

Physical Therapists & The Performance of Dry Needling

An Educational Resource Paper

PRODUCED BY THE APTA DEPARTMENT OF PRACTICE AND APTA STATE GOVERNMENT AFFAIRS

JANUARY 2012



American Physical Therapy Association

PHYSICAL THERAPISTS & THE PERFORMANCE OF DRY NEEDLING

FORWARD

The issue of whether the performance of dry needling (sometimes referred to as trigger point dry needling or intramuscular manual therapy) is within the professional and legal scope of physical therapist practice continues to be a question posed to state regulatory boards and agencies. The American Physical Therapy Association (APTA) created this document to provide background information for state chapters, regulatory entities, and providers who are dealing with this issue.

APTA is the national professional association representing more than 80,000 physical therapists, physical therapist assistants, and students nationwide.

DRY NEEDLING BY PHYSICAL THERAPISTS

Dry needling (DN) is a skilled intervention used by physical therapists (where allowed by state law) that uses a thin filiform needle to penetrate the skin and stimulate underlying myofascial trigger points, muscular, and connective tissues for the management of neuromusculoskeletal pain and movement impairments. A trigger point describes a taut band of skeletal muscle located within a larger muscle group. Trigger points can be tender to the touch and can refer pain to distant parts of the body. Physical therapists utilize dry needling with the goal of releasing/inactivating the trigger points and relieving pain. Preliminary research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation.

Numerous terms have been used in conjunction with dry needling. Some of the more common terms include trigger point manual therapy, trigger point dry needling, and intramuscular manual therapy. While the term “intramuscular manual therapy” may be considered by some to be a more accurate description of dry needling when performed by physical therapists as the technique is closely associated with manual therapy, APTA recognizes that dry needling is the more widely accepted and utilized term. The term ‘intramuscular manual therapy’ should not be misinterpreted as an endorsement by APTA to bill dry needling utilizing the CPT code 97140 (manual therapy). Physical therapists should check with the insurance payor to see if it has issued any policies regarding billing of dry needling.

PHYSICAL THERAPY PROFESSIONAL ORGANIZATIONS POSITIONS ON DRY NEEDLING

To achieve a better understanding of the use of dry needling in the physical therapist profession nationally and internationally, APTA reached out to the following US organizations:

- Academy of Orthopaedic Manual Physical Therapists (AAOMPT)
- The Federation of State Boards of Physical Therapy (FSBPT)

In addition, APTA reached out to a number of international physical therapy organizations:

- Australian Physiotherapy Association (APA)
- Canadian Physical Therapy Association (CPA)
- United Kingdom Chartered Society of Physiotherapy

Two questions were asked by APTA of the organizations:

- 1) Have you adopted a formal or established an information statement on the use of dry needling? and,
- 2) Do you have a formal or informal process for including dry needling, or other “new” tests, measures, or interventions into your scope of practice for physical therapists/physiotherapists?

As to the first question, all groups either said “yes,” or indicated that they intentionally do not specify procedures in their scope but rather define the scope broadly. In each of those cases that did not specify but defined their scope broadly and, with the exception of the UK, they had subgroups or other documents that strongly implied or made it explicit that dry needling is performed and supported by the profession. The scope of practice in the UK would not exclude it.

The responses to the second question were more mixed; however, the majority continued to indicate that they had a process to define scope but not one that would specify procedures or interventions within the scope. See **Appendix A** for AAOMPT’s response, **Appendix B** for the FSBPT White Paper, and **Appendix C** for the responses from international organizations.

PHYSICAL THERAPIST EDUCATION

Physical therapists are educated at the doctoral level. As of January 1, 2016, the doctor of physical therapy degree (DPT) will be the required degree for all entry-level physical therapist education programs. As of year-end 2010 there are 213 accredited programs (of which 206 offer the DPT), there are 13 developing DPT programs, and there are 33,800 entry-level DPT graduates.

The education of physical therapists includes anatomy, histology, physiology, biomechanics, kinesiology, neuroscience, pharmacology, pathology, clinical sciences, clinical interventions, clinical applications, and screening. Much of the basic anatomical, physiological, and biomechanical knowledge that dry needling uses is taught as part of the core physical therapist education; the specific dry needling skills are supplemental to that knowledge. Currently dry needling is not specifically included in entry-level education for physical therapists; however some physical therapist education programs have begun including it in their curriculum.

PHYSICAL THERAPIST LICENSURE & REGULATION

Physical therapists in the United States are licensed and regulated in all 50 states and the District of Columbia. Licensure is required in each state in which a physical therapist practices and must be renewed on a regular basis, with a majority of states requiring continuing education or other continuing competency requirement for renewal.

Only those who “meet and maintain prescribed standards” established by the state’s regulatory board will, for the protection and benefit of the public, be allowed to profess their qualifications and provide their services to the public. The public is dependent upon the state to evaluate and affirm the qualifications for licensure of physical therapists.

The sole purpose of state licensure and regulation is public protection. Licensure laws are intended to ensure safe and competent practice by a regulated profession. Licensure laws also ensure that only individuals who have met certain prescribed criteria may publically refer to themselves as being a certain regulated profession. State regulation of health care providers is not intended to allow for one profession to claim sole ownership of a specific intervention or tool.

Physical therapists are governed by the physical therapy licensure law in the state in which they practice, along with any rules, regulations, positions, or interpretations adopted by the state licensure board. When a state’s practice act is silent on an issue or intervention, the determination of what constitutes practice “beyond the scope” of physical therapy is predominantly the responsibility of licensing board members. Scope of practice changes as contemporary practice evolves, and boards need the latitude to determine the appropriateness of physical therapy procedures as they relate to both established and evolving scope of practice.

CURRENT STATUS OF DRY NEEDLING IN PHYSICAL THERAPISTS’ LEGAL SCOPE OF PRACTICE IN THE STATES

A number of state physical therapy licensure boards have been asked whether or not dry needling is within the state’s physical therapy scope of practice. Most state licensure laws do not provide a laundry list of every specific intervention, tool, or modality that the regulated profession may, or may not, provide. Barring specific prohibitive language in the state’s physical therapy licensure statute, the performance of dry needling by a physical therapist may be determined by the state regulatory board to be allowed, provided that the physical therapist is competent to do so, and does not profess to be engaging in the practice of another profession. For example it would be inappropriate and a violation of state law for a physical therapist to refer to the performance of dry needling as “acupuncture” as acupuncture describes the scope of services and interventions provided by an acupuncturist. Conversely the performance of an intervention such as therapeutic exercise by an acupuncturist should not be referred to as “physical therapy” as “physical therapy” describes the services provided by a licensed physical therapist.

As of December 2012, states that have issued opinions affirming that dry needling is within the physical therapist scope of practice include, but are not limited to, Alabama, Colorado, the District of Columbia, Georgia, Kentucky, Maryland, Mississippi, Montana, Louisiana, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, *Oregon, South Carolina, Tennessee, Texas, Virginia, Wisconsin, and Wyoming. Five state boards — Idaho, New York, Pennsylvania, South Dakota, and Utah — have stated it is not within the scope of practice. It is not part of the scope of practice in Hawaii, as the Hawaii physical therapy statute contains language prohibiting physical therapists from puncturing the skin for any purpose.

It should be noted that a number of the state regulatory boards have stated that dry needling is within the physical therapist scope of practice provided that the physical therapist has the additional education and training to perform dry needling and is competent to do so. A number of state regulatory boards have adopted regulations or published guidelines outlining education and competency standards for physical therapists performing dry needling, including Virginia, Colorado, Mississippi, North Carolina, and the District of Columbia. Currently one state, Georgia, has dry needling specifically in its state’s physical therapy statute and is in the process of developing competency guidelines.

**Oregon has stated that it is likely with the scope of practice, however has advised licensee not to perform it until training and education can be determined.*

DISTINCTION BETWEEN PROFESSIONS' SCOPES OF PRACTICE

While the skills and services provided by a physical therapist are distinct, there are interventions, tools, and modalities contained within the physical therapist scope of practice that overlap with other professions, and vice versa. Health care education and practice have developed in such a way that most professions today share some procedures, tools, or interventions with other regulated professions. It is unreasonable to expect a profession to have exclusive domain over an intervention, tool, or modality. According to the publication "Changes in Healthcare Professions Scope of Practice: Legislative Considerations," no one profession actually owns a skill or activity in and of itself. One activity does not define a profession but it is the entire scope of activities within the practice that makes any particular profession unique. Simply because a skill or activity is within one profession's skill set does not mean another profession cannot and should not include it in its own scope of practice.

The practice of acupuncture by acupuncturists and the performance of dry needling by physical therapists differ in terms of historical, philosophical, indicative, and practical context. The performance of modern dry needling by physical therapists is based on western neuroanatomy and modern scientific study of the musculoskeletal and nervous system. Physical therapists that perform dry needling do not use traditional acupuncture theories or acupuncture terminology.

Similarities do exist in terms of dermal penetration with a solid filament needle (a tool) to varying depths within the body for therapeutic indications. The fact that needles are being used in the practice of dry needling does not mean that a state acupuncture board would automatically have jurisdiction over such practice. Most state laws governing the licensure of health care professions provide exemptions for other health care providers who are acting within their scope of practice, as long as providers do not refer to their services as anything but the profession for which they are regulated.

There are differences in the philosophy, rationale, and use in treatment of dry needling by physical therapists versus acupuncturists. According to the American College of Acupuncture and Oriental Medicine, the Master of Acupuncture & Oriental Medicine degree program is based on preserving the ancient theories, principles, and tenets of traditional Chinese medicine. The objectives and philosophy behind the use of dry needling by physical therapists is not based on ancient theories or tenets of traditional Chinese medicine. The performance of modern dry needling by physical therapists is based on western neuroanatomy and modern scientific study of the musculoskeletal and nervous systems.

SUMMARY RESEARCH REVIEW ON DRY NEEDLING

In 2011, APTA performed a synthesis and evaluation of the related literature. Based on specified search criteria 154 articles were identified. Articles were reviewed to determine those appropriate for individual expert review. Those articles excluded were: those educational in nature or with no research design or peer review process, such as lectures, posters, debates, or correspondences, or a Delphi study of practitioners (36); those not on topic such as electrical stimulation, needle injections without data pertinent to dry needling, or planned studies with no data (57); those without full text in English (2); those not on human subjects (5); those that had a newer version of the same study (2); and those that were summaries and systematic reviews or clinical reviews (6). The conclusions of the 6 summaries and systematic reviews or clinical reviews can be found as **Appendix D**.

The remaining 46 individual studies were reviewed by a member expert in research analysis using a standardized review form. The results of the review included 10 case reports ($n < 10$), 1 case series ($n \geq 10$), 12 observational studies, and 23 randomized controlled trials (RCT). These 46 studies were reviewed using a rating scale from 0-5, with 5 indicating the highest level of quality and highest level of support for dry needling. The median quality of the research was 3; the median support of dry needling was 2. Of the 23 RCTs, again using a rating scale from 0-5, with 5 indicating the highest level of quality and highest level of support for dry needling, the median quality of the research was 4; the median support of dry needling was 3. One case study of the 10 noted above was not included in the rating of the evidence. This case addressed an adverse event of a cervical epidural hematoma from dry needling performed by a physician.

NOTE

APTA will revise this document as new information and data becomes available and updates occur. For questions or comments regarding this document, please contact APTA State Government Affairs at advocacy@apta.org.

Appendix A – AAOMPT positions

AMERICAN ACADEMY OF ORTHOPAEDIC MANUAL PHYSICAL THERAPISTS (AAOMPT)

1. Have you adopted a formal or established an information statement on the use of dry needling? If so, would you be willing to share it with us?

Dry Needling:

(10/17/09)

POSITION: It is the Position of the AAOMPT Executive Committee that dry needling is within the scope of physical therapist practice.

SUPPORT STATEMENT: Dry needling is a neurophysiological evidence-based treatment technique that requires effective manual assessment of the neuromuscular system. Physical therapists are well trained to utilize dry needling in conjunction with manual physical therapy interventions. Research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation.

2. Do you have a formal or informal process for including dry needling, or other “new” tests, measures, or interventions into your scope of practice for physical therapists/physiotherapists? If so, would you share this process?

The AAOMPT Process is to delegate the review to our Practice Affairs Committee. In conjunction with the AAOMPT Staff, the committee will perform a review and send recommendations to the AAOMPT Board who will then determine how to proceed. If the Board chooses not to accept the recommendation to accept the Position, nothing else will happen. If the Board chooses to accept the recommendation to make a new Board Position, it will initially be acknowledged as an AAOMPT Board Position. The Board may (and typically does) bring these Positions forward to the general membership at our annual membership meeting (held in conjunction with our Annual Conference) where the membership is given the opportunity to make it an AAOMPT Position (i.e. the membership votes to approve the position).

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

FEDERATION OF STATE BOARDS OF PHYSICAL THERAPY

Intramuscular Manual Therapy (Dry Needling)

Resource Paper

Federation of State Boards of Physical Therapy
Contact Person – Leslie Adrian, PT, MS, MPA, Director of Professional Standards

3/8/2010

The Federation of State Boards of Physical Therapy would encourage review of the information in this resource paper in order to determine whether intramuscular manual therapy (dry needling) is within the scope of practice for a physical therapist for the jurisdiction in question. The information presented in this paper will provide some background and evidence on which the state licensing authority may wish to base the decision regarding scope of practice.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

Intramuscular Manual Therapy (Dry Needling) Resource Paper

Introduction

It is not unusual for a state licensing board to be asked for an opinion as to whether or not an evaluative technique, treatment, or procedure is within the scope of practice for that given profession. It is as important to base regulation on evidence, when possible, as it is to base practice on evidence. The Federation of State Boards of Physical Therapy would encourage review of the information in this resource paper in order to determine whether intramuscular manual therapy is within the scope of the physical therapist for the jurisdiction in question. The information presented in this paper will provide some background and evidence on which the state licensing authority may wish to base the decision regarding scope of practice.

State Boards are often faced with opposition when another professional group claims the activity in question as their own. However, it is very clear that no single profession owns any procedure or intervention. Overlap among professions is expected and necessary for access to high quality care.

One activity does not define a profession, but it is the entire scope of activities within the practice that makes any particular profession unique. Simply because a skill or activity is within one profession's skill set does not mean another profession cannot and should not include it in its own scope of practice.¹

The Federation of State Boards of Physical Therapy (FSBPT) collaborated with five other healthcare regulatory organizations to publish ***Changes in Healthcare Professions Scope of Practice: Legislative Considerations***. These organizations present the argument that if a profession can provide supportive evidence in the four foundational areas: Historical Basis, Education and Training, Evidence, and Regulatory Environment, then the proposed changes are likely to be in the public's best interest. A more developed investigation of the four foundational areas is found below.²

1. ***Is there a historical basis for adding the activity in question to the scope of practice?***
 - a. Has there been an evolution of the profession towards the addition of the new skill or service?
 - b. What is the evidence of this evolution?
 - c. How does the new skill or service fit within or enhance a current area of expertise?
2. ***Is there evidence of education and training which supports the addition of the activity in question to the scope of practice?***
 - a. Does current entry-level education prepare practitioners to perform this skill as their experience increases?
 - b. If the change in scope is an advanced skill that would not be tested on the entry-level licensure examination, how is competence in the new technique assured?
 - c. What competence measures are available and what is the validity of these measures?
 - d. Are there training programs within the profession for obtaining the new skill or technique?

¹ ***Changes in Healthcare Professions Scope of Practice: Legislative Considerations***. Revised 10/2009, page 9.

² Ibid, page 12-13.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

- e. Are standards and criteria established for these programs? Who develops these standards? How and by whom are these programs evaluated against these standards?
3. ***What is the evidence which supports the addition of the activity in question to the scope of practice?***
 - a. Is there evidence within the profession related to the particular procedures and skills involved in the changes in scope?
 - b. Is there evidence that the procedure or skill is beneficial to public health?
4. ***What is the regulatory environment in the jurisdiction?***
 - a. Is the regulatory board authorized to develop rules related to a changed or expanded scope?
 - b. Is the board able to determine the assessment mechanisms for determining if an individual professional is competent to perform the task?
 - c. Is the board able to determine the standards that training programs should be based on?
 - d. Does the board have sufficient authority to discipline any practitioner who performs the task or skill incorrectly or might likely harm a patient?
 - e. Have standards of practice been developed for the new task or skill?
 - f. How has the education, training and assessment within the profession expanded to include the knowledge base, skill set and judgments required to perform the tasks and skills?
 - g. What measures will be in place to assure competence?

Dry Needling- terms

The term dry needling itself may be confusing and have different meanings depending upon the audience. The term dry needling in the past was more generic, referring to the fact that nothing was injected with the needle; the term has evolved into being synonymous with trigger point dry needling. The World Health Organization (WHO) has published a number of reports on acupuncture. Specifically, the report discussing traditional medicine refers to dry needling in acupuncture, but in context, the reference is comparing needling alone with needling in conjunction with complements such as laser, TENS, and electro-acupuncture.³ The WHO report is not describing dry needling in the same context as intramuscular manual therapy or trigger point dry needling. Many of the World Health Organization's reports regarding acupuncture including "Acupuncture: Review and Analysis of Reports on Controlled Clinical Trials," do not contain the term dry needling at all.^{4 5 6} Beginning in 2009, the American Physical Therapy Association has recommended the use of the term "intramuscular manual therapy" to describe the intervention provided by physical therapists defined below.

Definitions

Intramuscular manual therapy is also known as dry needling, trigger point dry needling, or intramuscular needling.

- Intramuscular Manual Therapy (Dry Needling) is a technique used to treat myofascial pain that uses a dry needle, without medication, that is inserted into a trigger point with the goal of releasing/inactivating the trigger points and relieving pain⁷

³Report Second Consultation Meeting On Traditional And Modern Medicine: Harmonizing The Two Approaches. World Health Organization. April 2004. P. 7.

⁴Acupuncture: Review And Analysis Of Reports On Controlled Clinical Trials. World Health Organization.

⁵International Standard Terminologies on Traditional Medicine in the Western Pacific Region. World Health Organization

⁶Guidelines on Basic Training and Safety in Acupuncture. World Health Organization. 1996.

⁷Virginia Board of Physical Therapy Task Force on Dry Needling. Meeting minutes. March 2007.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

- Physical therapy is defined in the Federation of State Boards of Physical Therapy **Model Practice Act for Physical Therapy** as “the care and services provided by or under the direction and supervision of a physical therapist who is licensed pursuant to this [act]. The term “physiotherapy” shall be synonymous with “physical therapy” pursuant to this [act].”⁸
- Acupuncture definitions vary widely. Acupuncture is defined in the Delaware and Florida statutes as follows:

Acupuncture" refers to a form of health care, based on a theory of energetic physiology that describes and explains the interrelationship of the body organs or functions with an associated acupuncture point or combination of points located on "channels" or "meridians". Acupuncture points shall include the classical points defined in authoritative acupuncture texts and special groupings of acupuncture points elicited using generally accepted diagnostic techniques of oriental medicine and selected for stimulation in accord with its principles and practices. Acupuncture points are stimulated in order to restore the normal function of the aforementioned organs or sets of functions. Acupuncture shall also include the ancillary techniques of oriental medicine including moxibustion, acupressure or other forms of manual meridian therapy and recommendations that include oriental dietary therapy, supplements and lifestyle modifications according to the principles of oriental medicine.⁹

"Acupuncture" means a form of primary health care, based on traditional Chinese medical concepts and modern oriental medical techniques, that employs acupuncture diagnosis and treatment, as well as adjunctive therapies and diagnostic techniques, for the promotion, maintenance, and restoration of health and the prevention of disease. Acupuncture shall include, but not be limited to, the insertion of acupuncture needles and the application of moxibustion to specific areas of the human body and the use of electroacupuncture, Qi Gong, oriental massage, herbal therapy, dietary guidelines, and other adjunctive therapies, as defined by board rule.¹⁰

Professional Association/Regulatory Agency Specific Support

American Academy of Orthopedic Manual Physical Therapists: October 2009 position statement supporting intramuscular/dry needling as being within the scope of PT practice

- **Position:**

It is the Position of the AAOMPT that dry needling is within the scope of physical therapist practice.

⁸ The Model Practice Act for Physical Therapy. A Tool for Public Protection and Legislative Change. p. 1.

⁹ Delaware State Code. TITLE 24 Professions and Occupations. CHAPTER 17 MEDICAL PRACTICE ACT. Subchapter X. Acupuncture Practitioners

¹⁰ Florida State Code. Title XXXII Regulation of Professions and Occupations. Chapter 457 Acupuncture. 457.102

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

- **Support Statement:**

Dry needling is a neurophysiological evidence-based treatment technique that requires effective manual assessment of the neuromuscular system. Physical therapists are well trained to utilize dry needling in conjunction with manual physical therapy interventions. Research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation¹¹

American Physical Therapy Association: Current there are no HOD or BOD policies or official positions on intramuscular manual therapy and an internal staff task force is looking further in to the need for a policy. APTA recognizes that PTs are performing dry needling and that PTs who do it should have additional education and be competent to do so.

Federation of State Boards of Physical Therapy: Although the FSBPT Model Practice Act does not specifically mention intramuscular manual therapy there is nothing to specifically exclude the technique. The following section from the Model Practice Act would be relevant in the discussion regarding intramuscular manual therapy:

Other procedures that might be addressed in rules are whether physical therapists can use certain machines and perform procedures such as electroneuromyography, needle EMG, dry needling, etc. that are not specifically addressed in the statutory language.¹²

State Legislation: There are no state physical therapy practice acts that specifically mention intramuscular manual therapy; however, Hawaii's practice act specifically prohibits physical therapists from puncturing the skin. Although ambiguous as to the intent of the law regarding skin puncture by physical therapists overall, such as with EMG or other procedures, the Florida Physical Therapy practice act contains language which specifically excludes penetrating the skin in the performance of acupuncture:

"Practice of physical therapy" means the performance of physical therapy assessments and the treatment of any disability, injury, disease, or other health condition of human beings, or the prevention of such disability, injury, disease, or other condition of health, and rehabilitation as related thereto by the use of the physical, chemical, and other properties of air; electricity; exercise; massage; the performance of acupuncture only upon compliance with the criteria set forth by the Board of Medicine, when no penetration of the skin occurs;¹³

Current State Rulings (as of Feb 2010)

In 1989, Maryland became the first jurisdiction to allow intramuscular manual therapy. To date, fifteen licensing boards have issued interpretive opinions that intramuscular manual therapy is within the scope of physical therapy practice: AL, CO, DC, GA, KY, LA, MD, NM, NH, NJ, NM, OH, OR, SC, TX, VA, and WY. State boards of Arizona and Pennsylvania are legally not allowed to issue interpretations of the Physical Therapy Statutes, but have not restricted the use of dry needling.

¹¹ <http://aaompt.org/members/statements.cfm>

¹² Model Practice Act for Physical Therapy, p. 59.

¹³ Florida Statute. Chapter 468. Physical Therapy Practice.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

Five state boards (Idaho, Nevada, New York, North Carolina, and Tennessee) have specifically said that intramuscular manual therapy is not within the scope of practice of physical therapy and in Hawaii it is prohibited by statute as physical therapists are not allowed to puncture the skin of a patient. Some of the reasons for finding against including intramuscular manual therapy in the scope of practice of a PT include the procedure being invasive, the technique is within the scope of acupuncture, and the lack of inclusion in the US educational curricula.

Available Web-based Opinions on Intramuscular Manual Therapy

Jurisdiction	Opinion on Intramuscular Manual Therapy
Arizona	http://www.gemtinfor.com/physical-therapy/assets/files/arizona_letter.pdf
Colorado	A physical therapist must have the knowledge, skill, ability, and documented competency to perform an act that is within the physical therapist's scope of practice. <ol style="list-style-type: none"> 1. Completion of a minimum of 46 hours face-to-face IMS/Dry needling course study 2. Two years of practice as a licensed physical therapist http://www.dora.state.co.us/physical-therapy/rules.pdf
Maryland	http://www.gemtinfor.com/physical-therapy/assets/files/State_TDN_acceptance_letters/maryland.pdf
New Hampshire	http://www.gemtinfor.com/physical-therapy/assets/files/State_TDN_acceptance_letters/new_hampshire.pdf
New Mexico	http://www.gemtinfor.com/physical-therapy/assets/files/State_TDN_acceptance_letters/new_mexico.pdf
Nevada	http://www.gemtinfor.com/physical-therapy/assets/files/Nevada_Denial.pdf
Ohio	http://www.gemtinfor.com/physical-therapy/assets/files/Ohio_Dry_Needling_Letter.pdf
Virginia	Dry needling is an advanced skill requiring minimum of 54 hours of continuing ed. http://www.gemtinfor.com/physical-therapy/assets/files/State_TDN_acceptance_letters/Virgina_TDN_Letter.pdf
Wyoming	http://www.gemtinfor.com/physical-therapy/assets/files/State_TDN_acceptance_letters/2010_02_02_16_07_49.pdf

Intramuscular manual therapy is also accepted as being within the scope of physical therapy practice in many countries, including Australia, Belgium, Canada, Chile, Denmark, Ireland, the Netherlands, New Zealand, Norway, South Africa, Spain, and the United Kingdom, among others.

The Question of Acupuncture

Currently, some overlap exists between the physical therapy and acupuncture professions which can be demonstrated both in law and in practice. The Oregon statute definition of the practice of acupuncture includes many treatment interventions also found in the Federation of State Boards' **Physical Therapy Model Practice Act**. Additionally, the American Physical Therapy Association **Guide to Physical Therapist Practice** includes many of the procedural interventions listed in the Oregon acupuncture practice definition such as therapeutic exercise, manual therapy techniques including massage, electrotherapeutic modalities, physical agents and mechanical modalities.¹⁴

¹⁴ Guide to Physical Therapist Practice. 2nd ed. Phys Ther. 2001, 81:9-744.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

"Acupuncture" includes the treatment method of moxibustion, as well as the use of electrical, thermal, mechanical or magnetic devices, with or without needles, to stimulate acupuncture points and acupuncture meridians and to induce acupuncture anesthesia or analgesia.

(b) The practice of acupuncture also includes the following modalities as authorized by the Oregon Medical Board:

- (A) Traditional and modern techniques of diagnosis and evaluation;**
- (B) Oriental massage, exercise and related therapeutic methods;¹⁵**

"Practice of physical therapy" means:

- 1. Examining, evaluating and testing individuals with mechanical, physiological and developmental impairments, functional limitations, and disabilities or other health and movement-related conditions in order to determine a diagnosis, prognosis and plan of treatment intervention, and to assess the ongoing effects of intervention.**
- 2. Alleviating impairments, functional limitations and disabilities by designing, implementing and modifying treatment interventions that may include, but are not limited to: therapeutic exercise, functional training in self-care and in home, community or work integration or reintegration, manual therapy including soft tissue and joint mobilization/manipulation, therapeutic massage, prescription, application and, as appropriate, fabrication of assistive, adaptive, orthotic, prosthetic, protective and supportive devices and equipment, airway clearance techniques, integumentary protection and repair techniques, debridement and wound care, physical agents or modalities, mechanical and electrotherapeutic modalities, and patient-related instruction.¹⁶**

Acupressure is a complementary medicine technique derived from acupuncture. In acupressure physical pressure is applied to acupuncture points by the practitioner's hand, elbow, or with various devices. Clinically, physical therapists often utilize sustained, direct pressure for the relief of trigger points and pain.

The accepted premise must be that overlap occurs amongst professions. The question for the State Board should only be whether or not intramuscular manual therapy is within the scope of practice of physical therapy, not determining whether it is part of acupuncture.

PTs using intramuscular manual therapy:

- do not and cannot claim to practice acupuncture,
- do not use acupuncture traditional Chinese medicine theories, meridian acupoints and terminology,
- do not use acupuncture diagnosis like tongue and pulse

As demonstrated in the definition of the practice of acupuncture from the Oregon statute, needle techniques are only a piece of the acupuncturist's full scope of practice. It is not the specific individual procedures, but the totality of a scope which defines a profession. Acupuncturists and physical therapists continue to have unique scopes of

¹⁵ Oregon Revised Statutes. Chapter 677 – Regulation of Medicine, Podiatry and Acupuncture. 677.757 Definitions. 2009.

¹⁶ The Model Practice Act for Physical Therapy. A Tool for Public Protection and Legislative Change. 4th edition. Federation of State Boards of Physical Therapy. 2006.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

practice even with the overlap of some of the treatment techniques. It is completely reasonable for the acupuncture profession to want to protect the title and term *acupuncturist* or *acupuncture* as much as physical therapy profession protects *physical therapist* and *physical therapy*. Qualified, competent physical therapists that perform intramuscular manual therapy should not hold themselves out as providing acupuncture services. Qualified, competent acupuncturists instructing a client in traditional, oriental exercise should not hold themselves out as a physical therapist. Protection of titles and terms are important from a public protection stand point in that people need to be clear as to the qualifications of their practitioner of choice as well as his/her profession.

