2009 Annual Report
PARTNERS RADIOLOGY 2009 ANNUAL REPORT:

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INTRODUCTION

With much to celebrate and many people to thank Partners Radiology is pleased to present our 2009 Annual Report. This report is intended to highlight the numerous accomplishments that we have made over the year with a particular focus on the value that Partners Radiology has added to the radiology departments at our hospitals, to Partners HealthCare System as a whole, and to the field of radiology.

Partners Radiology is committed to promoting high-quality, appropriate, and efficient imaging services across the system. By providing a forum to bring together representatives throughout the system, Partners Radiology has been able to create a network of experts and resources that is more than simply the sum of its parts. Our performance and success hinges on the invaluable input, commitment and contributions of representatives from all of the radiology departments, Partners Finance, Contracting, Materials Management, Clinical Affairs, PCHI and many others. Without their active involvement, this work would not be possible. We are thrilled to celebrate such a rich and rewarding year and we look forward to building on these successes over the year ahead.

WHO WE ARE:

Partners Radiology is a not-for-profit, cross-institution, umbrella organization that was founded in 1994 by Brigham and Women’s Hospital and Massachusetts General Hospital and since then has expanded to include Faulkner Hospital, Newton-Wellesley Hospital, and North Shore Medical Center.

We strive to balance our efforts between those that have a more obvious “hard dollar” impact and those that emphasize patient safety and quality. We are committed to identifying and integrating best practices, for meaningful, measurable and sustainable improvement.
**OUR MISSION** is to improve the quality, safety and efficiency of patient care, education and research at Partners Healthcare System institutions through collaboration that adds value to member institutions.

**OUR VISION** is three-fold:

- to add value to the radiology departments at our hospitals by facilitating quality and performance improvement efforts and providing a forum for problem solving and shared learning.
- to add value to Partners HealthCare System, by enhancing our ability to function as an integrated network that provides consistent, high-quality care to the patients we serve.
- to add value to the field of radiology by leading efforts to improve quality, safety, efficiency and reliability across our diverse clinical institutions in a manner that could be replicable or informative to similar efforts throughout the nation

**OUR VALUES** are to:

- **Serve/Satisfy**: provide service that adds value to our patients, colleagues & network
- **Standardize/Streamline**: reduce unnecessary variation to promote reliable, high-quality care
- **Simplify/Structure**: eliminate unnecessary processes and develop evidence-based guidelines and metrics to guide quality improvement
- **Strategize/Save**: leverage shared knowledge & experience to capitalize on opportunities for efficiency, quality improvement & new business
- **Share**: foster teamwork, collaboration & communication

**VISIT OUR WEBSITE FOR MORE INFORMATION:**

In order to better serve our customers, Partners Radiology continues to update and enhance our website. We are adding new pages, reorganizing existing pages, and updating information as needed. Recent additions include a link to the PHS Radiology Departments SharePoint site. This SharePoint site will be used to house our MR Safety database, where MR technologists can access information regarding the safety of new implantable medical devices in the MR suite. We will also use this site to create forums for assorted committees and to share documents such as policies and procedures across the organization, where desired.

Useful information can be easily accessed from the public area of our website, including educational material, funding opportunities, contact information, professional development resources, as well as summaries of the many Partners Radiology initiatives and accomplishments over the years. The private area, which requires a Partners ID and password, allows committee members to share meeting minutes, documentation, comparative data and other valuable information in a secure manner. Please visit our site and see for yourself at www.partnersradiology.org.

To learn more about Partners Radiology, please contact Katie McCullough at kymccullough@partners.org
QUALITY MANAGEMENT AND PATIENT SAFETY INITIATIVES

CT DOSE OPTIMIZATION AND STANDARDIZATION

THE PROBLEM:

Recent evidence indicates that CT radiation carries a small but real increased risk of cancer later in life, particularly for younger children, women and small adults, who have been shown to be more sensitive to radiation. In addition, cumulative radiation exposure could, over time, have adverse effects. This does not mean that CT should never be performed, as it is often the best test in many situations and can provide valuable and even life-saving information. Properly performed, the potential risks of CT can be minimized, and the small potential risk can be well worth the information obtained.

In response to the growing national attention around the appropriate utilization of CT radiation, Partners Radiology launched an analysis of our radiology departments’ practices around CT scanning and radiation dose. Data collected during 2006 and 2007 from three Partners hospitals showed 2-3 fold differences in radiation doses for similar exams on patients of similar age, size and indications, performed within and across these institutions.

WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:

In 2008, under the direction of Mannudeep Kalra, MD the Partners Radiology CT Dose Committee was formed to develop and implement a Partners-wide approach to optimizing radiation dose with CT scanning. During that first year, the team completed Phase I of the project by sharing and implementing the MGH Pediatric CT Dose Protocols at other Partners hospitals (Figure 1).

The second phase of the project began by reviewing the adult CT dose protocols across the system, focusing first on routine abdomen. Because of their significant experience in developing adult CT abdomen protocols, Dushyant Sahani, MD, and Stuart Silverman, MD collaborated with Mannudeep Kalra, MD, leading the adult abdomen phase of the project. The team developed a template to collect a month’s worth of baseline data on all routine abdomen and stone protocols performed on GE and Siemens scanners across the system. The data were reviewed and, where appropriate, the team made recommendations for sites to lower radiation dose by leveraging a number of strategies for CT Dose reduction (e.g., limit the scanning area, increase slice thickness, include coronal reformations, lower kVp, increase noise index/ref mAs, etc.) (Figure 2). To ensure that the routine abdomen and stone protocols maintain a consistent dose range for all scanners across the network, the team agreed upon a standard radiation dose range for 16-64 slice MDCT scanners.

Figure 1:
Once the revised protocols were implemented at the sites, data were collected and final results were compared and reported back to the group, resulting in lowering the average abdomen dose by 25-30%.

**Figure 2**

Upon completion of the abdomen protocols, the team reached out to Matthew Gilman, MD and Andetta Hunsaker, MD to collaborate with Mannudeep Kalra, MD in leading the adult Chest phase of the project. Baseline data for routine chest and chest PE protocols have been collected, recommendations have been made, and sites are re-collecting the data for further comparison and review with a lower dose expected. Once the chest protocols have been completed the next step is to move on to neuro and musculoskeletal protocols.

A future goal of the team will be to develop a comprehensive and accurate system-wide radiation dose registry through direct capture of radiation dose information (CTDI) from imaging devices at the time of the study, which would also allow tracking of cumulative radiation dose per patient. This will require collaboration with the manufacturers and coordination with physician education concerning risks and appropriate uses of radiation.

*To learn more about this project, please contact Marj Blundon at mblundon@partners.org*
**Contrast Reactions Documentation Subcommittee**

**The Problem:**

A significant number of medication errors and preventable adverse drug events are related to contrast media reactions. Patients with a history of previous reactions to contrast media have been shown to be at increased risk of future reactions to contrast media, so an accurate record of the patient’s prior contrast reactions is critical to patient safety.

While Partners radiologists and radiology technologists currently use the Longitudinal Medical Record (LMR) to document patient’s reactions to radiology contrast media, much of that relevant contrast reaction information, including grade of reaction and the type of contrast used must be documented as free text in a comments field. However, free text data is inconsistently populated, not easily accessed and is not reportable. Also, since free text data cannot be shared across other applications, such as order entry, important patient safety information about patients with a history of contrast media reactions is often not available to clinicians.

