ABNM Guidelines for PPA Projects

These guidelines were modified from the ABR guidelines for diagnostic radiology http://www.theabr.org/moc-dr-pqiguides in order to facilitate the submission of the same PPA project by dual boarded physicians to the ABNM and ABR. Note: ABR refers to these projects as PQI (practice quality improvement) projects whereas the American Board of Medical Specialties (ABMS) and the ABNM refer to these projects as Practice Performance Assessment (PPA) projects.

Projects in five subject areas listed below could be designed by individual nuclear medicine physicians, nuclear medicine or radiology practice groups or departments, institutions, healthcare systems, or by professional societies. Every nuclear medicine physician participating may receive PPA credit for the project. (Some projects may offer CME credit as well, through the normal CME approval process.) Because the key competencies to be addressed through PPA projects include systems-based practice, practice-based learning and improvement, and interpersonal/communication skills, it is strongly encouraged that others involved in the provision of care to nuclear medicine or radiology patients be incorporated into the project team.

Projects selected to meet the Practice Performance Assessment (Part IV) requirement of the ABNM's Maintenance of Certification (MOC) program should:

- Be relevant to your practice
- Be achievable in your practice setting
- Produce results that are suited to repeat measurement during your ten year MOC cycle
- Be reasonably expected to bring about quality improvement

PPA Projects broadly conform to the following template. The appropriate steps within a PPA Project are:

a. Select a topic area in which you would like to see your practice improve, and within it, decide on a challenge that is relevant to your practice
b. Decide exactly what you will measure to assess current performance and future improvement, and create a data collection form to record the measurements (if one does not already exist)
c. Make a baseline measurement in an appropriate number of cases drawn in an unbiased manner
d. Analyze results
e. Identify the potential root causes of error or suboptimal performance
f. Develop a written improvement plan
g. Implement the plan
h. Re-measure
i. Decision point: Determine whether you have met your performance goal; if so, select another project to start, while maintaining the gains made in the initial project; if not, continue with the initial project.

The ABNM groups these steps into 3 activities. There is an initial activity, learning about PPA, before starting the first project. The activities are:

0. Lean about PPA (2011 or 1st year after certification)
1. Select, measure (a, b, c)
2. Analyze, plan, improve (d, e, f, g)
3. Re-measure, analyze (h, i)

The ABNM requirement is to complete a minimum 1 activity per year. A complete PPA project requires 3 activities and will fulfill 3 years worth of requirements. In the last step (step i) if the project has met its goal, then select a new project. If the there has not been adequate improvement in quality, then use the re-measurement data as the baseline measurement and cycle back to step i, activity 2. A project with two improvement cycles will have 5 activities and will fulfill 5 years worth of requirements. The PPA Project Timeline shows 2 examples, one with 3 projects with a single improvement cycle, and another with 1 project with 4 improvement cycles.

Project Guidelines by Topic Area

❖ **Patient Safety**

Individual practitioners, medical professional societies, and healthcare institutions are addressing national patient safety priorities. PPA projects in patient safety enable ABNM diplomates to take part in this important movement.

PPA project examples in patient safety may be drawn from the Joint Commission's National Patient Safety Goals (For Hospitals: outline pdf). These are developed through broad-based consensus, updated, and published annually by the Joint Commission on Accreditation of Healthcare Organizations. The following are example 2007 goals and implementation expectations, each of which could form the basis of a PPA project:

- Goal 1: Improve the accuracy of patient identification
- Goal 2: Improve the effectiveness of communication among caregivers
- Goal 3: Improve the safety of using medications
- Goal 7: Reduce the risk of health care-associated infections. Under this topic, Implementation Expectation 7A (Comply with Current Center for Disease Control and Prevention Hand Hygiene Guidelines) is an important potential project for any diplomate working in a department where multiple personnel (physicians, nurses, technologists, aides) handle patients. See the CDC Hand Hygiene Guidelines.
- Goal 9: Reduce the risk of patient harm resulting from falls

- Goal: Fulfill the expectations set forth in JCAHO's Universal Protocol

In addition to JCAHO's National Patient Safety Goals, patient safety PPA projects may be developed in accordance with the National Quality Forum's 30 Safe Practices for Better Healthcare, the reports of the National Council on Radiation Protection and Measurements and other national initiatives.

Other examples of Patient Safety PPA project topics that are particularly relevant to nuclear medicine include:

- Safe use of iodinated contrast material
- Radiation safety

Sample of a Patient Safety PPA project

Background: The ventilation portion of our V/Q studies are suboptimal more often than I would like. This has implications for patient safety: both false positive and false negative diagnoses of pulmonary embolic disease put the patient at significant risk.

