

Medical Physics Practice Guidelines

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UAB MEDICINE

Knowledge that will change your world

Outline

- Introduction
- PQI Review
- ABR Guidelines
- Project Types

Introduction

- Practice Quality Improvement (PQI) is Part IV of the ABR MOC program
- Although the goal is obvious, the specifics are less obvious for physicists.

Introduction

- Quality is one of the mainstays of a physicist's duties, but there is always room for improvement
 - ◆ A common thread in discussions is that
“this is what we do all day”

but the idea is to have constant improvement and show that we are doing this by adding some systematic process to our duties
- PQI is a process

PQI Process -- Broad Outline

- Initial beginning of MOC and PQI Process:
- Education in PQI (Metrics, processes, evaluation)
- **Can** use this as an SDEP

Become familiar with tools (Many different methods to look at processes)

AAPM has sponsored such sessions and will repeat as necessary.

Such sessions will be captured in The Virtual Library (VL)
(Search in VL for PQI will provide a number of possibilities)

Example: AAPM annual meeting of 2012

Jennifer Lynn Johnson (Fishbone, Pareto Charts)

Todd Pawlicki

References

“The American Board of Radiology perspective on maintenance of certification: Part IV: Practice Quality improvement in radiologic physics.”

G. Donald Frey, Geoffrey S. Ibbott, Richard L. Morin, Bhudatt R. Paliwal, Stephen R. Thomas, and Jennifer Bosma.

Med. Phys. 34, 4158 (2007)

This reference has a comprehensive reference list including reading material on PQI itself

It contains ideas of Projects that cover the different areas.

References

- Very Pertinent reference is The ABR web site.
- It is good to check the Web Site periodically, as there are updates made regularly.
- Go the ABR web site and click on MOC and Medical Physics or use the link below.

http://www.theabr.org/moc_rp_landing

For Information on Part IV, the following is a direct link with examples of projects and other resources

<http://www.theabr.org/moc-rp-comp4>

<http://www.theabr.org/moc-rp-pqiread>

PQI Process

- Select Project and metrics **(Plan)**
 - start data collection **(Do)**
 - ◆ A noteworthy point is that metrics is a part of a project
 - Analyze data **(Study)**
 - Create improvement plan **(Act)**
 - Evaluate again
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- Are guided through the steps on your myABR
 - ◆ Do one step at a time.

PQI Process

- Basic idea is a continuous process of improvement
- In actuality, physicists are performing PQI related duties continuously.
- Main difference is formalization of project and quantification with a metric
- Three year rolling cycle

PQI Process

- What if no Improvement is Demonstrated?
- Perhaps the Project demonstrates that the aspect of the practice investigated is good.
- No penalty for this, assuming that the project is meaningful

main idea is documentation with metrics

most important is to be involved in a PQI program

Project Basics

ABR Guidelines

- Project relevant to patient care
- Project relevant to diplomate's practice
- Project must have identifiable metrics and/or measurable endpoints
- Project must include an action plan to address plans for improvement and perform new measurements to assess progress and/or improvement

Areas for Projects

- Five General Areas for Projects
 1. Safety for patients, employees, and the public
 2. Accuracy of analyses and calculations
 3. Report Turnaround times and communication issues
 4. Practice Guidelines and Standards
 5. Surveys

Projects

- Type I
 - ◆ Individuals, practice groups, departments, institutions, or health care systems
- Do not require qualification by The ABR
- Documented by Diplomate as to participation with an **Annual Update and attestation through on-line Personal Data Base**
- Subject to audit

Group Projects

- A project may be within the Department, so that this is a group effort. This is acceptable, have to show participation as an individual
- A project may involve a Practice Group which is similar to a Department
- An individual can be part of a group project

Projects

- Type II
 - ◆ Generated by Societies
- Formal reassessment to document improvement
- Assessment of adherence for an individual participating
- Includes development of central data-bases for future benchmarking
- Advanced qualification of such projects by The ABR
- Completion attested by the Society to The ABR.

Practices

- For Imaging Physicists somewhat complicated
- Academic or Community Hospital Staff
 - ◆ May be part of a group or may be an individual
- Consultant
 - ◆ Practice will cover many different institutions
 - ◆ More individualized
- Different Modalities
 - ◆ Nuclear, Diagnostic Radiology, MRI
 - ◆ Each has unique concerns