

Position Statement

In-Office Diagnostic Imaging Studies by Orthopaedic Surgeons

This Position Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.

Although imaging technology has greatly improved the convenience and quality of the diagnosis and treatment of musculoskeletal diseases and injuries, some recent studies have raised concerns about excessive or inappropriate utilization of this technology. Overutilization of imaging studies could escalate health care costs and in response both government and private insurers have introduced methods to control those costs. One such method, introduced by some payers, is to restrict reimbursement for specific imaging techniques, including plain radiographs, computed tomography (CT), magnetic resonance imaging (MRI), ultrasonic imaging, and dual energy x-ray absorptiometry (DEXA), to physicians in certain specialties. This policy undermines both the quality and convenience of musculoskeletal care for patients being treated by orthopaedic surgeons, and fails to address the problem of excessive or inappropriate utilization.

The American Academy of Orthopaedic Surgeons (AAOS) believes orthopaedic surgeons are experienced in diagnostic radiologic methods and are fully competent to supervise the performance of and interpret imaging studies in their offices for the evaluation and management of musculoskeletal conditions. Orthopaedic surgeons perform the immediate and timely interpretation of imaging studies, correlate these studies with clinical findings, and assume the responsibility for determining the treatment of the musculoskeletal patient. The quality and accuracy of imaging studies and interpretations performed by orthopaedists are consistently high.

Education and Training

By virtue of their education and experience, orthopaedic surgeons are highly qualified to perform or supervise the performance of the diagnostic imaging studies that are a necessary and integral part of orthopaedic care. The American Board of Orthopaedic Surgery, in its requirements for certification, includes training in musculoskeletal imaging procedures for residents in orthopaedic surgery. Radiologists are trained to interpret plain radiographs and other images in descriptive terms, whereas orthopaedic surgeons add functional, anatomical, and clinical assessments, resulting in patient-specific information not typically available to or provided by the radiologist. It is the orthopaedic interpretation of the imaging studies, in concert with the history and physical examination that determines the course of treatment and carries with it the responsibility for patient care.

Timeliness

For optimal patient care, imaging studies should be performed and interpreted in a timely manner. Most orthopaedic imaging procedures are performed when the patient is in the orthopaedic office so that judgments can be made at the time when other clinical decision making occurs. If patients are required to leave the orthopaedic surgeon's office to obtain imaging studies at another facility, more than one visit may be required to assess the condition and make appropriate treatment decisions, especially if the outside facility is unfamiliar with the patient's condition. This places a significant burden on many patients who are often poorly mobile, ill or elderly. In many cases, transport by family members or by ambulance service is required, especially if the outside facility is located blocks or miles away, thus adding to the ancillary costs.

Patient inconvenience is not the only consideration. For example, fracture treatment and post-operative management require skillful radiographs, often done just after immobilization is removed, but before subsequent casting or splinting. To have the patient leave the controlled office environment for radiographs elsewhere under these circumstances is dangerous, ill-advised, and places the patient at unnecessary risk. Furthermore, additional and sometimes special views may be needed for adequate patient care at the time of the office visit, making the use of outside facilities untenable and compromising patient care.

While there has been some attempt to develop a DICOM standard for the acquisition of electronic digital images, individual imaging companies have layered on proprietary software that frequently make recorded images incompatible with other systems and unable to be viewed using their programs. The difficulty of accessing radiographic images on discs from the outside facilities currently experienced in referral orthopaedic practices would be greatly magnified if all patients were forced to have imaging performed outside the orthopaedic offices. Until such differences in the electronic storage of images are eliminated, attempting to view outside images using multiple platforms on every case would produce a massive access problem and do a disservice to patients.

Quality of Care

Orthopaedic surgeons are expert in the utilization and interpretation of imaging studies of the musculoskeletal system. Often, specialized radiographs require the presence of the orthopaedist to ensure proper positioning of the limb or stressing of the joint or bone. In fact, in many instances the orthopaedist is the only qualified or knowledgeable caregiver to perform such maneuvers. The ability of the orthopaedist to correlate the image with the living anatomy also plays a critical role in the interpretation of CT, ultrasound, or MRI studies.

Conclusion

The AAOS believes the responsibility for orthopaedic patient care rests with the treating physician, including the immediate performance and interpretation of diagnostic imaging studies. Orthopaedic surgeons are required and are highly qualified to perform or to supervise the performance of musculoskeletal radiographic studies, and to interpret these studies. The AAOS believes that orthopaedists are entitled to adequate compensation for the cost and work involved in providing these services in their offices. Any policy that prohibits orthopaedists from performing and interpreting diagnostic imaging studies in their offices interferes with the patient's ability to receive optimal care. Such a policy is likely to increase the cost of providing those services, and adds a substantial risk to those patients requiring comprehensive management of fractures and other orthopaedic conditions and specialized positioning and handling in the radiographic suite.

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