

# **AAPM Perspectives on Scope of Practice, Ethics, and Liability for Medical Physicists in the Land of Opportunity**

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# Disclosures and Conflicts

- I have nothing to disclose and no conflicts of interest

## What is a profession?

*A Profession is a disciplined group of individuals who adhere to ethical standards and who hold themselves out as, and are accepted by the public as possessing special knowledge and skills in a widely recognised body of learning derived from research, education and training at a high level, and who are prepared to apply this knowledge and exercise these skills in the interest of others. It is inherent in the definition of a Profession that a code of ethics governs the activities of each Profession. Such codes require behaviour and practice beyond the personal moral obligations of an individual. They define and demand high standards of behaviour in respect to the services provided to the public and in dealing with professional colleagues. Further, these codes are enforced by the Profession and are acknowledged and accepted by the community.*

-Australian Council of Professions, 2003

# What is a profession?

Potential milestones to becoming a profession:

1. an occupation becomes a full-time occupation
2. the establishment of a training school
3. the establishment of a university school
4. the establishment of a local association
5. the establishment of a national association of professional ethics
6. the establishment of state licensing laws

Perks, R.W.(1993): *Accounting and Society*. Chapman & Hall (London)

# What about Medical Physics?

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  3. the establishment of a university school
  4. the establishment of a local association
    - AAPM (national and chapters)
  5. the establishment of a national association of professional ethics
    - AAPM Code of Ethics
  6. the establishment of state licensing laws
    - AAPM Scope of Practice
    - State licensure for medical physicists?
- } CAMPEP and universities

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# AAPM Code of Ethics

- AAPM Code of Ethics revised 2018
  - Report of Task Group 109
  - Professional Policy 24  
(<https://www.aapm.org/org/policies/details.asp?id=461&type=PP>)

## MEDICAL PHYSICS

The International Journal of Medical Physics Research and Practice

Special report |  Open Access |  

### Code of Ethics for the American Association of Physicists in Medicine: Report of Task Group 109

Christopher F. Serago, Nabil Adnani, Morris I. Bank, Jose A. BenComo, Jun Duan, Lynne Fairobent, D. Jay Freedman, Per H. Halvorsen, William R. Hendee, Michael G. Herman ... [See all authors](#) ▾

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# AAPM Code of Ethics

- Organized into 4 sections
  - Section 1: Preamble
  - Section 2: Principles
    - Establish framework for members' ethical conduct
  - Section 3: Guidelines
    - How to interpret the Principles in a member's professional activities
  - Section 4: Process for the submission and adjudication of an ethics complaint regarding a Member's conduct



# AAPM Code of Ethics

- Relevant points
  - Preamble
    - “This places on each Member a particular responsibility to conduct all of their work with integrity and high quality.”
      - The expectation for ethical behavior is squarely and solely on the member
  - Principles
    - “Members must operate within the limits of their knowledge, skills, and available resources in the provision of healthcare. Members must enable practices in which patients are provided the levels of medical physicist expertise and case-specific attention as appropriately supports the modalities of their care.”
      - Implies that the member is solely responsible for only performing work for which they are qualified and have adequate training and resources

# AAPM Code of Ethics

- Guidelines
  - Members must:
    - undertake only work that they are qualified to perform;
    - be respectful and transparent about the limitations of their knowledge, skill, and experience; and
    - seek additional education, training, or consultation before performing tasks for which they have not acquired competency.
  - Response to impaired or incompetent colleagues:
    - Members should intercede to ensure the safety of any individual (public, patient, or colleague) if a colleague appears impaired or incompetent and it is perceived that continued involvement by that colleague would jeopardize an individual's welfare. In some jurisdictions, reporting of an impaired colleague may be mandatory.
      - » Requires a mechanism by which these colleagues can be reported, and the complaint can be adjudicated

# AAPM Code of Ethics

- Clearly lays out expectations of member in scope of their practice
  - Adherence to the code relies on member compliance
- Complaints can be filed against AAPM members for code violations
  - Possible sanctions
    - A written warning to the Respondent
    - Exclusion from future consideration for or revocation of Fellow status in the AAPM
    - Exclusion from holding any office in the AAPM, or Chapter office serving concurrently in a national AAPM office
    - Expulsion from membership or corporate affiliation in the AAPM
    - Other censures are deemed appropriate by the Ethics Committee complaint review panel

# AAPM Code of Ethics

- Code's sanctions carry no weight outside of AAPM
  - How do we enforce compliance with these expectations in the work environment?
- First, define the procedures, actions, and processes that a clinical medical physicist is permitted and qualified to undertake
  - Scope of Practice
- Second, identify a mechanism to enforce the expectations
  - Receive complaints for violations of the expectations
  - Evaluate the complaint for viability
  - Determine if sanctions are warranted for the reported violations
  - Enforce the sanctions for violations that can prevent adverse patient impact

