



Body System: Musculoskeletal		
Session Topic: Musculoskeletal Injections		
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
<p>Data from a recent AAFP Common Medical Procedures Needs Assessment indicate that family physicians have a need for ultrasound-guided joint injection education, and are actively seeking training.</p> <p>Data from a recent AAFP CME Needs Assessment survey indicates that family physicians have a statistically significant and meaningful gap in the knowledge and skill to effectively and efficiently utilize imaging studies for musculoskeletal conditions, diseases, and injuries in the optimal management of their patients.</p> <p>Family physicians perform musculoskeletal injections in practice, but of those who do not, 33% say it is because they lack the training.</p>	<ol style="list-style-type: none"> 1. Compare musculoskeletal injections by joint site, steroid agent and dose, and potential side effects that may occur. 2. Evaluate whether joint injections are for patients' pain relief, to reduce inflammation or mobility improvement. 3. Perform joint injections on models. 	<p>Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement newly acquired musculoskeletal injection competencies.</p>
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 	

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

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 2006–2007.³
- 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).⁴
- 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.⁵

Musculoskeletal complaints are among the most common conditions seen by family physicians, accounting for up to 25% of all outpatient diagnoses.⁶⁻⁸ Despite their prevalence in practice, education in musculoskeletal conditions and treatments lags far behind with only 2% of medical



school and primary care residency curricular content being devoted to musculoskeletal care.⁹⁻¹² Musculoskeletal injections are among the most common procedures performed by family medicine physicians, but many physicians lack confidence in their ability to perform injections safely and accurately.^{13,14} Musculoskeletal ultrasound offers family physicians a tool to improve their musculoskeletal diagnostic ability, their procedural efficacy, and their reimbursement for procedures performed.¹⁵⁻¹⁷

Data from a recent AAFP CME Needs Assessment survey indicates that family physicians have a statistically significant and meaningful gap in the knowledge and skill to effectively and efficiently utilize imaging studies for musculoskeletal conditions, diseases, and injuries in the optimal management of their patients.¹⁸ Additionally, data from a recent AAFP CME Needs Assessment for Common Medical Procedures, indicate that family physicians responding to the survey would like training to perform joint injection/lacerations.¹⁹ CME outcomes data from 2012-2016 AAFP FMX (formerly Assembly): *Musculoskeletal Injections* sessions, suggest that physicians have knowledge gaps with regard to effectively utilizing anatomical landmarks and more confidence with CTS injections; performing large joint injections; efficacy performing injections for plantar fasciitis, carpal tunnel, and small joints; using the appropriate amount of lidocaine; and counseling patients regarding joint injection/aspiration.²⁰⁻²³

Joint injection is a commonly used procedure for many patients who require pain relief for a variety of reasons. AAFP Practice Profile data indicates that 87% of family physicians perform musculoskeletal injections in practice, but of those who do not, 33% say it is because they lack the training. Enhanced training (through educational sessions and hands-on demonstrations) in this area and others will help family physicians gain the confidence and competence to offer their patients pain relief, joint/extremity stability, and an overall improvement in their quality of life.²⁴⁻²⁷

Physicians may improve their care of patients by engaging in continuing medical education that provides practical integration of current evidence-based guidelines and recommendations into their standards of care, including, but not limited to the following:²⁸

- Corticosteroid injections in the shoulder have only short-term benefits in adhesive capsulitis and subacromial impingement syndrome.
- Corticosteroid injections for lateral and medial epicondylitis lead to short-term improvement but have a high rate of recurrence and are no better than other options in the long term.
- Corticosteroid injections can be considered for patients with carpal tunnel syndrome who wish to avoid or delay surgical treatment.
- Corticosteroid injections for de Quervain tenosynovitis and trigger finger are effective early in therapy.
- Corticosteroid injections provide short-term relief from symptoms of knee and hip osteoarthritis in patients who wish to delay surgery.

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of



publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

References

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