**What Partners Radiology is Doing About It:**

The Contrast Reaction Documentation Subcommittee’s (CRDS) primary goal was to develop and implement structured reporting of CT and MR contrast reactions in the LMR to more accurately facilitate documentation and to work towards getting that information incorporated into order entry systems across Partners so that we could provide advanced decision support to ordering clinicians about patients’ contrast reaction history.

Born out of the CT Contrast Media Project, which began in 2003, the CRDS was convened to obtain approval and funding for these important LMR enhancements and to then move that work forward. After meeting with the LMR and PEAR (Partners Enterprise Allergy Repository) teams in the spring of 2009, it was determined that Partners Radiology would complete and submit an LMR Custom Project Request Form, detailing the team’s request to add three new structured fields: 1) imaging contrast media reaction; 2) type of contrast media used; and 3) severity of reaction per the ACR Guidelines.

The Patient Safety team completed the project request form in May 2009, after which it was vetted and approved by the Quality Management & Patient Safety Committee and the Executive Radiology Operating Chairs Committee in May 2009. Partners Radiology met again with the LMR/PEAR teams to learn that the PEAR team had decided to add allergy/reaction grades to their service. By offering this service, any Partners group who wants to take advantage of this new allergy/reaction grade functionality will be able to create a user interface (UI), which would enable them to call into this new feature within the PEAR service.

This was only the beginning of the process, as the request had to be presented at a number of Partners committees for comment and approval before the project could proceed to its final approval from the LMR Executive Committee. Once approved, the project would then need to be scoped and a cost estimate provided before the work could begin.

Partners Radiology began meeting with LMR, PEAR, and various other stakeholder groups to take the steps necessary to enhance the LMR allergy repository to have more structured fields for consistent, standardized and auditable tracking of relevant contrast reaction information. Over the next five months Partners Radiology met with and received approval from the following stakeholder individuals and committees:

- pre-EHRM (Electronic Health Record Management committee)
- David Bates, MD: Director of Clinical & Quality Analysis, Information Systems
- EHRM Committee
- Pre-CCC (Clinical Content Committee)
- CCC
- LMR Executive Committee
With the necessary approval and funding to move forward on this project, the Contrast Reaction Documentation Subcommittee’s next step will be to work with the LMR programmers and clinical experts to finalize and implement these LMR enhancements. Once these LMR enhancements have been made, the long term goal is to incorporate CT and MR contrast decision support into our radiology order entry systems to provide notification to the ordering physician at the time of ordering about patients with an increased risk of contrast reactions due to having had a previous contrast reaction. Figure 3 is a process map of the proposed process for documentation and tracking of CT contrast reactions throughout the system.

**Figure 3:**

To learn more about this project, please contact Marj Blundon, at mblundon@partners.org

**MRI DEVICE SAFETY DATABASE PROJECT**

**THE PROBLEM:**

There are hazards intrinsic to the MR environment which must be acknowledged and respected. These hazards may be attributed to one or a combination of the three main components that make up the MR environment: a strong static magnetic field, pulsed gradient magnetic fields, and pulsed radio frequency (RF) fields. For a properly operating system, the hazards associated with direct interactions of these fields and the body are negligible. It is the interactions of these fields with medical devices placed within the fields that create concerns for safety. There are numerous documented cases of mishaps in the MR environment that have resulted in injury and even death in a few cases. More information on these events is available at:

http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm107721.htm
With recent changes to the Joint Commission’s Environment of Care (EC) Standards, a new requirement for MRI risk analyses of physical hazards was made effective January 2009. Partners Radiology seized this new development as an opportunity to convene a group of MRI experts from across the network to focus on MRI safety as it relates to these new standards.

**WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:**

Partners Radiology formed the MRI Safety Team in March of 2009 to identify and address MRI safety issues specific to the new Joint Commission EC standards. This enthusiastic team quickly identified numerous opportunities for improvement and then worked to narrow down one priority initiative to tackle first, considering both the achievability and importance of the effort. The team decided that a crucial first step in improving MRI safety across the system would be to develop a Partners-wide database to store information regarding the MRI compatibility of implantable objects/devices.

Currently all patients scheduled for an MRI are screened prior to the exam and any implantable objects/devices are documented. Then someone from the MRI team references Shellock’s “The List” (book or website) to determine if the device is MRI safe. If the device is not in Shellock’s then the object/device is individually researched to determine if it is safe or not. This often involves calling Shellock’s, the manufacturer, or reaching out to other credible sources; often a time-consuming process. Once the MRI safety of an object/device is determined, this information is not always retained in an organized or easily accessible manner for future reference in the event that another patient has the same device. In addition, there is no mechanism in place to allow the hospitals to share new information that they have researched with other sites, which results in radiology departments at multiple hospitals performing redundant research on the same implantable objects/devices.

To address this duplicative, time-consuming and unorganized process, the MRI safety team decided to collect and compile implantable device information into a Partners Radiology device database for all Partners sites to access. Each site provided Partners Radiology with all of their researched object/device information not currently found in Shellock’s “The List” that they had collected on their own. Going forward, all newly researched devices not found in Shellock’s “The List” will be added to the database which will indicate whether the device is “MR safe”, “MR unsafe” or “MR conditional” with supporting data and reference material from the device manufacturer included. New information will be entered into the database when it is identified and will then be easily accessible for future reference by any Partners site. In this way, the database will provide an easy resource for recording and looking up important patient safety information, while eliminating the need for duplicate researching of devices at multiple sites.

Partners Radiology is using a SharePoint site to house the database. Currently representatives on the MRI Safety Team are in the process of verifying the information on the database for adequacy and accuracy. This type of auditing will be performed on a regular basis to ensure information is up-to-date and correct. Once the team has made the necessary updates and has confirmed that all of the information is valid, the database will be rolled out for all of the Partners MRI departments to use.

This project is of significant importance as safety issues in the MRI suite have become more frequent and national attention has recently begun to focus on this patient safety concern. Efficient systems must be put into place across the network to support quality services. Combining the work of the various sites and providing a central point for all to access this MRI device safety information will save a tremendous amount of duplicative research. In addition this highlights the value and impact of the Partners-wide collaboration.

*To learn more about this project, please contact Marj Blundon, at mblundon@partners.org*
EXPANSION OF QUALITY AND PERFORMANCE REPORTING

THE PROBLEM:

There is increased national interest in the collection and transparent reporting of standardized, evidence-based measures that can be used to monitor performance and to guide quality improvement in healthcare. Strategically selected quality and performance metrics are crucial in facilitating data-driven dialogues and evidence-based decision-making.

WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:

Partners Radiology set forth the goal of facilitating quality improvement initiatives by identifying and monitoring key quality and performance indicators. Since 2004 Partners Radiology has been collecting and reporting out quarterly on CT contrast reactions. In 2007 we added report turnaround time as a performance metric. MR contrast reactions and non-routine reporting of diagnostic imaging findings were two new metrics that were added in 2008. Most recently, Partners radiology has expanded our portfolio of quality and performance indicators to include patient falls and work-related injuries. These data are compiled and posted onto the Partners Radiology Quality and Performance Dashboard, which is available in a secure, password-protected section of the Partners Radiology website.

Our radiology leaders and designated teams actively share and discuss their data on a quarterly basis to facilitate the efficiency and quality of imaging processes at Partners hospitals. They analyze these key quality and performance indicators and suggest improvement opportunities for the various processes that we are continually striving to standardize and improve across the system. The following summaries outline the work that went into the development of our most recent metrics.