# What is a “Scope of Practice”

- American Nurses Association
  - Scope of practice describes the services that a qualified health professional is deemed competent to perform and permitted to undertake – in keeping with the terms of their professional license. (emphasis added)
- Federation of State Medical Boards
  - “Scope of practice” is defined as the activities that an individual health care practitioner is permitted to perform within a specific profession. Those activities should be based on appropriate education, training, and experience. (emphasis added)
- Nuclear Medicine Technology Certification Board
  - A Scope of Practice is terminology that defines the procedures, actions, and processes that are permitted for a licensed/certified individual. The scope of practice is limited to that which the law allows for specific education, experience, and competency. (emphasis added)


# What is a “Scope of Practice”

- Common things implied or expressly stated in the previous examples
  - Definition exists for a “qualified health professional” or “health care practitioner”
  - Mechanism exists for evaluation of appropriate education, training, experience, and competency
  - There exists some entity that grants permission for the practitioner to perform an approved list of tasks
- What/who is this entity and what is the recourse if the practitioner works outside of the permitted tasks?
  - We’ll come to that later



# AAPM Scope of Practice

- AAPM Scope of Practice revised 2018
- Describes the overall responsibilities and qualifications of a clinical medical physicist

## JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS

AAPM REPORTS & DOCUMENT |  Open Access |  

### AAPM medical physics practice guideline 10.a.: Scope of practice for clinical medical physics

Jessica B. Clements , Christopher T. Baird, Steven F. de Boer, Lynne A. Fairobent, Tyler Fisher, James H. Goodwin, Dustin A. Gress, Jennifer Lynn Johnson, Kathryn L. Kolsky ... [See all authors](#) 

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[Correction added on November 3 2018, after first online publication: The author name list and affiliations was updated]

# AAPM Scope of Practice

- Includes a specific, but not exhaustive, list of clinical activities that are performed by medical physicists
- Identifies the activities and responsibilities that a medical physicist can undertake based on the individual's training, qualifications, and demonstration of competence.

Description of practice	Activity must be performed by a QMP	Activity must be performed or supervised by a QMP	Activity should include a QMP	Existing standards or guidelines related to the task. The position of the AAPM may be different than the referenced reports and standards
<b>Clinical Services Tasks — may be applicable to all QMP subspecialties</b>				
Develops procedures for initial acceptance testing and ongoing equipment testing (e.g., annual testing, postservice testing), including who performs the test, the frequency of testing, tolerance levels, and what to do if the test is out of tolerance	x			1, 2, 3
Ensures that measurement equipment is calibrated according to manufacturer recommendations and regulatory guidelines		x (general)		5, 6, 7, 8
Maintains appropriate documentation of all quality assurance and calibration results		x (general)		
Participates in research and development either individually or as part of a broader clinical team including support for clinical trials			x	3, 4
Participates in the development of products and procedures relevant to medical physics through collaboration with equipment manufacturers and Research and Development scientists			x	10
Participates in evaluation of emerging technologies and incorporating technology innovations into clinical practice	x			3
Reviews service activities (e.g., software updates) that may impact dose or image quality and determines if further medical physics follow-up is required		x (general)		
Develops and oversees processes to authorize release of clinical equipment after service	x			
Evaluates technical and clinical physics issues related to patient care and determines if further medical physics follow-up is required	x			



# AAPM Scope of Practice

- Position of the AAPM, not a compilation of regulatory requirements or accreditation guidelines
  - Some states may have additional restrictions on the qualifications required to perform the tasks listed here
- Per AAPM Professional Policy 1, a QMP is qualified to practice only in the subfield(s) in which they are certified
- How do we enforce medical physicists working within their Scope of Practice?