Goal: To decrease the number of suboptimal ventilation studies.

Baseline Measurement (Year 1): First, it's important to objectively define the severity of the problem. My impression is that up to 20% of the ventilation studies we perform are suboptimal. I will retrospectively tabulate the number of suboptimal ventilation studies that are performed using explicit criteria to define suboptimal studies. In order to measure the percentage of suboptimal studies with reasonable accurately, I will need at least 20 suboptimal studies. This will require that I review at least 100 V/Q studies.

Improvement plan (Year 2):

Once I have collected the baseline data, I will discuss possible causes of suboptimal ventilation studies with the technologists. Possible contributing factors to b considered are:

1. Need for better instruction of the technologist on how to best perform the study.
2. Need for better patient instruction before beginning the study.
3. Need for a better aerosolizer.

Based on the information gathered, the technologist and I will come up with a written improvement plan.

Repeat Measurement (Year 3): After implementing our improvement plan, we will prospectively assess the quality of the ventilation study. The same number of studies will be reviewed as for the baseline measurement. If no improvement or improvement is seen, the possible causes for suboptimal studies will be reviewed again. If there is a reasonable expectation of further improvement the 3 cycle can be repeated.

Practice Guidelines

PPA projects in Practice Guidelines will make use of the current Practice Guidelines published by the American College of Radiology and the Society of Nuclear Medicine. The diplomate or group planning the project is required to use the Communications Guideline and select one other guideline relevant to their practice.

For the ACR Communications Guideline, the most important aspect is the communication of urgent, critical or unexpected findings. The points to be evaluated by answering yes or no to each are:

1. Is there a list of the findings that the group agrees are urgent to communicate with the referring physician (e.g., high likelihood of pulmonary embolism, impending pathologic fracture on bone scintigraphy, diverticulitis on PET/CT, etc.)?
2. Is such a list communicated to the members of the group?
3. Is there a process to determine documentation of communication of urgent, critical findings?

For each answer "no" to the above, a solution(s) should be incorporated into the written improvement plan.

For the second, elective guideline, the diplomate or group must select at least one aspect of that guideline (e.g., technique for performing examination) and audit 1% of annual cases. The criterion for acceptable performance is the guideline being followed, or valid documentation of reason for variance, in 100% of cases.

❖ **Accuracy of Interpretation (Double Reading)**

Accuracy of imaging interpretation is fundamental to the practice of nuclear medicine. Ideal PPA projects in this category:

- Are easily implemented/integrated into practice routines
- Generate results suitable for entry into local or national registries for comparison with other nuclear medicine physicians
- Provide a quantitative measure that can be used for monitoring improvement

Three such projects could be based upon:

- Double readings of imaging examinations
- Radiology-pathology correlation, or correlation with surgical findings
- Participation in RADPEER™

RADPEER™ is a product of the American College of Radiology. Diplomates desiring to use RADPEER™ for their participation in Part 4 of MOC (performance in practice) and practice quality improvement in diagnostic radiology should consult the American College of Radiology to enroll. Participation in RADPEER™ may not by itself fulfill the entire PPA requirement. Consult the steps in the PPA project process and the PPA guidelines for specific requirements.

Projects based on double readings or radiology-pathology correlation could be designed by individual diplomates, groups, or by professional societies.

The SNM has a template that can be used for the accuracy of interpretation of Myocardial Perfusion Imaging.

❖ Referring Physician Surveys

The quality of one's practice can be improved by assessing its strengths and weaknesses and developing a plan to improve the areas of greatest opportunity. In most cases, the benefits of diagnostic imaging are not realized until the referring physician acts upon the results of the study. Thus the nuclear medicine's communication with that physician and the feedback on the quality of care the nuclear medicine physician delivers is valuable.

A sample referring physician survey (modified ABR survey) is shown below and a pdf of this survey can be downloaded from the ABNM website. This survey instrument, or others developed by a professional radiology society or your own health care system, may be used.

For those selecting this project, the survey must be administered at least three points in time. A minimum of 20 responses at each administration is recommended, to ensure that an adequate number of data points can be plotted to detect improvement. After tabulating the results, an improvement action plan for improving the weakest area(s) must be developed. The second survey should be sent after the action plan has been in place for at least one year. This process of tabulating survey results and developing an action plan for improvement must be done again and followed with a third survey at least one year after the improvement plan has been implemented.

The survey results and improvement plans are to be kept by the participant(s). The survey materials, either paper or electronic, must be retained by the participants throughout the 10 year cycle.