MR Contrast Reaction Metric:

In late 2008, Partners Radiology began reporting MR contrast reaction data as a measurement tool for improving MR safety. The new MR metrics include reactions by hospital, contrast type, total number of injections given, total number of reactions and severity of reaction. These metrics are collected, posted and discussed quarterly to monitor variations in reaction rates and to identify opportunities for improvement. Figure 4 is an example of one of our MR Contrast Media Reports with the hospital identifiers blinded.
Falls Metric:

Hospital falls represent a major patient-safety problem and may complicate a patient’s care and treatment, while also resulting in additional hospital expenses. While hospitals are collecting and reporting aggregate falls data, the Partners Radiology Patient Safety team decided that it would be valuable to report radiology-specific falls data as a measurement tool for improving safety and reducing falls within radiology departments across Partners. The reporting of falls includes inpatient and outpatient falls, level of severity and contributing factors. Figure 5 is an example of one of our Falls Reports with the hospital identifiers blinded.

Figure 5:

[Graph showing number of falls by severity]

The Partners Radiology Patient Safety Team is developing falls prevention educational material for patients and their caregivers designed to assist in preventing both patient falls and work-related injuries to our employees assisting patients during falls. The team plans to have a falls brochure and employee training module developed and rolled out in 2010. Plans are also underway to collect and review root causes and costs associated with falls.

Work Related Injuries Metric:

A recent study of radiologic technologists reveals that their work has become extremely physically demanding, often resulting in job-related chronic pain or on-the-job injuries (http://www.aft.org/topics/no-lift/download/PeterHartSurvey-final-03-16-06.pdf). Partners Radiology leadership concluded that in addition to continuing our focus on patient safety initiatives, there is also an opportunity and responsibility for us to focus on employee safety. The Partners Radiology Administrative Committee is in the beginning stages of developing a work related injuries report metric that would detail the job-related injuries of radiology employees throughout the system. Details in these reports include the type of claim, the department, body part, and type of injury. This level of detail will help the team focus on the types of modalities and/or types of injuries that are most frequently reported and then develop interventions and improvement initiatives to reduce those injuries. For example if back injuries were a significant finding, then educational material and training would focus on lifting and moving patients. The team hopes to have this metric ready for reporting in early 2010.

To learn more about our reporting efforts, please contact Marj Blundon, at mblundon@partners.org
OPERATIONS AND WORKFORCE DEVELOPMENT INITIATIVES

PRIOR AUTHORIZATION PROCESS IMPROVEMENT PROJECT

THE PROBLEM:

Utilization of imaging services continues to be an important topic in the discussion of controlling healthcare costs. According to a study performed by the Government Accountability Organization (GAO) in 2008, although 16 of 17 health plans were using Radiology Business Manager (RBM) companies for prior authorization management, the tests included and the criteria used varied across the plans. Some plans continue to use prior notification versus prior authorization, which adds another layer of complexity to the workflow.

In many cases, cost containment programs for imaging services have added to the administrative costs of physician offices and imaging service providers. In 2007, Partners Radiology performed an analysis of the system-wide administrative burden of obtaining prior authorizations and found it to be conservatively estimated at $5.77 million annually.

Administrative costs for prior authorization of imaging exams continue to be an issue for the organization.

WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:

Partners Radiology continues to keep their finger on the pulse of this important topic by staying current with the literature and by sharing information on our listserv. The Prior Authorization grid, which was created in 2007, is updated quarterly and as changes are identified in payer programs. This grid serves as an important tool for our staff by improving the efficiency of the process. The grid is the single stop to obtain information regarding who needs to be called for each plan and which exams are included in the process. All pertinent contact information is listed. In 2009 we added two additional tabs to the grid including ‘Payer Links’ and ‘Additional Resources’ to continue to improve workflow efficiency for staff.

We continue to monitor the situation as changes take place at the state and national level. Earlier this year the American College of Radiology (ACR) and RBMA issued guidelines to assist RBM practices with the goal of standardizing their practice of implementing prior authorization rules. Even as this is taking place, experts in the field are calling for better control at the physician level, with the use of electronic decision support (EDS) tools at the point of ordering becoming an increasingly important alternative to the RBM programs. In a study published in Radiology earlier this year, MGH showed a decrease in the growth of high cost imaging exam requests with use of integrated EDS tools placed at the hands of the ordering clinician. This study was performed over a seven year period. [Effect of Computerized Order Entry with Integrated Decision Support on the Growth of Outpatient Procedure Volumes: Seven-year Time Series Analysis Radiology April 2009 251:147-155] Similarly, BWH has found EDS to be an effective IT tool for improving quality by promoting appropriate ordering of imaging studies and reducing unnecessary imaging studies. Partners Radiology supports and encourages the use of these EDS tools across the system.

References:
http://www.gao.gov/new.items/d081102r.pdf
http://www.rt-image.com/The_Race_to_Manage_Imaging_Costs_Can_electronic_decision_support_give_RBMs_a_run/content=9704J05E48BEA88040B698724480A0441

To learn more about this project, please contact Lisa Ewing at lewing@partners.org
**Workforce Development: Loan Forgiveness Program**

**The Problem:**

The cyclical shortage of imaging staff has been an ongoing issue for radiology managers. Over the years, managers have struggled with ways to resolve this phenomenon. A study of the organization prior to 2002 showed the cost of training new staff, hiring agency help and implementing of hiring bonuses to be as much as $5 million annually.

**What Partners Radiology is doing about it:**

In 2002, Partners Radiology sought to resolve this issue for the organization by bringing together a team of managers from across the organization. With a grant from the Boston Private Industry Council (PIC), a program was developed in which Partners would fund students entering the imaging field in exchange for an employment commitment based on the number of semesters funded.

Partners Radiology launched the Medical Imaging Loan Forgiveness Program in 2002 to address severe staffing shortages in Radiology. Since its inception, the program has played a major role in the ability of our radiology departments to close the gap of vacant positions, while reducing the need for agency employees. Over the years, agency and training costs for new em
decreased from roughly $5 million annually to less than $1 million. This savings has greatly benefited the organization with increased employee satisfaction and improved quality of care for our patients. Table 1 shows the statistics to date for the Loan Forgiveness Program.

**Table 1: Program Statistics To Date**

<table>
<thead>
<tr>
<th>Total Graduates:</th>
<th>158</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates hired within PHS:</td>
<td>121 (77%)</td>
</tr>
<tr>
<td>Number of Positions filled:</td>
<td>150</td>
</tr>
<tr>
<td>Currently Enrolled:</td>
<td>9</td>
</tr>
</tbody>
</table>

We continue to manage this successful program that feeds the pipeline of new technologists, and due to the flexibility of the program have scaled back the number of students accepted as the number of entry level positions has leveled off. The past few years have seen an increased need for advanced modality practitioners, and we have been working to realign the program to fill these needs, recently shifting the focus of the program to promote the training and certification of advanced modality practitioners. We are currently running a pilot program to fund 6 students who will enroll in the advanced modality programs at Bunker Hill Community College.

Partners Radiology is currently performing an analysis of our employment data to determine retention and promotion rates for students that have benefited from this loan forgiveness program.