Historical Basis and Education (as of Feb 2010) APTA State Affairs memorandum on review of EMG in the states”

Although for a different purpose, physical therapists have a historical basis for needle insertion with the practice of EMG and NCV testing. At this time, law in 46 states would allow PTs to perform needle electromyography and nerve conduction velocity testing.¹⁷ Although the language and requirements vary, California, Florida, Kentucky, Missouri, New Hampshire, Oklahoma, Pennsylvania, Washington, and West Virginia have specific protection in statute for physical therapists to perform EMGs. North Carolina and Texas utilize administrative rule to authorize PTs to perform EMGs. An opinion from the Kentucky board specifically addresses EMG by fine wire insertion and affirms that these tests are within the scope of a physical therapist.¹⁸ South Carolina also has a statement regarding performance of needle EMG.¹⁹ The law in Oklahoma specifically defines the practice of physical therapy to include invasive and noninvasive techniques.

"Physical therapy" means the use of selected knowledge and skills in planning, organizing and directing programs for the care of individuals whose ability to function is impaired or threatened by disease or injury, encompassing preventive measures, screening, tests in aid of diagnosis by a licensed doctor of medicine, osteopathy, chiropractic, dentistry or podiatry, or a physician assistant, and evaluation and invasive or noninvasive procedures with emphasis on the skeletal system, neuromuscular and cardiopulmonary function, as it relates to physical therapy.²⁰

At this time, intramuscular manual therapy is not being taught in most entry level physical therapy programs with the exception of Georgia State University. Several other universities, including Mercer University, the University of St. Augustine for Health Sciences, and the Ola Grimsby Institute are considering adding intramuscular manual therapy to the curriculum of both the advanced and entry level educational programs. Intramuscular manual therapy is already included in the Mercer University physical therapy residency program. Internationally, intramuscular manual therapy is being taught at many universities. In most educational programs for physical therapists, the needling technique is learned in conjunction with evaluation of the myofascial trigger points and used as a part of the patient’s overall treatment plan.

The Commission on Accreditation of Physical Therapy Education (CAPTE) criteria requires the physical therapist professional curriculum to include content and learning experiences in the behavioral, biological and physical, and

¹⁷ American Physical Therapy Association. State Affairs memorandum on review of EMG in the States.

¹⁸ <http://www.pt.ky.gov/NR/rdonlyres/4D460291-23A1-43E3-AFF3-DEE7506DF149/0/Electromyography.pdf>

¹⁹ <http://www.ljr.state.sc.us/POL/PhysicalTherapy/index.asp?file=PT%20Positions/electro.htm>

²⁰ State Of Oklahoma Physical Therapy Practice Act. Title 59 O.S., Sections 887.2

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

clinical sciences necessary for initial practice of the profession.²¹ The entry level curriculum must demonstrate inclusion of many topics which should provide a strong foundation to the understanding and performance of intramuscular manual therapy such as anatomy/cellular biology, physiology, neuroscience, pathology, pharmacology; study of systems including cardiovascular, pulmonary, integumentary, musculoskeletal, and neuromuscular; communication, ethics and values, teaching and learning, clinical reasoning, and evidence-based practice.

Intramuscular manual therapy education purposefully does not include the basic tenets of acupuncture training such as Chinese medicine philosophy, meridians, *qi*, or diagnosis via tongue inspection, as the technique and its rationale have no basis in oriental medicine. Intramuscular manual therapy is based primarily on the work of Dr. Janet Travell, a pioneer in trigger point research and treatment. According to the World Health Organization's **Guidelines on Basic Training and Safety in Acupuncture**, the basic study of acupuncture should include:²²

- Philosophy of traditional Chinese medicine, including but not limited to concepts of *yin-yang* and the five phases.
- Functions of *qi*, blood, mind, essence and body fluids, as well as their relationship to one another.
- Physiological and pathological manifestations of *zang-fu* (visceral organs) and their relationship to one another.
- Meridians and collaterals, their distribution and functions.
- Causes and mechanisms of illness.

Overwhelmingly, physical therapists are getting instruction in intramuscular manual therapy through continuing education. The following is a partial list of common continuing education courses offered on the topic:

Course Title	Education Sponsor	Website`	Description
Trigger Point Dry Needling Level 1	Therapy Concepts	http://www.therapyconceptsinc.com/events.php#2	This three day course introduces Trigger Point Dry Needling as an intervention for treating a variety of diagnoses. In the Level I course participants are introduced to the theory and physiology of myofascial trigger points, and the history of dry needling. Anatomy of each muscle will be reviewed, including the trigger points and their corresponding referral patterns. The muscle groups included in the level I course are the cervical and lumbar spine, hip, lower extremity, shoulder and forearm. This course be limited to 20 participants and attendees will need to provide a current CV with continuing education courses listed, and a copy of their license, in

²¹ Commission on Accreditation for Physical Therapy Education. Accreditation Handbook. Effective January 1, 2006; revised 5/07, 10/07, 4/09 p. B28-B29.

²² **Guidelines on Basic Training and Safety in Acupuncture.** World Health Organization. 1996. Pages 7-8.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

			order to be considered for participation in this course. All participants must have a minimum of 2 years of experience.
Trigger Point Dry Needling Level 2	Therapy Concepts	http://www.therapyconceptsinc.com/events.php#2	This three day course is a continuation of the Level 1 course and consists of a combination of lecture, testing, demonstration and a large amount of hands-on laboratory sessions. This course will address the anterior neck, head and face, thoracic spine and rib cage, hand, foot and other more challenging musculature. Get the full course description by clicking on the link below. NOTE: the Friday portion of the course will be held from 12 noon until 8 pm, the Saturday and Sunday portion will be from 8 am to 5 pm. All three days will have meal breaks that are on your own.
Systemic Integrative Dry Needling Course Pain Management, Sports and Trauma Rehabilitation		http://www.dryneedlingcourse.com/dry_needling_course.htm	100 hour home study and 3-day very intensive very practical seminar
Trigger Point Dry Needling Level I Training	GEMt – Global Education for Manual therapists	www.kinetacore.com .	An introductory course for evaluation and treatment of neuromyofascial pain and dysfunction present in the acute and chronic population. Instruction will include evaluation and application of dry needling of neuromyofascial trigger points for musculature which is considered appropriate at the introductory level of training. This three day course (27.5 contact hours) consists of a combination of lecture, testing, demonstration and a large amount of hands-on laboratory sessions. Trigger point dry needling (TDN), will be presented as a tool to evaluate and treat the neuromuscular system. Both the Gunn and Travell & Simons' techniques will be discussed and demonstrated. Supporting research will be presented and discussed. Treatment safety will be evaluated throughout the course.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

Dry Needling Level 2 Training	Global Education for Manual therapists	www.kinetacore.com	An advanced course which builds upon the techniques learned in the Level I course. Participants are required to take the introductory Level I course and fulfill specific requirements prior to becoming eligible for this course. Topics to be covered include advanced musculature and extensive techniques, application of techniques for specific diagnoses, and further review of supporting research (27.5 contact hours).
Dry Needling	Myopain Seminars	www.myopainseminars.com	Multiple level seminars on dry needling. 104 hours of training, followed by theoretical and practical examinations

Intramuscular Manual Therapy Evidence-based Practice:

There are numerous scientific studies to support the use of dry needling for a variety of conditions.²³ Supporting textbooks include:

- Dommerholt J, Huijbregts PA, Myofascial trigger points: pathophysiology and evidence-informed diagnosis and management Boston: Jones & Bartlett 2011
- *The Gunn approach to the treatment of chronic pain*. Gunn, C.C., Second ed. 1997, New York: Churchill Livingstone.
- *Travell and Simons' myofascial pain and dysfunction; the trigger point manual*. Simons, D.G., J.G. Travell, and L.S. Simons, 2 ed. Vol. 1. 1999, Baltimore: Williams & Wilkins.

A literature search regarding intramuscular manual therapy or dry needling yields extensive results. Numerous research studies have been performed and published in a variety of sources. In addition to the references contained in this paper, the following is just a small sample:

- Dommerholt, J., O. Mayoral, and C. Gröbli, *Trigger point dry needling*. J Manual Manipulative Ther, 2006. **14**(4): p. E70-E87.
- Lewit, K., *The needle effect in the relief of myofascial pain*. Pain, 1979. **6**: p. 83-90.
- Intramuscular Stimulation (IMS) - The Technique By: C. Chan Gunn, MD (<http://www.istop.org/papers/imspaper.pdf>)
- Dommerholt, J., *Dry needling in orthopedic physical therapy practice*. Orthop Phys Ther Practice, 2004. **16**(3): p. 15-20.

²³ Dommerholt, J., O. Mayoral, and C. Gröbli, *Trigger point dry needling*. J Manual Manipulative Ther, 2006. **14**(4): p. E70-E87.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

- 42. Baldry, P.E., *Acupuncture, Trigger Points and Musculoskeletal Pain*. 2005, Edinburgh: Churchill Livingstone.
- Dommerholt, J. and R. Gerwin, D., *Neurophysiological effects of trigger point needling therapies*, in *Diagnosis and management of tension type and cervicogenic headache*, C. Fernández de las Peñas, L. Arendt-Nielsen, and R.D. Gerwin, Editors. 2010, Jones & Bartlett: Boston. p. 247-259.
- Simons, D.G. and J. Dommerholt, *Myofascial pain syndrome - trigger points*. J Musculoskeletal Pain, 2007. **15**(1): p. 63-79.
- Furlan A, Tulder M, Cherkin D, Tsukayama H, Lao L, Koes B, Berman B, *Acupuncture and Dry-Needling for Low Back Pain: An Updated Systematic Review Within the Framework of the Cochrane Collaboration*. Spine 30(8): p. 944-963, 2005.
- White A, Foster NE, Cummings M, Barlas P, *Acupuncture treatment for chronic knee pain: a systematic review*. Rheumatology (Oxford) 46(3): p. 384-90, 2007.
- Chu, J., et al., *Electrical twitch obtaining intramuscular stimulation (ETOIMS) for myofascial pain syndrome in a football player*. Br J Sports Med, 2004. **38**(5): p. E25.

Typically the literature refers to dry needling or acupuncture, and in some cases specifically looks at the effectiveness of acupuncture and dry needling, suggesting indeed that a difference exists.²⁴ Overall, the literature suggests and supports intramuscular manual therapy as a safe, effective, viable treatment option for patients.

Public Protection

Intramuscular manual therapy has been practiced by physical therapists for over 20 years with minimal numbers of adverse effects reported. The most common side effects include post-needling soreness and minor hematomas. The Federation of State Boards of Physical Therapy's Examination, Licensure, and Disciplinary Database (ELDD) has no entries in any jurisdiction of discipline for harm caused by intramuscular needling performed by physical therapists.

Many American providers of intramuscular manual therapy, with multiple course providers in Europe, have established a voluntary web-based registry for reporting adverse effects. This registry currently includes two reports of pneumothoraces, a severe autonomic response of one patient, but no other "severe" side effects.²⁵ Additionally, the literature does not report serious injury or harm from intramuscular needling performed by a physical therapist.

Conclusion

Returning to the four tenets from ***Changes in Healthcare Professions Scope of Practice: Legislative Considerations*** on which to base scope of practice decisions and summarizing the information above, it appears that there is a historical basis, available education and training as well as an educational foundation in the CAPTE criteria, and supportive scientific evidence for including intramuscular manual therapy in the scope of practice of

²⁴ Furlan A, Tulder M, Cherkin D, Tsukayama H, Lao L, Koes B, Berman B, *Acupuncture and Dry-Needling for Low Back Pain: An Updated Systematic Review Within the Framework of the Cochrane Collaboration*. Spine 30(8): p. 944-963, 2005.

²⁵ Dummerholt, J., Unpublished data. January 2010.

Appendix B – Federation of State Boards of Physical Therapy (FSBPT)

physical therapists. The education, training and assessment within the profession of physical therapy include the knowledge base and skill set required to perform the tasks and skills with sound judgment. It is also clear; however, that intramuscular manual therapy is not an entry level skill and should require additional training.

When considering the scope of practice decision, the regulatory environment in each jurisdiction will vary dramatically. However, recognizing that intramuscular manual therapy is not an entry level skill, the jurisdictional boards that are authorized to develop rules related to determining if an intervention is within scope of practice must determine the mechanisms for determining that a physical therapist is competent to perform the task. To ensure public protection the board should also have sufficient authority to discipline any practitioner who performs the task or skill without proper training, incorrectly, or in a manner that might likely harm a patient.

Appendix C – International positions

INTERNATIONAL PHYSICAL THERAPY/PHYSIOTHERAPY ORGANIZATIONS

Australian Physiotherapy Association (APA)	2
Australian Physiotherapy Association Position Statement: Scope of Practice	3
APA Position Statement: Skin Penetration	8
Canadian Physical Therapy Association (CPA)	9
Acupuncture and the Use of Dry Needling in Physiotherapy	10
Irish Society of Chartered Physiotherapists (ISCP): Draft Guidelines for Safe Dry Needling	12
United Kingdom (UK)	81

Appendix C – International positions

AUSTRALIAN PHYSIOTHERAPY ASSOCIATION (APA)

E-mail Response

01 July 2010 the Australian National Registration and Accreditation Scheme was introduced. This resulted in 98 different state based registration / regulatory authorities merging into 10 profession boards: Physiotherapy, Chiropractic, Medicine, Dentistry, Nursing and Midwifery, Psychology, Podiatry, Osteopathy, Pharmacy, Optometry.

This required national agreement from all 8 state and territory parliaments and Federal Parliament and involved two years of consultation and cross profession agreement. Further information on the national registration scheme can be found at the Physiotherapy Board of Australia website <http://www.physiotherapyboard.gov.au/>

Our new registration law is quite different to how physical therapy is regulated in the US. We do not regulate practice (except in the one very specific case of cervical spine manipulation) but rather regulate the use of title. Therefore it is illegal for anyone other than a registered physiotherapist call themselves a physiotherapist (or physical therapist) but it is not illegal for anyone to undertake treatment modalities which would probably be widely understood to be physiotherapy treatments e.g.: the use of electrotherapy, spinal mobilization, exercise prescription etc. Similarly there is no restriction (within the registration acts – there may be restrictions within other legislation) on physiotherapists expanding their scope of practice in areas traditionally undertaken by others e.g. dry needling, joint injections, prescribing, ordering of pathology / radiological tests etc.

From July 2012 Chinese Medicine will become a registered profession in Australia. After this time a physiotherapists will still be able to use acupuncture and dry needling techniques but will not be able to call themselves an Acupuncturist unless they have either registration with the Chinese Medicine Board or endorsement of their physiotherapy registration for the use of this title (to get this they will need to have undertake post graduate training).

So in relation to your specific questions:

1. Have you adopted a formal or established an information statement on the use of dry needling? If so, would you be willing to share it with us?

No.

However we do have an Acupuncture and Dry Needling National Group so one could infer from that that we consider this to be part of the physiotherapy scope of practice. It is our fourth largest national group behind musculoskeletal, private practice and sports.

We have a Position Statement on Skin Penetration which I have attached.

2. Do you have a formal or informal process for including dry needling, or other “new” tests, measures, or interventions into your scope of practice for physical therapists/physiotherapists? If so, would you share this process?

No.

We very deliberately try not to get into this area. The APA believes it is inappropriate to list the activities which are considered either within or outside the current scope of practice. Our position is that physiotherapists may practice any activity that falls within the broad scope of physiotherapy providing that they are appropriately educated, trained, credentialed and competent to practice.

However physiotherapists working in new and innovative roles must at all times be able to demonstrate how their activities align with the professional practice of physiotherapy.

Appendix C – International positions

I have attached our position statement on Scope of Practice which explains this in more detail.

Australian Physiotherapy Association Position Statement: Scope of Practice

Approved: October 2009

Due for review: 2014

Background

Australia's health system is in need of reform in order to meet a range of long-term challenges, including timely access to services, the growing burden of chronic disease, the ageing population and the costs of emerging new health technologies.

A review of the workforce is critical to the success of any health reform agenda. Any changes to our workforce scope of practice should be focussed on maximising the use of existing human resources, streamlining efficiencies to reduce costs while maintaining quality, and improving access to health care for all Australians.

The 1995 Report of the Pew Health Professions Commission, Taskforce on Healthcare Workforce Regulation (Pew Commission Report) defined scope of practice as:

Definition of the rules, the regulations, and the boundaries within which a fully qualified practitioner with substantial and appropriate training, knowledge, and experience may practice in a specifically defined field. Such practice is also governed by requirements for continuing education and professional accountability.

The terms 'extended scope practice' and 'advanced scope practice' are often used interchangeably which leads to some confusion when discussing these issues. Unfortunately there are no agreed definitions within health professions in Australia regarding how these terms are defined. The Australian Physiotherapy Association (APA) supports the following definitions:

Advanced Scope of Practice - A role that is within the currently recognised scope of practice for that profession, but that through custom and practice has been performed by other professions. The advanced role may require additional training as well as significant professional experience and competency development.

Extended Scope of Practice – A role that is outside the currently recognised scope of practice and one that requires some method of credentialing following additional training, competency development and significant professional experience, as well as legislative change.

Scope of practice is often limited to that which the law permits for specific education and experience, and specific demonstrated competency, but is also often restricted by local custom and practice. The Productivity Commission report 'Australia's Health Workforce'¹ promoted extending the scope for health professionals as a way to maximise the skills of the health workforce.

Since the publication of that report, the domain of physiotherapy practice has expanded considerably to meet the needs of the Australian health system and its consumers.^{2 3} The result

-
1. Australia's Health Workforce 2006, Productivity Commission.
 2. Neumann, P. B. (2005) Physiotherapy for female stress urinary incontinence: a multicentre observational study. *The Australian and New Zealand Journal of Obstetrics and Gynaecology* 45(5): p. 226-232.
 3. Oldmeadow, L. B. et al. (2007) Experienced physiotherapists as gatekeepers to hospital orthopaedic outpatient care. *MJA* 196(12): p. 625-628.

Appendix C – International positions

has been a major impact on improving and expediting patient access to health services with proven better health and financial outcomes for the community.⁴

There are many other professions looking to expand their current scope of practice. In recent years nursing, optometry and podiatry have successfully expanded into new areas - such as limited prescribing and direct referral to medical specialists. The experience of these professions in delivering these changes provides useful information that physiotherapy can draw upon when undertaking strategic advocacy.

Scope of practice is dynamic. Some roles which are currently considered advanced or extended now may not be in the future. As a consequence, it is inappropriate to publish a list of tasks / activities that are considered either within or outside of physiotherapist's scope of practice. A 'rigid and narrow definition of scope of practice will restrict opportunity and innovation for individuals, the profession and the health system by placing fixed limits on the boundaries of practice which are not sensitive to changes in the health and social care environment.'⁵

Barriers to advanced and extended scope practice

In order for physiotherapists to undertake advanced and extended roles, the following barriers will need to be addressed.

Legislative

Many of the new roles proposed as an expansion of current practice are regulated by various, mostly state based, Acts of Parliament. These include the various Physiotherapists' Registration Acts, Poisons Acts and Radiation Safety Acts. Others relate to funding under the Pharmaceutical Benefits Scheme (PBS) and the Medicare Benefits Schedule (MBS).

Funding

Referral to medical specialists is ethically and legally within scope of practice for physiotherapists in Australia. It is prevented by the fact that if a physiotherapist refers a patient to a medical specialist, any consultation or procedure which results is not covered by the MBS schedule. Physiotherapists are able to refer to Radiologists for certain plain film x-rays however investigations such as CT and diagnostic ultrasound are restricted by Medicare Australia. It is possible for a physiotherapist to request such investigations, however this is not covered by the MBS schedule.

Cultural

There are significant cultural barriers within health services that may serve to discourage physiotherapists from undertaking roles traditionally managed by other practitioners. These vary markedly not only between states and territories but also between health services in individual jurisdictions as well as between practices in metropolitan and rural areas.

Regulation

Physiotherapy in Australia is a profession regulated in each state and territory. From July 2010, it is planned that the physiotherapy profession will be regulated through a new national scheme. The legislation for that scheme does not provide a definition of physiotherapy scope of practice. It

-
4. Neumann, P. B., et al. (2005) The costs and benefits of physiotherapy as first-line treatment for female stress urinary incontinence. *Australian and New Zealand Journal of Public Health* **29**(5): p. 416-421.
 5. CSP. Scope of Physiotherapy Practice. 2008 [cited 02 July 2009]; Available from: www.csp.org.uk/uploads/documents/PD001%20Scope%20of%20Practice%202008.pdf.

Appendix C – International positions

does however restrict the use of the title physiotherapist and physical therapist. This is different to many other countries where the scope of physiotherapy is defined by legislation.⁶

As physiotherapy is not defined by legislation in Australia it is therefore the responsibility of the profession to define the practice. The Australian Physiotherapy Association supports the following definition of physiotherapy contained within the *Australian Standards for Physiotherapy* (2006):

Physiotherapy involves a holistic approach to the prevention, diagnosis, and therapeutic management of disorders of movement or optimisation of function to enhance the health and welfare of the community from an individual or population perspective. The practice of physiotherapy encompasses a diversity of clinical specialties to meet the unique needs of different client groups.⁷

Healthcare education and practice has developed in such a way that most professions today share some skills or procedures with other professions. It is no longer reasonable to expect each profession to have a completely unique scope of practice, exclusive of all others.⁸ The *Health Practitioner Regulation National Law (2009)*⁹ provides a framework for extending the scope of practice for all registered health professionals.

There is significant discussion within the health workforce literature regarding scope of practice. Increasingly, health profession regulatory structures and mechanisms, although well-intentioned, are becoming out of sync with health care delivery processes.^{10 11}

“As the pace of change in health care delivery accelerates in response to the new emphases on competition, health care outcomes, efficiency, and patient-focused care systems, the incongruence between the regulatory framework and the needs of the health care industry will be exacerbated”.¹²

When defining physiotherapy scope of practice, the goal of public protection can be realized when legislative and/or regulatory bodies include the following critical factors in their decision-making process:

- Historical basis for the profession, especially the evolution of the profession advocating a scope of practice change,

-
6. The Chartered Society of Physiotherapy. 9 June 1920, London: Royal Charter granted by King George V.
 7. Australian Standards for Physiotherapy. 2006, Canberra: Australian Physiotherapy Council.
 8. Changes in Healthcare Professions' Scope of Practice: Legislative Considerations. 2006 [cited 02 July 2009]; Available from: www.ncsbn.org/ScopeofPractice.pdf.
 9. Health Practitioner Regulation National Law. 2009 [cited; Available from: [http://www.nhwt.gov.au/documents/National%20Registration%20and%20Accreditation/Exposure%20Draft%20of%20Health%20Practitioner%20Regulation%20National%20Law%202009%20\(Bill%20B\).pdf](http://www.nhwt.gov.au/documents/National%20Registration%20and%20Accreditation/Exposure%20Draft%20of%20Health%20Practitioner%20Regulation%20National%20Law%202009%20(Bill%20B).pdf)].
 10. Dower, C., Christian, S. & O'Neil, E. (2007) Promising Scopes of Practice Models for the Health Professions. San Francisco: The Centre for Health Professions, University of California.
 11. Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century. 1995, Pew Health Professions Commission.
 12. Combs, C.D. (1997) Virginia, the Pew Commission and the Regulation of Health Professions in Seventeenth Annual Meeting of the Council on Licensure, Enforcement and Regulations. Norfolk, Virginia: Council on Licensure, Enforcement and Regulation (CLEAR).

Appendix C – International positions

- Relationship of education and training of practitioners to scope of practice.¹³
- Evidence related to how the new or revised scope of practice benefits the public, and
- The capacity of the regulatory agency involved to effectively manage modifications to scope of practice changes.¹⁴

It is important that the regulation of physiotherapy in Australia continues to ensure that its primary objective of protecting the public is achieved without unnecessarily restraining the natural evolution of the profession.

The APA position

The Australian Physiotherapy Association supports a system of practice regulation that is standardised, flexible, accountable and effective. The framework for assessing Scope of Practice must be consumer centric, competency based and recognise that differently educated health professionals can deliver the same services.

The position of the APA is that:

- The scope of physiotherapy in Australia may include both existing and emerging practices. The APA believes it is inappropriate to list the activities which are considered either within or outside the current scope of practice.
- Physiotherapists may practice any activity that falls within the broad scope of physiotherapy providing that they are appropriately educated, trained, credentialed and competent to practice.
- Physiotherapists working in new and innovative roles must at all times be able to demonstrate how their activities align with the professional practice of physiotherapy.
- Regulation of physiotherapy must be based on demonstrated initial and continuing competence. This process must allow and expect different professions to share overlapping scopes of practice.
- Education providers should be encouraged to develop courses for physiotherapists that equip them with the appropriate skills and competencies to expand their scope of practice.
- The government should implement more flexible funding models for health care service delivery.
- Innovation and close collaboration among health care professionals is the key to providing efficacious and evidence-based care. There currently exist many barriers to innovative practice including legislation and regulation as well as custom and culture. These barriers serve to prevent health professionals from maximising their contribution to the health and wellbeing of all Australians.
- The government at all levels must establish processes which identify and seek to remove barriers to innovative practice within the health system

13. Schmitt, K. & Shimberg, B. (1996) *Demystifying Occupational and Professional Regulation: Answers to Questions You May Have Been Afraid to Ask*. Norfolk, Virginia: Council on Licensure, Enforcement and Regulation.

14. *Ibid.*

Appendix C – International positions

- Regulatory bodies and professional associations should explore pathways to allow all professionals to provide services to the full extent of their current knowledge, training, experience and skills.

Appendix C – International positions

Australian Physiotherapy Association Position Statement: Skin Penetration

Approved: November 2007

Due for review: 2012

Background

Physiotherapists may utilise techniques involving skin penetration for the treatment of pain and other symptoms of musculoskeletal, neurological and cardio-respiratory disorders, or as a measure to improve functional health status. Current physiotherapy practices include acupuncture, dry needling and fine wire electromyography (EMG) while potential extended scope practices may include joint and intramuscular injections.

Physiotherapists have strong anatomical and biomedical knowledge and are well placed to safely and effectively practice these procedures. However techniques involving skin penetration are not universally included within physiotherapy entry level training in Australia. If they have not been included then physiotherapists should be required to undertake further education to develop competence in this area.

APA Position

The Australian Physiotherapy Association supports an evidence-based approach to the use of procedures involving skin penetration.

The Australian Physiotherapy Association recognizes the need for ongoing research to expand the knowledge base to support the effectiveness of these techniques and practices.

The position of the Australian Physiotherapy Association is that:

- There are many procedures involving skin penetration that may be included within the current or potential scope of physiotherapy practice.
- Physiotherapists who utilise practices involving skin penetration must undertake appropriate training. They should limit the use of these practices to the management of generally accepted physical disorders within their scope of practice.
- Physiotherapists who utilise practices involving skin penetration are expected to practise safely, competently and within their area of demonstrated expertise.
- Physiotherapists must comply with national best practice guidelines for infection control.¹
- Physiotherapists should have an adequate level of insurance that covers procedures involving skin penetration.
- Physiotherapists utilising needling techniques as part of their physiotherapy practice should not advertise that they use acupuncture unless they are qualified and, if required, registered to do so.
- It is the responsibility of individual physiotherapists to adhere to the regulatory requirements for the education and use of procedures involving skin penetration in the jurisdiction(s) in which they practice.

Reference

1. APA Position Statement on Infection Control.

Appendix C – International positions

CANADIAN PHYSICAL THERAPY ASSOCIATION (CPA)

Please scroll down – I have embedded responses beneath the questions

Carol Miller

From: Culver, Lisa [mailto:lisaculver@apta.org]
Sent: May-31-11 8:51 AM
To: Carol Miller
Cc: Delaune, MaryFran
Subject: Dry Needling by Physical Therapists/Physiotherapists

Carol Miller

Director, Practice and Research

Canadian Physiotherapy Association

Have you adopted a formal or established an information statement on the use of dry needling?
If so, would you be willing to share it with us?

Yes – CPA does have a position statement on dry needling that I am attaching – it is scheduled for review but the content is still accurate. We will probably remove the term acupuncture as some more recent legislation in Canada is explicit that PTs practice dry needling not acupuncture

Do you have a formal or informal process for including dry needling, or other “new” tests, measures, or interventions into your scope of practice for physical therapists/physiotherapists? If so, would you share this process?

No there is no formal process across jurisdictions. In most provinces scope of practice is not protected but title is, which allows for overlap and flexibility between professions' practice.

There is variation between provinces as to whether or not it is a restricted/controlled act but most require the physiotherapist to have completed a program that is approved by the College (e.g. Acupuncture Foundation of Canada). (Our regulatory bodies are called Colleges)

I can send you excerpts from various legislations if that would be helpful to your process.

Acupuncture is considered a post-graduate intervention and is not included in the entry-level curriculum.

I am attaching a document developed by the College of Physiotherapists of Alberta that sets out the competencies required to practice dry needling. It was developed using was substantive consultation with content experts and stakeholders across provinces and through the Association membership and has been used as a resource by other provincial physiotherapy regulators.

