



Body System: Musculoskeletal		
Session Topic: Acupuncture and Manipulation Techniques for Pain Management		
Educational Format		Faculty Expertise Required
Clinical Procedural Workshop (CPW)		Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience teaching hands-on procedural workshops. The majority of the education must emphasize hands-on learning, with feedback from faculty.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. <u>Please describe your interest and plan for teaching a PBL on your proposal form.</u>
Professional Practice Gap	Learning Objective(s) that will close the gap and meet the need	Outcome Being Measured
<ul style="list-style-type: none"> Physicians are often unfamiliar with the concept of qi (chi) and theories about how it is lost, gained, and the relationship to health. Physicians are often unaware of the evidence base for acupuncture in modern medical practice as it relates to chronic pain and other disorders. Physicians may not be aware of indications and contraindications for acupuncture. Physicians may need to observe proper needle placement and practice placing needles in a designated cushion. Physicians may be unfamiliar with the concept of meridians and be able to identify anatomical locations for the bladder meridian. Physicians may need to observe and then practice 	<ol style="list-style-type: none"> Consider how the concept of qi (chi) and acupuncture may impact overall effective treatment for patients with pain to improve their quality of life. Analyze the indications and contraindications for acupuncture. Identify anatomical locations for the bladder meridian to maximize efficacy of treatment. Observe proper placement of auricular needles and demonstrate placement of needles into a practice receptacle. Demonstrate the use of observation, postural evaluation and palpation skills in assessment of patients with chronic pain. Practice basic manipulation techniques, and understand their application and contraindications. 	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.



<p>the placement of auricular needles.</p> <ul style="list-style-type: none"> Physicians often lack the skill to perform a postural evaluation and utilize palpation skills in assessment of patients with chronic pain. Physicians often require additional training to practice basic manipulation techniques, and understand their application and contraindications. 		
ACGME Core Competencies Addressed (select all that apply)		
X	Medical Knowledge	Patient Care
	Interpersonal and Communication Skills	Practice-Based Learning and Improvement
	Professionalism	Systems-Based Practice
Faculty Instructional Goals		
<p>Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.</p> <ul style="list-style-type: none"> Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations Facilitate learner engagement during the session Address related practice barriers to foster optimal patient management Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the <u>References</u> section below are a good place to start <ul style="list-style-type: none"> Visit http://www.aafp.org/journals for additional resources Visit http://familydoctor.org for patient education and resources Provide an overview of how the concept of qi (chi) and acupuncture may impact overall effective treatment for patients with pain to improve their quality of life. Provide strategies to analyze the indications and contraindications for acupuncture. Provide strategies to help learners identify anatomical locations for the bladder meridian to maximize efficacy of treatment. Demonstrate proper placement of auricular needles and demonstrate placement of needles into a practice receptacle. 		



- Demonstrate the use of observation, postural evaluation and palpation skills in assessment of patients with chronic pain.
- Provide feedback as learners practice basic manipulation techniques, and understand their application and contraindications.

Needs Assessment

Musculoskeletal diseases, which include back pain, arthritis, bodily injuries and osteoporosis, are reported by people in the U.S. more than any other health condition. It is estimated that nearly 108 million adults (or one in two people over the age of 18) report suffering from a musculoskeletal condition lasting three months or longer. In addition, nearly 15 million adults report they are unable to perform at least one common activity, such as self-care, walking or rising from a chair, on a regular basis due to their musculoskeletal condition.¹ According to the recent publishing of *The State of US Health, 1990-2010 Burden of Diseases, Injuring, and Risk Factors*; musculoskeletal disorders are among the largest contributors to patients living years with disability (YLD), and has increased 30% from 1990 to 2010.²

In a recent American Academy of Family Physicians (AAFP) Common Medical Procedures CME Needs Assessment Survey, 19.9% % of those responding indicated that they do not currently perform acupuncture, but would like to; while 8.5% indicated a need for basic training, and 14.5% indicated a need for advanced training with regard to osteopathic manipulation.³ CME outcomes data from 2015 and 2016 AAFP FMX: *Acupuncture and Manipulation Techniques for Pain Management* sessions suggest that physicians have knowledge and practice gaps regarding the use of acupuncture and manipulation for pain management; and are interested in pursuing further education and training.^{4,5}

- More than 68% indicating that they do not currently perform this procedure, but more than 60% indicated plans to pursue further education.
- Over 66% indicated that the CME procedural session will improve their performance of this procedure.
- Over 76% indicated that the AAFP should continue to offer this session at FMX.