In order to improve reporting capabilities and better serve the organization, Partners Radiology has recently implemented the use of a new software application in conjunction with the PHS Workforce Development team. The product, ETO Solutions, will allow us more flexibility in reporting on trends with participants in the program, and will assist us in following up with students as they progress. It will also assist us with tracking students that drop out of the program, where we might either be able to help mentor the student or insure that loans that have not been forgiven are paid back to the program. Since this application can interface with PeopleSoft, we will be able to track retention and promotions for graduates who become PHS employees. We are in the process of moving the data from the existing database into this new tool.
Workforce development efforts require significant planning and time to produce timely and effective response to the staffing needs in the radiology departments throughout our network. Our program continues to be flexible and responsive to those needs, always welcoming requests to research new ideas/methods to recruit or advance imaging staff to meet business needs.

To learn more about this project, please contact Lisa Ewing at lewing@partners.org

Certificate Programs at Bunker Hill Community College (BHCC)

THE PROBLEM:
As the field of radiology continues to grow in scope and complexity, there is growing interest and need for advanced educational opportunities for radiologic technologists as well as professionals with an information technology background.

WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:
In the spring of 2007, Bunker Hill Community College began a first of its kind, web-based, PACS Certificate program. This program is open to both radiologic technologists and professionals with an information technology background. The goal of the program is to give students information that will fill the gaps in their background. Courses include both clinical and information technology education, with a short internship rounding out the program.

Lisa Ewing, Partners Radiology Project Manager, is teaching two courses in this program, PACS Administration I and PACS Administration II. Students completing the curriculum will receive a certificate and be better prepared to sit for one of the certification exams currently available for imaging informatics professionals.

In 2008, Bunker Hill Community College also began offering several online Advanced Modality Certificate programs. Current programs offered include MR, CT and Mammography. These programs consist of three online courses, a clinical practicum and preparation to sit for the appropriate certification examination. Since their inception, 18 Partners Healthcare System technologists have completed these online programs. Thirty-six percent of these students are former Partners Radiology Loan Forgiveness funding recipients. These programs help technologists to advance in the field and open up entry level diagnostic positions, which can potentially be filled by graduates of Radiologic Technology programs who have been partially funded by our Partners Radiology Imaging Scholarship/Loan Forgiveness program. We are currently piloting a program to fund incumbent technologists interested in these advanced modality programs.

To learn more about this program, please contact Lisa Ewing at lewing@partners.org

RADIOLOGIST ASSISTANT COMMITTEE

THE PROBLEM:
A nationwide shortage of radiologists and a desire for technologists to advance in clinical practice with higher responsibility for patient care created the need for advanced level training programs. The role of the Radiology Practitioner Assistant (RPA) was developed in the 1970’s, while the Radiologist Assistant (RA) was more recently established by the American College of Radiology (ACR), American Society of Radiological Technologists (ASRT) and the American Registry of Radiologic Technologists (ARRT). Over the past decade, these similarly trained professionals have been working together, along with the ACR, ASRT, ARRT, and SRPE to promote the role of the advanced level technologist. The ARRT has established a certification for Registered Radiologist Assistants (RRA) upon successful completion of a certifying examination and has created a pathway for RPAs to become certified as RRAs. The Intersocietal Commission on the Radiologist Assistant (ICRA) has been formed by ACR, ARRT, and ASRT
with invited participation from SRPE. This commission is responsible for establishing national guidelines for the clinical practice of the RRA.

WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:

The RRA and RPA role continues to advance at the state and national level. It is an extension of the Radiologic Technologist (RT) role, and was developed to allow experienced radiographers who have received advanced training to perform the fluoroscopy portion of some common radiology exams, enabling the radiologist to work in a supervisory capacity for those procedures. Depending on the exam being performed and guidelines established jointly by ACR, ASRT and ARRT, the RRA/RPA can perform the fluoroscopy portion of exams, as well as certain interventional procedures, and then discuss their findings with the supervising radiologist who then interprets the study. At this time, RRA/RPAs continue to work under their RT license with a waiver from the state to perform advanced radiologic imaging procedures under the supervision of a radiologist. Earlier this year (2009), a proposal was submitted to add the RRA/RPA designation to the existing RT license in Massachusetts. While some movement has taken place for this proposal, there is still work to be done as no final recommendation has been received from the Radiation Control Board. Partners Radiology continues to stay in contact with the Massachusetts Radiological Society (MRS), Massachusetts Society of Radiologic Technologists (MSRT), MSRPE, ACR, ASRT, and SRPE to assist in this endeavor.

Because the role is still developing, Partners facilities had not yet created a practice model. The Radiology Administrators Committee asked Partners Radiology to create a basic Partners model so that each of our sites could develop their own practice model from a common base. From this base, each facility can adjust the model to suit their needs, as each practice may differ slightly depending on the needs of the facility and the radiology group. There are several components to consider, foremost the ICRA practice guidelines, but also including how to employ the position, which exams the radiology group might want the advanced level technologist to perform, and how to develop the role in a way that is beneficial to the hospital, the employee, the radiology group, and most of all, the patients.

To address the issues confronting the role within Partners, we assembled a committee consisting of stakeholders at several levels within the organization. We are fortunate to have two very active members of the advanced level technologist community on our staff and on our committee. They are Jason Barrett BS, RPA (CBRPA), RRA (ARRT) at Newton-Wellesley Hospital, and Rick Dahl BS, RPA (CBRPA), RRA (ARRT) at North Shore Medical Center. We are also fortunate to have Steven Miller, M.D. of Newton-Wellesley Hospital, Alan Semine, M.D. of Newton-Wellesley Hospital, Alan Hoffman, M.D. of North Shore Medical Center, and John Patti, M.D., FACP of Massachusetts General Hospital as our physician experts on the committee. Dr. Miller has been a strong advocate of the RPA and RA programs, and supervised Jason over the course of his training. Dr. Patti, now vice-chair of the ACR Board of Chancellors, has been intensely involved in committees working with the CMS to change payment rules so that the work of the RA/RPA can be billed and reimbursed appropriately. Dr. Semine is currently the president of the MRS and is working with Jason, who is past-president of the MSRPE and current President of the SRPE to move the licensing issue forward. Because some of the issues surrounding this role have regulatory and legal ramifications, we also enlisted the aid of Partners OGC (Office of the General Counsel), along with Larry Vernaglia of Foley and Lardner, LLP, to assist us in creating some of the documentation.

Thanks to the work of the committee, we now have several working documents on which to base this exciting new role. The documentation, which includes a general job description, a memo from the OGC, and a letter of support for the position, can be found on our website (www.partnersradiology.org). Please note that these are living documents and will be updated as new legislation and regulations are created. The committee has agreed to meet biannually to keep the documentation current.
Recently CMS opened a window for public comment on the 2010 Medicare Physician Fee Schedule Proposed Rule regarding the role of radiologist assistant. This was seen as a promising step toward reimbursement for the role. Unfortunately, CMS chose not to act on the favorable comments of the ACR and ASRT at this time, but there is hope that movement will happen in the next year. Partners Radiology will continue to work with all groups to move both the reimbursement issue and state licensing issue forward.

To learn more about this project, please contact Lisa Ewing at lewing@partners.org

**CLINICAL AFFILIATION WITH LOCAL RA PROGRAMS**

**THE PROBLEM:**

Experienced radiographers have been looking for a career path that includes a higher level of responsibility for patient care. Programs need hospitals and radiologists to assist with the education of the radiology physician extenders.