Appendix C – International positions



Canadian
Physiotherapy
Association Association
canadienne de
physiothérapie

POSITION

STATEMENT

Acupuncture and the Use of Dry Needling Techniques in Physiotherapy

STATEMENT

Acupuncture and other techniques using dry needles* are interventions included under the scope of practice for physiotherapists in Canada for the treatment of pain and other symptoms of musculoskeletal, neurological and cardio-respiratory disorders, or as a measure to improve functional health status.

BACKGROUND

The practice of physiotherapy focuses on the musculoskeletal, cardio-respiratory and neuromuscular systems. As self-regulated primary care professionals, physiotherapists use clinical reasoning based on initial assessment findings and best available evidence to select the interventions used within their treatment plan. Evaluation of treatment effectiveness is outcomes-based, which informs selection of interventions throughout the duration of treatment.

Acupuncture has been utilized as a physiotherapy intervention in Canada since the 1980's. In recent years, physiotherapists have also incorporated additional dry needling techniques, such as Intra Muscular Stimulation (IMS) within their practice. Physiotherapists are required to adhere to the regulatory requirements for the education and use of these interventions in the jurisdiction(s) in which they practice.

RATIONALE


Acupuncture/dry needling techniques may form part of the physiotherapy treatment plan that is developed through the clinical reasoning process. There is growing evidence that acupuncture/dry needling techniques are effective in the management of both acute and chronic conditions. For example, acupuncture is a useful intervention in a range of conditions including, but not limited to, the treatment of headaches¹, shoulder pain, carpal tunnel syndrome, osteoarthritis, stroke rehabilitation and some chronic respiratory conditions.² In addition there is

* The term 'dry needling' refers to therapeutic techniques using solid needles, and does not include injection of a substance into the tissues.

¹ Melchart, D., Linde, K., Berman, B., White, A., Vickers, A., Allais, G., Brinkhaus, B. (2006). Acupuncture for idiopathic headache. The Cochrane Database of Systematic Reviews. Issue 1.

² National Institute of Health. (1997). Acupuncture NIH Consensus Statement. Nov 3-5; 15(5):1-34.

Appendix C – International positions

 <p>Canadian Physiotherapy Association</p> <p>Association canadienne de physiothérapie</p>	<p>Position statements are statements on political, ethical and social issues impacting on patient welfare, the role and practice of physiotherapy or that affects the Association and its members. They are frequently time-limited. Persons wishing to use them more than two years after publication should confirm their status with the Canadian Physiotherapy Association, 2345 Yonge Street Suite 410, Toronto ON M4P 2E5. Tel. (416) 932-1888, 1-800-387-8679. Fax (416) 932-9708. E-mail information@physiotherapy.ca</p>
---	--

evidence to support the use of acupuncture/dry needling techniques as adjuncts to other therapies in the treatment of low back pain.³

CPA supports an evidence-based, best practice approach to the use of acupuncture/ dry needling techniques within physiotherapy practice, and the need for ongoing research to expand the knowledge base behind the effectiveness of these interventions.

June 2006

³ Furlan, A.D., van Tulder, M.W., Cherkin, D.C., Tsukayama, H., Lao, L., Koes, B.W., Berman, B.M. (2006). Acupuncture and dry-needling for low back pain. The Cochrane Database of Systematic Reviews. Issue 1.

Irish DRAFT Guidelines
Guidelines for Safe Dry Needling
Practice for Chartered
Physiotherapists

2011

Appendix C – International positions

NOTE:

This document in titled “Guidelines for Safe Dry Needling Practice for Chartered Physiotherapists” is being submitted to the ISCP for review (August 2011).

Please note Author-Date reference system is used in Endnote

For lists where a colon appears (:) a full stop is used at the end of the list

For lists without a (:) a full stop is included at the end of each list section

This guideline will require the following:

1. ISCP review and comments and alterations based upon this feedback
2. ISCP legal review and statement and disclaimer maybe required per ISCP policy
3. Executive summary
4. Section numbering and contents pages updated
5. Typesetting
6. Proofreading
7. Check of Internal page number and section references
8. Table Page references checked and altered for final document
9. Reference review and crosscheck
10. Additional author information
11. Glossary of terms
12. Other?.

Blood transfusion board require patients whom undergo acupuncture with a Chartered Physiotherapist to present a form when giving blood, to state single disposal needles were used to allow donation to proceed. Can this policy be discussed in relation to adding DN under the same practice requirement?. This will need to be incorporated into this document or reference the acupuncture guideline document.

Appendix C – International positions

Contents:

Forward

Authors and International Review Panel

Section 1: Introduction

Preamble

Executive summary (TO BE ADDED – a summary of main points for all sections)

Introduction

Section 2: General Practice Guidelines

Practice guidelines for Chartered Physiotherapists

 General guidelines for professional Practice

 General guidelines for dry needling

 General hygiene and workplace policies

Indications for dry needling

Integrated approach to dry needling

Documentation

Section 3: Training For Dry Needling

Introduction

Dry needling Training recommendations

Section 4: Safety

Safety introduction

Potential risks

Adverse event studies of acupuncture

Contraindications and special precautions

 Absolute contraindications

 Relative contraindications

Anatomical considerations

Procedural issues and adverse reactions in dry needling therapy

Electrical stimulation via dry needles

Section 5: Hygiene

Hygiene

 Introduction

 Standard precautions

 Hand hygiene recommendations

 Hands decontamination technique: Hand washing / alcohol-based hand rub

 Occupational dermatitis

 Use of gloves

Patient skin preparation

Needles

Needle and medical clinical waste disposal

Procedure following a needle stick injury or other exposure incident

Management of blood and body fluid spills

Appendix C – International positions

Section 6: Principles of Dry Needling Practical Application

Principles of practice

Patient education and consent

Patient selection

Application – Positioning, palpation, technique, after care

References

Appendix

Appendix C – International positions

Forward

This document is intended as a guide to safe practice of dry needling for Chartered Physiotherapists in Ireland. Dry needling practice may include trigger point dry needling, superficial dry needling and various other western medical needling approaches.

This document was developed by a process of authorship, discussion by the author panel between 2009 and 2011. Part of this safety document was presented as part of Physiotherapy Pain Conference at the University Rey Juan Carlos, Alcorcón, Spain in March 2011. The document was reviewed independently by an international panel of experts in 2011. This document was submitted to the Irish Society of Chartered Physiotherapists in August 2011 for review.

This document had NOT been officially adopted by the Irish Society of Chartered Physiotherapists.

The authors, reviewers and editors have made every effort to provide accurate information in this document. However, they are not responsible for errors, omissions, or any outcomes related to the use of the contents of this document and take no responsibility for individual application of dry needling therapy. Individual physiotherapists are ultimately responsible for the application of dry needling therapy.

Appendix C – International positions

Author and Reviewer Panel

Please note: authors – Name, qualifications, practice / affiliations.

Freelance/private teaching omitted. Further additions may be required.

Authors

Johnson McEvoy BSc, MSc, DPT, MISCP, MCSP, PT
United Physiotherapy Clinic,
External Lecturer, Sports Science, University of Limerick
Limerick, Ireland

Jan Dommerholt PT, DPT, MPS, DAAPM
Bethesda Physiocare,
Maryland, USA

Damian Rice MISCP
Clinical Specialist Physiotherapist
Midland Regional Hospital,
Tullamore, Co Offaly

Dr Liam Holmes MD
General Practitioner and Occupational Medicine
Medical Practice
Castletroy, Limerick, Ireland

Christian Grobli PT
Swiss PhysioCare,
Winterthur, Switzerland

Appendix C – International positions

Cesar Fernandez-de-las-Penas PT, PhD

Professor, Department of Physical Therapy, Occupational Therapy, Physical Medicine and Rehabilitation,

Universidad Rey Juan Carlos,

Alcorcón, Spain

International Review Panel

Carel Bron PT, PhD

Practice for Physical Therapy for Disorders of the Neck, Shoulder and Upper Extremity
Groningen,

The Netherlands

Jo Fransen PT

Practice for Physical Therapy for Disorders of the Neck, Shoulder and Upper Extremity
Groningen,

The Netherlands

Orlando Mayoral del Moral PT

Hospital Provincial de Toledo,

Toledo, Spain

Martin Van Hoppe

Martin van Hoppe MISCAP, MCSP

Douglas Physiotherapy Clinic,

Douglas, Cork, Ireland

Richard D. Weissmann, PT OMT

Swiss PhysioCare,

Winterthur, Switzerland

Appendix C – International positions

Special Mention

Our colleague Peter Huijbregts PT, was to be involved in the review panel, but unfortunately passed away in November 2010. We would like to take this opportunity to remember our collaboration with him and his contribution to the physiotherapy profession

Peter Huijbregts PT, MSc, MHSc, DPT, OCS, FAAOMPT, FCAMT

University of St. Augustine for Health Sciences

St. Augustine, Florida

USA

Appendix C – International positions

Preamble

This document is intended as a guideline for the safe practice of dry needling for Chartered Physiotherapists. This guideline refers only to trigger point dry needling and does not address pharmacological trigger point injection therapy or other forms of invasive needling such as acupuncture.

In this document the terms physiotherapy, physiotherapist, physical therapy, physical therapist and the abbreviation PT are used synonymously as defined by the World Confederation for Physical Therapy (WCPT) (www.wcpt.org). The term Chartered Physiotherapist is pertaining to a Member of the Irish Society of Chartered Physiotherapists (ISCP).

What is a guideline?

A guideline is a formal statement about a defined task or function in clinical practice (Stedman's 2000). This guideline is a practice guideline that makes recommendations for the safe practice of dry needling in physiotherapy practice.

What is the main focus of this guideline?

The main focus of this guideline is patient and healthcare worker (HCW) safety, incorporating safe dry needling practice into physiotherapy healthcare setting.

Who is the guideline intended for?

This guideline is intended for Chartered Physiotherapists as members of the Irish Society of Chartered Physiotherapists (ISCP) practising in both private and public sectors of Irish Healthcare within the Republic of Ireland. They may also be used by physiotherapy and non-physiotherapy managers and decision makers to guide the development of policies and procedures for physiotherapy practice in the healthcare setting.

Appendix C – International positions

How should these guidelines be used?

These guidelines are intended to assist Chartered Physiotherapists to implement safe dry needling practice. They can be used as a reference guide and assist in developing minimum standards for dry needling practice. Chartered Physiotherapists are encouraged to review the cited references. The practice of dry needling is the sole responsibility of the individual Chartered Physiotherapist.

How was this guideline developed?

This guideline was developed at the request of the ISCP and the process was initiated in 2009. It incorporated a panel of voluntary authors who practice and teach dry needling in Ireland and internationally. An international panel of experts were identified and reviewed this document. An Irish occupational health and safety medical doctor reviewed these guidelines also.

The document was submitted to the ISCP (2011 – add date when submitted) and is pending review and ratification.

Appendix C – International positions

Section 1: Introduction

Introduction

Dry Needling (DN) is a term referring to the employment of a solid filament needle for the treatment of pain and / or dysfunction of various body tissues. DN is considered an invasive physical therapy technique. There are a variety of conceptual models, most commonly DN is employed to treat myofascia including myofascial trigger points (TrPs) (Travell and Simons 1983; Travell and Simons 1992; Simons, Travell et al. 1999). The term Trigger Point Dry Needling (TrPDN) refers to the treatment of TrPs with dry needling techniques. For the purpose of this guideline the abbreviation DN will be used. Where required, clarification of the type of DN technique will be made.

There are several DN conceptual and practical models including, but not limited, to:

1. Superficial Dry Needling (SDN) - Baldry Model
2. Deep Dry Needling (TrP-DN) - Travell Model
3. Radiculopathy Model – Intramuscular Stimulation (IMS) Gunn Model

Chartered Physiotherapists may employ one or a combination of these conceptual models and approaches. The choice is based upon suitable patient selection, the Chartered Physiotherapist's training, experience, current available research and clinical reasoning in regard to the patient's presenting problem, history, medical status, safety, patient informed consent and goals of treatment etc.

There is a large volume of publications on myofascial trigger point therapy and dry needling philosophies and techniques. Table 1 lists selected references underpinning the practice of myofascial trigger point therapy and dry needling and in essence forms the knowledge framework for these guidelines.

Appendix C – International positions

Authors	Year	Title	Reference
Simons, Travell and Simons	1999	Travell and Simons' myofascial pain and dysfunction; the trigger point manual Volume 1; 2 nd edition	(Simons, Travell et al. 1999)
Travell and Simons	1983	Travell and Simons' myofascial pain and dysfunction; the trigger point manual	(Travell and Simons 1983)
Travell and Simons	1992	Travell and Simons' myofascial pain and dysfunction; the trigger point manual Volume 2	(Travell and Simons 1992)
Dommerholt and Fernandez-de-las-penas	In press	Trigger Point Dry Needling	(Dommerholt and Fernandez de las Penas in press)
McEvoy	In press	Safety of trigger point dry needling	(McEvoy in press)
Dommerholt and Huijbregts	2011	Myofascial trigger points : pathophysiology and evidence-informed diagnosis and management	(Dommerholt and Huijbregts 2011)
McEvoy and Huijbregts	2011	Reliability of myofascial trigger point palpation: a systematic review	(McEvoy and Huijbregts 2011)
White and Cummings	2008	An introduction to western medical acupuncture	(White, Cummings et al. 2008)

Appendix C – International positions

Dommerholt, Bron and Franssen	2006	Myofascial trigger points; an evidenced informed approach	(Dommerholt, Bron et al. 2006)
Dommerholt, Mayoral and Gröbli	2006	Trigger point dry needling	(Dommerholt, Mayoral et al. 2006)
Resteghini	2006	Myofascial trigger points: pathophysiology and treatment with dry needling	(Resteghini 2006)
Baldry	2005	Acupuncture, Trigger Points and Musculoskeletal Pain	(Baldry 2005)
Rachlin and Rachlin	2002	Myofascial pain and fibromyalgia, trigger point management	(Rachlin and Rachlin 2002)
Baldry	2001	Myofascial pain and fibromyalgia syndromes	(Baldry 2001)
Gunn	1997	The Gunn approach to the treatment of chronic pain	(Gunn 1997)
Lewit	1979	The needle effect in the relief of myofascial pain	(Lewit 1979)
Travell	1968	Office hours: day and night. The autobiography of Janet Travell MD	(Travell 1968)

Historically TrPDN developed from Dr. Janet Travell's injection techniques. Steinbrocker (Steinbrocker 1944) and later Travell (Travell 1968), speculated that injection effect may be related to the physical action of the needle and the evocation of the local twitch response (LTR). Travell referred to this as "*dry needling*" (Travell 1968). The first Medline citation for *dry needling* is accredited to Dr. Karel Lewitt (Lewit 1979) and in essence was a description of Travell's technique. Subsequently, evidence has supported the importance of elicitation of LTR's in the treatment of MTrP's, suggesting that the effect of TrP needling is linked to the physical action of the needle and not upon

Appendix C – International positions

injectable agents (Hong 1994). Subsequent review of TrP needling research suggested that direct physical needling of TrPs is as effective as various injectables (Cummings and White 2001). One study reported more significant improvements from TrPDN compared to injections for myofascial pain syndrome (Ga, Koh et al. 2007). A Cochrane database systematic review supported the use of DN in the management of chronic low back pain (Furlan, Tulder et al. 2005).

Interest in TrPDN has increased and is practiced by physiotherapists in many countries including Canada, Chile, Ireland, the Netherlands, South Africa, Spain, Switzerland and the United Kingdom (Dommerholt, Mayoral et al. 2006). An increasing number of US states have included DN under the scope of physical therapy practice. The American Academy Of Orthopaedic Manual Physical Therapists has ruled DN to be under the scope of physical therapy practice (AAOMPT 2009).

Support Statement AAOMPT (AAOMPT 2009):

Dry needling is a neurophysiological evidence-based treatment technique that requires effective manual assessment of the neuromuscular system. Physical therapists are well trained to utilize dry needling in conjunction with manual physical therapy interventions. Research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation.

Appendix C – International positions

Section 2: General Practice Guidelines for Chartered Physiotherapists

General Guidelines for Professional Practice

Chartered Physiotherapists are guided in practice by the Irish Society of Chartered Physiotherapists (ISCP) and European Core Standards of Physiotherapy Practice policy documents. Adherence to professional standards and policies is essential to the practice of physiotherapy.

1. Chartered Physiotherapists should follow the ISCP's Rules of Professional Conduct, Incorporating Code of Ethics and Guidelines for Professional Behaviour (ISCP- RPC 2010).
2. Chartered Physiotherapists should be guided by the European Core Standards of Physiotherapy Practice 2008 (ECSP 2008).
3. Chartered Physiotherapists shall confine themselves in practice to areas in which they have particular skills or professional competence as a result of experience or specialist training and shall at all times have regard to the Society's Scope of Practice Code.
4. Chartered Physiotherapists should stay up to date with research and trends in clinical practice in line with best available evidence as outlined in the European Core Standards of Physiotherapy Practice 2008 (ECSP 2008).
5. Chartered Physiotherapists should commit to continuing education to meet ISCP requirements.
6. Chartered Physiotherapists should gain informed consent from patients in line with ISCP guidelines, ECSP 2008 and this guide. Consent should be documented.
7. Informed consent can be written or verbal as appropriate. Written consent may be required and Chartered Physiotherapists must use their judgement in deciding when written consent is needed (ECSP 2008). Special consideration for persons under 18 years of age is required as parental or guardian consent is additionally required.

Appendix C – International positions

General Guidelines for Dry Needling

1. Dry needling is within the scope of physiotherapy / physical therapy practice.
2. Chartered Physiotherapists should implement guidelines as applicable when practising DN.
3. The individual Chartered Physiotherapist is solely responsible for the individual patient's welfare and should practice DN ensuring high safety standards.
4. Chartered Physiotherapists should be able to demonstrate they have received suitable DN training. Chartered Physiotherapists shall confine themselves in DN practice to areas in which they have been trained and are confident and comfortable with and shall at all times have regard to the ISCP's rules of professional conduct (ISCP-RPC 2010).
5. Chartered Physiotherapists should complete a physiotherapy assessment prior to DN and ascertain if DN is suitable for the individual patient and the condition to be treated.
6. Chartered physiotherapists should practice DN in a sensible and reasonable manner and apply professional judgement.
7. Chartered Physiotherapists should consider the utilisation of DN in the light of evidenced informed practice, scientific research, clinical reasoning and patient goals, beliefs and desires (Cicerone 2005).

General Hygiene and Workplace Policies

1. Chartered Physiotherapists are required to comply with best practice hygiene practices per Health Service Executive (HSE) Standard Precautions (HSE 2009) and any other additional requirements of their employer or other local workplace policies.
2. Chartered Physiotherapists are required to comply with the waste disposal rules, requirements and guidelines (Dept of Health 2004) for needles or bodily fluids and any other requirements of their employer or other local workplace policies.

Appendix C – International positions

3. Chartered Physiotherapists are required to comply with best practice requirements for the management of needle stick accidents and adverse reactions and comply with any employer or other local workplace policies.
4. Chartered Physiotherapists should adhere to additional workplace consent policies.
5. Chartered Physiotherapists as employers and employees should meet occupational obligations and requirements of the Safety, Health and Welfare at Work Act 2005 (SHWWA 2005).
6. Chartered Physiotherapists when practicing should ensure personal health is optimal to maintain patient and personal safety. Required vaccinations and immunisations should be in place as required. Chartered Physiotherapist should seek guidance from medical doctor (GP) or occupational health physician.
7. Individual clinic policy and procedure documents can incorporate these guidelines and cited references.

Indications for Dry Needling

Dry needling is employed for the treatment of neuromusculoskeletal pain and dysfunction including but not necessarily limited to:

Myofascial trigger point pain and dysfunction, soft tissues, muscle tension, scar tissue and pain.

Integrated Approach to Dry Needling

A physiotherapy assessment should be completed to ascertain the appropriateness of DN for an individual patient. The Chartered physiotherapist should select patients by using the principles outlined in this guide and as previously recommended (CPTA 2007). Considering the multisystemic nature of musculoskeletal pain, evidence supports the greater efficacy of a multimodal approach and therefore incorporating DN into

Appendix C – International positions

multimodal therapeutic plan of care is encouraged (Boyling and Jull 2004; McEvoy and Dommerholt 2012).

Chartered Physiotherapists should remain aware of predisposing, precipitating and perpetuating factors for myofascial pain and identification and attention to these factors may be required in the context of the bio-psychosocial model of healthcare (Simons, Travell et al. 1999; Gerwin 2005; Dommerholt, Bron et al. 2006; McEvoy and Dommerholt 2012).

Documentation

Chartered Physiotherapists should keep documented records of treatment and informed consent per ISCP recommendations and requirements (ECSP 2008; ISCP-RPC 2010).

DN treatment documentation should include the procedural approach (e.g. TrP-DN of SDN) and area or muscle treated, if local twitch responses were elicited where appropriate. The patient's response to treatment, including adverse reactions, should be noted where applicable. Any other information pertinent to the treatment should be documented as required.

Appendix C – International positions

Section 3: Training for Dry Needling

Introduction

Dry needling builds on entry level physiotherapy education. A suitable undergraduate degree in physiotherapy is required as a prerequisite for continuing education in DN. Chartered Physiotherapists have met required educational standards of the ISCP. Chartered Physiotherapists have considerable graduate education in anatomy and neuro-anatomy, physiology and neurophysiology, pathology, biomechanics, standard precautions, pain management and psychology coupled with professional studies in of orthopedics, rheumatology, neurology, soft tissue and sports and exercise physiotherapy, paediatrics, care of the elderly, women's health, ergonomics etc. Chartered Physiotherapists have also obtained 1000 hours of mentored clinical practice.

This is the fundamental requirement prior to undertaking continuing professional development education in DN.

Currently dry needling is not an entry-level skill in Ireland. No University physiotherapy program teaches DN at undergraduate level.

It is recognised that there is no international standard for DN postgraduate CPD training and that requirements may vary from jurisdiction to jurisdiction. For instance the Australian Guidelines For Safe Acupuncture and Dry Needling Practice (ASAP 2007) consider at 2 day course adequate for basic introduction. In contrast, Colorado State, USA, requires a 46 hour programme of face to face training. The Swiss model for DN (TrPDN & SDN), which has been utilised in Ireland since 2006, has traditionally considered a pathway including an introductory trigger point therapy and palpation course as a prerequisite to DN needling. Dry needling training for the extremities, spine, trunk, neck, head and face is delivered in 2 modules of 3 days each. The total relevant training for DN (TrPDN & SDN) is 64 hours.

Appendix C – International positions

It is recommended that in the future guidelines for DN course content and curricula should be developed further and implemented. Future course accreditation by the ISCP could be considered.

It is reasonable to expect a minimum requirement for DN introduction to be 3 days, recognising that this would limit the content. For trigger point dry needling, suitable prerequisite training in myofascial trigger point therapy (Simons, Travell et al. 1999; Dommerholt and Huijbregts 2011) should be required to ensure basic palpation skills for an encompassing approach to TrPDN. Identification of MTrPs by palpation is dependent upon being expert and trained (McEvoy and Huijbregts 2011).

DN Training Recommendations for Chartered Physiotherapists:

Despite the focus on DN training hours or days, ultimately it is important to develop competency. In answer to this the College of Physical Therapists of Alberta (CPTA), Canada have developed a dry needling competency profile for physical therapists, and is a framework identifying the required skills and attributes for DN practice (CPTA 2007).

1. Chartered Physiotherapists shall confine themselves in physiotherapy DN practice to areas in which they have particular skills or professional competence as a result of experience or specialist training and shall at all times have regard to the ISCP-RPC 2010 and ECSPP 2008.
2. Chartered Physiotherapists should be able to demonstrate that they have received training in DN and a minimum of a 3 day introductory course is required.
3. Chartered Physiotherapists should recognise that safety of patients is of primary importance and should practice DN ensuring high safety standards at all times.
4. Chartered Physiotherapists should work within their personal level of confidence and comfort.

Appendix C – International positions

5. Chartered Physiotherapists should maintain safety by limiting themselves to DN muscles etc and body areas that they have had training in, are familiar with and confident in treating. Clinicians should be aware of specific precautions for the muscle or area being treated and if in doubt DN should not be employed.
6. Chartered Physiotherapists should stay up to date with current trends and research.
7. Chartered Physiotherapists should commit to continuing professional development (CPD) as outlined in the ISCP RPC 2010 and ECSPP 2008. Chartered Physiotherapists practising DN should devote some of the allocated CPD to myofascial trigger point and DN therapy. It is recommended that a minimum of eight hours of formal and eight hours of informal CPD is obtained within a three year cycle. Formal CPD should contain at least 50% practical aspect in DN.

Appendix C – International positions

Section 4: Safety

Safety Introduction

Dry needling poses potential risks to the patient, clinician and third parties. Many of these potential risks are not associated with traditional non-invasive physiotherapy treatment e.g. pneumothorax, infection and internal bleeding. As safety is of the utmost importance in patient care, efforts should be made to ensure high safety standards.

An adverse event (AE) is defined as ‘any ill effect, no matter how small, as is unintended and non-therapeutic’ (White, Hayhoe et al. 1997).

There are no published DN AE studies. A search of Medline, PEDRO and CINHAL for the search terms “dry needling”, “trigger point acupuncture”, “adverse events” and “safety” revealed no such studies beyond an individual case study (Lee, Lee et al.). Despite the lack of AE studies, DN does not appear to pose significant volume of risk. However there is a need for AE research to quantify DN risk.

Though acupuncture and DN differ in terms of historical, philosophical, indicative and practical context, similarities exist in terms of dermal penetration with a solid filament needle to varying depths within the body for therapeutic indications. Notwithstanding the differences, acupuncture safety studies assist as a suitable framework for understanding the potential risks of DN. In this context safety concerns can be considered similar.

It is important for Chartered Physiotherapists to be cognisant of the risks associated with needling therapies for patient selection, safe application and for gaining informed consent.

Potential Risks

Acupuncture in Medicine (AIM) journal in 2001 published an entire journal issue on safety and this is available for free access (<http://aim.bmj.com/content/vol19/issue2/>).

Appendix C – International positions

AIM is a scientific and clinical journal aimed at Western-trained physicians and other health professionals, and uses the prevailing understanding of neurophysiology and anatomy to interpret the effects of acupuncture. The journal largely restricts its published articles to western approach (<http://aim.bmj.com/misc/about.dtl>). The reader is recommended to review this journal publication to understand some of the issues, risks and adverse reactions in relation to needling therapies. Furthermore, a general review of acupuncture safety is offered in a recent textbook on western medical acupuncture (White, Cummings et al. 2008). Safety of TrPDN is discussed in a future TrPDN textbook (Dommerholt and Fernandez de las Penas in press; McEvoy in press).

Acupuncture is considered one of the safer forms of medical intervention (Vincent 2001; White, Cummings et al. 2008). Despite this, AEs do occur. In general the reported AEs in acupuncture can be categorised into the following groups (Peuker and Gronemeyer 2001):

1. Delayed or missed diagnosis
2. Deterioration of disorder under treatment
3. Vegetative reactions (e.g. syncope, vertigo, sweating etc)
4. Bacterial and viral infections (e.g. hepatitis B, HIV etc)
5. Trauma of tissue and organs.

It is important to classify, qualify, and quantify AE. Severity of acupuncture AEs has been classified as mild, significant and serious as presented in Table 2 (White, Cummings et al. 2008). Further classification of medical risk in qualitative/quantitative form is presented in Table 3 (Witt, Pach et al. 2009)

Table 2	Severity of Adverse Events Adapted from (White, Cummings et al. 2008) Chapter 16, Page 122; (White, Hayhoe et al. 2001)
---------	---

Appendix C – International positions

Severity	Definition
Mild (minor)	Reversible, short lived and does not seriously inconvenience the patient
Significant	Needs medical attention or interferes with the patient's normal activities
Serious	Requires hospital admission or prolongation of existing hospital stay, results in persistent or significant disability/incapacity or death

Table 3: Qualification and Qualification of Adverse Events Adapted from (Witt, Pach et al. 2009)				
Very common	Common	Uncommon	Rare	Very rare
>1-10	1-10/100	1-10/1,000	1-10/10,000	<1 / 10,000
≥ 10%	≥ 1 to10%	≥ 0.1% to 1%	≥ 0.01% to 0.1%	<0.01%

Adverse Event Studies

Many studies have investigated the AE rate for acupuncture. Three studies, one of UK Chartered Physiotherapists and medical doctors (White, Hayhoe et al. 2001), another on German physician acupuncturists (Witt, Pach et al. 2009) and a third on German physician acupuncturists (Melchart, Weidenhammer et al. 2004) are of particular value as they correlate well with Chartered Physiotherapists due to western medical style training. Chartered Physiotherapists should become familiar with these studies. A brief summary is offered.

