: Aspirates fluid from a joint for diagnostic purposes

Performance Criteria: The physiotherapist has the knowledge of the indications and contraindication of aspirating a joint, the competency to complete the procedure and can apply the results of this test as part of their assessment of the client.

5.1.2.2 Dimension Two: Extended Therapeutics

Within their scope, the advanced practice physiotherapist will plan, initiate and manage the care of clients with diseases, disorders or functional deficits and monitor ongoing treatment of clients with a previously diagnosed chronic but stable disease, disorder or functional deficit by ordering evidence-based effective physical, pharmacological or complementary treatment/therapeutic interventions as appropriate. To meet this standard the advanced practice physiotherapist must:

- critically appraise and integrate current, relevant literature and research findings into clinical practice,
- apply pharmacological knowledge, including pharmacokinetics and pharmacodynamics when advising clients regarding prescription (from the approved list) and over the counter medications,
- inform the client or alternative and complementary therapies available,
- manage clients with chronic debilitating diseases, disorders and functional deficits, and
- evaluate the effectiveness of interventions using objective outcome measures

This dimension will be demonstrated in the following elements:

Element 1: Sets or casts a fracture of a bone or a dislocation of a joint within an extremity and when the treatment does not require surgical intervention

Performance Criteria: The physiotherapist has knowledge of the indications and contraindications for setting or casting a bone or dislocation, and has demonstrated the competencies required.

Element 2: Prescribe drugs as designated within regulations (oral and topical analgesics and analgesic agents, non-steroidal anti-inflammatories (NSAIDS), injectable formulations, corticosteroids)

Performance Criteria: The physiotherapist has knowledge of the indications, contraindications and drug interactions for the drug categories listed, and engages in the appropriate follow-up and discontinuation of the prescription.

Element 3: Discontinues prescriptions for narcotics when appropriate

Performance Criteria: The physiotherapist has knowledge of the indications and contraindications for the discontinuation of drugs within the narcotic category, discontinues the drugs appropriately and engages in the appropriate follow-up with the client.

5.1.2.3 Dimension Three: Extended Practice Consultation

The advanced practice physiotherapist will refer to the appropriate health care providers (including physician specialists) and participate in advancing best practices and knowledge translation. The advanced practice physiotherapist will be responsible for:

- establishing consultative relationships with physicians and other health care practitioners
- ensuring the other health care provider has access to the appropriate health information for the client
- confirming the PT(EC) and the other health care provider have a clear understanding of each other's responsibilities related to the client's care, and
- documenting the consultation and its outcome

This dimension will be demonstrated in the following elements:

Element 1: Refers clients directly to the appropriate specialist

Performance Criteria: The physiotherapist has knowledge of the indications for referral for interventions from other health care practitioners (including physician specialists) and communicates directly

with the other health care practitioner concerning the outcomes of the physiotherapy assessment, diagnosis and additional extended diagnostics.

Element 2: Participates and contributes to research related to evidence-based best practices and engages in knowledge translation activities

Performance Criteria: The extended practice physiotherapist demonstrates advanced clinical leadership skills; ability to interpret, initiate, design and/or participate in research activities related to best practices and engages in knowledge translation activities including teaching, dissemination of research/clinical case studies and mentorship.

6.0 EDUCATION

6.1 Program Components and Structure

Educational programs for the Advanced Practice Physiotherapist will be developed using existing applications and new components so the graduates will be eligible to be recognized by the College of Physiotherapists of Ontario for assignment as Physiotherapists (Extended Class) in the area of musculoskeletal care. These programs will include carefully designed and delivered educational opportunities in:

- ability to apply discovery, evidence and in-depth knowledge to musculoskeletal practice (assessment and management),
- advanced competencies aligned to the area of advanced musculoskeletal practice and examination of achievement of these designated competencies related to the authorized acts,
- enhancement of critical and analytical thinking and clinical judgement and decision making,
- inter-professional practice including, collaboration, triage/screening, communication, consultation and referral, and information management, and
- innovation in musculoskeletal practice to improve health service delivery.