**WHAT PARTNERS RADIOLOGY IS DOING ABOUT IT:**

Partners Radiology was approached in 2008 by Quinnipiac University of Connecticut (QU) to engage in a collaborative effort to educate new Radiologist Assistants (RA) in a Masters level program. Quinnipiac has developed a curriculum to closely align with the standards set forth by the ARRT, in conjunction with the ACR. In January 2009, we accepted our first RA students to MGH. To date, the program has seen 6 RA students successfully complete rotations at MGH. Partners Radiology would like to especially thank Drs. Sanjeeva Kalva and Raul Uppot for their time as preceptors for the RA students. Without the assistance of the radiologists, these programs would not be possible. We would also like to thank the imaging department for accepting the RA students and assisting them in their education.

In 2009, Partners Radiology was approached by Mass College of Pharmacy & Health Sciences (MCPHS), the first RA program in Massachusetts, to engage with them as well in a clinical affiliation. This program has also been developed to align with the ACR/ASRT standards. The MCPHS program differs slightly from the QU program in that it is a hybrid program, with the majority of the courses taught online, and several on-site intensives planned throughout the curriculum. We are currently working with several of the Partners facilities to determine the logistics of a cross-collaborative rotation for the students. We expect to take on our first MCPHS students in the summer of 2010.

We are pleased to be involved with both of these high-level programs and are working with all of the entities across the PHS network to insure the students receive the best education possible, and to insure that Partners uses its expertise to help shape the future of these highly motivated professionals.

To learn more about this program, please contact Lisa Ewing at lewing@partners.org
**Promoting Partners-wide Research Collaboration**

**Awarding the 2010 Radiology Research Grant**

The Partners Radiology Research Committee is pleased to announce that our 2010 Partners Radiology Research Award was granted to Michael L. Steigner, MD and Udo Hoffmann, MD, MPH for their research proposal, “Risk Stratification of Individual Coronary Atherosclerotic Plaques based on Non-invasive Endothelial Shear Stress Evaluation: an ex vivo study.” The proposal was selected based on various criteria, including: 1) its depth of collaborative interaction between BWH and MGH researchers; 2) the importance of the clinical problem being addressed; 3) the team’s likelihood of receiving future funding if the project is successful; 4) the impressive background of the investigators and the research environment; 5) as well as the potential that the research study will achieve its goals. This was yet another competitive year with many impressive submissions involving some very well established researchers in their fields. Drs. Michael L. Steigner and Udo Hoffmann will be formally presented with the award at the 2010 Partners Radiology Research Retreat where they will give a presentation on their research proposal.

*To learn more about this award, please contact Katie McCullough at kymccullough@partners.org*

**Hosting the Partners Radiology Research & Education Retreat**

On March 26, 2009, the Partners Radiology Research and Education Committees hosted the 2009 Partners Radiology Research & Education Retreat. The target audience for the event was residents, fellows, and researchers at BWH and MGH to promote their research activities and to encourage collaboration between junior and senior researchers at both BWH and MGH. Another objective of the retreat was to make our Partners researchers more aware of resources available to them throughout and beyond Partners. The retreat highlighted a number of researchers’ accomplishments. The 2009 Partners Radiology Research Award winners, Michael Jerosch-Herold, PhD, and Lawrence Leroy Wald, MA, PhD, were formally presented with the award for their project, *“Novel Biomarkers of Plaque Inflammation from Ultra-High Resolution MRI.”* Our keynote speaker was Jonathan Lewin, MD, who is the Martin Donner Professor and Chairman of the Russell H. Morgan Department of Radiology and Radiological Science at Johns Hopkins University, and the Radiologist-in-Chief at Johns Hopkins Hospital. We are thrilled to report that over 100 people attended the retreat and that feedback was highly positive. Thank you to everyone who made this such an informative and worthwhile event!

Due to the overwhelming success of the 2009 retreat, Partners Radiology is now planning the 2010 Research & Education Retreat, scheduled for February 26, 2010. The event will follow a similar format as last year’s retreat, highlighting accomplishments from a number of junior and senior researchers, providing a panel discussion around hot-topics in radiology research, and announcing this year’s 2010 Partners Radiology Research Award recipients. In addition, the 2009 Partners Radiology Research Award recipients will provide an update on their project. Our keynote speaker will be Bruce Rosen, MD, who is Professor in Radiology at Harvard Medical School, Director of the Athinoula A. Martinos Center for Biomedical Imaging, and a member of the Department of Radiology, Massachusetts General Hospital. We are looking forward to hosting this exciting event.

Partners Radiology established both the Research Award and the Research & Education Retreat to support, encourage and celebrate the valuable collaborative efforts and results of BWH and MGH researchers. The constructive alliances formed between the BWH and MGH help shape the future of radiology here at Partners and beyond.

*To learn more about this retreat, please contact Maryellen O'Dea at moded@partners.org*
OUR TEAM:
Partners Radiology is comprised of a core team who work hand-in-hand with representatives from all Radiology Departments, Partners Finance, Partners Contracting, Partners Materials Management, Clinical Affairs, PCHI and many others to implement the initiatives detailed in this report.

G. Scott Gazelle, MD, MPH, PhD:
Director, Partners Radiology
In addition to his role as Director of Partners Radiology, Scott is also Director of the MGH Institute for Technology Assessment, Director of the Dana-Farber/Harvard Cancer Center Program in Cancer Outcomes Research Training, and Co-Director and Associate Vice-Chair for Research in the MGH Department of Radiology. Scott is Professor of Radiology at Harvard Medical School and Professor in the Department of Health Policy and Management at the Harvard School of Public Health. He is also Senior Scientist at the Partners Institute for Health Policy and member of the RSNA Board of Trustees. Scott has recently been President of the Association of University Radiologists, Radiology Research Alliance, and the New England Roentgen Ray Society, as well as Chair of the American College of Radiology Commission on Research and Technology Assessment and the RSNA Research Development Committee. He is nationally and internationally known for his research evaluating the benefits, costs, and appropriate use of new medical technologies. Scott has authored more than 180 scientific articles, published 2 textbooks and presented numerous papers, lectures, and workshops nationally and internationally.

Scott received his B.A. from Dartmouth College, and his M.D. from Case Western Reserve University School of Medicine. He completed a Radiology residency at University Hospitals of Cleveland, where he also served as Chief Resident. Following residency, he completed a fellowship in Abdominal Imaging and Interventional Radiology at the Massachusetts General Hospital, and then joined the faculty at the MGH in the Division of Abdominal Imaging and Interventional Radiology. In 1996, he received an M.P.H. from the Harvard School of Public Health, where he majored in Health Care Management. In 1999, he received a Ph.D. in Health Policy from Harvard University, where he concentrated in Decision Science.