White et al reported AE's following acupuncture in a prospective clinician based survey of 32,000 consultations amongst 78 UK Chartered Physiotherapists and medical doctors (White, Hayhoe et al. 2001). In summary, common minor AE's included: bleeding, needling pain. Uncommon minor AE's included aggravation of symptoms, faintness, drowsiness, stuck or bent needle and headache. Significant AE's (n=43) were rare or very rare and included various events including: Administrative problems

Appendix C – International positions

(forgotten needle, forgotten patient); application site (cellulitis, needle allergy, needle site pain); cardiovascular problem (fainting); gastrointestinal problem (nausea, vomiting etc); neurological and psychiatric problem (anxiety and panic, euphoria, hyperesthesia, headache, slurred speech); exacerbation of symptoms (back pain, fibromyalgia, shoulder pain, vomiting, migraine).

No serious AE's were reported in the 32,000 treatments.

Summarising the AEs, bleeding haematoma and needling pain were common, significant events were rare on very rare and no significant AE were reported.

Furthermore generally adverse events can be classified as minimal, with some unavoidable events occurring. Acupuncture in skilled hands is one of the safer forms of medical intervention (White, Hayhoe et al. 2001).

Witt et al reported AEs following acupuncture in a prospective patient based survey of 229,230 patient's (2.2million treatments) amongst German physician acupuncturists (Witt, Pach et al. 2009). This study reported AE's per patient (n=229,230) and not per treatment (n=2.2million) and this needs to be taken into account when comparing to White et al (White, Hayhoe et al. 2001), who reported AE per treatment (N=32,000). In summary 8.6% of patients reported experiencing at least one AE of which 2.2% of patients required medical treatment (significant or serious). This is suggesting 6.4% had an AE event that did not require treatment (minor). A comprehensive list of AE per patient were presented with notable common side effects including bleeding and haematoma; uncommon, strong pain during treatment, nerve irritation and injury and aggravation of symptoms. Rare and very rare side effects included local infection (31), systemic infection (5) and pneumothorax (2). Furthermore, a qualitative and quantitative explanation of acupuncture risks for patients was presented in table form – see appendix. As this is arguably the most comprehensive study of acupuncture AE Chartered Physiotherapists should familiarise themselves with this study's findings.

Melchart et al reported AE following acupuncture in a prospective clinician based survey of 97,733 patients amongst German physician acupuncturists. In summary nonserious

Appendix C – International positions

AE's were seen in 7.10% of patients included needling pain, haematoma and bleeding in 3.28%, 3.19% and 1.3% respectively. Potentially serious AE were reported in 6 of 97,733 patients, including exacerbation of depression, acute hypertensive crisis, vasovagal reaction, asthma attack with hypertension and angina and pneumothorax in 2 cases.

Other studies have investigated AE in acupuncture including: 34,000 treatments by nonmedical UK acupuncturists (MacPherson, Thomas et al. 2001); 65,000 treatments by Japanese acupuncturists (Yamashita, Tsukayama et al. 1999); 3535 treatments by doctors and other healthcare workers in Germany (Ernst, Strzyz et al. 2003). These studies reported no serious AEs.

A review of rare but serious complications of acupuncture due to traumatic lesions has been reported (Peucker and Gronemeyer 2001). This included a review of the literature from 1965 on onwards. Traumatic lesions can be divided according to topographical and structural characteristics including: thoracic viscera, abdominal or retroperitoneal viscera, peripheral nerves, central nervous system, blood vessels. The review concluded that all traumatic injuries described in the review could be avoided if clinicians had better anatomical knowledge, applied existing anatomical knowledge or both. This stresses the importance of academic anatomy and practical anatomy in the needling application (Peucker and Gronemeyer 2001; Lee, Lee et al. 2011). Despite this, a further review of acupuncture literature from 2000, reported 95 cases of severe AE including 5 fatalities (Ernst, Lee et al. 2011).

Contraindications and Special Precautions

This section outlines contraindications, relative contraindications and special precautions. As noted in the patient selection section, patients should be screened for contraindications and special precautions prior to DN therapy. A physiotherapy assessment is required to determine patient selection. There should be an indication for DN therapy. A medical history of past and current medical history and medication usage

Appendix C – International positions

is important. Attention should be paid to medical diagnoses and co-morbidities (e.g. patient with heart disease, peripheral vascular disease and diabetes). When treatment is contraindicated, it is important for the clinician not to be persuaded by an enthusiastic patient to employ DN (White, Cummings et al. 2008).

Absolute Contraindications:

DN therapy should not be carried out under the following circumstances (ASAP 2007; White, Cummings et al. 2008):

1. In a patient with needle phobia
2. Unwilling patient - patient beliefs, fear etc
3. Unable to give consent - age-related, communication, cognitive
4. History of untoward reaction to needling (or injection) in the past
5. Medical emergency
6. Into a muscle or area in patients on anticoagulant therapy or with thrombocytopenia, where haemostasis by palpation cannot be carried out appropriately e.g. psoas, tibialis posterior
7. Into an area or limb with lymphoedema as patients with lymphoedema maybe more susceptible to infection. In addition it is not advisable to needle a limb after surgical lymphectomy.

Relative Contraindications:

When absolute contraindications have been ruled out, it is important to consider relative contraindications / precautions. It is the practitioners responsibility to discuss the risks and benefits of DN therapy with the individual patient (White, Cummings et al. 2008). Relative contraindications / precautions require clinical reasoning in the context of the

Appendix C – International positions

individual patient and the aims of treatment and if goals can be met with non-invasive treatments.

Abnormal Bleeding Tendency:

Patients on anticoagulant therapy, thrombocytopenia etc. Patients on high levels of blood thinning medication (e.g. Plavix and Warfarin) or with thrombocytopenia for any reason (e.g. haemophilia) may not be suitable for DN. Caution should be exercised when DN patients are on anticoagulants. Avoidance or light needling technique may be advisable. It is essential to apply pressure for haemostasis after withdrawing the needle. If haemostasis by palpation cannot be carried out appropriately e.g. psoas, tibialis posterior, then needling should be avoided for that muscle(s) and is deemed an absolute contraindication.

Compromised Immune System:

Patients with compromised immune system may be more susceptible to infection and therefore may be at a greater risk of developing a local or systemic infection from DN. Patients who are particularly vulnerable to infection include (ASAP 2007; White, Cummings et al. 2008):

1. Immunocompromised patients from disease (e.g. Blood borne disease, Cancer, HIV, AIDS, Hepatitis, bacterial endocarditis, incompetent heart valve or valve replacements etc.)
2. Immunocompromised from immunosuppression therapy or on cancer therapy
3. Debilitated patients or those with chronic illness etc
4. Acute immune disorders (E.G. acute states of rheumatoid arthritis, current infection, local or systemic etc.)

Vascular Disease:

Appendix C – International positions

Patients with vascular disease and may be more susceptible to bleeding, tissue trauma and infection.

Diabetes:

Patients with diabetes mellitus may be compromised in tissue healing capabilities or have poor peripheral circulation.

Pregnancy:

The use of DN therapy during pregnancy needs to be discussed thoroughly with the patient and should be used with caution as one in four to five pregnancies may naturally terminate in the first trimester (ASAP 2007). There is a potential for erroneous connection between such occurrences and needling therapies and this should be considered in patient education and clinical reasoning and decision making. There is conflicting opinion on the risk of acupuncture to induce labour or cause spontaneous abortion (WHO 1999; ASAP 2007; White, Cummings et al. 2008). However, in a controlled trial of 593 women with pregnancy-related nausea, acupuncture in early pregnancy did not affect pregnancy outcomes or the health of the child (Smith, Crowther et al. 2002). The recommendation of acupuncturists should be considered (WHO 1999; ASAP 2007; White, Cummings et al. 2008):

1. Acupuncture can be used throughout pregnancy with caution
2. Risks and benefits of treatment are considered in the usual way
3. It is wise to avoid strong stimulation
4. Acupuncture point areas to be avoided include LI 4, SP6, BL 60, BL 67 and LV 3 over the abdomen, ear points for the genitor-urinary system and scalp points for the genital and motor sensory areas
5. Needling to GB 21 and upper lumbar spine with caution
6. Electro-acupuncture should be avoided.

Appendix C – International positions

Frail Patients:

Caution should be exercised with infirm or frail patients due to the possible impaired ability to tolerate the dry needling procedure or ability to communicate their sensations properly.

Epilepsy

Patients with epilepsy, especially unstable epilepsy, should be dry needled with care and should not be left unattended at any stage during the treatment.

Allergy to Metals or Latex in Gloves

Patients allergic to metals may react to the metal of solid filament needles used in dry needling and relative risks should be discussed prior to treatment. It is accepted that the risk of allergic reaction to solid filament needles is low. The clinician needs to be aware that patients can have allergy to latex, found in examination gloves and alternative gloves should be employed for such patients.

Children

In addition to gaining informed consent parental or guardian consent must be sought when treating children under the age of 18. Ensure that younger patients do not have a needle phobia and are cooperative to the procedure. It is generally recommended to avoid TrPDN in patients less than 13 years of age due to procedural understanding and tolerance of the local twitch response stimulus (discussion Dommerholt, Fernández-de-las-Peñas, Grobali, McEvoy, Weissemann 2010)

Medications

Chartered Physiotherapists should remain aware of a patient's medication history as this may alert the clinician to medical condition(s) or situations that may be contraindicated or require special precautions for DN. Such situations may include patients on immune suppressive drugs, mood altering medication, blood thinning agents etc

Appendix C – International positions

Psychological Status

Patients with high distress, stress or psychological disorders may not be suitable for DN therapy. Such issues may reduce the likelihood of response to treatment or lead to greater stress response and risk of adverse psychological / physical response to DN therapy.

Anatomical Considerations

Dry needling therapy poses potential risk, however small to certain anatomical structures such as the lung, blood vessels, nerves and organs. This may include structural damage such as a pneumothorax in the case of the lung, blood vessels, peripheral and central nervous system and organs. All needling related traumatic injuries described by Peuker and Gronemeyer concluded that rare but serious traumatic complications could be avoided if practitioners had better anatomical knowledge, applied existing anatomical knowledge better, or both (Peuker and Gronemeyer 2001). This underpins the importance of academic and practical knowledge of anatomy in the safe practice of DN. Chartered Physiotherapists should exercise caution when practising DN in relation to avoiding certain anatomical structures and should limit practice to muscles and areas they have had training in and are confident in the application of DN to the proposed area. Should a clinician not be familiar with the anatomical area or muscles proposed for treatment, DN should not be used and other treatment choices should be utilised instead. Clinicians may choose, especially when newer to needling, to treat one side of the thorax only to prevent the rare and unlikely but serious risk of a bilateral pneumothorax. Specific areas of caution are covered in this section and include but not necessarily limited to the following:

Pleura and Lung

There is a risk of pneumothorax from dry needling muscles in the vicinity of the trunk. Dry needling therapy therefore raises the potential risk of serious medical emergency. A pneumothorax is defined as the presence of air or gas in the pleural cavity. The pleura is a serous membrane enveloping the lungs and lines the walls of the pleural cavity. The

Appendix C – International positions

pleura consists of parietal and visceral layers. The parietal pleura is the outermost layer and lines the different parts of the wall of the pleural cavity. The visceral pleura is the inner layer enveloping the lungs. Iatrogenic pneumothorax is a pneumothorax caused by a medical procedure such as dry needling.

For safe dry needling procedure consideration of pleural lung anatomy is essential. The landmarks below are for reference. The risk of a pneumothorax is very small if proper needling techniques are employed.

Where appropriate, DN should be performed in such a manner as to needle away from the lung and intercostal space to avoid the risk of pleural penetration. Where able a pincer grip should be utilised as in the case of the upper trapezius, or needling over bone to protect the lung as in the case of the scapula and ribs when appropriate. It is important to point out that scapula fenestration is possible, though rare, and Chartered Physiotherapists should be aware that anatomical variance can occur. The risk of a pneumothorax is very small if proper needling techniques are employed.

Blood Vessels

Anatomical knowledge of the vascular system is important as with DN there is a potential of injury to blood vessels. Palpating for a pulse, where accessible, to locate an artery prior to DN is recommended.

Nerve

Anatomical knowledge of the nervous system is important as with DN there is potential for injury to nerves. Special consideration needs to be given in relation to the spine and in the posterior sub occipital area as the brain stem is accessible through the foramen magnum.

Organs

Anatomical knowledge of internal organs is important as with DN there is potential for injury to internal organs such as the kidney or penetration into the peritoneum cavity.

Appendix C – International positions

Joints

Avoid needling into joints or joint capsules to avoid risk of potentially catastrophic joint infection.

Prosthetic Implants

Avoid needling into or close to any implanted devices. For example joint or limb prosthetics including internal or external fixation devices.

Implants and Electrical Device Implants

Avoid needling in the vicinity of implanted devices including drug delivery systems, cannulae or electrical devices such as implanted spinal cord stimulators and associated wires.

Tumours

Do not needle in the vicinity of tumours.

Other

Avoid DN into pathological sites such as varicose veins, ganglion cysts, cysts, tumours, acute inflammation or skin lesions.

Procedural issues and adverse reactions in DN therapy

Painful Treatment

DN technique should suit the ability of the patient to tolerate the procedure. The Chartered Physiotherapist should needle only to the tolerance of the patient and progress the treatment in line with this. The patient's response should be monitored by verbal and non-verbal communication to ascertain the response.

Patients should not be encouraged to withstand painful treatment.

Appendix C – International positions

Sharp pain of a stinging, lancing, electrical or burning nature may signal penetration of a nerve or blood vessel and should be immediately avoided.

Post treatment soreness is common for one hour to two days but on occasion up to 4 days. Patients should be warned about the potential for post treatment soreness.

Treatment should be scheduled to take into account patient's lifestyle, social and work commitments. Application of manual pressure (haemostasis) on the needled area is recommended which may prevent blood leakage within the tissue. Use of safe heat or cold application may be helpful and stretching and/or low level limbering movements may assist to reduce soreness.

Haematoma

It is recommended to pressurise the muscle for haemostasis after DN. This may assist in reducing post treatment soreness. Care should be taken to avoid penetrating blood vessels. If bleeding does occur, apply pressure to the area with a cotton swab after the needle has been withdrawn. Ice can be used locally to minimize the bruising. Patients should be warned of the potential for bruising.

Fainting and Autonomic Responses

Fainting may occur for a variety of reasons including: pain, psychological stress and tension, fatigue, positioning or in patients who are needle phobic, needle averse or autonomically labile. If a patient has a needle phobia, DN is contraindicated. It may be important to start with initially with SDN to assess the patient's response and then gently titrate TrPDN treatment as appropriate. If fainting does occur remove needles and make sure the patient is lying down and consider raising their legs. Offer reassurance and water or a sweet drink. Symptoms should abate after resting. Due to the risk of fainting it is advised the patient's are treated in a recumbent or lying down position. If fainting or autonomic symptoms do occur the patient may not be in a position to drive after treatment. If there is any concern the patient should seek medical assessment

Appendix C – International positions

Patient Position and Movement

The patient should be positioned comfortably in the recumbent position sidelying, prone or supine. Sitting position should be avoided. The patient should be told to stay still during treatment. Despite this the clinician should prepare for potential movement and needle in such a way that allows needle control. For example when needling the lower trapezius and to reduce the risk of pneumothorax due to inadvertent patient movement, pincer grip technique offers greater control than needling the muscle onto the rib.

If static technique is used the patient should be told to remain still to prevent needle bending, unlikely needle breakage, or inadvertent tissue trauma or pneumothorax. The patient should be able to call for assistance at all times.

Stuck Needle

On occasion a needle may become stuck due to needle twisting as there is a tendency for the skin and soft tissue to bind around the needle. Should this occur, position the patient in a relaxed manner, avoid excessive twisting of the needle. If the needle is stuck due to over rotation, then rotate the needle in the opposite direction and remove. If it is stuck due to muscle tension, leave the needle in for a short period of time, relax the tissue around the needle with massage, ice massage or by inserting 1-2 needles around the stuck needle, then remove the needle. Another consideration is to have the patient gently isometrically contract the antagonist to relax the target muscle using reciprocal inhibition.

Bent Needle

The solid filament needle can become bent due to the needle striking hard tissue such as bone or thick fascia or due to contraction of the muscle. To prevent the bending of needles insert the needle with the patient in a relaxed and optimal position. Ensure the needling technique is optimal and avoid over curving the needle during dynamic needling treatment. If a needle demonstrates a bend it should be removed and discarded and replaced with a fresh needle.

Appendix C – International positions

Broken Needle

This may occur due to poor quality of the needle or repeated bending. The likelihood of a broken needle is very rare with the use of single use sterile needles as there is no metal fatigue from repeated use and autoclaving. However should this occur the patient should be advised to remain calm to avoid the needle from going deeper. Mark around the site of insertion with a pen or marker to make the needle site easy to identify. If the broken needle is exposed remove the broken section with tweezers, if it is not exposed press the tissue around the insertion site until the broken section is exposed and remove with tweezers. If the needle can't be removed in the clinic, medical attention must be sought so that the needle can be removed surgically.

The quality of the needles is important and practitioners should only use needles that have a CE quality mark.

It is recommended to maintain approximately 1cm of the needle outside the skin. In the very unlikely event of a needle breakage at the hub, the broken needle could still be retrieved with tweezers.

Forgotten Needle

All needles used should be accounted for. A forgotten needle could cause tissue trauma or serious complications such as pneumothorax. Forgotten needles are more likely to occur with static needling technique, where the needle(s) are left in situ for a period of time or when needling various body parts. A “count them in, count them out policy” technique should be used, where the clinician counts the needles. This is both helpful to the clinician and reassuring to the patient.

Forgotten Patient

If using a static needle technique and leaving the patient in the room cubicle for a period of time it is important to avoid forgetting the patient. As the patient is not able to self release themselves, it is important that the patient has the ability to call the clinician verbally or with the use of call bell.

Appendix C – International positions

Infection

The skin in the region to be treated should be inspected and if any signs of infection are present treatment should be deferred and medical advice sought.

Excessive Drowsiness

A small percentage of patients may feel excessively relaxed and sleepy after DN treatment. They should be advised not to drive until they have recovered. In patients that experience this phenomenon future DN sessions should be timed around their lifestyle to allow for recovery and should be driven home by a third party.

Pneumothorax

When needling around the thoracic region patients should be warned of the rare possibility of a pneumothorax as has been outlined in the precautions section under anatomical considerations. Practitioners must have attended adequate training programs to needle in the thoracic region.

The symptoms and signs of a pneumothorax may include:

1. shortness of breath on exertion
2. chest pain
3. dry cough
4. decreased breath sounds on auscultation.

These symptoms may not occur until several hours after the treatment and patients need to be cautioned of this especially if they are going to be exposed to exercise and marked alterations in altitude such as flying or scuba diving. If a pneumothorax is suspected then the patient must be sent urgently to the nearest accident and emergency department.

Needling Over Abdominal Organs

Appendix C – International positions

All abdominal organs, including the kidney, liver, spleen, intestines and urinary bladder are potentially at risk, when needling directly over organs. The risk is greater with anatomical variance or enlarged organs. Do not needle deeply over organs.

Miscarriage and Pregnancy

This has been discussed under contraindication and special precautions section

Needle Stick Injury

Refer to the Hygiene section for management of needle stick injury

Patient Self Needling

Patients should never be given needles to take home or needle themselves or others due to obvious risks.

Electrical Stimulation Via Dry Needles

Electrotherapy can be delivered via dry needles for pain relief, treatment of abnormal muscle tone or strengthening. This has been described by Gunn (Gunn 1997), Baldry (Baldry 2005) and White et al (White, Cummings et al. 2008) and is commonly employed in acupuncture and termed electroacupuncture. All contraindications and precautions for DN therapy should be observed (ASAP 2007).

Suitable equipment and procedure has been recommended (ASAP 2007; White, Cummings et al. 2008):

1. Consider the relevant electrotherapy device contraindications
2. Use only devices especially designed for electroacupuncture
3. Follow the recommendations of the manufacturer of the electrical stimulation device
4. Use suitable one use sterile metal tipped needles. Do not use needles with plastic handles (ASAP 2007)
5. Do not connect electrical clips to patient contaminated needle shafts

Appendix C – International positions

Contraindications to electrical stimulation via dry needling include:

1. A patient who is not comfortable or phobic to electrical stimulation or needling
2. It is recommended not to connect needles across the spinal cord including, the chest wall, arm to arm or leg to leg (White, Cummings et al. 2008).
3. Patients with implanted electrical devices, such as pacemakers, spinal cord stimulators (ASAP 2007; White, Cummings et al. 2008)
4. During pregnancy in the vicinity of the mid or low back, pelvis or abdomen.
5. In the vicinity of the carotid sinus the vagus nerve in the anterior triangle of the neck or in the vicinity of the recurrent laryngeal nerve (White, Cummings et al. 2008)
6. In areas of sensory denervation (White, Cummings et al. 2008)
7. Special caution should be used with persons with epilepsy

Special precaution

Extra care should be employed with patients who have bleeding disorders as associated muscle contraction from electrotherapy with indwelling needles may have a tendency to create significant bleeds.

Appendix C – International positions

Section 5: Hygiene

Hygiene Introduction:

DN is an invasive procedure and therefore poses a hazard through risk of infection and injury to the patient, the clinician and third parties. This section recommends hygiene guidelines to minimise this risk. Reference is made and Chartered Physiotherapists should read the Health Service Executive's publication **Standard Precautions** 2009 (HSE 2009).

Standard Precautions (HSE 2009)

What are Standard Precautions?

Standard Precautions are evidence based clinical work practices published by the Centre of Disease Control (CDC) in 1996 and updated in 2007 that prevent transmission of infectious agents in healthcare settings (Siegal JD, Rhinehart E et al. 2007).

Standard Precautions require all healthcare workers to:

1. Assume that every person is potentially infected or colonized with an organism that could be transmitted in the healthcare setting.
2. Apply a set of work practices to blood, all body fluids except sweat, mucous membranes and non intact skin including:
 - hand hygiene
 - use of personal protective equipment
 - management of spillages of blood and body fluids
 - appropriate patient placement
 - management of sharps
 - safe injection practices
 - respiratory hygiene and cough etiquette
 - management of needle stick injuries

Appendix C – International positions

- management of waste
- management of laundry
- decontamination of reusable medical equipment
- decontamination of the environment.

What is the Rationale for Standard Precautions?

Within a healthcare setting both patients and healthcare staff are at risk of acquiring an infection.

Risk to Patients

It has been estimated that 1 in 10 patients acquire a healthcare associated infection

Risk to Healthcare Workers

Infection is an occupational risk for healthcare staff. Exposure to blood and body fluids from infected patients poses a risk of infection such as hepatitis B, C or HIV for healthcare staff.

Hand Hygiene Recommendations (SARI 2005; HSE 2009)

“Hand hygiene is the single most important intervention to prevent transmission of infection and should be a quality standard in all health care institutions.” (SARI 2005).

It is recommended to refer to the full *Guidelines for Hand Hygiene in Irish Health Care Settings* by The Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) and published by the HSE 2005. The following is extracted from the SARI *Guidelines for Hand Hygiene in Irish Health Care Settings* (SARI 2005).

Summary of Recommendations for Hand Hygiene in the Healthcare Setting

Category I (I): Recommended for implementation and supported by experimental, clinical or epidemiologic studies with a strong theoretical background.

Appendix C – International positions

Category II (II): Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

Category III (III): Recommended based on experience of experts in the field.

Hand Hygiene Preparation:

1. Nails must be kept short and cut smoothly (II)
2. Nail varnish (III) and/or false nails (I) must not be worn
3. All wrist and hand jewellery, including watches (except plain wedding bands) must be removed (II)
4. Shirts should have short or turn up sleeves (III).

Hand Decontamination Should be Carried Out:

1. When hands are visibly contaminated with dirt, soil or organic material (I) (Always wash hands when visibly contaminated)
2. At the beginning and end of the work shift (III)
3. Before and after each patient contact (II)
4. After moving from a contaminated to a clean area during care of an individual patient (II)
5. After removing gloves (I)
6. After handling soiled equipment, materials or environment (II)
7. Before preparing or handling food (I)
8. After personal bodily functions such as blowing nose or using the lavatory (I).

Hands may be decontaminated using both plain soap and water or if hands are physically clean, with an alcohol based hand rub/gel.

Decontamination with an Antiseptic Handwash Agent, or Alcohol Handrub Product

Use on visibly clean hands only, otherwise hands must be washed

Indication for use:

Appendix C – International positions

1. Before and after each patient contact in critical care units (II), those who are immunocompromised (III) or with large wounds or burns (I) and before entering units/wards with such patients (I)
2. After all contact with patients on transmission-based precautions and prior to leaving wards/rooms with such patients (I)
3. When hands are inadvertently contaminated with a heavy microbial load such as foul or infectious material (I). (Always wash hands when visibly contaminated)
4. Before performing invasive procedures as part of an aseptic technique (I).

An alcohol-based product should only be used on visibly clean hands and is recognised as a superior hand hygiene product for almost every situation. Alcohol handrub products with added emollient reduce the risk of dermatological side effects. Repeated use of alcohol-based products with added emollients may result in an excessive build up of emollient on the hands, and this may be reduced by periodic washing with soap and water.

Because alcohol-impregnated towelettes contain a restricted amount of alcohol, their effectiveness is similar to that of soap and water (CDC 2002).

Hand Decontamination Technique:

Decontaminating with Handwashing (CDC 2002; SARI 2005; HSE 2009)

When washing hands with soap and water:

1. Wet hands first with water
2. Apply an amount of soap product recommended by the manufacturer to hands
3. Rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers
4. Rinse hands with water and dry thoroughly with a disposable towel
5. Use towel to turn off the faucet

Appendix C – International positions

6. Avoid using hot water, because repeated exposure to hot water may increase the risk of dermatitis.

Use single-use, disposable, good quality paper towels (SARI 2005). Multiple-use cloth towels of the hanging or roll type are not recommended (CDC 2002).

Decontaminating with Alcohol-based Hand Rub - Technique (CDC 2002; SARI 2005)

Decontaminate hands with suitable alcohol-based hand rub of 60-70% alcohol (isopropanol, ethanol, n-Propanol) concentration by weight. Concentrations of up to 95% can be used, but concentrations greater than 70% are generally avoided due to risk of skin dryness or dermatitis. Be aware that alcohol-based hand rub can be inactivated by organic material. If hands are soiled, handwashing is recommended. Refer to manufacturers instructions.

Technique is recommended as follows:

1. Apply product to palm of one hand and rub hands together
2. Covering all surfaces of hands and fingers
3. For at least 15 seconds and until hands are dry.

Occupational Dermatitis:

Due to the fact that HCW's are required to wash and decontaminated there hands frequently occupational dermatitis is common. Irritant dermatitis is a non-immunological inflammatory reaction of the skin to an external agent. Damaged areas of skin are more prone to colonisation with micro-organisms and therefore the management of all forms of dermatitis is essential for HCW's and subsequently patients. Recommendations for the prevention of occupational dermatitis in the healthcare setting have been published by SARI (SARI 2005).

Summary recommendations:

1. Choose products with low irritation potential, with the addition of emollients

Appendix C – International positions

2. Promote use of alcohol based hand rubs containing emollients
3. Promote use of hand lotions and creams to increase skin hydration and replace depleted skin lipids
4. Receive feedback and input from HCW's regarding the tolerance etc of products.

Use of Gloves:

Gloves should be worn on both hands during DN. The HSE *Standard precautions* document (HSE 2009) recommends the use of gloves:

1. for all activities that carry a risk of exposure to blood, body fluids, secretions or excretions, sharps or contaminated instruments
2. when touching mucous membranes and non-intact skin
3. when handling contaminated equipment.

Gloves should be single use and conform to European community standards. HCW's with allergy to latex should use latex-free gloves. Sterile gloves are recommended if contact with a sterile body area is required. Hand decontamination should be carried out as per recommendations (see section). Gloves should be donned immediately before DN and removed as soon as DN is finished. Gloves soiled with blood or body fluids should be disposed of as healthcare waste (see appropriate section).

It has been argued that gloves may affect the kinesiosthetic feedback during acupuncture or DN (ASAP 2007), however clinicians should be able to adapt to palpation technique using gloves.

Patient Skin Preparation

Routine disinfection of visible clean skin before needling has not been considered necessary (Hoffman 2001; Baldry 2005; BAC 2006; ASAP 2007; White, Cummings et al. 2008). This is in line with World Health Organisation (WHO) best infection-control practices for intradermal, subcutaneous and intramuscular needle injections (Hutin, Hauri et al. 2003). It is argued that bacteria resident in the skin is not likely to cause infection provided host immunity is not seriously impaired (Hoffman 2001; Baldry 2005).

Appendix C – International positions

Despite this, American acupuncture guidelines recommend to disinfect the skin with 70% isopropyl alcohol prior to needling.