These educational programs will be formatted into modular structure for time sensitive introduction and flexibility in delivery and evaluation while maintaining optimal standards for a course of study. This will allow for either full time or part time study and for selective refreshers courses once qualified and/or moving into a new practice situation. It is recommended that there be a minimum of four additional education modules (over and above entry level to practice): one addressing each of the dimensions of extended class competencies and one integrated practicum module. Modular curriculums can be completed within one year of full time study or up to three years of part time study. Educational modules will incorporate pedagogies for adult learners and include both formal knowledge acquisition at a graduate educational level and clinical internship in academically affiliated accredited institutions. With current graduate

expansion initiatives underway in Ontario, there are opportunities for universities to develop programs to educate Advanced Practice Physiotherapists.

Programs may be delivered by:

- An accredited university program with clinical internships within health care institutions
- Health care institutions affiliated with a university program

The Ontario University Physical Therapy Academic Council, consisting of the Chairs of the five University Physiotherapy programs, is supportive of the Advanced Practice Physiotherapy (APP) initiative. The Council supports the concepts, structure and framework discussed in this APP document and is committed to developing the curriculum and exploring options for delivery of educational programs for APPs. There are already well-established accreditation processes and vast experience educating and evaluating academic and clinical competencies of physiotherapists within the existing University programs that will help to insure high quality standards for this exciting APP role.

6.2 Pre-requisites for Entry Advanced Practice Musculoskeletal Program

The prerequisites for the program will include:

- Registration to practice physiotherapy in the Province of Ontario,
- Minimum of 5 years of full time experience in clinical practice with a minimum of 2 years of musculoskeletal practice,
- Assessment of readiness for collaborative learning in role enhancement by interview, and
- 3 letters of recommendation indicating positive potential for the Advanced Practitioner role.

6.3 Evaluation of the Candidate's Attainment of Competencies in the Advanced Practice Musculoskeletal Program

- Previous Learning Assessment (PLA) for components of the program may be considered to allow candidates to be assessed for prior learning for all modules except for the integrated practicum module. The educational institution offering the program may evaluate prior learning and allow candidates to sit the examination for the appropriate module.
- Formative and summative evaluation of the learner will be developed using existing validated methodologies for evaluation (i.e. objective structured clinical exams: OSCEs; clinical evaluation of knowledge, attitudes and behaviours, cased-based evaluations etc.). Examination must occur at the completion of each module.

Each program, to be recognized by the College of Physiotherapists of Ontario, must teach and examine the controlled acts included in the competencies identified as advanced practice for extended class physiotherapists.

Completion of the modules and the examinations of a recognized program will lead to eligibility to be registered with the College of Physiotherapists of Ontario, as a separate class of registration with the title 'Extended Class Physiotherapist'.

6.4 Continuing Competency

Continuing competency will be built into both the educational and practice model using existing academic continuing competency and evaluation practices and the Continuous Quality Management Program of the College of Physiotherapists of Ontario.

7.0 SUMMARY TABLES OF PROPOSED LEGISLATIVE CHANGES

Table 1. Summary of the Authorized Acts that require legislative changes under RHPA to enable both the Entry Level and Advanced Practice Musculoskeletal Physiotherapists PT(EC) to practise to their maximum capabilities.

ENTRY LEVEL PRACTICE (PT)	
Currently 2 Authorized Acts	1. Moving the joints of the spine beyond a person's usual physiological range of motion using a fast, low amplitude thrust. 2. Tracheal suctioning.
Requesting 4 Additional Authorized Acts	1. Communicating a diagnosis - identifying a physical dysfunction disease or disorder or a type of injury or pain as the cause of a person's symptoms. 2. Working below the dermis or a mucous membrane - Cleansing, soaking, irrigating, probing, debriding, packing, dressing a wound, inserting needles in subcutaneous tissue for myography, and performing other procedures below the dermis or a mucous membrane that are prescribed. 3. Administering oxygen to maintain a patient's oxygen saturation level. 4. Putting an instrument, hand or finger beyond the labia majora or the anal verge for the purpose of assessment or treatment.
ADVANCED MUSCULOSKELETAL PHYSIOTHERAPY PRACTICE PT(EC)	
Requesting 4 Additional Authorized Acts	1. Setting or casting a fracture of a bone or a dislocation of a joint (extremities only; do not require surgery). 2. Applying or ordering the application of electricity for electromyography and nerve conduction studies. Ordering the application of: • electromagnetism for MRI • sound waves for diagnostic ultrasound and • other forms of energy prescribed in regulations made under this Act 3. Aspirating fluid from a joint 4. Prescribing drugs designated in the regulations *

