My athletic training practice revolves around one thing: my patient. Health care is a customer service industry; there is simply no other way to define a health care profession. Patients are our customers, and if not treated appropriately, they will take their business elsewhere. Therefore, it is always in our best interest to provide them with therapeutic procedures that are safe and most effective for resolution of the condition. When a treatment technique is both safe and effective, it represents a “model practice” or “standard of care” for the condition.

A common problem I see among my patients is low back pain. Often, patients with similar lumbar spine pathology present with substantially different activity limitations and participation restrictions. For example, every herniated disk does not present the same symptoms. Some patients present nonspecific low back pain, whereas others have neurologic symptoms radiating distally, and some are completely asymptomatic. To treat each one in the same manner, solely on the basis of diagnosis, is counterintuitive. Patients that present specific clusters of signs and symptoms will benefit from one of three treatment approaches: (a) specific exercise, (b) stabilization, or (c) manipulation. Within these proposed treatment subgroups, the strongest evidence supports spinal manipulation treatments. In fact, a clinical prediction rule (CPR) to identify patients who will derive benefit from spinal manipulation has been validated. The CPR incorporates five criteria:

- Recent onset of symptoms (< 16 days)
- No symptoms distal to the knee
- Low Fear Avoidance Beliefs Questionnaire (work subscale) score (< 19)
- Hypomobility of the lumbar spine
- At least one hip with > 35 degree of internal rotation

When any four of the five criteria are present, a patient has a 92% probability for positive outcome with manipulation treatment. From my perspective, this statistic is too compelling to ignore.

Despite this evidence, my experience suggests that athletic trainers employ manipulation infrequently, and they rarely utilize a high-velocity low-amplitude (HVLA) thrust in clinical situations when it is clearly indicated. Therefore, the purpose of this report is to consider the reasons for the infrequent use of manipulation by athletic trainers and to present the rationale for its increased use when warranted.

**The Mobilization Spectrum**

The clinical application of orthopedic manual therapy (OMT) includes joint mobilization and manipulation. Joint mobilization is a widely accepted treatment for decreasing pain and increasing accessory motion when joint arthrokinematics have been disrupted by injury. This type of OMT is often performed by a wide variety of health care providers, including athletic trainers,
physical therapists, chiropractors, osteopathic physicians, and others. Joint mobilizations are typically classified by three criteria: (a) the velocity of the mobilization, (b) the amplitude of the mobilization, and (c) the position within the range of normal arthrokinematic motion where the mobilization is administered.

Within this framework, a mobilization can be either high or low velocity, high or low amplitude, and within a given range of normal joint motion. It is my contention that this framework also defines manipulation. Typically understood to be manipulation is an HVLA thrust mobilization at the end-range of a joint’s normal arthrokinematic motion. Mobilizations typically involve either low or high amplitude, thrusts at low velocity within different ranges of a joint’s normal arthrokinematic motion. I fail to understand why anyone qualified to perform an HVLA thrust procedure within one aspect of the OMT framework would not be competent to perform the same procedure at different position within the range of the joint’s normal arthrokinematic motion.

**Contraindications and Treatment-Based Classification**

For any treatment option, contraindications should be considered prior to its implementation. For HVLA treatment, any pathology that would preclude safe motion (i.e., a fracture or joint instability) would present a contraindication. The presence of a fracture is difficult to discern without a radiographic evaluation, particularly a fracture in the lumbar spine. Thus, suspicion of a fracture would be a contraindication until it has been ruled out. Furthermore, any underlying condition or pathology that could be affected by positioning of the patient for the OMT treatment would be contraindicated (e.g., vertebral basilar insufficiency). When contraindications are properly recognized, HVLA spine manipulation is relatively safe, i.e., approximately one serious adverse event for every 1 to 2 million treatments.²

An important contraindication is clinician inexperience. No health care provider should perform any procedure or treatment without having been properly trained. It is my opinion that athletic trainers possess an appropriate educational background to be competent in the delivery of HVLA spine manipulation treatments. The two most common reasons I’ve heard to explain why athletic trainers do not, or should not, employ HVLA are (a) that it is outside their scope of practice, and (b) they are not properly educated to administer it. Neither of these is a valid premise.

**Scope of Practice**

In every state where I have practiced, athletic training has allowed me to perform OMT. The belief that athletic trainers are not able to perform HVLA techniques because they are not within the scope of the state’s practice act is a common fallacy. For example, consider the following component of the definition of athletic training, which is common to several state practice acts: “The preconditioning, conditioning, and reconditioning of athletes who suffer athletic injuries.” I consider “reconditioning and rehabilitating” indistinguishable terms in the context of athletic injury. When it represents an appropriate treatment that is supported by research evidence, OMT should be a component of the reconditioning and rehabilitation of athletes who have sustained injuries.

States that regulate athletic training typically require that athletic trainers work under the direction of a licensed physician, which is also a Board of Certification (BOC) standard of practice. The scope of practice for a licensed or certified athletic trainer is at least partly determined by the directing physician. Standing orders, guidelines, or protocols approved by a physician can reinforce, constrain, or expand the scope of athletic training practice. Consequently, if the physician authorizes administration of spinal mobilization techniques, the procedure would be within the scope of practice. There is no legal reason to suggest that OMT does not fall within the scope of athletic training practice.

**Education**

Obviously, athletic trainers must have an appropriate level of education before administering HVLA spinal manipulation. Most state regulatory boards require an individual to have successfully passed the BOC examination to become licensed or certified as an athletic trainer. Eligibility for the BOC examination requires completion of an accredited professional education program, which is to demonstrate that students acquire the Athletic Training Education Competencies for maintenance of accreditation. Competency TI-15 states that an individual must be able to “perform joint mobilization techniques as indicated by examination findings.”³