1. Skin preparation is usually not required (Hoffman 2001), but if desired 70% isopropyl alcohol swab should be used prior to needling.
2. Be sure the patient's skin is visibly clean and if not the skin should be cleaned with warm soapy water and dried fully.
3. If DN close to an area that is more susceptible to infection such as a joint or bursa, or in an area that is habitually moist such as the armpit or groin, it is recommended to prepare the skin by swabbing, scrubbing with alcohol, isopropanol or povidone-iodine and allowing to dry for 2 minutes (see section below on skin sterilisation). This procedure may also be required with patients whom have an impaired immune system if deemed to be appropriate for DN therapy. It is recommended to follow the manufacturer's instruction for these products.
4. For a review on skin disinfection refer to Hoffman (2001) (Hoffman 2001)

Skin Sterilisation (ASAP 2007)

1. Skin sterilisation is recommended for patients who have a deficiency in their immune system.
2. A sterilising solution such as 2% iodine in 70% alcohol should be used and left on the skin to dry for a minimum time of two minutes. (for those allergic to iodine, chlorhexidine in alcohol is suitable).
3. In this case a sterile glove is required if palpating the sterilised skin is required.

Immuno-compromised patients include those with malignancies, autoimmune problems such as S.L.E, AIDS or R.A. and those on immune suppressive drugs e.g. organ transplant recipients. These groups of people can get an infection from a much smaller number of infectious agents than those with an intact immune system. Disinfection may not remove enough organisms to prevent infection, hence their skin needs to be sterilised.

Appendix C – International positions

The background to this policy is that in a normal healthy person a certain amount of infectious agents (bacteria, viruses) have to be introduced to the host's system before the body's defences are overwhelmed and an infection takes place. To reduce the number of bacteria or viruses below this infective agent is to **disinfect**. To completely remove all forms of life from the skin is to **sterilise**.

Needles

1. It is recommended without exception to use only high quality sterile single use disposable solid filament needles for dry needling therapy. Needles should be of good quality and should have a CE quality mark or British Kite mark. Ensure outer packaging is intact and the needles are within date and if not discard. Follow storage guidelines as recommended by the manufacturer and keep needles out of reach of children.
2. Needles should never be re-sterilised and/or reused.
3. Physiotherapists should avoid touching the shaft of the needle as this could increase the risk of infection. Needles should be held by the handle only.
4. If the needle is contaminated by the clinician's hand, other object or surface it should be discarded and replaced with a fresh sterile needle.
5. In TrP-DN the needle may be removed from the skin and reinserted at another point. In this case usual procedure should be followed and again the shaft of the needle should not be touched. Be aware that the needle may become blunt. If re-sheathing the needle back into its own guide tube, never re-sheath the needle into the guide tube sharp point first. The needle can be inserted back into the guide tube handle in first (White, Cummings et al. 2008). This is a procedure that needs to be practiced in order to achieve the dexterity required to perform safely and adequately. Needles and guide tubes should only be used together on an individual patient and never mixed as this could lead to cross contamination between patients. Physiotherapists should check their local work practice guidelines to ensure this type of needle re-sheathing is allowable

Appendix C – International positions

6. All needles and needle guide tubes should be discarded immediately after treatment in a “sharps container”.
7. Never store a used needle for use on the patient at another treatment.
8. All needles must be accounted for after each session to avoid leaving a needle in situ in a patient or exposing the clinician or a third party to a needle stick injury.
9. If a reusable plunger type applicator has been used for intramuscular stimulation (Gunn technique), the applicator should be cleaned and then properly sterilised (e.g. using an autoclave) after use with each patient (CPTA 2007). However, Chartered Physiotherapists should ensure methods and equipment for sterilisation meet HSE requirements and should seek expert advice in meeting HSE policies and procedures.
10. Should never be given needles to take home or needle themselves or others due to obvious risks.

Needle and Medical Clinical Waste Disposal

1. Disposal of needles and contaminated waste should be in line with the Irish Department of Health and Children’s policy document on “Segregation Packaging and Storage Guidelines for Healthcare Risk Waste” 2004 (Dept of Health 2004).
2. Dispose of needles carefully in a “sharps container”. Sharps containers should be of a standard and design to meet UN3291 approval. Chartered Physiotherapists should ensure the sharps container is within easy reach of the treatment area. It is important not to fill the container above the normal fill line indicator as this can lead to inadvertent needle stick injury. Ideally the sharps container should be wall mounted or on a trolley and should not be placed on the floor or in areas accessible to children. Full sharps containers should be closed using the locking mechanism and disposed of in accordance with local guidelines with a licensed waste disposal company.
3. Clinical waste from DN therapy may include swabs contaminated with blood and serous, soiled gloves etc. Clinical waste should be disposed of in an approved yellow bag. Yellow bags are designed for the disposal of soft items such as soiled

Appendix C – International positions

swabs, gloves etc. No sharp objects or needles should be placed in yellow bags. Yellow bags should be available within easy reach of the treatment area and when full should be disposed of in accordance with local guidelines with a licensed waste disposal company.

Procedures Following a Needle Stick Injury or Other Exposure Incident

Do the Following:

1. Wash the area thoroughly with soap and warm water. In the case of needlestick injury / wounds encourage them to bleed. Do not suck the puncture site. Do not use a nail brush
2. Report the incident at once to your manager. Complete an accident form. Make a note of the details of the source patient (i.e. the patient on which the needle had been used). Take the name, date of birth, address, telephone number
3. Visit the Accident and Emergency Department where the situation will be assessed by the A+E Doctor (***This must be done as soon as possible after the injury***). The A+E Doctor will need to consider the following: Was this a significant injury in respect of possible exposure to blood/body fluid of another person / Is the recipient of this injury vaccinated against Hepatitis B / If it was a significant injury, can the source patient be tested for blood borne infections (HIV, Hep C, Hep B)
4. The A+E Doctor will provide immediate treatment as appropriate, and if further follow-up blood tests are necessary, this will be done either by your employers Occupational Health Resource, or your own General Practitioner.

Management of Blood and Bodily Fluids Spills (ASAP 2007)

Appendix C – International positions

Blood and bodily fluid spills are rare in DN practice. However, rarely a blood spill may occur. The following guidelines are recommended if a blood or bodily fluids occurs.

Please guidelines are adapted from ASAP 2007.

1. Wear suitable protective equipment e.g. gloves, apron, goggles as required.
2. Absorb the spill with paper towels. Disinfectants can be less active or even ineffective in the presence of high concentrations of proteins, such as in blood. The majority of the spilled blood or body fluid should be removed prior to disinfection. The absorbent paper towel waste should be placed in a suitable waterproof yellow bag.
3. Clean the spill site with detergent and water, rinse and dry with paper towel and dispose of the cleaning towels in yellow bags.
4. Disinfect the area with a chlorine-generating disinfectant if bare skin will contact the spill site (such as a treatment plinth) or if it is difficult to clean the surface in the clinical area. Sodium hypochlorite solutions (bleach) must be freshly prepared. When using disinfectants follow manufacturer's recommendations in relation to usage and safety. Disinfectants should be left in contact with the surface for 10 minutes. Domestic liquid bleach usually contains 4-5% available chlorine, diluted with tap water in a concentration of 1:100 yields 5000 parts per million (PPM) approximately. This concentration will inactivate Hepatitis B in 10 minutes and HIV virus in 2 minutes. This Surfaces that cannot be cleaned adequately may need replacement e.g. carpeted surfaces.
5. Flood the spill site or wipe down the spill site with disposable towels soaked in disinfectant.
6. Absorb the disinfectant solution with disposable materials. Alternatively, the disinfectant may be permitted to dry.
7. Rinse the spill site with water to remove any noxious chemicals or odours. Dry the spill site to prevent slipping or further spills.
8. All materials used to absorb and clean the spill area should be placed in waterproof yellow bags and disposed of appropriately.

Appendix C – International positions

Section 5: Principles of Dry Needling Practical Application

This section outlines the principles of DN of practice including:

1. Patient selection recommendations
2. Patient education and consent prior to treatment
3. Patient procedural education
4. Practical application – positioning, palpation, technique, after-care.

Patient Selection:

Patients should be screened for appropriateness of DN. Chartered Physiotherapists should select patient suitable for DN based upon findings from the physiotherapy assessment. Appropriate selection of patient's involves (Adapted from (CPTA 2007):

1. Consideration of the patient's physiotherapy diagnosis with the reasonable expectation of benefits from dry needling
2. Consideration of the patient's medical conditions including conditions requiring caution (e.g. pregnancy, use of medications such as blood thinners, the presence of a pacemaker, the presence of cancer or haemophilia)
3. Consideration of the patient's ability to understand what will be done and why
4. Consideration of the patient's capacity to effectively communicate his or her response to treatment
5. Consideration of the patient's ability to comply with treatment requirements (e.g. lying still)
6. Consideration of the patient's ability to provide informed consent within the guidelines of local regulations

Appendix C – International positions

7. Consideration of the capacity for the safe application and management of precautions (e.g. physiotherapy treatment in the patient home, at a sports club etc)

In addition it is important to consider the patient and practice context will issues/factors related to the application of dry needling (adapted from (CPTA 2007):

1. Understand the patient's characteristics: culture, comfort with needles, response to pain, response to handling
2. Understand the patient's functional and physical ability: cognition, anxiety
3. Understand the patient's language and communication: consent, reliability, understanding
4. Understand the patient's psychological status: Fear of needles, emotional responses
5. Understand the patient's age limitations: cautious use in the preteenage years (consider other non DN methods), consent requirements as routine.

Patient Education and Consent Prior to treatment:

Prior to DN therapy the Chartered Physiotherapist should educate the patient on the procedure. This may include where appropriate:

1. The indication and aim of the treatment should be explained appropriately to the patient
2. A brief explanation of how the treatment potentially works (e.g. SDN versus TrPDN)
3. It should be made clear to the patient that DN is an invasive procedure with insertion of the needle into the skin, subcutaneous tissue and muscle etc
4. The risks of DN treatment should be discussed with the patient (see section on safety) to allow the patient to make an informed decision about the choice of treatment and consent to the procedure. The patient should be informed of the

Appendix C – International positions

possibility of transient symptoms during and/or after the treatment including post treatment soreness, fatigue, light headedness or temporary aggravation and haematoma. The patient should be informed that single use disposable needles will be utilised during treatment

5. Persons under 18 years of age should also have informed consent from parent or guardian
6. The patient should be given an opportunity to have their questions answered
7. Chartered Physiotherapists should gain informed consent from patients in line with ISCP-RPC 2010, ECSPP 2008 and this guide. Consent should be documented
8. Informed consent can be written or verbal as appropriate. Written consent may be required and Chartered Physiotherapists must use their judgement in deciding when written consent is needed (ECSPP 2008).
9. Patient education should delineate that DN when administered by Chartered Physiotherapist does not constitute the practice of acupuncture, unless the clinician is an acupuncturist or is qualified to deliver acupuncture.

Procedural Education:

DN requires substantial cooperative interaction between patient and clinician. To enhance the safety and comfort of DN therapy the following is recommended:

1. The patient is asked and encouraged to give feedback to the clinician during DN to ensure treatment is matched to suit the patient.
2. The patient is informed to remain still during treatment
3. The patient should be aware that they can at any time withdraw from the treatment and at this stage the clinician will stop the treatment

Appendix C – International positions

4. If employing TrPDN the patient should be informed of the local twitch response (LTR). This may feel like an electric shock. The patient is informed that reproduction of the LTR is the aim of TrP-DN.
5. If static technique is utilised, where the needle is left in situ statically for a period of time, the patient should be informed not to move as this poses a risk of further needle penetration and potential harm such as pneumothorax.
6. If static technique is employed and the patient is left alone in a treatment room, the patient should be able to call or alert the Chartered Physiotherapist easily.
7. Any advice following the treatment that may be pertinent for the individual patient should be given in context of the overall plan of care.

Practical application

Positioning

1. The patient should be primarily treated reclined and positioned in a suitable manner to access the muscle(s) to be needled. Positions may include supine, prone, side lying or a combination of these positions. Pillows and bolsters can be utilised to ensure a relaxed position for the patient. It is important to ensure the patient is comfortable and relaxed
2. Treating patients in sitting should be avoided to prevent a fall from potential fainting, though low risk.
3. The muscle(s) or body area being treated should be positioned optimally to allow skilled palpation of the taut band and trigger point and for dry needling procedure
4. It is helpful to be able to see the patients face for feedback, but accepting that this is not always possible, it is important to keep verbal communication with the patient to assess their response to the procedure

Appendix C – International positions

5. The Chartered Physiotherapist's position during needling should be comfortable and ensure good body mechanics. This is important to assist in prevention of work related disorders

Palpation

1. The muscle(s) to be treated and anatomical landmarks should be identified by visual observation and skilled palpation. The Chartered Physiotherapist needs to be cognisant of avoiding other anatomical structures in the relevant area being needed e.g. sciatic nerve, lung etc.
2. The muscle should be palpated and the taut band and trigger point should be identified by the relevant criteria. The muscle can be contracted to identify fibre direction and to clarify muscle identification.
3. Flat palpation or pincer grip techniques should be employed as appropriate for the area being needed. It is again important to ensure anatomical position. Pincer grip is generally the recommended choice over flat palpation, in areas where applicable, to allow systematic avoidance of other tissues that may be more vulnerable with flat palpation approach e.g. when needling the upper trapezius.
4. Should the clinician remove her palpating hand from the muscle, to prepare the needle etc, the muscle and bony landmarks should be found again to avoid inadvertent incorrect needling due to patient movement or incorrect hand placement.
5. Ensure the patient and muscle is relaxed before starting the needle procedure
6. Should the clinician not be able to palpate or confirm the muscle and anatomical landmarks, or is unsure of anatomical topography of the area to be needed, dry needling therapy should be avoided. This may occur in certain cases, for example obese patients.

Technique

Appendix C – International positions

It is accepted that various conceptual models and techniques maybe used individually or in combination during dry needling. A brief outline of the concepts has been mentioned in the introduction of this guide and Chartered Physiotherapists are recommended to review the referenced material.

1. The area to be needled is identified and the MTrP is palpated and located as outlined in the palpation section above.
2. The palpating hand holds the muscle in pincer grip or flat palpation and the needling hand holds the needle by the handle only
3. The clinician should remain aware of anatomical structures within the treatment area that are vulnerable to dry needling, such as the lung and ensure that technique avoids penetration.
4. The clinicians should stay alert to voluntary and involuntary patient movement that may compromise safe dry needling practice during treatment. In this regard the clinician's "needling hand" should keep contact with the patient to allow controlled relative movement with the patient should they patient move.
5. A high quality solid filament sterile needle of a thickness and length suitable for the muscle and size of the patient to be needled is chosen
6. The needle is inserted through the skin either directly or using a guide tube. The guide tube is then removed. The clinician should not touch the needle shaft to prevent contamination. (See hygiene section)
7. For SDN the needle is inserted to the depth for superficial needling as has been recommended by Baldry (Baldry 2002; Baldry 2005). For TrPDN, to a depth to engage the MTrP.
8. In TrPDN technique the needle maybe moved in a slow steady lancing motion in and out of the muscle. This is termed dynamic needling and is applied by bringing the

Appendix C – International positions

needle out to the edge of the external myofascia and directing the needle back into the muscle. The main aim of this treatment is to elicit LTRs.

9. Sharp pain of a stinging, lancing, electrical or burning nature may signal penetration of a nerve or blood vessel and should this be the case the needle should be removed immediately.
10. Dry needling technique may include leaving the needle in situ as in a static manner. The needle may be rotated with several revolutions to draw the fascia or soft tissues. If static needle procedure is used, the clinician should ensure when releasing grip that the needle should not move so as to make other structures (such as lung, blood vessels and nerves) vulnerable to needle penetration.
11. It is acceptable that an individual needle may be reinserted across the skin of the patient and then be disposed of when finished. The clinician should not touch the needle shaft to prevent contamination of the needle and potentially increase risk of infection. If this occurs the needle should be disposed of and a new needle used. Of course a needle should never be stored or reused.
12. If a static needle procedure (where the needle is left statically in situ) is utilised the Chartered Physiotherapist should remain within audible distance of the patient so that treatment can be monitored. Suitable procedures should be in place so as not to forget a patient.
13. The intensity of the treatment should suit the tolerance of the patient and be relative to the severity of the patient's presentation. The parameters that can be controlled in delivering DN therapy may include: SDN vs DDN, quantity of lancing motions, intensity of lancing motion, stimulation and quantity of local twitch responses, length of time of active needling, number of needle insertions per muscle and number or muscles treated in one session.
14. Should a needle repeatedly contact bone it should be withdrawn and replaced as blunting may have occurred.

Appendix C – International positions

15. The clinician should keep active communication with the patient during the DN therapy and limit treatment to a level that the patient can tolerate. The patient should be reassured throughout the procedure. This is most important for the initial treatment for a new, needle naive patient
16. The patient's response to previous MTrP treatments and dry needling should be taken into account to delineate the intensity of the active dry needling treatment.
17. When treatment is completed, all needles should be accounted for and discarded into a "sharps container" as well as guide tubes. Refer to the section on Hygiene.
18. Care should be taken when administering dry needling in an external setting (such as a local sports club or a home visit). The required equipment should be available on hand. The patient's skin should also be examined to ensure cleanliness prior to DN (see Hygiene Section).

Aftercare:

The following is recommended for aftercare:

1. The area needled should be compressed immediately for 30-60 seconds following needle withdrawal to ensure haemostasis using a cotton swab. Cotton swabs should be disposed of in yellow medical waste bags only.
2. If blood is present on the skin, the skin should be cleaned with alcohol swab and the swab discarded in a yellow clinical waste bag
3. The patient should receive where appropriate advice on safe self care such as hot or cold packs, stretching, exercises and / or activity modification as required in the overall context of the plan of care
4. Adverse reaction should be dealt with as outlined in this guide

Appendix C – International positions

References

- AAOMPT. (2009). "AAOMPT Position Statements - Dry Needling." Retrieved 2/3/2011, from <http://www.aaompt.org/about/statements.cfm>.
- ASAP (2007). Guidelines for safe acupuncture and dry needling practice, Australian Society of Acupuncture Physiotherapists Inc.
- BAC (2006). The British Acupuncture Council Code of Safe Practice. London, BAC.
- Baldry, P. (2002). "Superficial versus deep dry needling." *Acupunct Med* **20**(2-3): 78-81.
- Baldry, P. E. (2001). *Myofascial pain and fibromyalgia syndromes*. Edinburgh, Churchill Livingstone.
- Baldry, P. E. (2005). *Acupuncture, Trigger Points and Musculoskeletal Pain*. Edinburgh, Churchill Livingstone.
- Boyling, J. D. and G. A. Jull (2004). The future scope of manual therapy. *Grieve's modern manual therapy : the vertebral column*. J. D. Boyling, G. P. M. m. t. o. t. v. c. Grieve and G. A. Jull. Edinburgh, Churchill Livingstone: xv, 643 p.
- CDC (2002). Centers for Disease Control and Prevention. Guideline for Hand Hygiene in Healthcare Settings. *MMWR*. **51 (No. RR-16)**.
- CPTA (2007). Dry needling competency profile for physical therapists. Edmonton, Alberta, College of Physical Therapists of Alberta: 5.
- Cummings, T. M. and A. R. White (2001). "Needling therapies in the management of myofascial trigger point pain: a systematic review." *Arch Phys Med Rehabil* **82**(7): 986-92.
- Dept of Health (2004). Segregation Packaging and Storage Guidelines for Healthcare Risk Waste D. o. H. a. Children.
- Dommerholt, J., C. Bron, et al. (2006). "Myofascial trigger points; an evidence-informed review." *J Manual Manipulative Ther* **14**(4): 203-221.
- Dommerholt, J. and C. Fernandez de las Penas (in press). *Trigger Point Dry Needling: An Evidenced-Informed Approach*, Churchill Livingstone.
- Dommerholt, J. and P. Huijbregts (2011). *Myofascial trigger points : pathophysiology and evidence-informed diagnosis and management*. Sudbury, Mass., Jones and Bartlett Publishers.
- Dommerholt, J., O. Mayoral, et al. (2006). "Trigger point dry needling." *J Manual Manipulative Ther* **14**(4): E70-E87.
- ECSP (2008). European Core Standards of Physiotherapy Practice, European Region of the World Confederation for Physical Therapy.
- Ernst, E., M. S. Lee, et al. (2011). "Acupuncture: Does it alleviate pain and are there serious risks? A review of reviews." *Pain* **152**(4): 755-64.
- Ernst, G., H. Strzyz, et al. (2003). "Incidence of adverse effects during acupuncture therapy-a multicentre survey." *Complement Ther Med* **11**(2): 93-7.
- Furlan, A., M. Tulder, et al. (2005). "Acupuncture and dry-needling for low back pain." *Cochrane Database Syst Rev*(1): CD001351.
- Ga, H., H. J. Koh, et al. (2007). "Intramuscular and nerve root stimulation vs lidocaine injection to trigger points in myofascial pain syndrome." *J Rehabil Med* **39**(5): 374-8.
- Gerwin, R. D. (2005). "A review of myofascial pain and fibromyalgia--factors that promote their persistence." *Acupunct Med* **23**(3): 121-34.
- Gray, H. and S. Standring (2005). *Gray's anatomy : the anatomical basis of clinical practice*. Edinburgh, Elsevier Churchill Livingstone.
- Gray, H., P. L. Williams, et al. (1995). *Gray's anatomy : the anatomical basis of medicine and surgery*. New York, Churchill Livingstone.
- Gunn, C. C. (1997). *The Gunn approach to the treatment of chronic pain*. New York, Churchill Livingstone.
- Hoffman, P. (2001). "Skin disinfection and acupuncture." *Acupunct Med* **19**(2): 112-116.
- Hong, C. Z. (1994). "Lidocaine injection versus dry needling to myofascial trigger point. The importance of the local twitch response." *Am J Phys Med Rehabil* **73**(4): 256-63.
- HSE (2009). Standard Precautions, Health Service Executive. **Standard Precautions version 1.0 28th April 2009**

Appendix C – International positions

- Hutin, Y., A. Hauri, et al. (2003). "Best infection control practices for intradermal, subcutaneous, and intramuscular needle injections." *Bull World Health Organ* **81**(7): 491-500.
- ISCP-RPC (2010). Irish Society of Chartered Physiotherapists - Rules of Professional Conduct, ISCP.
- Lee, J. H., H. Lee, et al. "An Acute Cervical Epidural Hematoma as a Complication of Dry Needling." *Spine (Phila Pa 1976)*.
- Lee, J. H., H. Lee, et al. (2011). "An Acute Cervical Epidural Hematoma as a Complication of Dry Needling." *Spine (Phila Pa 1976)*.
- Lewit, K. (1979). "The needle effect in the relief of myofascial pain." *Pain* **6**: 83-90.
- MacPherson, H., K. Thomas, et al. (2001). "A prospective survey of adverse events and treatment reactions following 34,000 consultations with professional acupuncturists." *Acupunct Med* **19**(2): 93-102.
- McEvoy, J. (in press). Safety of trigger point dry needling. *Trigger Point Dry Needling: An Evidenced-Informed Approach*. J. Dommerholt and C. Fernandez de las Penas, Churchill Livingstone.
- McEvoy, J. and J. Dommerholt (2012). Myofascial trigger point of the shoulder. *Physical Therapy of the Shoulder*. R. Donatelli. St Louis, Elsevier Churchill Livingstone: 351-380.
- McEvoy, J. and P. Huijbregts (2011). Reliability of myofascial trigger point palpation: a systematic review. *Myofascial trigger Points: Pathophysiology and evidenced-informed diagnosis and management*. J. Dommerholt and P. Huijbregts. Sudbury, Jones and Bartlett.
- Melchart, D., W. Weidenhammer, et al. (2004). "Prospective investigation of adverse effects of acupuncture in 97 733 patients." *Arch Intern Med* **164**(1): 104-5.
- Peuker, E. and D. Gronemeyer (2001). "Rare but serious complications of acupuncture: traumatic lesions." *Acupunct Med* **19**(2): 103-108.
- Peuker, E. and D. Gronemeyer (2001). "Rare but serious complications of acupuncture: traumatic lesions." *Acupunct Med* **19**(2): 103-8.
- Rachlin, E. S. and I. S. Rachlin (2002). *Myofascial pain and fibromyalgia, trigger point management*. St. Louis, Mosby.
- Resteghini, P. (2006). "Myofascial trigger points: pathophysiology and treatment with dry needling." *J Orthop Med* **28**(2): 60-68.
- SARI (2005). Guidelines for hand hygiene in Irish healthcare settings, The Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) / Health Service Executive.
- SHWWA (2005). Safety, Health and Welfare at Work Act. *SHWWA*. Ireland, Irish Government.
- Siegal JD, Rhinehart E, et al. (2007). Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, Healthcare Infection Control Practices Advisory Committee.
- Simons, D. G., J. G. Travell, et al. (1999). *Travell and Simons' myofascial pain and dysfunction; the trigger point manual*. Baltimore, Williams & Wilkins.
- Smith, C., C. Crowther, et al. (2002). "Pregnancy outcome following women's participation in a randomised controlled trial of acupuncture to treat nausea and vomiting in early pregnancy." *Complement Ther Med* **10**(2): 78-83.
- Stedman's (2000). *Stedman's Medical Dictionary*. M. Barlow-Pugh. Baltimore, Lippincott Williams & Wilkins.
- Steinbrocker, O. (1944). "Therapeutic injections in painful musculoskeletal disorders." *Jama* **125**: 397-401.
- Travell, J. (1968). *Office hours: day and night. The autobiography of Janet Travell, M.D.* New York, World Publishing.
- Travell, J. G. and D. G. Simons (1983). *Myofascial pain and dysfunction; the trigger point manual*. Baltimore, Williams & Wilkins.
- Travell, J. G. and D. G. Simons (1992). *Myofascial pain and dysfunction: the trigger point manual*. Baltimore, Williams & Wilkins.
- Vincent, C. (2001). "The safety of acupuncture." *BMJ* **323**(7311): 467-8.
- White, A., T. M. Cummings, et al. (2008). *An introduction to Western medical acupuncture*. Edinburgh, Churchill Livingstone/Elsevier.
- White, A., S. Hayhoe, et al. (1997). "Survey of adverse events following acupuncture." *Acupunct Med* **15**(2): 67-70.

Appendix C – International positions

- White, A., S. Hayhoe, et al. (2001). "Survey of Adverse Events Following Acupuncture (SAFA): a prospective study of 32,000 consultations." *Acupunct Med* **19**(2): 84-92.
- WHO (1999). Guidelines on basic training and safety in acupuncture, World Health Organisation: 35.
- Witt, C. M., D. Pach, et al. (2009). "Safety of acupuncture: results of a prospective observational study with 229,230 patients and introduction of a medical information and consent form." *Forsch Komplementmed* **16**(2): 91-7.
- Yamashita, H., H. Tsukayama, et al. (1999). "Adverse events in acupuncture and moxibustion treatment: a six-year survey at a national clinic in Japan." *J Altern Complement Med* **5**(3): 229-36.

1. Risks of acupuncture treatment (Witt, Pach et al. 2009)
2. Overview of very common adverse events of acupuncture
3. Overview of common adverse events of acupuncture
4. Overview of uncommon adverse events of acupuncture
5. Overview of rare adverse events of acupuncture
6. Pulmonary Pleura landmarks (Gray and Standring 2005)
7. Heart landmarks (Gray and Standring 2005)

Appendix C – International positions

Risks of acupuncture treatment

Like all treatments, acupuncture can cause side effects. The following ranking is used:

Very common: more than 1 out of 10 treated people

Common: 1 to 10 out of 100 treated people

Uncommon: 1 to 10 out of 1,000 treated people

Rare: 1 to 10 out of 10,000 treated people

Very rare: less than 1 out of 10,000 treated people, including singular incidents

The character of possible side effects also depends on the acupuncture points which were chosen for treatment. Please ask your doctor which points he or she will use. The following symptoms were experienced by patients treated with acupuncture:

Common: 1 to 10 out of 100 people treated

Common side effects are bleeding and haematoma because of the lesion of small vessels. Sometimes, small bleedings are a desired part of Chinese acupuncture treatment.

Uncommon: 1 to 10 of 1,000 treated people

Uncommon side effects observed in the context of acupuncture treatment include: inflammation at the application site, swelling, strong pain during needling, and local muscle pain. Nerve irritation or nerve injury is also possible. This can cause sensation difficulties or a temporary weakness in the associated musculature. Furthermore, headache, fatigue, and vegetative symptoms like vertigo and nausea were experienced. An initial aggravation of the symptoms which lead to the treatment is possible.

Rare: 1 to 10 out of 10,000 people treated

Rare side effects include: local infection, redness, itching, sweating, decrease of blood pressure, increase in blood pressure, unconsciousness, tachycardia, breathing difficulties, vomiting, worsening health state, generalized muscle pain, restricted movement, joint problems, feeling of coldness, menstrual problems, depressive mood, anxiety, sleep disturbance, restlessness/ nervousness, disturbed vision and tinnitus.