# Occupational Regulation

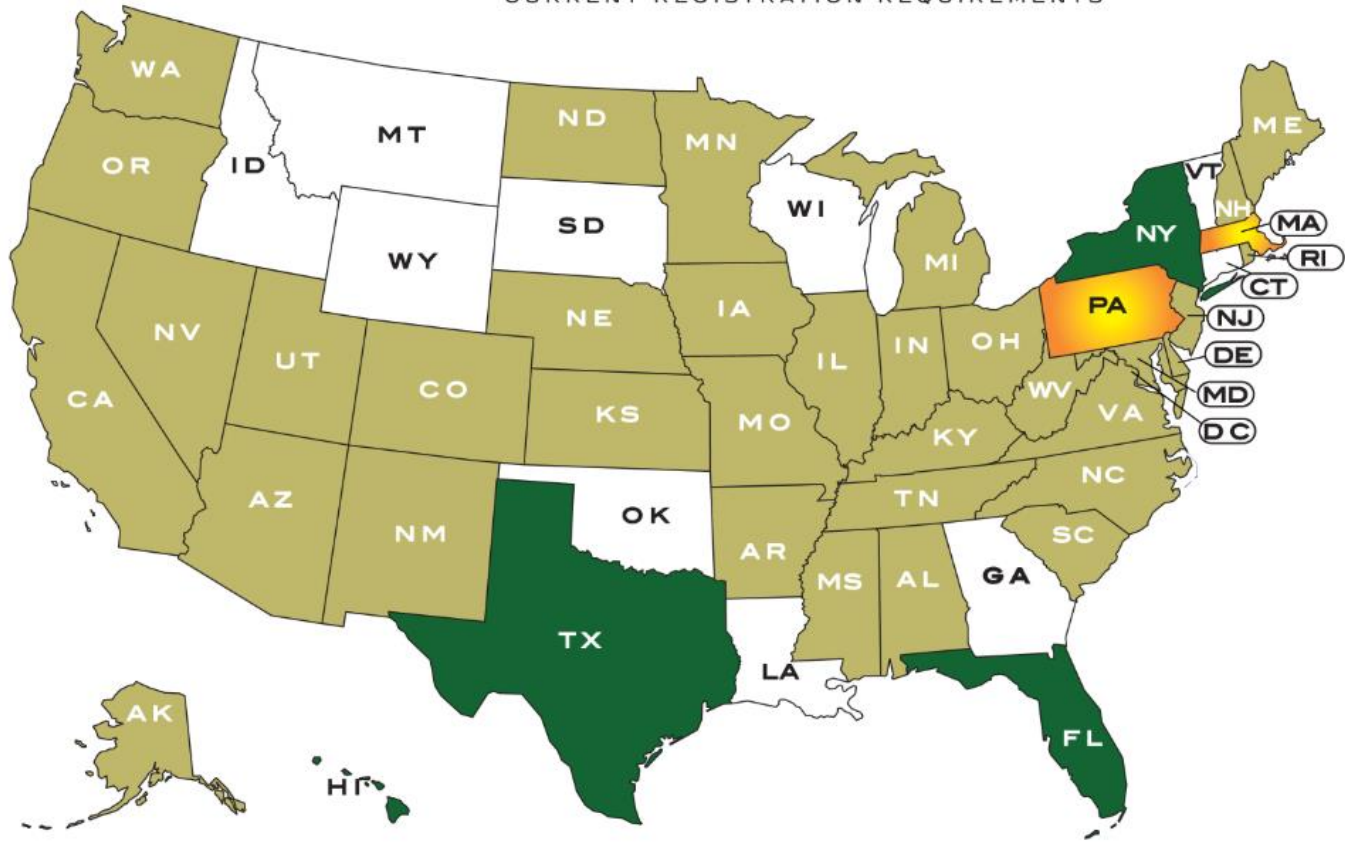
- Licensure
  - Formal permission from a government body to practice in an occupation. Licensing laws not only determine whether an individual can practice, but they also often enumerate what services she can provide as part of her practice. This is commonly referred to as *scope of practice*.
- Registration
  - Least restrictive form of occupational regulation. It generally just involves individuals paying a fee and filing their names, addresses, and qualifications with the government. This ensures that practitioners can be reached in the event of a complaint, thereby supporting civil remedies for consumer harm.

# Licensure vs. Registration vs. Nothing

- What is the purpose of licensure?
  - Protect the public
    - Sets minimal qualifications and competencies for safe entry-level practitioners
    - General public may not have sufficient information and experience to identify an unqualified health care provider, and is vulnerable to unsafe and incompetent practitioners
  - Defines possible disciplinary actions for violations of licensure terms
- Protect the practitioner
  - Clear legal authorization for the scope of practice of the profession is established
  - Protects the use of titles (e.g., QMP)
  - Allegations of violation evaluated by professional peers

# Licensure vs. Registration vs. Nothing

**LICENSURE**   **REGISTRATION**   **LICENSURE TARGET STATE**   **NONE OR NO INFORMATION**  
\*VIEW STATE INFO BELOW FOR ANY CURRENT REGISTRATION REQUIREMENTS



