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The American College of Radiology will periodically define new practice parameters and technical standards for radiologic practice to help advance the science of radiology and to improve the quality of service to patients throughout the United States. Existing practice parameters and technical standards will be reviewed for revision or renewal, as appropriate, on their fifth anniversary or sooner, if indicated.

Each practice parameter and technical standard, representing a policy statement by the College, has undergone a thorough consensus process in which it has been subjected to extensive review and approval. The practice parameters and technical standards recognize that the safe and effective use of diagnostic and therapeutic radiology requires specific training, skills, and techniques, as described in each document. Reproduction or modification of the published practice parameter and technical standard by those entities not providing these services is not authorized.

Revised 2018 (Resolution 37)\*

## **ACR PRACTICE PARAMETER FOR RADIOLOGIST COVERAGE OF IMAGING PERFORMED IN HOSPITAL EMERGENCY DEPARTMENTS**

### **PREAMBLE**

This document is an educational tool designed to assist practitioners in providing appropriate radiologic care for patients. Practice Parameters and Technical Standards are not inflexible rules or requirements of practice and are not intended, nor should they be used, to establish a legal standard of care<sup>1</sup>. For these reasons and those set forth below, the American College of Radiology and our collaborating medical specialty societies caution against the use of these documents in litigation in which the clinical decisions of a practitioner are called into question.

The ultimate judgment regarding the propriety of any specific procedure or course of action must be made by the practitioner in light of all the circumstances presented. Thus, an approach that differs from the guidance in this document, standing alone, does not necessarily imply that the approach was below the standard of care. To the contrary, a conscientious practitioner may responsibly adopt a course of action different from that set forth in this document when, in the reasonable judgment of the practitioner, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology subsequent to publication of this document. However, a practitioner who employs an approach substantially different from the guidance in this document is advised to document in the patient record information sufficient to explain the approach taken.

The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. Therefore, it should be recognized that adherence to the guidance in this document will not assure an accurate diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of this document is to assist practitioners in achieving this objective.

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<sup>1</sup> Iowa Medical Society and Iowa Society of Anesthesiologists v. Iowa Board of Nursing, \_\_\_ N.W.2d \_\_\_ (Iowa 2013) Iowa Supreme Court refuses to find that the *ACR Technical Standard for Management of the Use of Radiation in Fluoroscopic Procedures* (Revised 2008) sets a national standard for who may perform fluoroscopic procedures in light of the standard's stated purpose that ACR standards are educational tools and not intended to establish a legal standard of care. See also, Stanley v. McCarver, 63 P.3d 1076 (Ariz. App. 2003) where in a concurring opinion the Court stated that "published standards or guidelines of specialty medical organizations are useful in determining the duty owed or the standard of care applicable in a given situation" even though ACR standards themselves do not establish the standard of care.

## I. INTRODUCTION

It is the policy of the American College of Radiology (ACR) that radiologists provide comprehensive imaging services to patients seen in the emergency department (ED) and timely consultative services for patient medical providers [1,2]. The services of the radiologist available in the emergency setting include, but are not limited to, consultation with physicians on the appropriate choices regarding utilization of imaging studies; the design and standardization of safe and effective radiological procedures; continuing supervision of technical performance and quality control of imaging; timely interpretation of imaging examinations and effective reporting of the results, including rapid communication of critical results when needed; and consultation with referring physicians regarding the next steps in patient management, including recommendations for any needed additional or follow-up imaging or interventional radiology procedures that may benefit patient care [3].

The timely interpretation of ED imaging examinations by qualified radiologists facilitates decisions regarding patient diagnosis, treatment, and the potential need for hospital admission. Radiologists should be available, either onsite or remotely via teleradiology [4], to timely interpret imaging examinations performed on ED patients. These interpretations are then promptly made available to the ED physician so they may be integrated into patient care decisions. Communication of the interpretation should be in accordance with the [ACR Practice Parameter for Communication of Diagnostic Imaging Findings](#) [5].

## II. QUALIFICATIONS OF THE RADIOLOGIST

The radiologist shall meet the qualifications stated in the ACR practice parameter or technical standard for the particular procedure or examination being performed or interpreted.

## III. RECOMMENDED COVERAGE

A. A qualified radiologist should be available to interpret imaging studies in accordance with criteria determined by collaboration between the radiology department, the emergency department and the medical staff of the hospital, depending on resources available.

1. The qualified radiologist may be on-site and may include supervised radiology residents with demonstrated competence, consistent with department and institution policy.
2. The qualified radiologist may be off-site and provide interpretation remotely, with an appropriate teleradiology link (see the ACR-AAPM-SIMM Technical Standard for Electronic Practice of Medical Imaging.[7]) Such teleradiologist may provide either a preliminary interpretive report, which is later finalized by the local radiologist, or may provide a final interpretation as allowed by the hospital bylaws.

B. Administration of intravascular contrast media for emergency contrast-enhanced imaging studies should be supervised by a qualified radiologist or his/her physician designee in accordance with the [ACR-SPR Practice Parameter for the Use of Intravascular Contrast Media](#) [10].

## IV. EXAMINATION ACQUISITION AND INTERPRETATION

A. Most ED patients will be evaluated through the well-established and monitored internal pathways of the ED facility and its parent institution.

1. Examinations should be acquired following the guidance of the ACR Practice Parameters specific to each modality.
2. Examination interpretations may be either in the form of final reports or preliminary reports (see ACR Practice Parameter for Communication of Diagnostic Imaging Findings).
  - a. Final Interpretive Report: In order to provide final interpretive reports, the radiologist should have access to pertinent prior imaging, reports and the patient's medical record when possible.

- b. Preliminary Interpretive Report: Preliminary interpretive reports may be issued when creation of a final report would unnecessarily delay care of an emergency patient.

B. Some ED patients may present with relevant, recently obtained imaging examinations performed at an outside facility or institution. These may be transferred on physical digital storage media or between centers over the Internet. (9, 11-13)

1. If the examination is technically adequate to address the clinical scenario, repetition of the study should be avoided. Processes should be developed to acquire, store, integrate, and retrieve these examinations, making them available for real-time review in order to avoid unnecessary examination duplication with its associated costs and radiation exposure to the patient.
2. ED patients who present with outside imaging studies may require formal review or reinterpretation of these examinations by the local radiology department. This may be time critical, and department policies should be in place to facilitate this process.
3. To facilitate continuity of patient care between institutions, official reports should be packaged with imaging examinations when possible.

## V. ELECTRONIC DATA DISPLAY

Each institution should be prepared to re-examine its policies and procedures in light of rapidly changing local technological and institutional capabilities.

Imaging departments should apply continuous improvement standards in the use and application of electronic imaging technologies. Obtaining, storing, reporting, and transmitting images by electronic means are performed in accordance with the ACR-AAPM-SIIM technical standards for the Electronic Practice of Medical Imaging.

## VI. QUALITY IMPROVEMENT MECHANISM

All physicians providing interpretation of ED imaging examinations are subject to quality of care oversight and review. For ED imaging, this applies to all reports generated, whether on-site or off-site, preliminary or otherwise. Errors in interpretation or reporting must be documented and corrected in accordance with department and institutional policies.

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