Very rare: less than 1 out of 10,000 treated people, including singular incidents

Side effects observed in the context of acupuncture treatment include: palpitations, constipation, diarrhoea, gastrospasm, enterospasm, weight loss, circulatory disturbance, lesion of blood vessels, systemic infection, euphoria, nightmares, poor concentration, imbalance, disturbance of speech, disorientation, shivering, and eye irritation. Very rarely acupuncture needles can be forgotten or break. During treatment on the thorax a too deep insertion of an acupuncture needle can cause accumulation of air in the pleural cavity (pneumothorax). In the scientific literature injuries of the central nervous system and the pericardium have been reported.

The application of heat through burning mugwort (moxibustion) can cause burns.

Some of the side effects mentioned above can influence your fitness to drive!

If side effects occur during or after treatment, please inform your doctor.

Appendix C – International positions

Overview of Acupuncture Adverse Events

Overview of very common adverse events of acupuncture (more than 1 out of 10 treated people) and common adverse events of acupuncture (1 to 10 out of 100 treated people)

ADVERSE EFFECTS	SYMPTOMS/SIGNS	PREVENTION	MEASURES TO TAKE
Bleeding (p.21,22, 31-32)	<i>mild</i>	Haemostasis Caution when DN on patients with abnormal bleeding tendency (anticoagulants, thrombocytopenia) Avoid varicose veins	Pressure to the area with a cotton swab Locally used ice to minimize the bruising
Haematoma (21, 22, 31-32)	<i>mild</i>	Haemostatis Caution when DN on patients with abnormal bleeding tendency Avoid varicose veins	Pressure to the area with a cotton swab Locally used ice to minimize the bruising Inform the patient
Needling pain (p.21,22)	<i>mild</i>	Verbal and non-verbal communication	Avoid sharp and burning by immediately withdrawing the needle
Post treatment soreness (32)	<i>Mild</i> : one hour to two days but on occasion up to 4 days	Haemostatis of the needled region Stretching combined with cold application	Treatment scheduled into patients lifestyle, social and work commitments

Appendix C – International positions

Overview of uncommon adverse events of acupuncture (1 to 10 out of 1000 treated people)

ADVERSE EFFECTS	SYMPTOMS/SIGNS	PREVENTION	MEASURES TO TAKE
Pneumothorax (p. 29-30, 35)	<i>Serious</i> Shortness of breath on exertion Chest pain Dry cough Decreased breath sounds on auscultation These symptoms may not occur until several hours after the treatment and patients need to be cautioned of this especially if they are going to be exposed to exercise and marked alterations in altitude such as flying or scuba diving.	Dry needling of one side in the chest region. Thorough knowledge of pulmonary pleura landmarks (p.65-66) and knowledge of scapula fenestration (p. 30) Insertion of the needle through the chest wall and into the lung is exquisitely painful, well beyond the pain of needling the chest wall. Should such pain develop during the course of the needling in the chest wall area, the chest should be auscultated for decreased breath sounds.	If a pneumothorax is suspected then the patient must be sent urgently to the nearest accident and emergency department. Patients should be instructed to tell the emergency staff that they had needling in the region of the chest wall so that a chest x-ray may be taken to identify a pneumothorax.
Broken needle (34)	<i>Significant</i>	Single use of sterile needles (never repeated use and autoclaving) The quality of the needles is important and practitioners should only use needles that have a CE quality mark. It is recommended to maintain approximately 1 cm of the needle outside the skin.	Patient should be advised to remain calm to avoid needle from going deeper. Mark around the site of insertion with a pen or marker to make the needle site easy to identify. If the broken needle is exposed remove the broken section with tweezers, if it is not exposed press the tissue around the insertion site until the broken section is exposed and remove with tweezers If the needle can't be removed in the clinic, medical attention must be sought so that the needle can be removed surgically
Aggravation of	Mild		

Appendix C – International positions

symptoms (p.21)			
Faintness (p.21)	Mild		
Drowsiness (p.21)	Mild	A small percentage of patients may feel excessively relaxed and sleepy after DN treatment.	Patient should be advised not to drive until they have recovered. In patients that experience this phenomenon future DN sessions should be timed around their lifestyle to allow for recovery and should be driven home by a third party.
Bent needle (p.33-34)	Mild	Prevent bending by inserting the needle with the patient in relaxed and optimal position Use an optimal needling technique and avoid over curving the needle during dynamic needling treatment	If a needle demonstrates a bend it should be removed and discarded and replaced with a fresh needle
Stuck needle (p.33)	Mild	Avoid excessive twisting of the needle to prevent skin and soft tissue to bind around the needle	If needle is stuck due to over rotation, then rotate the needle in opposite direction and remove If needle is stuck due to muscle tension, leave the needle in for a short period of time, relax the tissue around the needle with massage or by inserting 1-2 needles around the stuck needle, then remove the needle
Headache (p.21)	Mild		
Strong pain during treatment (32)	Significant		
Nerve irritation (22,30,	Significant	Anatomical knowledge	Withdraw needle immediately

Appendix C – International positions

Overview of rare adverse events of acupuncture (1 to 10 out of 10.000 treated people) and very rare adverse events of acupuncture (less than 1 out of 10.000 treated people)

ADVERSE EFFECTS	SYMPTOMS/SIGNS	PREVENTION	MEASURES TO TAKE
Penetration of the Heart and pericardium (p.66)	serious	Anatomical knowledge of position of the heart (p.66)	
Forgotten needle (34)	Significant	All needles should be accounted for. A forgotten needle could cause tissue trauma or serious complications such as pneumothorax. Forgotten needles are more likely to occur with static needling technique, where the needle is left in situ for a period of time or when needling various body parts.	When using a static needling technique a "count them in, count them out policy" technique should be used, where the clinician counts the needles
Forgotten patient (34-35)	Significant	If using a static needle technique and leaving the patient in the room cubicle for a period of time it is important to avoid forgetting the patient.	As the patient is not able to self release themselves, it is important that the patient has the ability to call the clinician verbally or with the use of call bell.
Cellulitis (21)	Significant		
Needle allergy (21)	Significant: Redness, itches	Ni, Co allergy Use of latexfree examination gloves in Latex allergy	Recognise allergic reaction and change treatment and/or used materials
Needle site pain (21)	Significant	When painful withdraw the needle and try again	
Fainting (21, 32-33)	Significant	<ul style="list-style-type: none"> - If patient is phobic for needles DN is contraindicated - Inventarise psychological stress & tension - Automomic lability - Patients are treated in recumbent or lying position - Clinician should prepare for potential movement and needle 	<ul style="list-style-type: none"> - Titrate DN treatment - If fainting remove needles, patient is lying down, consider raising legs, offer reassurance and water or sweet drink - After fainting patient is not in the position to drive - Medical assessment if their is any concern

Appendix C – International positions

		<p>in such a way that allows needle control (pincer technique is preferred)</p> <ul style="list-style-type: none"> - If static technique is used patient should be told to remain still an patient should be able to call for assistance at all times 	
Nausea (21)	Significant		
Vomiting (21)	Significant		
Anxiety and panic (21)	Significant		
Euphoria (21)	Significant		
Hypereasthesiae (21)	Significant		
Slurred speech (21)	Significant		
Exacerbation of symptoms (21)	Significant		
Headache (21)	Significant		
Local infection (25,26, 35)	Significant	<ul style="list-style-type: none"> - Anatomical knowledge of blood vessels, nerves and organs - Greater risk of DN on patients with a compromised immune system, vascular disease, diabetes mellitis - Advisible not to needle after surgical lymphectomy - Avoid needling of acute inflammation or skin lesions, cysts, ganglion cysts, tumours, close to phrostetic implants 	<p>The skin in the region to be treated should be inspected and if any signs of infection are present treatment should be deferred and medical advice sought</p>
Systemic infection (20, 25,26, 31, 39)	Significant For instance: mycobacteriosis, Hepatitis B HIV	<p>Advisible not to needle after surgical lymphectomy</p> <p>Greater risk of DN on patients with a compromised immune system</p> <p>Avoid needling of acute inflammation</p> <p>Assume that every person is potentially infected or colonized with an organism that could be transmitted in the healthcare setting</p>	<p>Apply a set of work practices to blood, all body fluids except sweat, mucous membranes and non intact skin including:</p> <ul style="list-style-type: none"> - Hand hygiene -use of personal protective equipment - management of spillages of blood and body fluids - appropriate patient placement - management of sharps

Appendix C – International positions

			<ul style="list-style-type: none"> - safe injection practices - respiratory hygiene and cough etiquette - management of needle stick injuries - management of waste -management of laundry -decontamination of reusable medical equipment
Exacerbation of depression (p.22)	Serious		
Acute hypertensis crisis (p.22)	Serious		
Vasovagal reaction (p. 22)	Serious		
Astma attack	Serious		
Angina	Serious		
Miscarriage (p 26, 27))	Serious	<p>Avoid strong stimulation</p> <p>Avoid Li 4, Sp 6, BI 60, BI 67, LV 3 over the abdomen, ear points for the genitor-urinary system and scalp points for the genital and motor sensory areas</p> <p>Needle with caution GB 21 and upper lumbar spine</p> <p>Electro-acupuncture should be avoided</p>	-
Damage to implants and electrical device implants, including drug delivery systems and implanted spinal cord stimulators (31)	Serious	Avoid Dry needling in the vicinity of implanted devices	
Penetration of abdominal organs, including the kidney, liver, spleen, intestines and urinary bladder (36)	Significant	Don't needle deeply over organs. The risk is greater with anatomical variance or enlarged organs. A good anatomical knowledge is needed.	

Appendix C – International positions

Pulmonary Pleura landmarks (Gray, Williams et al. 1995)

For safety the parietal pleura surface landmarks should be noted to avoid the complication of pneumothorax from needle penetration. The parietal pleura is intimately fused with the inner aspect of the thoracic cavity.

Superiorly:

The pleura diverge from the midline to extend upwards and outwards to the apex of the pleural cavity. This point lies between 3-4 cm above the anterior end of the first rib but level with the posterior end of the rib. The surface marking of the superior point of the pleura lies about 2.5 cm above the middle third of the clavicle.

Laterally: The parietal pleura is intimately fused with the inner aspect of the thoracic cavity and can be followed laterally and inferiorly down the inner aspect of the chest wall to the level of the 10th rib in the midaxillary line which is its lowest point in that plane

Posteriorly:

Posterior and medially the pleura may be followed along a line joining the transverse processes of the 2nd to 12th thoracic vertebrae. The pleura then extends horizontally and laterally crossing the oblique 12th and 11th ribs meet the 10th rib in the midaxillary line.

Anteriorly:

On the right side the costodiaphragmatic reflections of the pleura can be followed from the midaxillary line towards the midline, crossing the 8th rib in the midclavicular line to the xiphisternum. From here the pleura continues superiorly to the angle of Louis.

On the left side the costodiaphragmatic reflections of the pleura can be followed from the midaxillary line towards the midline, crossing the 8th rib in the midclavicular.

However the pleura does not reach the midline on the left as it turns superiorly at the anterior end of the 6th rib approximately 3-5cm from the midline and ascends to the level of the 4th costal cartilage where it joins the right pleura in the midline and arises to the second costal cartilage. This variation on the left is to accommodate the heart.

Appendix C – International positions

UNITED KINGDON

From: Ruth Ten Hove @csp.org.uk

We do not have a formal statement about dry needling, or any other modality or approach which could be included in the 'scope of physiotherapy practice'. The first rule of Professional Conduct impresses on members that they should only practise to the extent to which they've established and maintained their competence. The Rules are due to be replaced by a new Code of Professional Values and Behaviour (see draft paper and questions for members) this brings a fresh emphasis to members' professional responsibility to underpin their developing scope of practice/competence through appropriate forms of CPD. This new scope of practice resource provides a framework/governance arrangements for CSP decision-making about what sits within the collective scope of UK physiotherapy, while providing much fuller advice to members on how they appraise whether a particular area of practice sits within their individual scope (recognising that contextual factors impact on whether a particular modality - such as dry needling - sits within a member's scope - so that it may be within one member's practice, but not in that of another). In terms of how physiotherapists develop their skills, knowledge and competence, we promote many and varied ways including work-based learning, mentorship, formal courses that can include certificated/accredited learning and which may lead to a qualification, etc. The key issue being that the learning and development undertaken can be demonstrated through a documented record.

Incorporating a new modality or approach into the scope of practice is covered in detail in the scope of practice paper.

Best wishes
Ruth

Ruth ten Hove MSc MCSP
Professional Adviser

Professional Advice Service
The Chartered Society of Physiotherapy
UK

Appendix C – International positions

DRAFT PPSD(11)04: Draft CSP Scope of Practice Resource December 2010 – Presentation to PPSD 050111

Scope of Physiotherapy Practice – CSP guidance for members and governance arrangements

December 2010

Contents

Introduction: Using this resource

Section 1: Summary guidance

Section 2: Collective scope of practice

- Introduction
- How does the CSP frame the collective scope of practice of UK physiotherapy?
- What are the CSP scope of practice governance arrangements and criteria?

Section 3: Individual scope of practice

- What are chartered physiotherapists' responsibilities relating to personal scope of practice?
- How does the CSP consider whether an area sits within an individual member's scope of practice?

Section 4: Stages for CSP management of scope of practice queries

Appendices

Appendix 1: Underpinning concepts

Appendix 2: historical developments

Appendix 3: Key terms

Appendix 4: What the CSP scope of practice governance arrangements do *not* do

Appendix 5: How the CSP seeks expert advice to inform its consideration of a new practice area.

Appendix C – International positions

Introduction: Using this resource

This guidance is designed to support CSP members in developing their scope of physiotherapy practice. In doing this, it also aims to develop a stronger, shared understanding of how decisions about what sits within UK physiotherapy scope of practice are made, both at a collective and individual level.

The guidance does the following:

- **Explains the concept of scope of practice** and how it is applied by the CSP for UK physiotherapy, both in terms of the collective practice of the profession and the activity of individual chartered physiotherapists
- **Explains the CSP scope of practice governance arrangements**, through which the organisation exercises its role in defining UK physiotherapy and determining whether an element of practice is included under the terms of the professional indemnity insurance that it confers as a membership benefit

It does this through the following sections:

- A summary explanation
- A focus on the collective scope of the profession and the CSP governance arrangements that are now in place to underpin this
- A focus on the individual scope of practice of CSP members.

A set of questions, with commentary, are provided as a supplementary resource to this guidance. These are designed to help members think through whether an area of practice sits within the scope of UK physiotherapy and, more specifically, whether it sits within their own personal scope of practice.

Appendix C – International positions

Section 1

Summary guidance

'Scope of practice' describes both the activity of UK physiotherapy as a whole and the activity of individual CSP members within this. The foundations of the CSP's approach and related underpinning concepts are summarised in **Appendices 1 and 2**.

Physiotherapy's scope of practice is necessarily dynamic and evolving. At the same time, the profession has a responsibility to develop in ways that put patient safety, efficacy and effectiveness to the fore. The CSP seeks to tread a middle path between being unduly prescriptive and enabling complete freedom:

- If the CSP listed the modalities of UK physiotherapy, this would prevent the development of practice in line with changing patient and service needs and would inhibit innovation
- If the CSP did not exercise oversight over how the profession develops, this would compromise the credibility and integrity of both the profession and the CSP as an organisation.

How the CSP defines UK physiotherapy scope of practice informs how physiotherapists are regulated in the UK by the Health Professions Council [HPC]. It also underpins what is covered by the professional indemnity insurance that the CSP offers as a benefit within its main membership categories.¹⁵

- **The collective scope of practice of UK physiotherapy**

UK physiotherapy includes richly diverse activity that is shaped by the profession's collective principles and thinking. A dynamic, evolving approach to scope is essential for meeting changing patient and population needs as effectively as possible and for practice to be shaped by developments in the evidence base. This fluidity enables the profession to initiate, lead and respond to changes in service design and delivery, and to optimise opportunities for members' professional and career development.

As the guardian of the profession's body of knowledge and skills, the CSP seeks to do the following:

- Uphold the credibility, values and high standards of the UK physiotherapy profession

¹⁵ PLI is provided as a benefit of membership to members within certain membership categories of the CSP. Subject to the terms of the policy, the policy covers all activities deemed by the Society to be within the overall scope of the profession. The policy states, "The extent of the CSP's PLI cover (subject to the terms of the policy) is such that cover is provided for malpractice, professional indemnity and Good Samaritan Acts. This includes claims of error, omission, act or negligence, breach of professional duty in the course of clinical practice where the member is acting within the scope of physiotherapy practice". See **PD027** for a detailed explanation of the terms of CSP PLI cover.

Appendix C – International positions

- Ensure new areas of physiotherapy practice draw on the profession's distinctive body of knowledge and skills and uphold a physiotherapist's accountability for their decision-making and actions
- Enhance the profession's contribution across the UK health and well-being economy
- Optimise the UK physiotherapy profession's on-going development
- Ensure the profession's decision to recognise a new area of practice is in the interests of the population and patient groups the profession serves (or can potentially serve)
- Ensure that the profession's decision to recognise a particular area of practice can be explained, and justified in terms of that area's safety, effectiveness and efficacy
- Maintain a record of how the UK physiotherapy profession practice has evolved.

The CSP has developed criteria to define how it considers whether a new area of practice falls within the **overall scope of UK physiotherapy**. These are as follows:

- **A.** A proposed new area of practice demonstrably relates to the recognised scope of practice of UK physiotherapy
- **B.** Inclusion of a new area of practice within the scope of UK physiotherapy practice is supported by an affirmative body of respected, informed opinion
- **C.** Inclusion of a proposed new area of practice within the scope of UK physiotherapy practice is supported by appropriate forms of available or emerging evidence that affirm its safety, effectiveness and efficacy.

Key terms used in the criteria are explained in **Appendix 3**.

- **Individual scope of practice**

'Scope of practice' relates to individuals' professional activity, as well as the collective practice of the profession. Individual members carry the following professional responsibilities regarding their scope of practice:

- To limit their professional activity to those areas in which they have established and maintained their competence
- To evaluate and reflect on their professional activity, taking account of the profession's evolving evidence base and responding appropriately to their learning and development needs
- To recognise how their scope of practice changes and shifts as they progress through their physiotherapy career and to understand how their personal scope of practice sits within the broad terrain of the scope of the whole profession
- To be aware of how their practice may challenge the boundaries of UK physiotherapy and to take appropriate action

Appendix C – International positions

- To recognise how elements of their practice are defined by their physiotherapy knowledge and skills and their clinical-reasoning, assessment skills and decision-making about treatment approaches; this is essential in evaluating whether activity is undertaken within the scope of practice as a physiotherapist, or in another capacity
- To consider how they represent their practice to others, and be clear to others when their activity at any one point is that of a physiotherapist and when it is undertaken in another role.

In line with the above, the same practice may sit within the scope of one chartered physiotherapist but not in another. Whether or not it does depends upon whether and how an area of practice is integrated within the broader physiotherapy (or other) activity of individual members, and whether and how it is perceived by others (including the individuals served) to fall within a physiotherapeutic pathway of care.

The CSP has criteria to determine whether a particular area of practice falls within an **individual member's scope of practice**. These are as follows:

- A member can demonstrate that s/he
 - Has completed an appropriate programme of professional development ('training' or equivalent) in the area concerned and has kept a record of this
 - Has established and maintained his/her competence to practise the area
 - Is able to use or apply the area of practice within a broader physiotherapeutic pathway of care
 - Has taken care to ensure that the patients/population groups and others in a commissioning role for his/her services understand that the area falls within his/her practice as a physiotherapist.

Recognition of an area falling within an individual member's scope of practice as a physiotherapist is likely to be brought into question if that member cannot demonstrate fulfilment of one or more of these criteria.

When working as a physiotherapist, all activities within an individual's scope of practice must be within the overall scope of the profession. Where a physiotherapist delivers an activity that is outside of the scope and/or context of the profession, they are not working as a physiotherapist regardless of whether they perceive the activity to be within their personal scope of practice.

The questions and commentary provided in a supplementary document to this guidance help members to think through these issues in more depth.

Appendix C – International positions

Member responsibilities relating scope are reflected in the new CSP *Code of Professional Values and Behaviour* (being piloted with members in 2010/11) and the existing CSP *Rules of Professional Conduct* (CSP, 2005).

Members needing guidance on issues relating to their personal scope of physiotherapy practice should contact the CSP professional advice service: paservice@csp.org.uk

Section 2

The collective scope of UK physiotherapy

How does the CSP frame the collective scope of UK physiotherapy practice?

The development of the scope of practice of the physiotherapy profession is a dynamic, organic process. This has produced the active profession we have today and must be allowed to continue. However, the profession's growth must be based on available and emerging evidence, have the best interests of the patient/client at its heart, and be supported by a body of respected opinion within its membership.

During its history, the physiotherapy profession has successfully evolved and developed. The role of physiotherapists has diversified and expanded considerably in recent years, particularly in response to health and social care reform, changing patient and population needs, and developments across the health and well-being economy.

Physiotherapists need to seek and absorb new and innovative ways of working, with patient safety, efficacy and effectiveness put to the fore. They also need to understand physiotherapy's historical roots and how these underpin their profession's development and practice.

A rigid and narrow definition of scope of practice restricts opportunity and innovation for both individuals and the profession by placing fixed limits on the boundaries of practice which are not sensitive to changes in the health and social care environment. A defined scope of practice supports the profession by setting clear parameters for members' development, as well as providing a basis for public understanding of what the profession offers. This must not, however, restrict reasonable practice. It is, therefore, not appropriate for the profession to list the modalities that it practises. To do so would ossify the profession, prevent the development of practice, and lead to out-of-date and potentially dangerous practices being maintained.

- The CSP's role

The CSP is responsible for developing the profession, assisting members to define and develop their career, while upholding public protection at all times. The CSP aims to highlight and promote the profession's contribution in current and emerging roles. Working within the parameters of statutory regulation and legal frameworks, the CSP is the final arbiter of defining what is, and is not, within the scope of the profession.

Appendix C – International positions

The CSP was granted its royal charter in 1920 to improve the status and perception of physiotherapy to the public. The royal charter outlined the four aspects of practice which a physiotherapist might use as massage, exercise, electrotherapy and kindred forms of treatment. It is a legally binding document and cannot be changed without royal assent. However, its terms are such that the practice it describes is still relevant today, even if the context of their use and how they are applied has moved on.

How the CSP defines the scope of the profession as a whole informs how physiotherapists are regulated in the UK by the Health Professions Council [HPC]. The HPC requires registrant physiotherapists to work ‘within the overall scope of the profession’. The CSP is the guardian of the profession’s body of knowledge and skills.

In defining the collective scope of the profession, the CSP strives to do the following:

- Uphold the credibility, values and high standards of the UK physiotherapy profession
- Ensure new areas of physiotherapy practice draw on the profession’s distinctive body of knowledge and skills and uphold a physiotherapist’s accountability for their decision-making and actions
- Enhance the profession’s contribution across the UK health and well-being economy
- Optimise the UK physiotherapy profession’s on-going development
- Ensure the profession’s decision to recognise a new area of practice is in the interests of the population and patient groups the profession serves (or can potentially serve)
- Ensure that the profession’s decision to recognise a particular area of practice can be explained, and justified in terms of that area’s safety, effectiveness and efficacy
- Maintain a record of how the UK physiotherapy profession practice has evolved.

The foundations of the CSP’s approach to scope of practice, including underpinning concepts, are summarised in **Appendix 1**.

- **Regulatory context**

Autonomy was granted to the profession in 1977 under the terms of Health Circular (77)33. In 1996, delegation of activities to other health staff to include some medical tasks was facilitated by the document *Central Consultants and Specialists Committee: Towards tomorrow – The future role of the consultant*⁽³⁾.

The Health Act 1999 reiterated that ‘physiotherapy’ was a profession and under the Health Professions Order 2001 the title ‘physiotherapist’ was given legal protection. This means that ‘physiotherapist’ can only be used in the UK by individuals who have secured and maintained registration with the statutory regulator, the Health Professions Council (HPC).

Appendix C – International positions

A summary of the profession's development is provided in **Appendix 2**.

The four pillars of practice – a fresh interpretation

Physiotherapy is defined by the CSP's royal charter as having four pillars of practice:

- massage
- exercise and movement
- electrotherapy
- kindred methods of treatment.

The royal charter of 1920 was applied in a healthcare environment that pre-dated the NHS, with the application of the fourth pillar to practice not fully realised until later in the 20th century. New contexts, challenges and opportunities have since emerged, such that it is timely to review the four pillars and to provide a fresh interpretation of their application to support the on-going development of UK physiotherapy.

In 2007, the CSP Council agreed that the scope of practice of physiotherapy is as follows:

“...any activity undertaken by an individual physiotherapist that may be situated within the four pillars of physiotherapy practice where the individual is educated, trained and competent to perform that activity. Such activities should be linked to existing or emerging occupational and/or practice frameworks acknowledged by the profession, and be supported by a body of evidence.”

This interpretation sits within the context of contemporary health care; that is, one in which knowledge and skills are no longer unique to one profession, and within which there is an increasing blurring of professional boundaries. This adds to why it is not appropriate to publish a list of activities that are deemed 'in' or 'out' of scope of physiotherapy practice; instead, activities need to be considered against how they fit within the four pillars of practice.

The first three pillars have a refreshed application as health and well-being promotion and preventative strategies become integral to 21st century physiotherapy practice. The fourth pillar of practice is clearly broad, enabling members to develop their scope of practice according to changing patient and service need and fresh professional development opportunities – all within the parameters of patient safety, efficacy and effectiveness.

CSP governance arrangements

The CSP has developed scope of practice governance arrangements to support and enable the development of the profession in the UK. They do this in the following ways:

- Reflect the royal charter
- Build on contemporary definitions of physiotherapy

Appendix C – International positions

- Recognise the breadth of patient and population groups, environments and occupational roles in which physiotherapy is now practised
- Ensure patient/service user safety and best interests are the prime consideration
- Provides openness in how the CSP discharges its function as the final arbiter of scope of practice for the profession in the UK
- Support the regulatory processes enacted by the HPC
- Promote debate within the profession about how its scope of practice is evolving, the implications of this, and the opportunities it presents
- Help the profession to mature and to articulate the value of its contribution to health and well-being.

- **How does the CSP consider new areas of practice?**

The CSP applies three criteria to reach a decision about whether a new area of practice falls within the ***collective scope of UK physiotherapy***. These are as follows:

- **A.** A proposed new area of practice demonstrably relates to the recognised scope of practice of UK physiotherapy
- **B.** Inclusion of a new area of practice within the scope of UK physiotherapy practice is supported by an affirmative body of respected, informed opinion
- **C.** Inclusion of a proposed new area of practice within the scope of UK physiotherapy practice is supported by appropriate forms of available or emerging evidence that affirm its safety, effectiveness and efficacy.

They are explained in more detail below. Key terms used in the criteria are explained in **Appendix 3**.

Governance criteria

1: A proposed new area of physiotherapy practice demonstrably relates to the recognised scope of practice of the UK physiotherapy profession as encapsulated by the four pillars of practice

The CSP considers how an area fits with the following:

- Established areas and treatment approaches of UK physiotherapy practice
- The range of patient and population groups with whom physiotherapists work
- The range of settings and roles in which physiotherapists practise
- How physiotherapy scope of practice is defined in countries outside the UK and how this might be influencing UK professional development
- The knowledge and skills base of the profession, including how this has developed to date and how this may logically develop in the future.
- How the new activity is links to the four pillars of practice, as defined by the CSP's royal charter
- How the proposed new area of practice upholds a physiotherapists' responsibility for the care they deliver, based upon the assessment, clinical-reasoning and judgment/diagnosis that they make.

Appendix C – International positions

It should be logical for physiotherapists to engage in a new area of practice. If a new activity would sit in isolation from physiotherapy's contribution in a particular area or not facilitate the delivery of integrated care, then it is unlikely to be appropriate to be incorporated into the scope of the profession as a whole.

An area for which physiotherapists do not hold a relevant underpinning body of knowledge and skill on which to base their assessment, clinical-reasoning and judgment/diagnosis is unlikely to be incorporated into the scope of the profession as a whole.

2: The inclusion of a new area of practice within the scope of UK physiotherapy practice is supported by an affirmative body of respected, reasonable and responsible opinion.

Peer support for the inclusion of a new area may be derived from the following:

- A CSP-recognised Professional Network (formerly clinical interest or occupational group) or defined group of the profession
- Physiotherapists who practise outside the UK (with background information provided relating to the scope of physiotherapy practice in the country concerned)
- Colleagues from other professions who are able to provide an expert perspective on how the area of practice in question can help to meet population, patient and service need
- A body of opinion obtained from an organisation with particular expertise in the practice area and its application to population and patient needs; for example, a research-based organisation, such as the National Institute for Health & Clinical Excellence [NICE] or the Scottish Intercollegiate Guidelines Network [SIGN], or a national healthcare charity.

Peer review should be UK-based where practicable. However, an international perspective is considered, particularly when the area in question is new to UK physiotherapy (but not necessarily to physiotherapy practice in other countries) and/or where the development and the primary bodies of expertise relating to safety, efficacy and effectiveness sit outside the profession (and/or outside the UK).