# Licensure vs. Registration vs. Nothing

- Similarities
  - All have some definition of qualifications to perform various clinical physics tasks
  - Define terms for clinical physicist (radiological physicist, teletherapy physicist, etc.)
    - May differ from AAPM requirements for definition of QMP
  - Specify some list of tasks that must be performed by a clinical physicist
- Differences
  - Mechanisms to receive, evaluate, and adjudicate violations complaints
  - Enforcement of sanctions for violations

# Licensure vs. Registration vs. Nothing

- Texas complaint process

NOTICE: IF IT IS DETERMINED THE INDIVIDUAL OR PRACTICE IDENTIFIED IN YOUR COMPLAINT IS NOT REGULATED BY THE TEXAS MEDICAL BOARD THAT INFORMATION, INCLUDING YOUR IDENTITY, MUST BE PROVIDED TO THE PROPER AGENCY FOR INVESTIGATION. YOUR COMPLAINT AND ALL THE INFORMATION PROVIDED, INCLUDING YOUR IDENTITY, REMAINS CONFIDENTIAL WHEN REFERRED TO ANOTHER AGENCY.

**PLEASE PRINT OR TYPE**

**COMPLAINANT REGISTERED AGAINST**

NAME OF PRACTITIONER \_\_\_\_\_ BUSINESS PHONE \_\_\_\_\_

ADDRESS: \_\_\_\_\_ LICENSE NUMBER (IF KNOWN) \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

**PERSON REGISTERING COMPLAINT**

NAME \_\_\_\_\_ PLEASE INCLUDE A TELEPHONE NUMBER \_\_\_\_\_ HOME PHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ NUMBER AND STREET: \_\_\_\_\_ BUSINESS PHONE: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

Patient/Person Harmed by Practitioner: \_\_\_\_\_ Date of Birth (mm/dd/yyyy) \_\_\_\_\_

**DETAILS OF COMPLAINT**

1. Describe your complaint in detail and the events that led to your complaint. Include date; and location of treatment, as well as medications prescribed. You may use additional paper and/or provide other documents to clarify the information given.

\_\_\_\_\_  
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(IF ADDITIONAL SPACE IS NEEDED, PLEASE ATTACH PAGE.)

2. HAVE YOU RECEIVED A SECOND OPINION FROM ANOTHER PRACTITIONER? YES \_\_\_ NO \_\_\_  
 IF SO, PLEASE GIVE FULL NAME AND ADDRESS.

\_\_\_\_\_  
 \_\_\_\_\_

I HAVE READ THE PRECEDING, AND IT IS TRUE TO THE BEST OF MY INFORMATION AND BELIEF.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

MAIL TO: INVESTIGATIONS DEPARTMENT MC-263, P.O. BOX 2018, AUSTIN, TEXAS 78768-2018  
 To receive a copy of this complaint form contact: CONSUMER COMPLAINT "HOTLINE" 1-800-201-9353

## THE CITIZEN COMPLAINT PROCESS

**WHO MAY FILE A COMPLAINT?**

Anyone may file a complaint with the Texas Medical Board against a Physician, either an M.D. or a D.O., a Physician's Assistant, Acupuncturist, Respiratory Care Practitioner, Medical Radiologic Technologist, Medical Physicists, and Perfusionists.

**HOW DO I FILE A COMPLAINT?**

A complaint must be submitted in writing. You may use this form for that purpose.

**HOW ARE COMPLAINTS INVESTIGATED AND WILL I BE TOLD THE STATUS OF MY COMPLAINT?**

First, a determination must be made that the Board has authority (jurisdiction) to act on the complaint. The complaint is then reviewed to determine if a violation of the Occupations Code (Medical Practices Act) has occurred.

You will receive a letter regarding the status of your complaint in about 45 days following the initial review process. Should your complaint be outside the Board's jurisdiction, we will notify you.

If the complaint is determined to be jurisdictional and a possible violation of the Occupations Code (MPA) has occurred, a formal investigation will be opened and assigned to a trained investigator. We will notify you of the status of your complaint approximately every 90 days, until final action is taken.

The investigator may contact you for additional information or to request a written statement. The investigation of your complaint should be completed in six months.

All investigative materials become a permanent part of the Board's investigative files and, as such, these materials are confidential and privileged by statute.

**WHAT COMPLAINTS ARE WITHIN THE BOARD'S JURISDICTION?**

The most frequent types of consumer complaints are: (1) Professional incompetency. (2) Unprofessional conduct which may endanger the public. (3) Non-therapeutic prescribing/administering of a drug or treatment. (4) Inability to practice medicine by reason of mental or physical impairment (alcohol or chemical abuse, mental or physical condition).

**WHAT COMPLAINTS DO NOT FALL WITHIN THE BOARD'S JURISDICTION?**

Rudeness complaints. These issues can be directed to your local Medical or Osteopathic Society.