*** Proposed Drugs that may be prescribed by Registered PTs in the Extended Class:**

The following drugs are designated as drugs that may be prescribed by a member in the course of engaging in the practise of PT(EC) on the member's own responsibility for the purpose of pain control or to reduce inflammation:

- Topical or injectable amino-ester type local anaesthetics (e.g. Lidocaine, Procaine),
- Topical or injectable corticosteroids (e.g. Celestone, Soluspan),
- Non-steroidal anti-inflammatories (NSAIDS) (e.g. Naproxen, Piroxicam) or COX-2 Inhibitors (e.g. Celebrex),

- Hyaluronic acid preparations approved for osteoarthritic use (e.g. Hyalgan, Synvisc),
- Opiod pain medications (e.g. Oxycodone,Tramadol). To discontinue use of these medications (e.g.. post-operativefollow up careof total joint replacement patients) to switch to less potent and less addictive analgesic medications., and
- Any drug that may be purchased without a prescription.

Table 2. Summary of the Additional Amendments required to enable the Advanced Practice Musculoskeletal Physiotherapist PT(EC) to practise to their maximum capabilities.

ADVANCED MUSCULOSKELETAL PHYSIOTHERAPY PRACTICE	
Healing Arts Radiations Protection (HARP) Act - Ordering of x-rays	**Proposed X-rays that a PT(EC) could order**: Despite subsection (1), a person may operate an X-ray machine for the irradiation of the chest, the ribs, the spine (including the cervical, thoracic and lumbar spine), the shoulder, the elbow, the wrist, the hand, the pelvis, the hip, the knee, the leg, the ankle or the foot of a human being if the irradiation is prescribed by a member of the College of Physiotherapists of Ontario who holds an extended certificate of registration under the *Physiotherapy Act, 1991*.
Laboratory and Specimen Centres Collection Centre Licensing Act - Ordering of diagnostic laboratory tests	**Proposed List of Labs that a PT(EC) could order:** 1. Complete blood count (CBC) 2. Comprehensive blood biochemistry panel 3. C-reactive protein (CRP) 4. Erythrocyte sedimentation rate (ESR) 5. 12 lead resting electrocardiogram ECG
Public Hospitals Act Amendment to Reg. 96S S.11, 16, 24-26	• ability of PT(EC) to refer patients directly to a physician specialist (e.g. orthopaedic surgeon) • ability of PT(EC) to refer patients for rehabilitation at a hospital • ability of PT(EC) to register a patient seen in outpatient clinics in a hospital

8.0 CONCLUSIONS

The recent increase in the number of physiotherapists being recruited to Advanced Practice Physiotherapy positions throughout the Province of Ontario is evidence that there is a definite need and role for such health care providers. The issue is not whether there is a need or role for Advanced Practice Physiotherapist, but rather "how" these individuals are going to be enabled to practice within the Province. At present, APPs are able to function and provide care under medical directives and/or delegation since all controlled acts can be delegated under the Regulated Health Professions Act (RHPA). However, this situation is cumbersome in that each institution must set up and implement individual medical directives. Such a process lacks provincial consistency in terms of the educational training and the roles of the APP which may result in unnecessary confusion for the public.

To address this issue, we have presented for consideration a framework for Advanced Practice Physiotherapy in musculoskeletal practice. It is recommended that a new class of registrants be established by the College of Physiotherapists of Ontario for these practitioners. The proposed title for this class of registrant is: "Extended Class Physiotherapist" denoted PT(EC). In addition, changes to the physiotherapy scope of practice and the current authorized acts for all physiotherapists are essential to reflect current competencies and optimize the use of clinical skills at entry level. We believe that the proposed model and suggested legislative changes will serve to leverage scarce health human resources thus providing more timely access to specialized musculoskeletal care for Ontarians.