Consider the following statistics from the CDC:

- The 2009 *Health of the U.S.* publication reported that arthritis and other musculoskeletal conditions were the leading causes of activity limitation among working-age adults 18–64 years of age in 2006–2007.⁶
- The 2009 *National Health Interview Survey* reported 5.9 million injuries occurred playing sports (3.8 million, or 26%, among men and 1.7 million, or 12%, among women – particularly teenagers).⁷
- The most recent *National Ambulatory Medical Care Survey* reported that family physicians provide patient education on “injury prevention” in over 4.4 million office visits.⁸

Family physicians must be prepared to evaluate a variety of musculoskeletal injuries, including sprains, cartilage and ligament tears, fractures and other traumas. When patients present with acute or chronic musculoskeletal injuries, family physicians can employ a number of examination techniques to assess such factors as range of motion, stability, bone alignment and



soft tissue swelling or masses. Although the type of exam depends on the injury and area affected, some of the typical clinical indications in upper and lower extremities include: joint effusion, locking, popping or cracking; pain or stiffness upon movement; crepitation; localized tenderness; and a palpable enlarged mass and/or warmth.^{9,10} The increasing burden of musculoskeletal diseases indicates a need for enhanced training in a number of areas for family physicians, such as proficiency in casting, splinting and joint injections, in order to help patients regain functioning for “everyday activities” or returning to vigorous physical activity.

Additionally, when patients present with acute or chronic musculoskeletal injuries, family physicians can employ a number of examination techniques to assess such factors as range of motion, stability, bone alignment and soft tissue swelling or masses. In the event that injured bones or soft tissue require immobilization to reduce pain, swelling and/or muscle spasms, casting or splinting is often the most appropriate form of treatment.^{11,12} In some cases, patients may benefit from wrapping and taping as a form of stabilization or a prophylactic mechanism for injury prevention.¹³ However, a physician should first thoroughly assess the injured area – including skin, bony structures and neurovascular status – as well as the stage and severity of the injury, potential for instability and functionality, and risk of complications. These steps should be followed to diagnose the injury before determining which mechanism is more suitable, as each has its own advantages and disadvantages.^{11,13}

The AAFP Recommended Curriculum Guidelines for Family Medicine Residents indicates that family medicine residents should be able to perform the following skills related to musculoskeletal and sports medicine:¹⁴

- Perform an appropriate musculoskeletal history and physical examination, and formulate an appropriate diagnosis and recommend treatment, including requisite subspecialty referrals (Patient Care, Medical Knowledge, Systems-Based Practice)
- Perform an evidence-based, age-appropriate and activity-specific preparticipation physical evaluation, and provide guidance for an appropriate exercise prescription (Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Professionalism)
- Communicate effectively with a wide range of individuals regarding musculoskeletal health care, including patients, their families, coaches, school administrators and employers (Interpersonal and Communication Skills)

Additionally, the AAFP endorses the clinical practice guidelines on diagnosis and treatment of low back pain from the American College of Physicians and American Pain Society.¹⁵ A recommendation from these guidelines suggest that for patients who do not improve with self-care options, clinicians should consider the addition of non-pharmacologic therapy with proven benefits—for acute low back pain, spinal manipulation; for chronic or subacute low back pain, intensive interdisciplinary rehabilitation, exercise therapy, **acupuncture**, massage therapy, **spinal manipulation**, yoga, cognitive-behavioral therapy, or progressive relaxation.

In addition to pain management of low back pain, acupuncture should be considered as a treatment option for the management of other types of pain, such as shoulder pain, neck pain, headache (chronic idiopathic), headache (migraine), headache (frequent tension), knee



osteoarthritis, fibromyalgia, menstrual pain, menstrual distress, temporomandibular joint pain, and postoperative pain.¹⁶⁻²¹

Although some patients may require referral to specialists for enhanced treatment on some of the aforementioned conditions, having the family physician coordinate patient care is the optimal approach to ensure compliance with treatment, oversee medications, help patients and their families cope with a given condition and offer ongoing exams to ensure healthy behavior. As the AAFP's policy on disease management states, "Family physicians serve as the optimal care coordinator to assist patients not only with clinical care and information, but in understanding and navigating the health care system." Additionally, "Any disease management program or entity must involve the patient's family physician to maximize continuity of care."²²

Once an appropriate method of treatment is determined and applied, it is imperative that family physicians provide clear, comprehensive instructions to patients on how to care for their injured area. Patients likely require detailed instructions and guidance on a number of factors, including: proper elevation of their injured extremity (e.g., elevating arms and legs above the heart); necessary resting and icing of the injured area; the appropriate use of non-steroidal anti-inflammatory drugs (NSAIDs); and what complications warrant immediate medical attention (e.g., numbness, tingling, loss of movement). While family physicians are likely aware of the inherent complications that may result, they must be equipped with the necessary tools to effectively communicate such information to patients.

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Acupuncture for pain¹⁸
- AAFP Clinical Practice Guideline: Low Back Pain²³

References

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