3. The inclusion of a new area of practice within the scope of UK physiotherapy practice is supported by appropriate forms of available or emerging evidence.

Consideration is given to the following:

- How the case for a new area of practice to be included within the scope of UK physiotherapy is substantiated by available or emerging evidence
- Whether there is evidence that casts doubt on the value of the particular area of practice to patient care and/or promoting health and well-being; in particular issues relating to safety, effectiveness and credibility.
- How the case for including a new area within the scope of UK physiotherapy practice is demonstrably grounded in a critical engagement with available evidence.

Appendix C – International positions

An explanation of how the CSP seeks independent expert advice to inform its consideration of cases is provided as **Appendix 4**. An explanation of what the governance arrangements are not designed to do is provided in **Appendix 5**.

A member presenting a case for a new area of practice to be recognised as fitting within UK scope of practice is requested to submit material, including peer review statements. The CSP provides pro formas to help members submit information against the criteria.

The stages through which a new area of practice is considered against the CSP governance arrangement criteria are explained in **Section 4** below. The section also outlines the ways how the CSP maintains oversight of decisions made relating to scope of practice via its Professional Practice & Service Delivery [PPSD] Sub-committee.

Members with a query about whether a new area of practice sits within UK physiotherapy should contact the CSP professional advice service:

paservice@csp.org.uk

Section 3

Individual scope of practice

What are a chartered physiotherapist's professional responsibilities?

'Scope of practice' relates to individuals' professional activity, as well as the collective practice of the profession. Individual members carry a number of professional responsibilities regarding their scope of practice. These are as follows:

- To limit their professional activity to those areas in which they have established and maintained their competence
- To evaluate and reflect on their professional activity, taking account of the profession's evolving evidence base and responding appropriately to their learning and development needs
- To recognise how their scope of practice changes and shifts as they progress through their physiotherapy career and to understand how their personal scope of practice sits within the broad terrain of the scope of the whole profession
- To be aware of how their practice may challenge the boundaries of UK physiotherapy and to take appropriate action
- To recognise how elements of their practice are defined by their physiotherapy knowledge and skills and their clinical-reasoning, assessment skills and decision-making about treatment approaches; this is essential in evaluating whether activity is undertaken within the scope of practice as a physiotherapist, or in another capacity
- To consider how they represent their practice to others, and be clear to others when their activity at any one point is that of a physiotherapist and when it is undertaken in another role.

Appendix C – International positions

The most fundamental aspect of practising as a physiotherapist is that the practitioner enters into a legal duty of care with their patient/client/service user. There are a variety of situations and circumstances in which a legal duty of care is created. In healthcare, the special nature of the relationship between professional and patient is fundamental, such that neither party has to show that a duty is formally created.

In exercising the autonomy of the profession, individual physiotherapists decide upon the nature of management best suited to the identified needs of an individual patient. This is based on performing an appropriate assessment of individual needs, reaching an appropriate diagnosis based on the extent of the assessment performed, and using professional judgment to implement intervention appropriate to the patient's needs.

At all times, CSP members must work within the *CSP Rules of Professional Conduct and Standards of Physiotherapy Practice (SOPP)*, the *HPC Standards of Conduct, Performance and Ethics* and the *HPC Standards of Proficiency for Physiotherapists*.

Individual physiotherapists define and practise within their own scope of practice. The education and training of physiotherapists, at both qualifying and post-qualifying levels, is such that they can deliver a variety of service functions within occupational and practice frameworks. As such, the subsequent scope of practice of individual physiotherapists can be configured in a wide variety of ways to meet both local needs and the expectations and ambitions of the physiotherapist.

CSP members may practise any activity that falls within the remit of the four pillars of practice, provided that they are appropriately educated, trained and competent to do so. Their practice must be both lawful and reasonable and the physiotherapist should be insured for their practice.

How physiotherapists practise should have the overall aim of being of benefit to identified patient / population needs, their practice should be recognised as fitting within an existing or emerging occupational or practice framework recognised by the profession and there should be a body of available or emerging evidence to support the activity.

A physiotherapist will broadly describe their individual scope within a recognised or emerging occupational and/or practice scope of the profession, and will then more precisely define their specific scope according to their interests, competence and capability.

The same area of practice may sit within the scope of one chartered physiotherapist but not in another. Whether or not this is the case is dependent on

Appendix C – International positions

- Whether and how the area is integrated within the member's broader physiotherapy (or other) activity
- Whether and how the area is perceived by others (including the individuals served) to fall within a physiotherapeutic pathway of care.

The context of how an activity is delivered may therefore be key to determining whether the activity forms part of accepted physiotherapy practice. Both activities described within the pillars of practice (such as massage, or any form of exercise) and a new activity could be either part of physiotherapy practice, or could be delivered completely independently of any physiotherapeutic aim.

In addition, whether an area of practice is also delivered by others can also be significant. For example, massage, exercise, and some electrotherapy modalities may be practised by a variety of people, not all of whom are regulated professionals. They may also be practised in ways that would not draw upon physiotherapy knowledge and skills, and, again, independently of any physiotherapeutic aim.

The CSP has criteria to determine whether a particular area of practice falls within an ***individual member's scope of practice***. These are as follows:

- A member can demonstrate that s/he
 1. Has completed an appropriate programme of professional development ('training' or equivalent) in the area concerned and has kept a record of this
 2. Has established and maintained his/her competence to practise the area
 3. Is able to use or apply the area of practice within a broader physiotherapeutic pathway of care, drawing upon physiotherapeutic knowledge, skills and values
 4. Has taken care to ensure that the patients/population groups and others in a commissioning role for his/her services understand that the area falls within his/her practice as a physiotherapist.

Recognition of an area falling within an individual member's scope of practice as a physiotherapist is likely to be brought into question if that member cannot demonstrate fulfilment of these criteria.

When working as a physiotherapist, all activities within an individual's scope of practice must be within the overall scope of the profession. Where a physiotherapist delivers an activity that is outside of the scope and/or context of the profession, they are not working as a physiotherapist regardless of whether they perceive the activity to be within their personal scope of practice.

Questions and commentary provided in a supplementary document to this guidance help members to think through these issues in more depth.

Appendix C – International positions

Members who have a query about their personal scope of practice should contact the CSP professional advice service: paservice@csp.org.uk

How does the CSP consider whether an area sits within an individual member's scope of practice?

The CSP cannot make a judgment on a member's behalf about individual scope of practice. However, through its Professional Advice Service, it can advise and support the member in determining for him-/herself as to what sits within his/her personal scope, using the criteria set out above.

Section 4 below explains how the CSP manages its receipt of a query relating to scope of practice and the potential outcomes of this exercise. **Appendix 5** explains what the process is *not* designed to do.

In considering individual queries about whether an area fits within an individual's scope of practice, it is helpful to work through the three questions. These relate to criteria 3 and 4; i.e. whether a member can demonstrate that s/he is able to use or apply the area of practice within a broader physiotherapeutic pathway of care, and whether s/he has taken care to ensure that the patients/population groups and others in a commissioning role for his/her services understand that the area falls within his/her practice as a physiotherapist.

The questions are provided and explained below.

1. Are you working as a physiotherapist?

The physiotherapist should be able to demonstrate that they are holding themselves out as a physiotherapist to their patients/clients. A member should either have an employment contract or contract for services that clearly states a physiotherapist is delivering an area of practice. This does not mean that the job title must be 'physiotherapist', but there must be reference to a registered physiotherapist delivering the activity. In order to be working as a physiotherapist, all the statutory and professional standards of care must be delivered, including assessment, diagnosis and record-keeping within the context of the activity being delivered.

Example

For gym-based exercise classes, it is not necessarily appropriate to undertake a full one-to-one detailed assessment of each client prior to the class. However, it would be necessary for a client-completed screening tool to be used, such that the physiotherapist can identify those suitable to join the class. These screening tools and a class register would serve as the documentation for the class. Failure to be able to demonstrate that these steps had been taken would undermine the case that this area of practice fell within the scope of UK physiotherapy.

2. Does the activity have physiotherapeutic value?

Appendix C – International positions

The physiotherapist should be able to demonstrate that his/her activity is being delivered for a physiotherapeutic purpose and that a duty of care is therefore created between the physiotherapist and user.

Example

Exercise classes being delivered to facilitate people increasing activity levels, self-managing obesity, or maintaining strength and flexibility would be considered within the scope of physiotherapy practice regardless of whether other advice or interventions are offered or not. However, their physiotherapeutic value and delivery by a physiotherapist needs to be clear.

3. Does the patient/client understand that a service is being provided by a physiotherapist?

The activity itself, whether trademarked or not, should clearly be seen to have a focus on an existing pillar of physiotherapy practice and be delivered for the purposes of delivering a physiotherapeutic aim or care pathway.

Examples

Yoga asana postures, Pilates, fitness training, delivery of a trade-marked exercise class (e.g. Kettleball, Body Combat etc), delivery of post-marathon massage would all be considered within the scope of the profession if they are delivered within the context of the physiotherapist-patient duty of care.

These three questions – and the answers to them – need to be considered in combination. For an area, or activity, to be considered to within the scope of practice of the individual member, all three need to be answered affirmatively.

Section 4

Stages for CSP management of scope of practice queries

When the CSP receives a query from a member about whether a particular area of practice sits within the scope of UK physiotherapy and/or whether it sits within the member's individual scope of practice, the stages outlined below are followed.

The criteria set out in **Section 2** (relating to the collective scope of the profession) and **Section 3** (relating to the scope of practice of individual members) inform how queries are managed at each stage.

- **Stage 1:** The Professional Advice Service (PAS) handles the enquiry and uses the CSP PAS database to establish if the particular new activity or context has been considered before and, if so, what decision was reached.

Where the activity and/or context has been considered recently and a decision made, that decision will be followed unless there are new reasons for amending the

Appendix C – International positions

decision (for example, developments in the evidence base, or related developments in physiotherapy practice), or if there are any significant contextual differences.

- **Stage 2:** If the area of practice and/or its context have not been considered before, or if there is a new reason to consider it or the context of its delivery again, PAS applies the criteria as described in the sections above.

PAS may ask the member to provide additional information to support the case for inclusion, if this is felt to be necessary to enable a full consideration of the issues. This is particularly the case if it is felt that the case requires formal consideration by the CSP Professional Practice & Service Delivery [PPSD] Sub-committee [see **Stage 3**].

The outcome at this stage is one of the following:

1. Confirmation that the area sits within UK physiotherapy practice
 2. Confirmation that the area sits within UK physiotherapy practice provided certain conditions are met (these usually relate to evidence of standards of practice being used, or to contextual factors; see **Section 3**)
 3. Indication that the area does not sit within UK physiotherapy scope of practice at the present time (see **Section 2**)
 4. Indication that the area and/or its context requires consideration by the CSP PPSD Sub-committee because of its unusual, novel and/or innovative status, with the member advised as to the timeframe for this process, and with the enquiry progressed to **Stage 3**.
- **Stage 3:** PPSD Sub-committee is presented with the case for consideration; it debates the case, drawing upon relevant supporting information and advice provided by the CSP and/or individual member.

The PPSD Sub-committee considers whether the area of practice sits within UK physiotherapy, and whether and how this is contingent on context.

The outcome at this stage is one of the following:

1. Confirmation that the area sits within UK physiotherapy practice
2. Confirmation that the area sits within UK physiotherapy practice provided certain conditions are met (these usually relate to evidence of standards of practice being used, or to contextual factors; see **Section 3**)
3. Indication that the area does not sit within UK physiotherapy scope of practice at the present time (see **Section 2**).

Oversight of the process

An essential part of the PPSD Sub-committee's role is that it maintains an oversight of developments in scope of practice and ensures that these developments are

Appendix C – International positions

disseminated and informs all areas of CSP activity appropriately. This role is integral to the CSP's governance arrangements and to fulfilling CSP responsibilities as the guardian of the scope of practice of UK physiotherapy.

The role is exercised in the ways outlined below.

- **PPSD Sub-committee receives an update three times a year on the areas of practice considered.** In this way, the committee monitors developments and trends in the profession's scope of practice (over the short- and longer-term) and oversees the maintenance of a record of scope of practice decisions that the CSP makes.
- **PPSD Sub-committee** submits an annual report to the Practice & Development Committee (more frequently if the number and scale of cases merits this) on scope of practice business. This enables developments in the profession's scope of practice to be fed through to the CSP Council, the Society's governing body.
- **The outcome of considering a particular area of practice is disseminated appropriately by the CSP** both to members and externally using all available channels and media. This is particularly important when a new area of practice has been identified as fitting within the scope of UK physiotherapy practice, or if the case highlights issues on which advice to members is particularly required.
- **Decisions relating to scope of practice are used to inform all relevant CSP activity.** This includes the following:
 - CSP promotion of physiotherapy and members' practice
 - CSP quality assurance/enhancement of physiotherapy education at qualifying and post-qualifying levels
 - Broader CSP activity to provide supportive leadership to the development of physiotherapy education and to members' career development (at all levels).

Appendix 1

Underpinning concepts

Collective scope of practice

The scope of practice of physiotherapy is defined as any activity undertaken by an individual physiotherapist that may be situated within the four pillars of physiotherapy practice (as defined by the CSP's royal charter). Such activities should be linked to existing or emerging occupational and/or practice frameworks acknowledged by the profession, and be supported by a body of available or emerging evidence.

Physiotherapy enables people to move and function as well as they can, maximising quality of life, health and well-being. Physiotherapists use manual therapy, therapeutic exercise and rehabilitative approaches to restore, maintain and improve movement and activity and to support people in managing their own condition, maintaining their

Appendix C – International positions

independence and preventing future episodes of ill health. Physiotherapists work with a wide range of population groups (including children, those of working age and older people), across sectors (including public, private, independent and voluntary), and in acute, community and workplace settings.

Physiotherapy delivers high-quality, innovative services in accessible, responsive, timely ways. It is supported by an increasingly strong evidence base, an evolving scope of practice, clinical leadership and person-centred professionalism. Physiotherapy has the skills to address health care priorities, to meet individual needs, and to develop and deliver services in clinically- and cost-effective ways in a rapidly changing health and well-being economy. Its distinctive mix of diagnostic and assessment skills, holistic approach and developed communication and educative skills means that it can facilitate early intervention (including by acting as first-contact practitioners), support self-management and promote independence, and help to minimise episodes of ill health developing into chronic conditions.

The scope of physiotherapy practice can be defined in terms of occupational and practice frameworks: members work within a number of occupational roles (as clinician, manager, educator, researcher, etc.); across service settings (acute and primary care NHS services, independent and private practice, voluntary organisations, industry, etc.); to meet the needs of a wide variety of patient and population groups (babies, children, adults – including those of working age and older people, and animals) and across specialties (including musculo-skeletal conditions, neurology, mental health, respiratory and critical care).

The profession's specialist groups and sub-groups are often represented by a CSP professional network (PN; formerly known as clinical interest and occupational groups), or a virtual network of peers (within the CSP interactive network, or 'iCSP').

Professional networks are separate entities within the CSP to allow members with specific and unifying interests. iCSP is a virtual discussion forum for members to exchange information on areas relevant to their practice. The PNs and iCSP are important as sources of establishing contemporaneous custom and practice within comparable groups of the profession.

Individual scope of practice

Several concepts underpin individual members' scope of practice. These are explained below.

- Competence

Competence is the synthesis of knowledge, skills, values, behaviours and attributes that enables members to work safely, effectively and legally within their particular scope of practice at any point in time. It involves awareness of the limits of personal practice and the practice of the profession and depends on members engaging in structured, career-long learning and development to meet their identified learning needs.

Appendix C – International positions

Competence changes as members progress through their career (with their competence developing and deepening in some areas and diminishing in others) and relates to their particular scope of practice at any particular point in time within the broad scope of the practice of physiotherapy. Given its individual and evolving nature, competence cannot be defined simply or prescriptively.

Maintaining and developing competence hinges on undertaking continuing professional development [CPD]. The CSP expects members' CPD to be based on a process of reflection, planning and evaluation, through which learning and development needs are identified, learning is pursued to address these, and new learning is applied and reflected upon within physiotherapy activity.

- Professional autonomy

Professional autonomy is the application of the principle of autonomy whereby a member makes decisions and acts independently within a professional context and is responsible and accountable for these decisions and actions. Qualifying physiotherapy education prepares physiotherapy graduates to be capable of exercising professional autonomy on qualification and in their initial physiotherapy practice.

Key elements of professional autonomy are understanding the limits of personal competence and scope of practice and working within this. Members are responsible for seeking advice and guidance to inform decision-making and action from others through appropriate forms of professional supervision and mentorship.

In exercising professional autonomy, a physiotherapist decides on the nature of management best suited to the identified needs of an individual patient. This is based on performing an appropriate assessment of individual need, reaching an appropriate diagnosis based on the extent of the assessment performed, and using professional judgment to implement an intervention appropriate to individual need.

- Professionalism

Professionalism defines what is expected of a professional, and what it means to be professional. Broadly, it can be summarised as

- A motivation to deliver a service to others
- Adherence to a moral and ethical code of practice
- Striving for excellence, maintaining an awareness of limitations and scope of practice
- A commitment to empowering others (rather than seeking to protect professional knowledge and skills).

A profession that fulfils these expectations establishes and maintains credibility with the public and demonstrates its capacity to carry the *privileges* of professional practice – autonomy and self-regulation. In turn, fulfilment of these expectations demonstrates a profession's ability to fulfil the parallel *responsibilities* of professional practice - accountability, transparency and openness.

Appendix C – International positions

Professionalism recognises that professional activity

- Has strong ethical dimensions
- Is complex and diverse, constantly changing, and uncertain and unpredictable
- Cannot be defined simply in terms of possessing and implementing a fixed body of knowledge and skill
- Cannot be undertaken in isolation
- Depends on engaging in career-long learning and adapting and developing activity accordingly
- Requires individual practitioners to cope with the non-routine, unknown and incomplete, and potentially conflicting, information.

- **Professional accountability and justification for action**

Chartered physiotherapists are personally accountable for their practice. With rare exception, they are answerable for their acts and omissions, regardless of directions or supervision received from another professional. Documentation is essential to support a physiotherapist's actions and decisions.

A physiotherapist's intervention should only occur on the basis of an appropriate assessment of patient needs, clinical reasoning and decision-making, and on the basis that the proposed intervention is believed to be of benefit to the individual concerned.

In legal terms, acceptable professional practice has to be in accordance with a responsible body of opinion and be underpinned by reasonable and logical explanations for the action taken.

Appendix C – International positions

Appendix 2

Historical developments

Several developments are key to understanding how UK physiotherapy scope of practice is framed. These are summarised below.

1920	The CSP' royal charter defined physiotherapy as “massage, exercise, electrotherapy and kindred forms of treatment”.
1977	The profession secured professional autonomy.
1996	Delegation of activities to health care practitioners, including some medical tasks, was facilitated by the document, Central Consultants and Specialists Committee: Towards tomorrow – The future role of the consultant.
1999	Physiotherapy defined as ‘health profession’
2001	Physiotherapy gained protection of title under the Health Professions Order.
2007	CSP Council agreed a fresh interpretation of the royal charter: “the scope of practice is defined as any activity undertaken by an individual physiotherapist that may be situated within the four pillars of physiotherapy practice where the individual is educated, trained and competent to perform that activity. Such activities should be linked to existing or emerging occupational and/or practice frameworks acknowledged by the profession, and be supported by a body of evidence” (CSP, 2008).
2010	CSP Council agreed to pilot a new <i>Code of Professional Values and Behaviour</i> that brings to the fore member responsibilities relating to scope of practice, including the responsibility to consult with the CSP if a member is aware that a new area of practice challenges the boundaries of recognised scope of practice.

Appendix C – International positions

Appendix 3

Key terms

The terms explained below are used in the criteria that it uses to consider scope of practice queries and therefore underpin the CSP's governance arrangements.

“New area of practice”

A “new area of practice” forms the focus of a query relating to scope of practice. It could form one of the following:

- A technique or approach that is new to UK physiotherapy
- The application of a technique or approach that is already established within scope to a condition/ identified need (potentially relating to a particular population or patient group) that has not previously been treated by UK physiotherapy in this way (or at all).

“Respected, informed opinion”

This describes the views of those with knowledge, expertise and insight into the new area presented and how it relates to UK physiotherapy scope of practice [see **Criterion A**]. Views can be obtained from other chartered physiotherapists, representatives of other professions, organisations and groups in and outside the UK.

It is expected that the body of opinion provided relates to the following:

- Available evidence [see **Criterion C**]
- The technique or approach presented in the new area of practice
- The application of the new area of practice to an identified need or condition
- The application of the new area within the broad context of physiotherapy practice and the professional responsibilities held by physiotherapists [see **Criterion A**]
- How the area of practice is undertaken and integrated into their activity by other practitioners (whether other health care professionals in the UK or elsewhere, or physiotherapists practising outside the UK) in the interests of the individuals whom they serve.

“Evidence base”

This relates to how the potential inclusion of a new area of practice within the scope of UK physiotherapy practice is supported by appropriate forms of evidence. It is expected that the case for including a new area of practice is substantiated by the following:

- The best available evidence – it is recognised that this can take different forms of valid and relevant information that is used to underpin individuals' decision-making and action that is often, but not exclusively, the outcome of research activity
- A critical engagement with available evidence; i.e. including that which positively supports the area's safety, effectiveness and efficacy, that which highlights where further research can valuably be done, and that which may question the safety, effectiveness and efficacy of the new area (including its effectiveness and efficacy relative to other possible areas, and relative to areas of practice that are established within the scope of UK physiotherapy).

Appendix C – International positions

Appendix 4

What the CSP scope of practice governance arrangements are *not* designed to do

It is important to highlight what the CSP scope of practice governance processes do *not* do and what CSP members do *not* need to seek CSP approval for. An explanation is provided below.

- **CSP members do not need to seek CSP approval to move into new roles**
- **CSP members do not need to seek CSP permission to make changes to their personal scope of practice in ways that already fit within the collective scope of UK physiotherapy.**

Use of the process is only necessary if an individual member (or group of members) is seeking to make changes to personal scope of practice that would involve practising in areas that currently sit outside the recognised parameters of UK physiotherapy practice, and/or where there is uncertainty about whether an element or approach sits within these parameters.

At the same time, there are areas of practice in which it depends how a member is planning to integrate a technique or approach into his/her practice that affects whether the area can be considered to fall within the scope of UK physiotherapy. In essence, this will depend on how the member is intending to integrate the area within his/her broad scope of practice as a physiotherapist, whether s/he is planning to practise the technique or approach to the exclusion of others within her/his existing scope, and how s/he presents his/her services to those commissioning and using them.

- **The governance arrangements do not take away individual members' responsibility to practise within their personal scope of practice and to determine themselves whether they have established and maintained their competence to practise in a particular way.**

All changes to individual scope (both those simply relating to what an individual does within the recognised scope of the profession, plus those relating to an individual's wish to move into an area that is new for the UK profession) continue to be covered by Rule 1 of the CSP Rules of Professional Conduct (and its planned successor document, the CSP Code of Professional Values and Behaviour). It remains imperative that individual members do the following:

- *Demonstrate how they have established their competence in a particular area through keeping a record of their relevant learning*
- *Limit their scope of practice to those areas in which they have established and maintained their personal competence*
- *Maintain a critical awareness of how they are engaging in particular areas of practice in terms of how this fits draws upon physiotherapy knowledge, skills and values, how it fits within a physiotherapeutic pathway of care, and whether and*

Appendix C – International positions

how it is perceived by others (including service users) to form physiotherapeutic care.

- **The governance processes do not prevent individuals from continuing to practise in areas outside the scope of practice of UK physiotherapy as long as they do this explicitly (and with appropriate forms of additional indemnity insurance, as required).**

In such a scenario, members need to make clear that in using a particular approach, they are doing so not as part of their physiotherapy practice. At the same time, there is the underlying wish that the CSP's fresh interpretation of scope of practice is as inclusive as possible and moves away from a notion that some physiotherapists engage in 'extended scope' practice.

- **Enacting the process is in no way an attempt to achieve a fixed definition of what sits within and outside the scope of UK physiotherapy practice.**

The criteria and process are underpinned by the recognition that the profession's practice is constantly evolving and that any attempt to 'pin down' UK physiotherapy practice would form a distinctly retrograde step.

Appendix C – International positions

Appendix 5

Explanation of how the CSP seeks expert advice to inform its consideration of a new practice area

Rationale

It is important that the CSP's consideration of a submission for a new area of practice to be recognised within the scope of UK physiotherapy is subject to a rigorous, consistent and fair process. As part of this, it is essential that the CSP has access to appropriate expert advice to inform its consideration of each case and its decision-making.

What does 'expert advice' mean?

'Expert advice' means seeking an independent viewpoint(s) that relates to the specific area of practice being considered. It is explicitly designed to complement the broad professional insights brought to an individual case and to inform the CSP's fulfilment of its responsibility to consider and recommend whether an area of practice sits within the scope of UK physiotherapy practice (and/or what caveats may relate to this; for example, whether and how an area is integrated into broader physiotherapeutic activity).

From whom is expert advice sought?

The CSP seeks advice from those who are able to provide the expertise outlined above - i.e. who have knowledge, expertise and insight into the new area presented and how it relates to UK physiotherapy scope of practice – and who can provide an independent viewpoint. The advice can be obtained from chartered physiotherapists, representatives of other professions, organisations and groups in the UK, and physiotherapists, other professions and organisations and groups outside the UK.

Expert advice may be sought from individuals in their own right, given their professional standing and expertise, or from individuals who are able formally to represent a group, organisation or profession. Professions, groups and organisations from whom expert advice may be sought include the following:

- CSP-recognised professional networks (formerly clinical interest/occupational groups)
- CSP-convened member groups relating to practice, education and research
- A differently-defined group of members of the profession (e.g. that might be based within a particular locality, practice setting, occupational role, or particular area of expertise)
- Physiotherapists who practise outside the UK
- Colleagues from other professions who are able to provide one or both of the following:

Appendix C – International positions

- An expert perspective on how the area of practice in question can help to meet population, patient and service need
- An informed perspective on how the area of practice in question relates to established areas of physiotherapy practice
- A body of opinion obtained from an organisation with particular expertise in the practice area and its application to population and patient needs; for example, a research-based organisation, such as the National Institute for Health & Clinical Excellence [NICE] or the Scottish Intercollegiate Guidelines Network [SIGN], or a national healthcare charity.

Those from whom the CSP seeks expert advice are invited to indicate whether supplying information on the particular area of practice under consideration would present any conflict of interest.

What advice is sought?

Expert advice is sought on how an area of practice relates to the criteria set out in the main body of this document. The advice would therefore be on the following:

- The technique or approach presented and its application to an identified population/patient need or condition
- The new area within the broad context of physiotherapy practice
- The new area in the context of physiotherapists' professional responsibilities
- How the area of practice is undertaken and integrated into activity by other practitioners in the interests of the individuals whom they serve
- Available evidence relating to all the above, including a critical appraisal of this.

How is the expert advice shared?

Expert advice sought and obtained to inform the process of considering a case is shared with the member(s) putting forward the case. This is done by the advice being appropriately anonymised. However, if the expert advice is provided on behalf of a group, organisation or other profession, this is indicated in the anonymised submission.

The expert advice is shared with the member(s) who make the original query. This gives the member(s) the opportunity to consider any potential challenges to the inclusion of the area of practice within the scope of UK physiotherapy and to respond to this.

How is the expert advice used?

Expert advice can be used to inform the CSP's consideration of an area of practice. It is used to inform the Society's consideration of the specific area of practice for which it has been sought, alongside the information provided by the member(s) making the

Appendix C – International positions

original enquiry, including peer review material provided in support of the case (in line with **Criterion B**).

The CSP uses the expert advice to ensure that it is equipped to give full consideration to a case and that its decision emerging from this consideration is the outcome of a duly rigorous process and can be fully justified and explained.

In the event that the CSP cannot formulate a recommendation on the basis of the information submitted, it may seek additional expert advice to inform its further consideration of the area of practice.

Appendix C – International positions

PPSD(11)04
Supplementary paper
Tabled

DRAFT

Questions to help members think through queries about their scope of practice:

Does ... currently sit within UK physiotherapy practice?

Does ... sit within my personal practice as a chartered physiotherapist?

A. How does the area relate to established areas of UK physiotherapy practice?

A.1 Which established areas of physiotherapy practice does the area relate to?

A.1.1 Does the area fulfil the basic aims of physiotherapy – i.e. by enabling individuals to move and function as well as they can, maximising quality of life, health and well-being?

A.1.2 Does the area fit with one of the four pillars of physiotherapy, as defined by the CSP royal charter - i.e. massage, exercise, electrotherapy, or kindred forms of treatment?

Inclusion of an area is likely to be questionable if

- *You cannot logically link it to one of the four pillars of physiotherapy*
- *You find it difficult to demonstrate how the area contributes to enhancing or maintaining individuals' health status.*

A.2 How does the area relate to the established knowledge and skills of UK physiotherapy?

A.2.1 As a physiotherapist, do you have the underpinning knowledge and skills on which to base your practice in the area?

