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61ST ANNUAL MEETING & EXHIBITION | SAN ANTONIO, TX
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MPPG #7 – Supervision of Medical Physicist Assistants

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Learning objectives

To understand the

1. reasoning and need for MPPG #7
2. supervision responsibilities of the QMP
3. responsibilities of the MPA
4. responsibilities of the Facility Administrator
5. rationale of staffing ratios: MPA FTE to QMP FTE

History and evolution of MPPG #7 . . .

Presidential ad-hoc committee initiated in 2011

- **Charge:** Determine what procedures and tasks the Diagnostic (Dx) QMP needs to *personally* perform in terms of clinical practice. Determine "allowable" procedures and tasks performed by an unqualified assistant under the supervision of the Dx QMP. The level of supervision, *direct* or *general,* for each task not performed by the QMP must be explicitly described. Define types of supervision for different circumstances and tasks.

AAPM Ad Hoc Committee on Defining the Diagnostic QMP Practice Model
Committee Charge
Draft 5/31/2011
Proposed Membership: Tony Seibert (chair), Jessica Clement, Per Halvorsen, Mike Herman, Doug Pfeiffer, Bob Pizzutiello, Beth Schueler, Jeff Shepard

TG243 – expanded scope of ad-hoc committee

- **Initiation:** January 14, 2013
- **Inclusion:** Diagnostic, Nuclear, and Therapeutic Medical Physics
- **Focus:** "Levels of Supervision in Clinical Medical Physics"
- **Charge:** Produce a Medical Physics Practice Guideline defining the role of the QMP for supervisory oversight of the Medical Physics student, the Medical Physics resident, and Quality Assurance Assistant for designated medical physics tasks and concurrent responsibilities of each party
- **Outcome:** Initial draft (July 2013) created a *storm of discussion* at the annual meeting, chiefly related to **recognition of non-physicists**

Redirection – TG243

- **Focus:** only on medical physicists who are in or have completed formal MP education programs
- **Defined target group:**
  - Medical Physicist in Training
  - Medical Physics Student
  - Medical Physics Resident
- **Removed:**
  - The "Quality Assurance Assistant"… aka "Medical Physicist Assistant"

Outcome – TG243

JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS, VOLUME 16, NUMBER 3, 2015

AAPM Medical Physics Practice Guideline 3.a: Levels of supervision for medical physicists in clinical training

Task Group Authors: J. Anthony Seibert, Chair, Jessica B. Clements, Per H. Halvorsen, Michael G. Herman, Melissa C. Martin, Jatinder Palta, Douglas E. Pfeiffer, Robert J. Pizzutiello Jr., Beth A. Schueler, S. Jeff Shepard, Lynne A. Fairobent, AAPM Staff

Now currently establishing committee for review under MPPG 5-year revision cycle

What about the QA Tech / MPA?

Who?

Individuals who completed MP training program but unable to complete the process for QMP status

Technologists / Therapists interested in MP tasks who provide QC services

Individuals from other related fields (Health Physics, Clinical Engineering, vendor service personnel)

Off-the-street entrepreneurs

. . . NO GUIDELINES for supervision of these personnel

TG259

Task Group No. 259 - MPPG #7 Medical Physics Extenders

Charge Determine what procedures and tasks can be delegated by a QMP to a Medical Physicist Assistant in the clinical setting. Determine "allowable" procedures and tasks performed by an unqualified assistant under the supervision of the QMP. The level of supervision, direct or general, for each task not performed by the QMP must be explicitly described. Define types of supervision for different circumstances and tasks.

Approved Date(s) Start: 3/14/2014

Quality Assurance Assistant (& other names) → Medical Physicist Assistant

A framework established from TG243

- Face to face meeting in January 2015
- Basic structure of document produced
- Recognizing the differences in practice for DX, NM, TX disciplines–
  Initial draft: No more than 4 FTE MPA per FTE QMP for DX, NM
  No more than ¼ FTE MPA per FTE QMP for TX
- Most discussed / contentious issue:
  The number of FTE MPAs that can be supervised by a QMP

Feedback and comments

- Just by recognizing the "MPA" we are legitimizing their existence
- A difference of 16:1 between DX and TX practice is too much
- I am really concerned about the 4:1 ratio for DX supervision
- Consulting groups with 10 QMPs can hire 40 assistants and take over all private consulting physics services – cheaply
- Take a lesson from the Medical Dosimetrists – physics services to non-physicists – now there are more dosimetrists than physicists!
- We are creating less QMPs and opening the market for MPAs
- MS medical physicists are being replaced by MPAs….