Complaints against doctors who are not M.D.'s or D.O.'s and complaints regarding other health care providers or hospitals. Such complaints should be directed to the appropriate state licensing agency.

The unlicensed practice of medicine is a criminal violation. Complaints of unlicensed practice should be referred to the Attorney General, Consumer Protection Division or to your local police department.

Insurance billing complaints should be referred to the Texas Department of Insurance.

Workers Compensation complaints should be referred to the Texas Workers' Compensation Commission.

**WHAT ACTION CAN THE BOARD TAKE?**

If we lack sufficient evidence of a violation of a violation of the Medical Practice Act, Physician Assistant Licensing Act, Respiratory Care Act, or the Medical Radiologic Technologist Certification Act, then we will close the investigation and notify you.

If the investigation establishes that a practitioner violated the Medical Practice Act, Physician Assistant Licensing Act, Respiratory Care Act, or the Medical Radiologic Technologist Certification Act the Medical Board, Physician Assistant Board, Respiratory Care Board or the Medical Radiologic Technologist Board may order corrective procedures or disciplinary action ranging from a written reprimand to the most severe measure, revocation of license.

Information regarding how to obtain your medical records and many other subjects are available on our internet homepage, <http://www.tmb.state.tx.us>  
 OR you may contact us by telephone regarding questions of the complaint process at: (512) 305-7100.

# Licensure vs. Registration vs. Nothing

- Reached out to colleagues: “How does your state handle complaints against medical physicists?”
  - Nothing at all state (feedback from regulator)
    - Her response was that because they do not license physicists, they would not be able to enforce or do an investigation in any way that would be legal. She assumed they would complain to our own physics board.
  - Registration state (feedback from regulator)
    - “Similar to some other states, \_\_\_\_\_ also does not have licensure for medical physicists as RMPs (x-ray) or AMPS (radioactive materials), so there is no Board or similar organization like there are for nurses, physicians, etc. that would review the practices, activities or ethics of any given individual physicist.”

# Licensure vs. Registration vs. Nothing

- Fortunately, not many cases reported to state entities
  - We're all doing a really good job and there are no complaints, or
  - People need to be reported, but no one wants to report them, or
  - People need to be reported, people are willing to report them, but there is no entity to accept and address the complaint



# Licensure vs. Registration vs. Nothing

- Bob Pizzutiello 2019 Annual Meeting presentation

The slide features a background image of a computer monitor displaying a medical scan, a keyboard, and a person's hands. The text is overlaid on this image. At the top left is the AAPM logo and name. The main title is in a blue box, and the event details and speaker name are in grey boxes. The footer contains contact information.

**AMERICAN ASSOCIATION of PHYSICISTS IN MEDICINE**  
Advancing the Science, Education & Professional Practice of Medical Physics

**MEDICAL PHYSICS LICENSURE  
PAST, PRESENT AND FUTURE**

Libby Brateman Memorial Symposium  
July 17, 2019

Bob Pizzutiello, FACR, FAAPM, FACMP

1631 Prince Street, Alexandria, VA 22314 | 571-298-1300 | [www.aapm.org](http://www.aapm.org)

# Conclusions

- Gaps exist in enforcing what services a medical physicist can provide based on their qualifications and experience
  - Significant variability throughout the U.S.
  - May expose member and their institution to liability
- Primary responsibility with abiding by Code of Ethics and Scope of Practice lies with the individual
  - Limited enforcement options in states without licensure
    - Need to be addressed at the institutional level
    - Requires people with appropriate knowledge to evaluate qualifications and work
      - How can this be addressed at solo physicist institutions?

# Conclusions

- Future expansion of state licensure?
  - AAPM PP-2 strongly supports licensure for medical physicists
  - Licensure or formal registration for Medical Physicists is in the public interest. ...Physicians, health care administrators, regulators and the public have no clear guidelines for judging the qualifications or abilities of a Medical Physicist. Other than the civil courts, the public has no redress to deal with issues such as fraud, substance abuse, malpractice, or unethical behavior that negatively impact patient care and public safety.
- The American College of Radiology (ACR) "strongly supports the concept of state licensure or certification mechanisms for medical radiological physicists."

# Conclusions

- American Medical Association states: "A health profession or occupation should be licensed if the practice of that profession or occupation by persons who have not shown themselves to be competent and qualified to deliver health care services would pose a risk to the life, health, or safety of the public."
- Licensure is a long, arduous process (i.e., not likely to change soon)
- AAPM must continue to work with regulatory and accrediting bodies to increase adoption of recommendations
  - Definition of QMP, Code of Ethics, Scope of Practice

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