A.2.2 Does the area build on and use your established physiotherapy knowledge and skills?

A.2.3 As a physiotherapist, can you develop and demonstrate your knowledge and skills in the area?

Inclusion of an area is likely to be questionable if you find it difficult to demonstrate how it draws on the established body of physiotherapy knowledge and skills.

For an area to be included within your individual scope of practice, you need to demonstrate that you

- *Have completed appropriate education and training in the area concerned and kept a record of this*
- *Have established and maintained your competence to practise the area*
- *Are able to use or apply the area of practice within a broader physiotherapeutic pathway of care*
- *Have taken care to ensure that the patients/population groups and others in a commissioning role for your services understand that the area falls within your practice as a physiotherapist.*

CSP PLI cover for your practice in a specific area is contingent both on that area being deemed to fall within the scope of UK physiotherapy practice and your being able to demonstrate that you have undertaken an appropriate programme of education and training in the area.

A.3 How does practice in of the area uphold physiotherapists' accountability for their decision-making and actions?

A.3.1 Does the area uphold your responsibility for the care you deliver based on the assessment, clinical-reasoning, judgment and diagnosis you make?

A.3.2 Does the area uphold your responsibility to refer an individual to another practitioner if this is in the best interests of that individual?

A.3.3 Does the area enable you to exercise your professional judgment, based on your assessment of need and all appropriate responses to this?

A.3.4 Is it clear to others that you are working as a physiotherapist in undertaking activity in the area?

Inclusion of an area is likely to be questionable if

Appendix C – International positions

- *You find it difficult to demonstrate how it upholds your responsibility for your decisions and actions, professional accountability and professional autonomy*
- *It compromises your ability to make decisions and act in line with your professional judgment and in the best interests of the individuals you serve*
- *It limits the options that you present to individuals based on your assessment of their needs and preferences*
- *It limits your physiotherapy practice to that particular approach and/or presenting this limited area of practice as physiotherapy.*

A.4 How does the area enhance physiotherapy's contribution to patient care/service delivery?

A.4.1 Does the area help to meet changing population/patient needs?

A.4.2 Does the area enhance physiotherapy's contribution to providing an integrated, accessible and timely package of care?

A.4.3 Does the area have physiotherapeutic value?

Inclusion of an area is likely to be questionable if

- *You undertake it in isolation from physiotherapy's broader contribution to meeting needs*
- *It does not facilitate the delivery of integrated care*
- *You are not able to demonstrate that an area has a physiotherapeutic purpose*
- *You are not able to demonstrate that a duty of care is created between you and individuals whose needs you are helping to address.*

B. Is the area of practice recognised by peers as falling within the scope of UK physiotherapy?

B.1 From whom can you seek feedback on whether the area falls within the scope of UK physiotherapy?

B.1.1 Are you able obtain supportive feedback from peers with acknowledged expertise related to the area?

B.1.2 Are you able to seek supportive feedback from peers within the UK physiotherapy (or from colleagues in other countries)?

B.1.3 Are you able to seek supportive feedback from colleagues from other professions and/or organisations with particular expertise?

B.2 How can feedback from others be sought and presented?

B.2.1 Do you have a record of peer feedback relating to the area, should you be called upon to supply this?

B.3 How does peer feedback support inclusion of the area within UK physiotherapy practice?

B.3.1 Does the feedback present mixed perspectives regarding the appropriateness of the area's inclusion?

B.3.2 If so, how you able to demonstrate critical engagement and having taken sufficiency account of these different perspectives?

C. Is the area's inclusion within scope supported by available or emerging evidence?

C.1 What evidence supports the area's inclusion within UK physiotherapy?

C.1.1 What is the best available or emerging evidence to support inclusion of the area within your physiotherapy practice?

C.2 How does available or emerging evidence affirm the safety, efficacy and effectiveness of the area in question?

C.2.1 Is there available or emerging evidence positively to support the area's safety, efficacy and effectiveness?

C.2.2 Can you demonstrate critical engagement with available or emerging evidence relating to the area?

C.2.3 Is there any available or emerging evidence that casts doubt on the value or credibility of the area in meeting patient/population needs?

Appendix C – International positions

C.2.4 Is there any evidence that actively challenges the area's safety, efficacy or effectiveness?

Potential outcomes of working through the questions

Having worked through the questions, you are likely to be in one of three positions. These are outlined below, with guidance provided on next steps.

1. You are confident that an area fits within your scope of physiotherapy practice.

You should contact the CSP to notify its professional advice service (paservice@csp.org.uk) of the area of practice you are planning to include within your personal scope of practice. This enables a CSP professional adviser to affirm the judgment that you have made, or to advise you of required action if the judgment of the CSP may be different. It will also enable the CSP to develop its understanding, record and promote the ways in which members are legitimately developing the scope of UK physiotherapy practice through its scope of practice governance arrangements.

2. You remain unsure as to whether the area fits within your scope of physiotherapy practice.

You should contact the CSP professional advice service (paservice@csp.org.uk). This will be helpful for the following reasons:

- It may affirm your own sense that the area does not currently fall within your physiotherapy scope of practice
- It may give you a different perspective that will help you to re-think through the area and how it fits within your personal scope of practice
- It may help you to recognise how you need to present that area if you still intend to practise it; i.e. by making explicit to all concerned (including prospective commissioners and users of your services) that the area is distinct from your practice as a chartered physiotherapist and for which you need to ensure you have appropriate, alternative insurance cover (areas outside the recognised scope of UK physiotherapy practice are not covered by the CSP's professional liability insurance).

3. You conclude that the area currently sits outside your scope of physiotherapy practice.

You may be satisfied with your conclusion that an area currently sits outside your scope of physiotherapy practice and adjust your plans for practice accordingly. If you intend still to practise the area, you need to ensure that you do this - and present this - as being explicitly outside your practice as a chartered physiotherapist. You also need to ensure that you secure appropriate insurance cover for your activity in the area.

You may still wish to contact the CSP for advice (paservice@csp.org.uk). This may be helpful for the following reasons:

- It may be helpful to gain affirmation of your own judgment that the area does not currently fall within your physiotherapy scope of practice
- It may be helpful to gain advice on how you need to present your activity in the area if you still intend to practise it
- It may be helpful to secure the CSP's view on the area through its governance arrangements processes; this should be helpful both for you and for helping to develop the profession's collective understanding of how its scope of practice is evolving.

5th January 2011

Appendix C – International positions

TITLE:	Defining CSP expectations of post-qualifying learning and development in particular areas of practice: Draft materials for comment
SUMMARY:	<p>P&D Committee considered and agreed to a proposal at its February 2011 meeting that the CSP should develop an approach to defining its expectations of members' post-qualifying learning and development in particular areas of practice. The proposal was informed by previous (differently-focused) discussions by PPSD and Education Sub-committees and the Quality Assurance & Enhancement (QAE) Group.</p> <p>Recognising it formed a shift in policy for the CSP, P&D Committee agreed that the development of expectations in particular areas was merited, given changing context and member need and as a way of positively addressing changing pressures and opportunities. It stressed the importance of expectations being developed with due caution, proportionately and in line with the CSP's established approach to supporting and leading education and continuing professional development (CPD).</p> <p>The Committee agreed that its sub-committees should be invited to contribute to the approach's development. Drafts of the following are attached:</p> <ul style="list-style-type: none"> - Policy statement (Appendix 1) - Criteria (Appendix 2) - Structure for expectations (Appendix 3) - An outline of the areas that will need to be defined in a process for priority-setting and developing expectations (Appendix 4).
STATUS:	For discussion
ACTION:	<p>PPSD is invited to address the following in considering the draft materials:</p> <ul style="list-style-type: none"> - Does the draft policy statement clearly explain the purpose of CSP expectations (Appendix 1)? - Do the draft criteria sufficiently define when development of CSP expectations in a particular area will be merited (Appendix 2)? - Is the proposed structure for CSP expectations appropriate and sufficient (Appendix 3)? - What particular issues should be considered in developing the outline process (Appendix 4)? <p>The materials are also being presented for consideration by the QAE Group and Education Sub-committee.</p>
AUTHOR/DATE	Sally Gosling, 22 nd March 2011

Appendix C – International positions

Appendix 1

Policy statement on defining CSP expectations of post-qualifying learning and development in particular areas of practice

1. The CSP defines expectations of its members' post-qualifying learning and development within particular areas of practice. It does this both to demonstrate the high standards to which its members practise and to indicate how it expects its members to develop professionally in support of their practice and service delivery. In so doing, it puts patient safety and the quality of patient care to the fore.
2. The need and value of setting expectations arises particularly in areas in which UK physiotherapy is establishing its role, and needing to demonstrate that its knowledge and skills are of a sufficient depth (or breadth) to support its role and function development and to meet particular health care needs.
3. This statement explains
 - Why the CSP defines expectations in particular areas ('Context')
 - What it seeks to achieve through defining expectations ('Aims and intended outcomes')
 - How it defines its expectations ('Approach').

Context

4. Change in several areas has increased the value of the CSP articulating its expectations of its members' post-qualifying learning and development in particular areas. Significant trends are summarised below.
 - **An increasing focus on advanced and specialist practitioner roles** is heightening the need to make the case for their value in terms of the quality of clinical outcome, productivity and sustainable service delivery; this need is particularly strong in demonstrating physiotherapy's actual and potential contribution to meeting identified health care priorities across the UK health and well-being economy.
 - **Potential developments in regulation and legislation** are heightening the need to demonstrate the high standards of education that physiotherapists attain in support of their practice and roles.
 - **Developments in service design and delivery** are raising the potential for education needs (including those at post-qualifying level) to be met differently, including through achieving a more direct and overt linkage between learning and development opportunities and workforce needs.
 - **The increasing development of frameworks and statements** relating to advanced practice within (and across) the health professions is increasing the value of the CSP asserting its expectations of its members' post-qualifying development to support and promote their knowledge, skills and professionalism.

Appendix C – International positions

Aims

5. Through asserting its expectations of post-qualifying learning in particular areas of practice, the CSP aims to do the following:
 - **Support individual members in their professional and career development**, particularly in making the case for, and securing, advanced and extended practice roles
 - **Support the profession as a whole in articulating the value of its contribution** to meeting changing population, patient and service needs (with the imperative of demonstrating its clinical and cost-effectiveness)
 - **Demonstrate the high standards of safety, efficacy and professionalism to which its members work** within particular areas of practice
 - **Promote the on-going development of the profession**, informed by changes in practice, service design and delivery, workforce planning and employment and job role opportunities
 - **Achieve a greater integration of education and practice**, so that learning and development opportunities overtly and clearly support how members need to develop in their roles
 - **Ensure the profession is well-positioned to respond to changing regulatory requirements** (including the potential extension of protected titles and formal linkage of post-registration qualifications with function and roles) and potential legislative developments (e.g. relating to independent prescribing)
 - **Ensure the profession and individual members can best position themselves** in a context of increasing fluidity and blurring of professional boundaries
 - **Provide clarity on matters of scope of practice**, particularly in the context of members demonstrating that they have undertaken appropriate education and training in support of their practice, both to fulfil professional and regulatory responsibilities and to be covered by the professional liability insurance (PLI) provided as a benefit of full CSP membership (subject to the policy's terms and conditions).

Intended outcomes

6. The intended outcomes of developing expectations are as follows:
 - **The profession is better positioned** to respond to and seize opportunities arising from changing needs and contexts (including those relating to the economy, health care structures and policy implementation, legislation, regulation and education)
 - **The profession has robust, credible structures and approaches to its on-going development and education**, including to generate confidence in its ability to take on new roles and activities
 - **Members are supported at an individual and local level** in their professional and career development
 - **The CSP provides a stronger framework** – in the context of greater diversification, volatility and uncertainty – for collaboration between members in their clinical practice, management and education.
7. While there are strong reasons for the CSP to define expectations of post-qualifying learning and development, the Society is concerned to guard against the potential pitfalls of doing so. These are summarised below.

Appendix C – International positions

- **Being too rigid** and discouraging of the development of learning opportunities (including work-based ones) that meet needs within different settings and localities
- **Being too prescriptive**, so that the expectations cannot be used by education providers and are at risk of becoming quickly out-dated
- **Failing to reflect the complexities of physiotherapy practice** and its established expectations of post-qualifying learning (e.g. at Master's degree level)
- **Being outdated** in their approach to education and professional development
- **Hindering members' opportunities** for professional and career development by being too narrow (particularly in how they express expectations about how members' learning is developed)
- **Appearing to be excluding**, rather than enabling, in their approach
- **Being too lengthy and complex** to be of practical value.

Approach

8. The CSP has a range of materials and resources on which to draw in defining its expectations in particular areas (to be referenced; see Annex for provisional list). While generic resources shape the expectations and provide key reference points, clearly it is essential that formulating expectations in particular areas draws upon members' expertise.
9. The CSP professional networks, together with higher education institutions (HEIs) and other existing providers of learning and development opportunities in the areas under consideration, have a vital role to play, both in identifying priority areas and contributing to expectations' development.
10. The CSP has a structure to which each set of expectations should broadly conform. This approach has the following advantages:
 - **It achieves a parity of approach** across potentially widely varying areas of practice, within which the sense of need for expectations may have different origins.
 - **It ensures a clarity for how members use the expectations** - as individuals in wishing to engage in CPD, managers wishing to determine appropriate forms and levels of learning and development for their staff to take on a new area of practice, and programme providers potentially wishing to ensure their compliance with a range of CSP expectations.
 - **It ensures a transparency for external audiences** (including other professions, employers and the HPC).
 - **It provides an additional reference point** and a streamlining measure for the consideration of post-qualifying programmes for recognition within the CSP's various programme recognition schemes.
11. The CSP's approach is further described by the following:
 - Criteria for identifying practice areas for the development of expectations (**Appendix 2**)
 - Structure for formulating expectations (**Appendix 3**)
 - Process for commissioning, developing and approving expectations (**Appendix 4**).

Appendix C – International positions

Appendix 2

Criteria for identifying practice areas for the development of CSP expectations of members' learning and development

CSP criteria for identifying the value of defining expectations of members' learning and development in the particular areas of practice are listed below.

1. An area has a recognised place within the scope of practice of UK physiotherapy at the point at which it is considered.
2. An area builds on physiotherapy knowledge and skills acquired through qualifying education programmes and members' (early) post-qualifying practice.
3. An area is either new within UK physiotherapy, or raises particular issues within UK physiotherapy practice to warrant coverage within expectations.
4. There is a value to defining expectations in the area in terms of the profession's credibility, risks associated with practice in the area, and related safety and efficacy issues.
5. The profession, and others, will benefit from a CSP assertion of its expectations in the area.
6. An area relates to advanced or specialist physiotherapy practice in the UK.
7. An area is significant to the development of UK physiotherapy and physiotherapists.

In line with the above criteria, established areas of practice are less likely to merit expectations being defined, unless there is a particular need to update and enhance learning and practice in that area. This might be because of significant developments in the evidence base, changes to regulatory requirements or legislation, or particular issues that have arisen relating to safe and efficacious practice.

Likewise, if an area is practised by a very small number of members, with the nature of patient and service demand being unlikely to change this, the value of developing CSP expectations in the area is likely to be questionable.

Appendix C – International positions

Appendix 3

Structure for formulating expectations

CSP expectations relating to learning and development in a particular area of practice to conform to the structure outlined below.

- **Rationale**

This explains why expectations in a particular area have been defined (relating to the criteria; see **Appendix 2**), with an explanation of the context in terms of meeting patient, service and practice needs.

- **Target group**

The primary member groups to whom the expectations relate is explained, including broad expectations about the kinds of qualifying and initial post-qualifying knowledge and skills upon which learning and development opportunities build (e.g. in relation to particular patient groups/care pathways/conditions, practice settings, or occupational roles), and with clarification of particular expectations relating to initial post-qualifying education in an area (i.e. to establish competence) and on-going learning and development once competence is established.

- **Outcomes**

The learning that the CSP expects members to demonstrate in the particular area is explained (with the outcomes forming the core of each set of expectations); the outcomes relate to the knowledge, skills, values and behaviours required, with these correlating with a level within the CSP physiotherapy framework (e.g. advanced or expert).

- **Programme design/content**

A broad statement is made about what the CSP expects the structure and content of learning and development opportunities in the area to comprise, including to enable participants to meet the stated outcomes, to engage participants in the relevant evidence, and to address particular ethical and legal issues.

Broad statements are made about the amount and structure of learning required for development in the area to meet the outcomes (including in terms of achieving an integration of theoretical and practice-based learning, and particular arrangements for supervised practice). At the same time, the expectations avoid making inappropriate prescription or assumptions about the length of study/number of hours' learning that members must complete within the area to achieve competence.

- **Approaches to teaching and learning**

The expected broad approach to learning and teaching is outlined, including in relation to participant-centred and evidence-informed learning. Again, inappropriate prescription (e.g. in relation to formal programmes of learning or work-based learning) is avoided.

- **Approaches to assessment**

There is a minimum expectation that learning and development opportunities should contain some formal assessment of participants' learning that is appropriate to learning and development in the area and that enables participants to demonstrate their fulfilment of the learning outcomes.

Rather than being prescriptive, expectations encourage use of a wide variety of assessment methods that are commensurate with enabling participants to demonstrate high levels of professional learning.

Appendix C – International positions

Examples of approaches include critical case studies and other practice-based assignments; portfolio-based assignments with an emphasis on reflecting on and evaluating professional practice and learning, oral presentations, *viva voce*, peer and self-assessment.

In respect of clinical lea

Appendix 4

Process for commissioning, developing and agreeing expectations *[in outline; to be developed]*

The process through which the CSP commissions, develops and agrees expectations will need to encompass the following:

- How areas in which expectations can valuably be developed are identified (using the criteria set out in **Appendix 2**)
- How development of expectations are commissioned
- How professional networks, HEIs and others are involved at each stage of expectations' development (in line with the structure set out in **Appendix 3**), including in identifying areas, contributing to their development and providing feedback on drafts
- How expectations are considered and approved within the CSP committee structure
- How expectations are disseminated and implemented
- How the on-going currency and need for published expectations are kept under review
- How the impact of the initiative as a whole are evaluated.

Sally Gosling
22nd March 2011

Annex

Resources to be drawn on in shaping and defining the development of CSP expectations in particular areas *(to be formally referenced in the finalised policy statement)*

- New scope of practice guidance (currently being finalised)
- The new physiotherapy framework of knowledge and skills that articulates different levels of practice in terms of outcomes, from support worker through to advanced and expert practice
- New learning & development principles
- A new code of professional values and behaviour (currently being piloted with members)
- Standards of Physiotherapy Practice (currently being reviewed)
- CSP vision of the future of UK physiotherapy (2010)

These will inform the generic development of expectations, clearly supplemented by resources and expertise related to the specific areas under consideration.

Appendix D –Research

REVIEW ARTICLE

1. Cotchett MP, Landorf KB, Munteanu SE. Effectiveness of dry needling and injections of myofascial trigger points associated with plantar heel pain: A systematic review. *J Foot Ankle Res.* 2010;3:18.

BACKGROUND:

Plantar heel pain (plantar fasciitis) is one of the most common musculoskeletal pathologies of the foot. Plantar heel pain can be managed with dry needling and/or injection of myofascial trigger points (MTrPs) however the evidence for its effectiveness is uncertain. Therefore, we aimed to systematically review the current evidence for the effectiveness of dry needling and/or injections of MTrPs associated with plantar heel pain.

METHODS:

We searched specific electronic databases (MEDLINE, EMBASE, AMED, CINAHL, SPORTDiscus and AMI) in April 2010 to identify randomised and non-randomised trials. We included trials where participants diagnosed with plantar heel pain were treated with dry needling and/or injections (local anaesthetics, steroids, Botulinum toxin A and saline) alone or in combination with acupuncture. Outcome measures that focussed on pain and function were extracted from the data. Trials were assessed for quality using the Quality Index tool.

RESULTS:

Three quasi-experimental trials matched the inclusion criteria: two trials found a reduction in pain for the use of trigger point dry needling when combined with acupuncture and the third found a reduction in pain using 1% lidocaine injections when combined with physical therapy. However, the methodological quality of the three trials was poor, with Quality Index scores ranging from 7 to 12 out of a possible score of 27. A meta-analysis was not conducted because substantial heterogeneity was present between trials.

CONCLUSIONS:

There is limited evidence for the effectiveness of dry needling and/or injections of MTrPs associated with plantar heel pain. However, the poor quality and heterogeneous nature of the included studies precludes definitive conclusions being made. Importantly, this review highlights the need for future trials to use rigorous randomised controlled methodology with measures such as blinding to reduce bias. We also recommend that such trials adhere to the Standards for Reporting Interventions in Controlled Trials of Acupuncture (STRICTA) to ensure transparency.

REVIEW ARTICLE

2. Cummings TM, White AR. Needling therapies in the management of myofascial trigger point pain: A systematic review. *Arch Phys Med Rehabil.* 2001;82(7):986-992.

OBJECTIVE: To establish whether there is evidence for or against the efficacy of needling as a treatment approach for myofascial trigger point pain.

DATA SOURCES: PubMed, Ovid MEDLINE, Ovid EMBASE, the Cochrane Library, AMED, and CISCOR databases, searched from inception to July 1999.

STUDY SELECTION: Randomized, controlled trials in which some form of needling therapy was used to treat myofascial pain.

DATA EXTRACTION: Two reviewers independently extracted data concerning trial methods, quality, and outcomes.

Appendix D –Research

DATA SYNTHESIS: Twenty-three papers were included. No trials were of sufficient quality or design to test the efficacy of any needling technique beyond placebo in the treatment of myofascial pain. Eight of the 10 trials comparing injection of different substances and all 7 higher quality trials found that the effect was independent of the injected substance. All 3 trials that compared dry needling with injection found no difference in effect.

CONCLUSIONS: Direct needling of myofascial trigger points appears to be an effective treatment, but the hypothesis that needling therapies have efficacy beyond placebo is neither supported nor refuted by the evidence from clinical trials. Any effect of these therapies is likely because of the needle or placebo rather than the injection of either saline or active drug. Controlled trials are needed to investigate whether needling has an effect beyond placebo on myofascial trigger point pain.

COCHRANE REVIEW

3. Furlan AD. Acupuncture and dry-needling for low back pain. *Cochrane Database of Systematic Reviews*. 2011(2).

OBJECTIVES: To assess the effects of acupuncture and dry-needling for the treatment of nonspecific low back pain.

BACKGROUND: Low back pain is usually a self-limiting condition that tends to improve spontaneously over time. However, for many people, back pain becomes a chronic or recurrent problem for which a large variety of therapeutic interventions are employed.

SEARCH STRATEGY: We updated the searches from 1996 to February 2003 in CENTRAL, MEDLINE, and EMBASE. We also searched the Chinese Cochrane Centre database of clinical trials and Japanese databases to February 2003.

SELECTION CRITERIA: Randomized controlled trials of acupuncture (that involved needling) or dry-needling for adults with nonspecific acute/subacute or chronic low back pain.

DATA COLLECTION AND ANALYSIS: Two reviewers independently assessed methodologic quality (using the criteria recommended by the Cochrane Back Review Group) and extracted data. The trials were combined using meta-analysis methods or levels of evidence when the data reported did not allow statistical pooling.

RESULTS: Thirty-five randomized clinical trials were included: 20 were published in English, 7 in Japanese, 5 in Chinese, and 1 each in Norwegian, Polish, and German. There were only 3 trials of acupuncture for acute low back pain. These studies did not justify firm conclusions because of their small sample sizes and low methodologic quality. For chronic low back pain, there is evidence of pain relief and functional improvement for acupuncture compared to no treatment or sham therapy. These effects were only observed immediately after the end of the sessions and in short-term follow-up. There is also evidence that acupuncture, added to other conventional therapies, relieves pain and improves function better than the conventional therapies alone. However, the effects are only small. Dry-needling appears to be a useful adjunct to other therapies for chronic low back pain. No clear recommendations could be made about the most effective acupuncture technique.

CONCLUSIONS: The data do not allow firm conclusions regarding the effectiveness of acupuncture for acute low back pain. For chronic low back pain, acupuncture is more effective for pain relief and functional improvement than no treatment or sham treatment immediately after treatment and in the short-term only. Acupuncture is not more effective than other conventional and "alternative" treatments. The data suggest that acupuncture and dry-needling may be useful adjuncts to other therapies for chronic low back pain. Because most of the studies were of lower methodologic quality, there is a clear need for higher quality trials in this area.

Appendix D –Research

CLINICAL REVIEW

4. Kalichman L, Vulfsons S. Dry needling in the management of musculoskeletal pain. *J Am Board Fam Med.* 2010;23(5):640-646.

Myofascial pain is a common syndrome seen by family practitioners worldwide. It can affect up to 10% of the adult population and can account for acute and chronic pain complaints. In this clinical narrative review we have attempted to introduce dry needling, a relatively new method for the management of musculoskeletal pain, to the general medical community. Different methods of dry needling, its effectiveness, and physiologic and adverse effects are discussed. Dry needling is a treatment modality that is minimally invasive, cheap, easy to learn with appropriate training, and carries a low risk. Its effectiveness has been confirmed in numerous studies and 2 comprehensive systematic reviews. The deep method of dry needling has been shown to be more effective than the superficial one for the treatment of pain associated with myofascial trigger points. However, over areas with potential risk of significant adverse events, such as lungs and large blood vessels, we suggest using the superficial technique, which has also been shown to be effective, albeit to a lesser extent. Additional studies are needed to evaluate the effectiveness of dry needling. There also is a great need for further investigation into the development of pain at myofascial trigger points.

EVIDENCE SUMMARY

5. Rathnayake T, MBBS. Back pain (low): Acupuncture & dry-needling. *Evidence Summaries - Joanna Briggs Institute.* 2009.

QUESTION: What is the best available evidence regarding acupuncture as an intervention in persons with acute or chronic low back pain?

CLINICAL BOTTOM LINE: Low back pain is a debilitating health problem resulting in large amounts of medical expenses, disablement and absenteeism.¹ Acupuncture, an ancient form of therapy of Chinese ancestry is one of a large variety of therapeutic interventions available for the treatment of back pain. Acupuncture was shown to relieve pain and improve function for chronic low-back pain compared to either no treatment or sham treatment immediately following an acupuncture session and in the short term.¹⁻³ (Level I) When acupuncture was combined with other therapies for back pain, function and pain relief was superior to conventional therapy alone, an observation found immediately following acupuncture, and in the short, intermediate and long term follow up.^{1,2} (Level I) A large randomized controlled trial (RCT) concluded that for chronic low back pain, both verum and sham acupuncture were found superior to conventional therapy (including physician or physiotherapist appointments with or without exercise and medications) at all follow up points.⁴ (Level II) Verum and sham acupuncture were found to be similar in the treatment for chronic low back pain.⁴ (Level II)

CHARACTERISTICS OF THE EVIDENCE

This summary is based on a structured search of the literature and selected evidence-based health care databases. Evidence in this summary is from: A systematic review of 35 RCTs with small sample sizes and low methodological quality.¹ Systematic reviews.^{2,3} An RCT including 1162 participants.⁴

BEST PRACTICE RECOMMENDATIONS

Evidence exists to support the efficacy of acupuncture for chronic low back pain, and should be considered for the treatment of chronic low back pain, particularly in combination with other therapies. (Grade B) Due to a lack of high quality studies no recommendations could be made using the available evidence, therefore it is advised that clinical judgment be used when deciding on the use of the acupuncture for acute low back pain. (Grade B)

Appendix D –Research

SYSTEMATIC REVIEW AND META-ANALYSIS

6. Tough EA, White AR, Cummings TM, Richards SH, Campbell JL. Acupuncture and dry needling in the management of myofascial trigger point pain: A systematic review and meta-analysis of randomized controlled trials. *Eur J Pain.* 2009;13(1):3-10.

OBJECTIVE: To establish whether there is evidence for or against the efficacy of needling as a treatment approach for myofascial trigger point pain.

DATA SOURCES: PubMed, Ovid MEDLINE, Ovid EMBASE, the Cochrane Library, AMED, and CISCOP databases, searched from inception to July 1999.

STUDY SELECTION: Randomized, controlled trials in which some form of needling therapy was used to treat myofascial pain.

DATA EXTRACTION: Two reviewers independently extracted data concerning trial methods, quality, and outcomes.

DATA SYNTHESIS: Twenty-three papers were included. No trials were of sufficient quality or design to test the efficacy of any needling technique beyond placebo in the treatment of myofascial pain. Eight of the 10 trials comparing injection of different substances and all 7 higher quality trials found that the effect was independent of the injected substance. All 3 trials that compared dry needling with injection found no difference in effect.

CONCLUSIONS: Direct needling of myofascial trigger points appears to be an effective treatment, but the hypothesis that needling therapies have efficacy beyond placebo is neither supported nor refuted by the evidence from clinical trials. Any effect of these therapies is likely because of the needle or placebo rather than the injection of either saline or active drug. Controlled trials are needed to investigate whether needling has an effect beyond placebo on myofascial trigger point pain.