

ETHICAL ISSUES IN MEDICAL PHYSICS EDUCATION

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Disclosure

- Nothing to disclose.

Learning Objectives

1. To appreciate the differences between the major schools of ethical thought.
2. To gain an overview of the content of the AAPM Code of Ethics (CoE).
3. Through discussion with colleagues, develop approaches to recognizing and responding to ethical issues in our professional lives.

Outline

- Over-arching values and structure of the code
- Current education-specific guidelines
- Discussion questions
- Future education-specific guidelines

Who has read the AAPM Code of Ethics? (This is not a SAMS question)

- 20% I have
- 20% I am aware of its existence but have not read it
- 20% I didn't know it existed
- 20%
- 20%

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AAPM Code of Ethics

Advancing the Science, Education & Professional Practice of Medical Physics

- My AAPM
- AAPM
 - Staff Contacts
 - Mission
 - Policies & Procedures
 - Association Governance
 - Committees
 - Committee Classifieds
 - Individual Appointments
 - History & Heritage
 - Chapters
- Public & Media
- International
- Medical Physicist
- Members
- Students
- Meetings
- EDUCATION
- Government Affairs
- Publications
- Career Services

THE AAPM Professional/Education/Science Policies

POLICY NUMBER	POLICY NAME	APPROVAL DATE	SUNSET DATE
PP 1-H	Definition of A Qualified Medical Physicist	11/30/2011	12/31/2016
PP 2-D	Licensure and The Medical Physicist's Role in the Practice of Medicine - A Guide for Administrators and Regulators	7/31/2008	12/31/2015
PP 3-D	Medical Physicist Expert Witness	7/14/2014	12/31/2019
PP 7-D	Process for Selection of AAPM Nominees for the ABR Physics Trustee	10/9/2006	12/31/2016
PP 11-C	Guidelines for Solicitation of Funds in the Name of the AAPM	11/29/2008	12/31/2019
PP 12-C	Policy on CT Whole Body Screening	12/3/2014	12/31/2019
PP 13-A	Dose Management in Diagnostic Radiology	7/18/2002	12/31/2017
PP 15-B	Conflict of Interest	11/28/2009	12/31/2015
PP 16-B	Plagiarism in AAPM Journals	11/28/2012	12/31/2017
PP 17-B	Scope of Practice of Clinical Medical Physics	11/30/2011	12/31/2016
PP 18-B	Statement on the description of involvement of Medical Physicists in clinical procedures	12/3/2013	12/31/2015
PP 19-A	Graduation from an Accredited Clinical Residency Programs	3/31/2007	12/31/2017
PP 20-C	Civilian or Government Physicist Employees' Professional Activity	12/3/2013	12/31/2019
Medical Care			
PP 23-A	Endorsement of Products, Manufacturers, or Suppliers	7/31/2008	12/31/2018
PP 24-C	AAPM Code of Ethics	11/26/2012	12/31/2017

AAPM TG-109 Code of Ethics

Principles –the core of the Code of Ethics

Ethics Guidelines —elaborate more specifically on the Principles, help to interpret and implement

- I. Professional Conduct
- II. Research Ethics
- III. Education Ethics
- IV. Business Ethics

AAPM TG-109 Code of Ethics

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Principles

- Establish core values:

- Respect
- Competence
- Collegiality
- Integrity
- Accountability
- Justice

These values are then elaborated upon by ethical guidelines for specific situations, categories or subgroups.

Principles: key ideas

- Safeguard patient welfare and privacy
- Work within one's limitations and seek consultation and assistance when needed
- Respect patients, colleagues, health professionals, and those in training
- Support the professional development of their colleagues and those in training
- Improve their knowledge and skills, sharing knowledge with colleagues
- Respect law and regulatory requirements for safe and effective practice
- Disclose conflicts of interest
- Work shall be truthful, based on accepted scientific principles, and cited appropriately

Why education?

- Ethical concerns are further amplified by inequity of power in student-teacher/mentor-mentee relationship
- Ethics education and awareness, as well as the exposure to good ethical standards towards the start of one's career is important for further professional development
- Early exposure to ethical issues in medical physics occurs for many during the student/trainee stage
- It is an important part of our field
- Ethical standards apply to and should be upheld by students and trainees too

Education ethics in TG-109

“**Formal educational settings** present an environment within which the student will have the opportunity to absorb the **intellectual and ethical atmosphere of the institution** and its educators. Thus it is of paramount importance that **teachers/educators** exhibit the highest ethical standards, and **students** begin the practice of ethical behavior that will guide them for the remainder of their careers.”