9.0 REFERENCES

1. **Canadian Physiotherapy Association.** Clinical Specialty Program Guidelines. May 2004 found at: http://www.physiotherapy.ca.
2. **Ministry of Health and Long-Term Care.** Wait Time Strategy: Better Access to Care; Public Information. 2006 Accessed at: www.health.gov.on.ca/transformation/wait_times/wt_strategy.html.
3. **College of Physiotherapists of Ontario.** Annual Report, 2005-2006.
4. **Byles SE and Ling RSM.** Orthopaedic outpatients - A fresh approach. *Physiotherapy* 75: 435-437, 1989.
5. **The Chartered Society of Physiotherapy.** Chartered physiotherapists working as extended scope practitioners (ESP): Guidance for members, 2003, p. 1-17.
6. **Snow BL, Shamus E, and Hill C.** Physical therapy as primary health care: public perceptions. *J Allied Health* 30: 35-38, 2001.
7. **Childs JD, Whitman JM, Sizer PS, Pugia ML, Flynn TW, and Delitto A.** A description of physical therapists' knowledge in managing musculoskeletal conditions. *BMC Musculoskelet Disord* 6: 32, 2005.
8. **Moore JH, Goss DL, Baxter RE, DeBerardino TM, Mansfield LT, Fellows DW, and Taylor DC.** Clinical diagnostic accuracy and magnetic resonance imaging of patients referred by physical therapists, orthopaedic surgeons, and nonorthopaedic providers. *J Orthop Sports Phys Ther* 35: 67-71, 2005.
9. **Hattam P and Smeatham A.** Evaluation of an orthopaedic screening service in primary care. *Clin Perform Qual Health Care* 7: 121-124, 1999.
10. **Mitchell JM and de Lissovoy G.** A comparison of resource use and cost in direct access versus physician referral episodes of physical therapy. *Phys Ther* 77: 10-18, 1997.
11. **Overman SS, Larson JW, Dickstein DA, and Rockey PH.** Physical therapy care for low back pain. Monitored program of first-contact nonphysician care. *Phys Ther* 68: 199-207, 1988.
12. **Weale AE and Bannister GC.** Who should see orthopaedic outpatients--physiotherapists or surgeons? *Ann R Coll Surg Engl* 77: 71-73, 1995.
13. **Hourigan PG and Weatherley CR.** Initial assessment and follow-up by a physiotherapist of patients with back pain referred to a spinal clinic. *J R Soc Med* 87: 213-214, 1994.
14. **Hockin J and Bannister G.** The extended role of a physiotherapist in an out-patient clinic. *Ann R Coll Surg Engl* 77 (2 Suppl): 71-73, 1995.
15. **Daker-White G, Carr AJ, Harvey I, Woolhead G, Bannister G, Nelson I, and Kammerling M.** A randomised controlled trial. Shifting boundaries of doctors and physiotherapists in orthopaedic outpatient departments. *J Epidemiol Community Health* 53: 643-650, 1999.
16. **NHS Modernisation Agency.** Improving orthopaedic services. A guide to clinicians, managers and service commissioners. 2002 found at: http://www.modern.nhs.uk/serviceimprovement/1339/1990/7700/Orthopaedics%20GidevFinal.pdf.
17. **The Alberta Bone and Joint Institute.** Interim Results Report. December, 2005 found at: http://www.albertaboneandjoint.com/PDFs/Int_Rep_Dec_19_05.pdf.

18. **Campos A, Graveline C, Ferguson JM, Lundon K, Schneider R, and Laxer R.** The Physical Therapy Practitioner: An Expanded Role for Physical Therapy in Pediatric Rheumatology. *Physiother Can* 53(4): 282-287, 2001.
19. **Campos A, Graveline C, Ferguson JM, Lundon K, Schneider R, and Laxer R.** Development of an Expanded Role for Physical Therapy in Paediatric Rheumatology: A 1-Year Pilot Project. Part II. *Physiother Can* 54(1): 32-36, 2002.
20. **Campos A, Graveline C, Ferguson JM, and et al.** The physical therapy practitioner (PTP) in pediatric rheumatology: High level of patient and parent satisfaction with services. *Physiother Can* Winter (2002): 32-36, 2002.
21. **Shipton D, Badley EM, and Mahomed NN.** Critical shortage of orthopaedic services in Ontario, Canada. *J Bone Joint Surg Am* 85-A: 1710-1715, 2003.
22. **Institute for Clinical Evaluative Sciences.** Urgency rating, waiting list management and patient outcomes monitoring for primary hip/knee joint replacement (Technical report). Toronto: Institute for Clinical Evaluative Science, 2000.
23. **Woolf AD and Pfleger B.** Burden of major musculoskeletal conditions. *Bull World Health Organ* 81: 646-656, 2003.
24. **Badley EM and Wang PP.** Arthritis and the aging population: projections of arthritis prevalence in Canada 1991 to 2031. *J Rheumatol* 25: 138-144, 1998.

10.0 ACKNOWLEDGEMENTS OF CONTRIBUTIONS

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