Reality check

- "Physicist Assistants" (under many names) have been around for a long time and will continue to be
- States are now enacting statutes recognizing existence of MPAs
- It is time for the AAPM to step up and create practice guidelines for regulators to consider when enacting state policies and regulations
- It would be a mistake to ignore the situation….

What's happening in states?

- **New Jersey** has existing policies for the MPA in Diagnostic Medical Physics, limited to Radiography and Fluoroscopy
  - These individuals must be certified by the state, which requires minimum qualifications for certification as "Qualified MPA in radiography" or "Qualified MPA in Fluoroscopy"

- **Texas** has proposed amendments to existing regulations to recognize the use of assistants by medical physicists licensed in specialties of diagnostic radiological physics, medical nuclear physics, and medical health physics

Other discussion

POINT/COUNTERPOINT

Suggestions for topics suitable for these Point/Counterpoint debates should be addressed to Colin G. Orton, Professor Emeritus, Wayne State University, Detroit: ortonc@comcast.net. Persons participating in Point/Counterpoint discussions are selected for their knowledge and communicative skill. Their positions for or against a proposition may or may not reflect their personal opinions or the positions of their employers.

Medical physicist assistants are a bad idea

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Colin G. Orton, Ph.D., Moderator

(Received 29 October 2015; accepted for publication 1 November 2015; published 15 December 2015)

MedPhys Listserver

BBS: "Medical physicist assistants are a bad idea"

Summary of Issues/Concerns

- QMP v. MPA scope of practice
- Are MPAs necessary?
- Implication on profession of medical physics
- Supervision
- MPAs v. medical dosimetrists
- Pay scales for medical dosimetrists, MPA, QMPs

BBS Thread: Physics Assistant Responsibilities

Summary Concerns/Points:

1. Roles and Responsibilities of MPA
2. Career path of an MPA
3. MPA v. someone in the board pathway
4. Maintaining lifeline of the profession of medical physics v. MPA delegation of duties
5. Training requirements to be an MPA
6. MPA v. medical dosimetrist
7. Reimbursement issues

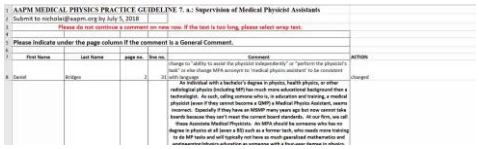
Back to the drawing board

- EXCOM does not approve submitted document
- Refinement needed
- Staffing ratio issues to be sorted out
- What happens when QMP vacates position?

The Final Push …

Face to face meeting, AAPM HQ, February 2018

- Adjusted definitions, refined the document, and came to terms with numbers
- Completed document and sent to membership for review and comments



AAPM MEDICAL PHYSICS PRACTICE GUIDELINE 7. a.: Supervision of Medical Physicist Assistants

Submit to nicholai@aapm.org by July 5, 2018

Please do not continue a comment on new row. If the text is too long, please select wrap text.

Please indicate under the page column if the comment is a General Comment.

	First Name	Last Name	page no.	line no.	Comment	ACTION
					change to "ability to assist the physicist independently," or "perform the physicist's tasks" or else change MPA acronym to "medical physics assistant" to be consistent with language	
8	Daniel	Bridges	2	21		changed
					An individual with a bachelor's degree in physics, health physics, or other radiological physics (including MP) has much more educational background than a technologist. As such, calling someone who is, in education and training, a medical physicist (even if they cannot become a QMP) a Medical Physics Assistant, seems incorrect. Especially if they have an MSMP many years ago but now cannot take boards because they can't meet the current board standards. At our firm, we call these Assistant Medical Physicists. An MPA should be someone who has no degree in physics at all (never a BS) such as a former tech, who needs more training to do MP tasks and will typically not here as much generalized mathematics and	

Final draft outline

1. Introduction
2. Definitions
3. Education and Training
4. Responsibilities of the QMP
5. Responsibilities of the MPA
6. Responsibilities of the Facility Administrator
7. Staffing
8. Competency
9. Conclusions

   Appendices

Highlights

Definitions

Medical Physicist Assistant (MPA) – An individual (e.g., radiologic technologist, medical dosimetrist, field service engineer) performing assigned tasks under the supervision and responsibility of a QMP. Expected requirements are defined by AAPM Professional Policy 29.

Education and training

The QMP has responsibility for determining and justifying that the education and training requirements of the MPA are commensurate with the task(s) assigned. The AAPM's Professional Policy 29 defines educational requirements for MPAs.