Katie McCullough, MS:
Administrative Director, Partners Radiology
Prior to joining Partners Radiology as the Administrative Director, Katie served as Manager of Non-Invasive Diagnostics in the Heart and Vascular Center at the University of Virginia Health System (UVA). There, she managed a staff of over 45 employees in the nuclear cardiology, echocardiography, stress, electrocardiography, and vascular laboratories, with an average annual volume over 60,000 studies per year. While at UVA, Katie took on the additional responsibility of Interim Manager of the Heart and Vascular Ambulatory Care Clinics. Prior to working at UVA, Katie served as Senior Project Manager in the Center for Quality and Safety at Massachusetts General Hospital, where she worked with the departments of Neurology, Cardiology and Pediatrics on performance improvement initiatives relating to quality, safety, efficiency and utilization management. Her experience includes internal consulting, quality management, as well as line management. Katie has a Masters of Science from the Dartmouth Institute for Health Policy and Clinical Practice and has completed Green Belt training in Six Sigma from Motorola University.
Lisa Ewing, RT(R), MSHI, BSM, CIIP: Project Manager, Partners Radiology
With over 20 years of healthcare experience in clinical, supervisory and technical positions, Lisa currently serves as Project Manager for Partners Radiology’s efficiency, performance improvement and utilization management initiatives. In addition to this role, Lisa also serves as an Adjunct Professor for the PACS Certificate Program at Bunker Hill Community College. Prior to her role with Partners Radiology, Lisa worked at North Shore Medical Center as a Clinical Applications Analyst and Diagnostic Coordinator. She also worked for nine years as a Senior Radiographer at Hallmark Health. In 2008, Lisa received the Certified Imaging Informatics Professional credential after passing the ABII certification exam and recently earned a Masters in Health Informatics at Northeastern University.

Marj Blundon, MBA: Project Manager, Partners Radiology
Prior to her role as Project Manager for Partners Radiology’s quality management and patient safety initiatives, Marj was a Project Specialist at MGH, where she participated in the development of the DRG program for claims. She was also involved in projects related to migration from paper-based health records to the advancement of the electronic health record. Prior to working at MGH, Marj worked at Tufts Health Plan on preventive health initiatives, developing specialty care programs to maximize and improve regulatory rates. During that time she was actively involved in workflow redesign and change management. Marj has a Masters in Business Administration from Rivier College where she majored in Healthcare Administration.

Maryellen O'Dea, MBA: Project Support Analyst, Partners Radiology
Maryellen joined Partners Radiology as Project Support Analyst after having worked for eight years at State Street as an Accounts Manager and Securities Operations Team Lead. In addition to her role at State Street, over the past four years, Maryellen worked at Partners Home Care, where she performed administrative duties to insure the efficient flow of information between nurses and patients. Maryellen recently received her Masters in Business Administration from the University of Massachusetts Boston, with a dual concentration in healthcare and finance.

2009 Partners Radiology Interns:
Partners Radiology was fortunate to have two exceptional interns over this past year. Aliz Axmann, MS joined our team this summer to assist with the MRI Device Database project, playing an instrumental role in the collection of the device information and the organization of the database. Aliz also conducted a research report on the national healthcare reform proposals being discussed, particularly relating to radiology and what impact those changes might have on Partners Radiology.

Pratik Rachh, MD, MBA, CQPA joined our team this fall. He has been involved in the completion of the MRI Device Database project and coordinating the audit plan for the database. This project is described in more detail on pages 6 and 7. Pratik has also been analyzing work related injury reports and identifying what on-the-job injury types are high and might be opportunities for improvement. More information on this project can be found on page 9. Thanks to the help and creative input from both Aliz and Pratik the Device Database was up and running within a few short months and we have gained major headway with the Work Related Injuries Reporting metric. Partners Radiology is grateful to our interns for their valuable contributions.
RECOGNIZING AND APPRECIATING THOSE WHO MAKE IT HAPPEN:

We would like to underscore that the success of the many initiatives listed above would not be possible without the significant input, commitment and contribution from all of the Radiology Departments, Partners Finance, Partners Contracting, Partners Materials Management, Clinical Affairs, PCHI and many others. In particular, we would like to thank our committee and project team members noted below, who played a vital role in making this year the success that it was.

Executive Radiology Operating Committee (ROC) Members: Partners Radiology (Chair) - Scott Gazelle MD, MPH, PhD; PHS - Sheridan Kassirer; Partners Radiology - Katie McCaulloough, MS; NWH - Steven Miller, MD; MGH - John Patti, MD; BWH - Steven Selzger, MD; NSMC - Christian Semine, MD; MGH - James Thriall, MD.

Radiology Administrative Committee (RAC) Members: Partners Radiology (Chair) - Katie McCaulloough, MS; Partners Radiology - Mary Blandon, MBA; BWH - Brian Chiango, RT(R); MGH - Lisa Ewing, RT(R); BSM, MSFH, CHP; Partners Radiology - Scott Gazelle MD, MPH, PhD; NWH - David Marchione; FH - Brian McIntosh, RT(R); MGH - Denise Palumbo, RN, MSN; NSMC - Steven Walter; FH - Jason Webb, BS, RT(R).

Quality Management & Patient Safety Committee Members: MGH - Hani Abujudeh, MD, MBA; Partners Radiology - Mary Blandon, MBA; BWH - Eileen Bozadjian, RN, BSN; BWH - Maria Damiano, MBA, RT(R); Partners Radiology - Scott Gazelle MD, MPH, PhD; MGH - Max Gomez, MPH; MGH - Manmndeep Kaira, MD; NSMC (Salem) - Lorrie Keating RT(R); Partners Radiology - Katie McCaulloough, MS; FH - Ellen McKenna, RT(R), (CT); MGH - Karen Miguel, RN; NWH - Steven Miller, MD; NSMC (Union) - Linda Plouffe, RT(R); NWH - Charlotte Ray, RT(R), (NM); NSMC - Christian Semine, MD; NSMC (Salem) - Joyce Sibano, RN; NSMC - Bruce Stewart, MD; NSMC (Salem) - Irene Tate, RT(R); MGH - Kathleen Tobin, RN; NSMC (Salem) - Debra Torto-Dizipio; RT(R); NSMC - Steven Walter; FH - Jason Webb, BS, RT(R).

Research Committee Members: MGH (Chair) - Umar Mahmood, MD, PhD; BWH (Co-Chair) - Geoffrey Young, MD; DFCI - Fiona Fennessy, MD, PhD; Partners Radiology - Scott Gazelle MD, MPH, PhD; MGH - Gordon Harris, PhD; Partners Radiology - Katie McCaulloough, MS; Partners Radiology – Maryellen O’Dea, MAB; MGH - Stuart Pomereau, MD; BWH - Koenraad Mortele, MD; BWH - Frank Rylinski, MD, PhD; MGH - Martin Torriani, MD; DFCI - Annick Van den Abbeele, MD.

Education Committee Members: BWH (Chair) - Barbara Weissman, MD; MGH (Co-chair) - Theresa McLoud, MD; BWH - Katherine Andriole, PhD; MGH - Ronald Ardlano, MD; MGH - Brian Bronzo, MD; Partners Radiology - Scott Gazelle, MD, MPH, PhD; BWH - Eileen Bozadjian, RN, BSN; PHS - Patricia J. Carchidi; NWH - Ronald J. Doncaster; MGH - Joseph Fay, MM, RT(R); PHS - Alison Gersten; PHS - Karen G. Grant; PHS - Kenneth Habin; BWH - Stuart Hooton, RT(R); NSMC - Margaret Houghton, AS, RT(R), (CT); BWH - Andetta Hussaker, MD; NSMC (Salem) - Lorrie Keating, RT(R); PHS - Qi Li, MD; MGH - Brian McIntosh, RT(R); FH - Ellen McKenna, RT(R), (CT); NWH - Steven Miller MD; BWH - Koenraad Mortele, MD; BWH - Maria-Raquel Oliva, MD; NWH - Michele Ottiggey (Regalski) RT(R); BWH - Kathy Paznex, RT(R), (CT), (M); NSMC (Union) - Linda Plouffe, RT(R); NWH - Maria Polger, MD; NSMC - Laura Posy, RT(R); MGH - Nina Rubin, MD; MGH - Dushyant Sabani, MD; MGH - Sanjay Saini MD; BWH - Steven Selzger, MD; NSMC - Christian Semine MD; PHS - Paula Snavely; NSMC (Salem) - Irene Tate, RT(R); PHS - Janice Tattersall; MGH - James Thriall, MD; NSMC - Steven Walter; FH - Jason Webb, BS, RT(R); PHS - Karen Whitman.