---------- Sample ----------

Referring Physician Survey

Communication with referring physicians is an essential part of patient care. We would like to know how well the radiologist/nuclear medicine physician communicates with you. Your answers are confidential, so please be as honest as you can. You can add comments on the back side of this survey.

Please use the rating scale below to describe your interactions with Dr. _____.

1	2	3	4	5	UTA
Poor	Fair	Good	Very Good	Excellent	Unable to Assess

The radiologist/nuclear medicine physician

1. Provides information to help you order the most appropriate examination	
a) in a written or electronic form	1 2 3 4 5 UTA
b) by personal discussion	1 2 3 4 5 UTA
2. Is available for consultation when needed.	1 2 3 4 5 UTA
3. Communicates results promptly for emergency examinations.	1 2 3 4 5 UTA
4. Communicates results promptly for routine (non emergent) examinations.	1 2 3 4 5 UTA
5. Communicates unexpected findings appropriately.	1 2 3 4 5 UTA
6. Suggests additional studies when needed.	1 2 3 4 5 UTA
7. Facilitates scheduling appropriate additional studies.	1 2 3 4 5 UTA
8. Observes HIPAA regulations during the communication process.	1 2 3 4 5 UTA
9. Conducts carefully performed examinations.	1 2 3 4 5 UTA
10. Provides high quality images.	1 2 3 4 5 UTA
11. Provides accurate interpretations in which I have confidence.	1 2 3 4 5 UTA
12. Provides a relevant imaging report.	1 2 3 4 5 UTA

Comments (write item number in box; leave blank if a general comment):

Item ☐: _____

Item ☐: _____

Item ☐: _____

Item ☐: _____

Item ☐: _____

Item ☐: _____

Item ☐: _____

Item ☐: _____

Thank You.

❖ **Reporting Timeliness and Critical Value Reporting**

The objectives of a PPA project in the topic area "Report Timeliness" are:

- Measure and document the timely communication of results of imaging examinations
- Measure and document direct communication of critical values

In most cases, report timeliness will require data collection at the practice or departmental level. Data collection at the individual level may also be permissible.

Such projects are expected to impact patient safety and improve outcomes, to reduce errors and morbidity and complications, to improve patient satisfaction, to increase compliance with standards, and to improve practice efficiency and communications. For example, one of the JCAHO 2007 National Patient Safety Goals is to improve the effectiveness of communication among caregivers. Meeting this goal requires that when orders are given verbally or by telephone, or when critical test results are reported by telephone, the person giving the order or report should have the person receiving the information verify the information by "reading back" the complete order or test result.

For those selecting report timeliness as a project, there should be an existing departmental or individual process for measuring and reporting time from examination completion to approval of final report, or a plan for implementing such a process. For those selecting critical value reporting as a project, there should be an existing departmental or individual process for measuring and reporting time from the identification of a critical value to the communication of results to a caregiver, or a plan for implementing such a process.

Those having neither an existing process for making such measurements, nor the ability to generate such a process, should select another project.

The following represent the minimum data to be collected for a report timeliness project:

- Measure of time from examination completion to posting of results in the medical record
- Number of cases in the audit
- Mean and/or median time from exam completion to availability of report to caregivers

The following represent the minimum data to be collected for a critical value reporting project:

- Measure of time from identification of critical or unexpected finding to notification of caregiver
- Number of cases in the audit
- Mean and/or median time from exam completion to availability of report to caregivers
- Compliance with departmental /institutional policy regarding notification of critical values

The project should include the following comparison to benchmarks:

For report timeliness:

- Departmental mean Individual performance / prior audits

Critical value reporting:

- Requirements of departmental critical value reporting policy.

Sample of a Report Timeliness PPA Project

Medical imaging has become an essential aspect of medical care for many if not most outpatient and inpatient care episodes. The radiology report is the written record of the diagnostic information contained in that examination. This information must be provided to the treating physician in a timely manner. While the definition of timely varies with the clinical setting, our goal is to have all reports available in electronic medical record format as promptly as possible.

Baseline measurement:

Reporting period - July 1, 2004 to June 30, 2005
Report time* - 73.60 hours
*Time from completion of examination to availability of final report in the electronic medical record.

Improvement plan:

The components of the process from completion of the examination by the technologist to final approval by the radiologist were flow charted. Each step in the process was analyzed to see if it added value, could be streamlined or could be omitted.
Intervention included adding reading room coordinators to get the examinations to the work stations in a timelier manner and changing the work time assignments of the radiologists to provide greater coverage of the 24 hour day.

Repeat measurement:

Reporting period - July 1, 2005 to June 30, 2006
Report time* - 30.02 hours
*Time from completion of examination to availability of final report in the electronic medical record.