

The American College of Radiology, with more than 30,000 members, is the principal organization of radiologists, radiation oncologists, and clinical medical physicists in the United States. The College is a nonprofit professional society whose primary purposes are to advance the science of radiology, improve radiologic services to the patient, study the socioeconomic aspects of the practice of radiology, and encourage continuing education for radiologists, radiation oncologists, medical physicists, and persons practicing in allied professional fields.

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 2023 (CSC/BOC)*

ACR–AAPM PRACTICE PARAMETER ON THE EXPERT WITNESS IN MEDICAL PHYSICS

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 care¹. 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 considering 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 variables such as the condition of the patient, limitations of available resources, or advances in knowledge or technology after publication of this document. However, a practitioner who employs an approach substantially different from the guidance in this document may consider documenting in the patient record information sufficient to explain the approach taken.

The practice of medicine involves the science, and 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 purpose of this document is to assist practitioners in achieving this objective.

¹ *Iowa Medical Society and Iowa Society of Anesthesiologists v. Iowa Board of Nursing* 831 N.W.2d 826 (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

This practice parameter was revised collaboratively by the American College of Radiology (ACR) and the American Association of Physicists in Medicine (AAPM).

Medical physicists may be called upon to serve as medical expert witnesses in legal proceedings and have a professional obligation to do so in the appropriate circumstances.

Medical expert witness testimony is indicated in any legal proceeding in which the court needs an objective Qualified Medical Physicist who is not a party to the case, has no personal interest in the outcome of the case, and has expertise in the matter at hand to help explain the issues [1].

This practice parameter is not intended to serve as a comprehensive guide for the Qualified Medical Physicist serving as an expert witness.

II. QUALIFICATIONS AND RESPONSIBILITIES

A. Qualifications

The expert witness should be a Qualified Medical Physicist with the following qualifications:

A Qualified Medical Physicist is an individual who is competent to practice independently in one or more of the subfields in medical physics. The American College of Radiology (ACR) considers certification, continuing education, and experience in the appropriate subfield(s) to demonstrate that an individual is competent to practice one or more of the subfields in medical physics and to be a Qualified Medical Physicist. The ACR strongly recommends that the individual be certified in the appropriate subfield(s) by the American Board of Radiology (ABR), the Canadian College of Physicists in Medicine, the American Board of Science in Nuclear Medicine (ABSNM), or the American Board of Medical Physics (ABMP).

A Qualified Medical Physicist should meet the [ACR Practice Parameter for Continuing Medical Education \(CME\)](#) [2].

All subfields of medical physics apply to this practice parameter. (ACR Resolution 17, adopted in 1996 – revised in 2008, 2012, 2022, Resolution 41f)

The Qualified Medical Physicist expert witness must be in compliance with professional regulatory standards (eg, licensure, registration, certification, etc) of the state in which they practice.

The Qualified Medical Physicist expert witness should have education, training, practical experience, and current knowledge relevant to the subject matter of the case.

The Qualified Medical Physicist should provide testimony only when they have relevant clinical experience with the techniques and technology used. Additionally, the Qualified Medical Physicist should be able to provide evidence of continuing education pertinent to the subject matter.

B. Responsibilities

The Qualified Medical Physicist expert witness may be called upon for one or more of the following services:

1. To provide expert analysis of the incident and data of the case, which may include providing information (oral or written) to attorneys for the case on behalf of either the plaintiff or the defense.
2. To provide a legal deposition for the case on behalf of either the plaintiff or the defense
3. To appear in court as an expert witness on behalf of either the plaintiff or the defense

Qualified Medical Physicist expert witnesses should confine their testimony to their areas of expertise on a scientific **and** impartial basis.

III. CONDUCT OF AN EXPERT WITNESS

The Qualified Medical Physicist expert witness must:

1. Be aware of their responsibilities related to confidentiality and laws governing discovery.
2. Not allow their opinion to be influenced by the client counsel.
3. Review the facts in the case and testify to the contents of the case fairly and objectively.
4. Review the standards of care of the subject matter prevailing at the time of the occurrence.
5. Base their testimony on personal experience or specific medical and scientific references. Be aware that transcripts and courtroom testimony are public records, subject to independent peer review.
6. Not knowingly provide testimony that is false.
7. Not misrepresent their credentials, qualifications, experience, or background. Furthermore, a Qualified Medical Physicist expert witness should not engage in advertising or soliciting employment as an expert witness where such advertisement or solicitation contains false or deceptive representations about the Qualified Medical Physicist's qualifications, experience, titles, or background.
8. Exercise great care to distinguish between their own opinions and the positions of professional organizations or other organizations with which they may be affiliated.

Compensation of the Qualified Medical Physicist expert witness should be reasonable and commensurate with the time spent working on the case. It is inappropriate to link compensation with the outcome of the case.

ACKNOWLEDGEMENTS

This practice parameter was revised according to the process described under the heading *The Process for Developing ACR Practice Guidelines and Technical Standards* on the ACR website (<https://www.acr.org/Clinical-Resources/Practice-Parameters-and-Technical-Standards>) by the Committee on Practice Parameters and Technical Standards—Medical Physics of the ACR Commission on Medical Physics in collaboration with the AAPM.

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REFERENCES

1. American College of Radiology. ACR practice parameter on the physician expert witness in radiology and radiation oncology Available at: <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/ExpertWitness.pdf>. Accessed June 13, 2022.
2. American College of Radiology. ACR practice parameter for continuing medical education (CME) Available at: <https://www.acr.org/-/media/ACR/Files/Practice-Parameters/CME.pdf>. Accessed February 2, 2022.

*As of May 2015, all practice parameters and technical standards that are collaborative with only the American Association of Physics in Medicine are approved by the ACR Council Steering Committee and the ACR Board of Chancellors and will not go through the ACR Council (ACR Resolution 54, 2015). The effective date is the first day of the month following a 60-day period that begins on the date the document was approved.

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