AAPM Professional Policy 29-A

Medical Physicist Assistants: Task Delegation and Supervision

"The Medical Physicist Assistant (MPA) is an individual who has completed relevant didactic education (Bachelor's or higher college degree from an accredited college or university and/or certification as a Radiologic Technologist or Radiation Therapist) and has attained practical clinical medical physics knowledge through specific training and technical experience in a program supervised by a QMP."

Highlights

Responsibilities of the QMP

A supervision plan must be developed by the QMP in accordance with the AAPM Scope of Practice for Clinical Medical Physics. The QMP **must** review all tasks and sign all work products of the MPA.

Responsibilities of the MPA

The MPA must not accept a task that is outside the approved supervision plan, or otherwise agree to a supervision plan that requires tasks outside the MPA's documented qualifications and competency.

Responsibilities of the Facility Administrator

The facility administrator must understand that the MPA may not work independently, nor provide work product that is not signed by a properly designated QMP.

Highlights

Staffing

Table 1: Medical Physicist Assistant Supervision Ratios

Practice	Maximum FTE MPA per clinical FTE QMP
Diagnostic Medical Physics	1
Nuclear Medical Physics	1
Therapeutic Medical Physics	0.25

It is inappropriate to use an MPA in a practice setting with less than 1 FTE QMP per location. The MPA must have access on a daily basis to the supervising QMP.

Other ratios may be used, provided a clear determination of need is presented, in conjunction with documented justification. The supervising QMP must have one-on-one contact with each MPA on a routine and frequent basis.

Highlights

Competency

- QMP designs and implements structure for MPA to demonstrate abilities
- Task-specific expectations of competency formally defined
- MPA must demonstrate consistent, correct, and accurate performance of each task
- Requires initial *personal supervision* to establish competence

Conclusions

1. When an organization employs an MPA, it is the responsibility of the QMP to inform the healthcare organization of the need for a supervision plan and its requirements.
2. Facility administrators are advised to review the use of an MPA with the managing QMP.
3. A QMP must only assign tasks having low risk of harm to the patient, personnel, and the public consistent with MPPG 10, Scope of Practice for Clinical Medical Physics.
4. The supervision level for the assigned task must be based on the risk level of the task and the competency level of the MPA.

Appendices

- Sample supervision plans: Therapy, Nuclear, & Diagnostic Medical Physics

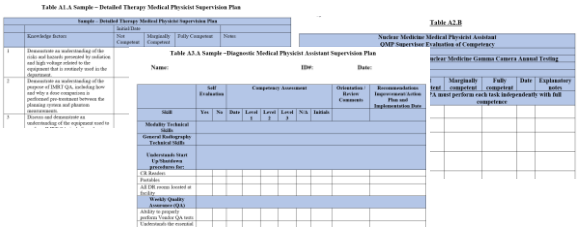


Table A1.A Sample – Detailed Therapy Medical Physicist Supervision Plan

	Sample – Detailed Therapy Medical Physicist Supervision Plan	Initial Date			
	Knowledge Items:	Not Competent	Marginally Competent	Fully Competent	Notes:
1	Demonstrate an understanding of the risks and hazards presented by radiation and high-voltage related to the equipment that is routinely used in the clinical setting.				
2	Demonstrate an understanding of the purpose of IMRT QA, including how and why a dose comparison is performed pre-treatment between the planning system and phantom measurement.				
3	Demonstrate and demonstrate an understanding of the equipment used to				

Table A2.B

Nuclear Medicine Medical Physicist Assistant
QMP Supervisor Evaluation of Competency

Table A3.A Sample –Diagnostic Medical Physicist Assistant Supervision Plan

Name: ID#: Date:

	Self Evaluation		Competency Assessment					Orientation / Review Comments	Recommendations: Improvement Action Plan and Implementation Date
Skill	Yes	No	Date	Level I	Level II	N/A	Initials		
Modality Technical Skills									
General Radiography Technical Skills									
Understands Start Up/Shutdown procedures for:									
CR (if any)									
Portables									
All DR rooms located at facility									
Weekly Quality Assurance (QA)									
Ability to properly perform Vendor QA tests									
Understands the essential									

Nuclear Medicine Gamma Camera Annual Testing

	Marginally competent	Fully competent	Date	Explanatory notes
QA must perform each task independently with full competence				

Current status of MPPG 7 document

- Approved by EXCOM
- Submitted to JACMP
- Currently under review

Questions and Comments. . .

- Stay tuned!
- Thanks to the rapid implementation of MPPG #10 – Scope of Practice
- Thanks to the diligence and hard work of TG259 members
- Thanks to Nick Wingreen, AAPM staff