Non-Routine Reporting of Diagnostic Imaging Findings Team: MGH - Hani Abujudeh, MD, MBA; Partners Radiology - Mary Blandon, MBA; BWH - Eileen Bozadjian, RN, BSN; PHS - Patricia J. Carchidi; NWH - Ronald J. Doncaster; MGH - Joseph Fay, MM, RT(R); PHS - Alison Gersten; PHS - Karen G. Grant; PHS - Kenneth Habin; BWH - Stuart Hooton, RT(R); NSMC - Margaret Houghton, AS, RT(R), (CT); BWH - Andetta Hussaker, MD; NSMC (Salem) - Lorrie Keating, RT(R); PHS - Qi Li, MD; MGH - Brian McIntosh, RT(R); FH - Ellen McKenna, RT(R), (CT); NWH - Steven Miller MD; BWH - Koenraad Mortele, MD; BWH - Maria-Raquel Oliva, MD; NWH - Michele Ottiggey (Regalski) RT(R); BWH - Kathy Paznex, RT(R), (CT), (M); NSMC (Union) - Linda Plouffe, RT(R); NWH - Maria Polger, MD; NSMC - Laura Posy, RT(R); MGH - Nina Rubin, MD; MGH - Dushyant Sabani, MD; MGH - Sanjay Saini MD; BWH - Steven Selzger, MD; NSMC - Christian Semine MD; PHS - Paula Snavely; NSMC (Salem) - Irene Tate, RT(R); PHS - Janice Tattersall; MGH - James Thriall, MD; NSMC - Steven Walter; FH - Jason Webb, BS, RT(R); PHS - Karen Whitman.

Contrast Media Team: MGH - Hani Abujudeh, MD, MBA; Partners Radiology - Mary Blandon, MBA; BWH - Eileen Bozadjian, RN, BSN; PHS - Patricia J. Carchidi; NWH - Ronald J. Doncaster; MGH - Joseph Fay, MM, RT(R); PHS - Alison Gersten; PHS - Karen G. Grant; PHS - Kenneth Habin; BWH - Stuart Hooton, RT(R); NSMC - Margaret Houghton, AS, RT(R), (CT); BWH - Andetta Hussaker, MD; NSMC (Salem) - Lorrie Keating, RT(R); PHS - Qi Li, MD; MGH - Brian McIntosh, RT(R); FH - Ellen McKenna, RT(R), (CT); NWH - Steven Miller MD; BWH - Koenraad Mortele, MD; BWH - Maria-Raquel Oliva, MD; NWH - Michele Ottiggey (Regalski) RT(R); BWH - Kathy Paznex, RT(R), (CT), (M); NSMC (Union) - Linda Plouffe, RT(R); NWH - Maria Polger, MD; NSMC - Laura Posy, RT(R); MGH - Nina Rubin, MD; MGH - Dushyant Sabani, MD; MGH - Sanjay Saini MD; BWH - Steven Selzger, MD; NSMC - Christian Semine MD; PHS - Paula Snavely; NSMC (Salem) - Irene Tate, RT(R); PHS - Janice Tattersall; MGH - James Thriall, MD; NSMC - Steven Walter; FH - Jason Webb, BS, RT(R); PHS - Karen Whitman.

Contrast Reaction Documentation Subcommittee: NWH - Karen Bane, RN; Partners Radiology - Mary Blandon, MBA; BWH - Eileen Bozadjian, RN, BSN; NSMC (Salem) - Janet Epstein, RN; PHS IS (PEAR) - Tara Flanagan; PHS IS (LMR) - Esminie Jung; NSMC (Salem) - Stacy Kimball, RT(R), (MR), MM; Partners Radiology - Katie McCaulloough, MS; FH - Ellen McKenna RT(R), (CT); MGH - Karen Miguel, RN; PHS IS (PEAR) - George Robinson; NWH -
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Charlotte Roy, RT(R), (NM); PHS IS (PEAR) - Melanie Sherlock; NSMC (Salem) - Joyce Silvano, RN; MGH - Kathleen Tobin, RN.

CT Dose Optimization and Standardization Committee Members: Partners Radiology - Mary Blundon, MBA; FH - Amin Chaoon, MD; MGH - Joseph Fay, MM, RT(R); Partners Radiology - Scott Gazelle, MD, MPH, PhD; MGH - Matthew Gilman, MD; NSMC (Salem) - Timothy Hoogh, MD; MGH - Manmudeep Kalra, MD; Partners Radiology - Katie McCaullogh, MS; FH - Ellen McKenna, RT(R), (CT); NSMC - John Murray, MD; NWH - Michele Ostiguy (Rogalisk), RT(R); BWH - Kathleen Pizzaro, RT(R), (CT), (M); NSMC (Union) - Linda Plouffe, RT(R); NWH - Marla Polger, MD; MGH - Dushyant Sabani, MD; MGH - Christy Savage, RT(R); FH - Richard Schofield; BWH - Stuart Silverman, MD; MGH - Sarabjeet Singh, MD; NSMC (Salem) - Julie Stiles, MD; NSMC (Salem) - Irene Tate, RT(R); MGH - Sjirk Westra, MD.

MRI Safety Team Members: Partners Radiology - Aliz Axmann, MS; Partners Radiology - Mary Blundon, MBA; BWH - Eileen Bezugdian, RN, BSN; FH - Glenna Bridges; BWH - Lisa Bassolari, MBA, RT(R), (MR); NSMC (Salem) - Janet Epstein, RN; MGH - Jeremy Herrington, BS, RT(R), (MR); NSMC - Margaret Houghton AAS, RT(R), (CT); ACC - Chuck Huberdaun, RT(R); NSMC (Salem) - Stacy Kimball, RT(R), (MR); MM, MGH - Tyler Martin, BS, RT(R), (CT); Partners Radiology - Katie McCaullogh, MS; FH - Ellen McKenna, RT(R), (CT); Partners Radiology - Maryellen O’Dea, MBA; BWH - Donna Oka, RT(R); MGH - Larry Quirk, RT(R), (MR); Partners Radiology - Pratik Rakhb, MD, MBA, CQP, A; NWH - Charlotte Roy, RT(R), (NM); NWH - Michael Shea, RT(R), (MR); MGH - Mary-Theresa Shore; NSMC (Salem) - Irene Tate RT(R).

Patient Safety Team Members: NWH - Karen Bane, RN; Partners Radiology - Mary Blundon, MBA; BWH - Eileen Bezugdian, RN, BSN; NSMC (Salem) - Janet Epstein, RN; NWH - Karen Miguel, RN; NWH - Charlotte Roy, RT(R), (NM); NSMC (Salem) - Joyce Silvano, RN; MGH - Kathleen Tobin, RN.