Education ethics in TG-109

- Teacher
 - “any person responsible for the education or supervision of a student engaged in any educational or training program”
- Student
 - “a person engaged in any educational or training program”

Education ethics in TG-109: Teachers

- 11 major points, discussed very briefly
- 1. **Student program completion**
 - Teachers should support students in achieving their educational goals efficiently and act as advocates for their students; guide students towards efficient goal completion
 - Student work on grants or research projects that primarily benefits teacher/institution may be a component of education, but should not unduly delay overall progress of student
- 2. **Safe environment**
 - Teachers shall promote one; espouse methods of risk minimization
- 3. **Respect for students**
 - Teachers shall interact with students in a respectful manner; verbal, nonverbal, and written communication should be constructive and reasoned

Education ethics in TG-109: Teachers

4. **Nondiscrimination**
 - Teachers shall treat all students fairly and equally regardless of age, race, color, creed, sex, national origin, marital status, political or religious beliefs, family, social, or cultural background, or sexual orientation
5. **Equal opportunity**
 - Teachers shall fairly consider all students for participation in any program or for any benefits that may aid the student
6. **Student confidentiality**
 - Trust; teachers shall maintain confidentiality of nonpublic student information; evaluations of the student's work along with verbal and electronic communications between the teacher and student shall be confidential unless required to document student's work

Education ethics in TG-109: Teachers

7. **Consensual student relationship**
 - Should be avoided. Teacher bears burden of responsibility.
8. **Sexual harassment**
 - Is unacceptable
9. **Acknowledgment of student or others' work**
 - Teachers should acknowledge prior work by others if used in teaching materials as well as contributions from students, particularly for publications.
10. **Fair evaluation**
 - Fair evaluations of student efforts are made and documented
11. **Intellectual and academic freedom**
 - Environment encouraged and promoted by teacher

Education ethics in TG-109: Students

1. [Review and inspection of personal records](#)
 - May request amendments if they can show record is not correct
2. [Whistleblower protection](#)
 - Report code violations without retaliation
3. [Work requirements of educational program](#)
 - Completion of educational program will not be contingent on performing work for a teacher or institution that is not a formal, documented part of educational program
4. [Program requirements](#)
 - Right to have clearly-defined requirements for completion of program
5. [Adherence to institutional policies and procedures](#)

Education ethics in TG-109: Students

6. [Academic honesty and integrity](#)
 - Cheating, plagiarism, falsifying things
7. [Acknowledgment of work of others](#)
 - Students must fully acknowledge prior work of others
8. [Freedom of expression](#)
 - Respect freedom of expression of others
9. [Patient and institutional confidentiality](#)
10. [Respect for students, teachers, staff, and patients](#)
11. [Respect institutional property](#)
 - Includes intellectual and physical; must obtain permission to use property that is not part of their educational materials for their own professional practice

To summarize

The major themes:

- Honesty/integrity
- Confidentiality
- Safe environment
- Freedom of expression
- Respect
- Justice/fair evaluation



In specific
context of
educational
setting

Discussion

Let's revisit a previous question with a modification:

An additional year has been added on to a doctoral student's course of studies; what is necessary for program completion has not been communicated. Does this violate the code of ethics?
(This is not a SAMS question)



Discussion

You start a new job with a team of physicists and are asked to perform a procedure that directly impacts patient care. You have not done the procedure before nor have you received training. What do you do?

(This is not a SAMS question)

20% A. You do the procedure anyway

20% B. You consult site policy and procedure documentation, prior cases

20% C. You seek guidance from physicist in team who is familiar with site and procedure

20% D. A combination of B and C

20%

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Discussion

Same scenario, but you are the solo site physicist. What do you do?

(This is not a SAMS question)

20% A. You do the procedure anyway

20% B. You consult site policy and procedure documentation, prior cases

20% C. You seek guidance from a peer who is familiar with procedure

20% D. You look at published information or recommendations

20% E. Do a combo of B, C, and/or D until you are prepared, you explain that you are not comfortable doing the procedure otherwise

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Discussion

- Same scenario, but you are solo physics resident instead of solo physicist. (No one else is onsite or picking up the phone.) Would this change your course of action? Does resident status add any additional elements to this question?
(This is not a SAMS question)

Discussion

You are a resident. After completing a calibration with your superior on a device that is to be used on a patient, you discover that a mistake was made. Your superior encourages you to fudge the data. What do you do?
(This is not a SAMS question)

- 20% A. Redo the calibration after hours in secrecy
- 20% B. Redo the calibration and explain to superior that you are not comfortable with the alternative.
- 20% C. Choice B and you also make the person above your superior aware of the situation
- 20% D. Don't redo the calibration, it's probably fine
- 20%

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What percentage of the audience has witnessed unethical behavior early in your career?
(This is not a SAMs question)



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A few other thoughts

- Studies about medical students' and residents' exposure to unethical behavior have been published
- Wake Forest University School of Medicine survey: 35% of 1st year and 90% of 4th year students reported having observed unethical behavior
Satterwhite III WM, Satterwhite RC, Enarson CE. Medical students' perceptions of unethical conduct at one medical school. Acad Med 1998;73: 529-531.
- Six medical schools in PA, survey of 665 medical students:
 - 58% said they'd done something they felt was unethical
 - 61% said they'd witnessed unethical behavior by team members*Feudtner C, Christakis D, Christakis NA. Do clinical clerks suffer ethical erosion? Students' perceptions of their ethical environment and personal development. Acad Med 1994;69: 670-679.*

TG-109: Looking forward

- Improve clarity and conciseness throughout CoE overall
- Overlap in teacher and student subsections
 - Possibility of merging the two into a shared set of points
- More broadly addressing supervision
 - Adding an ethics of supervision section
 - Takes it, in part, out of student-teacher specificity and puts it in the professionalism section; addresses all types of supervisory relationships
- Clarify that residents and trainees have ethical obligations equal to those of members

Thank you for your time.

Questions? Comments?