Prior Authorization Process Improvement (PAPI) Team members: NSMC (Salem) - Courtney Belanger, MGH - Bonnie Blanchfield, CP,A, ScD; NWH - Patrick Carley; NWH - Laurie Davis; Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP, BWH - Bob Ferrazzog; NSMC (Salem) - Paola Gagno; NWH - Michelle A. Guarnieri; MGH - Barbara Hulse; BWH - Patricia Hultman; MGH - Christie James; MGH - Ken Lam; MGH - Sue Lee; PHS - Maureen Martin; MGH - Michelle McDonald; NWH - Mary Murray; NSMC (Salem) - Patricia O'Leary; NWH - Maria Pavo; BWH - Anna Poulos; NWH - Ingrid L. Reed; NWH - Natalie Shayece; FH - Jason Webb, BS, RT(R); MGH - Alfred A. White.

Clinical Affiliation Development for RA Programs Team Members: NWH - Jason Barrett, BS, RPA (CBRPA), RR-A (ARRT); NSMC (Salem) - Rick Dabbs, BS, RPA (CBRPA), RRA (ARRT); Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; NSMC - Allen Hofman, MD; NWH - David Marchione; NWH - Steven Miller, MD; BWH - Steven Selzer, MD; MGH - Robert Sheridan, RT(R); MGH - James Thrall, MD; NSMC - Steven Walter.

Radiology Physician Extender Role Development Team Members: NWH - Jason Barrett, BS, RPA (CBRPA), RR-A (ARRT); NSMC (Salem) - Rick Dabbs, BS, RPA (CBRPA), RRA (ARRT); Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; NSMC - Allen Hofman, MD; NWH - David Marchione; NWH - Steven Miller, MD; MGH - John Patti, MD; NWH - Alan Semine, MD; MGH - Robert Sheridan, RT(R).

Work Force Development (WFD) Program Team Members: Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; MGH - Robert Sheridan, RT(R);

WFD – Planning Committee Members: NSMC (Salem) - Marilyn Brouillette, RT(R); BWH - Susan Dalby; Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; MGH - Jeremy Herrington, BS, RT(R), (MR); NSMC (Union) - Deanne Holba; NWH - Sheila Lenihan; BWH - Carl Paturrlei, RT(R), (CT); PHS - MJ Ryan, MM, CNMT; MGH - Richard Terrass, MED, RT(R).

WFD – Scholarship Review Committee Members: NSMC (Salem) - Marilyn Brouillette, RT(R); MGH - Sandra Creaser, MM, RT(R), (N); PHS CNMT; SRH - Susan Dalby; BWH - Michael Delvecchio, BS, RT(R); Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; MGH - Jeremy Herrington, BS, RT(R), (MR); NSMC (Union) - Deanne Holba; RT(R); NSMC (Salem) - Lorrie Keating RT(R); MGH - Annette LaPointe; NWH - Sheila Lenihan; NWH - Deborah Lockhart; BWH - Carl Paturrlei, RT(R), (CT); MGH - Richard Terrass, MED, RT(R).

WFD – Recruitment Committee Members: NSMC (Salem) - Marilyn Brouillette, RT(R); SRH - Susan Dalby; BWH - Michael Delvecchio, BS, RT(R); Partners Radiology - Lisa Ewing, RT(R); BSM, MSHI, CHP; MGH - Sharon Gibson; MGH - Charles David Healy, RT(R); MGH - John Hergenrother, CNMT; NSMC (Union) - Deanne Holba RT(R); NSMC (Salem) - Lorrie Keating, RT(R); MGH - Annette LaPointe; NWH - Brian McIntosh, RT(R); BWH
Quality Reporting Teams:

CT Contrast Reaction Reporting Team Members: ACC – Tomica Barnett Dix, RT(R), (CT); Partners Radiology - Marj Blundon, MBA; BWH - Eileen Bozadjian, RN, BSN; BWH - Allen DuFault; MGH - Joseph Fey, MM, RT(R); NSMC - Margaret Houghton, AS, RT(R), (CT); MGH - Tyler Martin, BS, RT(R), (CT); FH - Ellen McKenna, RT(R), (CT); NSMC (Union) - Linda Ploffe; NWH - Michele Oztiggy (Rogalski), RT(R); NWH - Charlotte Roy, RT(R), (NM); NSMC (Salem) - Irene Tate RT(R).

MR Contrast Reaction Reporting Team Members: Partners Radiology - Marj Blundon, MBA; BWH - Eileen Bozadjian, RN, BSN; NSMC - Margaret Houghton, AS, RT(R), (CT); ACC - Chuck Huberdeau, RT(R); NSMC (Salem) - Stacy Kimball, RT(R), (MR), MM; MGH - Tyler Martin, BS, RT(R), (CT); FH - Ellen McKenna RT(R), (CT); MGH - Larry Quirk, RT(R), (MR); NWH - Michael Shea, RT(R), (MR); NSMC (Salem) - Irene Tate RT(R); MGH - Scott Thomas.

Non-Routine Reporting of Diagnostic Imaging Findings Compliance Reporting Team Members: MGH - Hani Abujudeh, MD, MBA; Partners Radiology - Marj Blundon, MBA; BWH - Maria Damiano, MBA, RT(R); BWH - Ramin Khorasani, MD, MPH; FH - James Mastromatteo, MD; Partners Radiology - Katie McCullough, MS; NWH - Steven Miller, MD; NSMC - Christian Semine; MD; FH - Jason Webb, BS, RT(R); NSMC - Alvin Yamamoto, MD.

Report Turnaround Time Compliance Reporting Team Members: Partners Radiology - Marj Blundon, MBA; MGH - Alison Berry; BWH - Maria Damiano, MBA, RT(R); BWH - Allain DuFault; MBA; Partners Radiology - Scott Gargelle, MD, MPH, PhD; NSMC - Lorene Jackson, (CMT); NSMC - Lorrie Keating; BWH - Ramin Khorasani, MD; NWH - Michael Medeiros; MGH - Joshua Merrill; MGH - Kevin Pian; NWH - Charlotte Roy, RT(R), (NM); FH - Jason Webb, BS, RT(R).

Falls Reporting: BWH - Eileen Bozadjian, RN, BSN; NSMC - Diane Burke; MGH - Tracy Liwen Chen; NSMC - Renee Comeau, BWH - Pilar Conde, NWH – Dan Hogan; FH - Ellen McKenna, RT(R), (CT); MGH - Karen Miguel, RN, Partners Radiology - Maryellen O'Dea, MBA; MGH - Indira Padubidri, Partners Radiology - Pratik Rachh, MD, MBA, CQPA; NWH - Charlotte Roy, RT(R), (NM); FH - Kelly Schoppe; NWH - Sue Scott, NSMC (Salem) - Debra Torto-Discipio, RT(R); FH - Kathryn Lucia Zieja.

Work Related Injuries Reporting: Partners Radiology - Marj Blundon, MBA; PHS HR - Brian Chan; BWH - Brian Chiango, RT(R), MBA; Partners Radiology - Lisa Ewing, RT(R), BSM, MSFI, CHIP; Partners Radiology - Scott Gargelle MD, MPH, PhD; NWH - David Marchione; Partners Radiology - Katie McCullough, MS; FH - Brian McIntosh RT(R), Partners Radiology - Maryellen O'Dea, MBA; MGH - Denise Palumbo, RN, MSN; Partners Radiology - Pratik Rachh, MD, MBA, CQPA; PHS HR - Eddie Tan; NSMC - Steven Walter.