Creating the PACS support team

Consider the following hypothetical situation: In the spirit of keeping up with the Joneses, your hospital system decides to renovate the east wing, purchase two new magnetic resonance imagery systems and a PET/CT, upgrade the hospital’s entire computer system, and implement a PACS. Oh, and by the way—because you’re the imaging director, it’s your job to make sure that all of these systems work.

Not your idea of fun, is it? If the scenario described above sends shivers down your spine, you’re not alone. According to Wil Reddinger, MS, RT, (R), (CT), implementing several changes at once is one way to turn successful PACS implementation into insanity.

To resolve the screaming meemies skittering their way through the halls of the radiology department, establishing an appropriate and capable PACS support team can prove to be essential.

“PACS isn’t simply a computer software program that runs by itself,” said Reddinger, who spoke during the 34th annual American Healthcare Radiology Administrators’ meeting in Las Vegas in August.

Save a life: Take seven simple steps to avoid medication mistakes

Patients readying themselves for the latest diagnostic radiology scan should be wary of the potential harm of medication errors in the radiology department.

That’s what the U.S. Pharmacopeia (USP) suggested in its five-year report released in January, calling radiology errors seven times more harmful than errors in other areas of medical practice.

Critics called the report misleading. Leaders from no fewer than a dozen radiological societies and associations discounted the study, MEDMARX Data Report: A Chartbook of 2000–2004 Findings from Intensive Care Units and Radiological Services, saying that it misrepresented radiology’s diligence for quality assurance programs.

Despite the reactive fallout generated by the USP report, several potential educational and procedural initiatives were also generated. And with all of this hubbub hanging in chat room closets, there’s...
Coding corner

Understanding the intricacies of sonogram billing

Ultrasound documentation requirements
Q: Where can we find ultrasound (US) documentation requirements in writing?


“That’s the official coding advice to follow,” says Stacie L. Buck, RHIA, CCS-P, LHLM, RCC, vice president of Southeast Radiology Management in Stuart, FL.

Bundling transabdominal with transvaginal scans
Q: Our US department routinely performs both transabdominal and transvaginal (endovaginal) exams together as part of protocol. Sometimes, the radiologist dictates transvaginal; other times he or she does not.

If the report does not indicate that a transvaginal US was performed, I always question the US department about whether it was. When I do, they explain, “It is not required due to protocol.” Is it correct to be charging this way?

A: The radiologist must document the performance of the transvaginal examination, as well as the reason for the exam, says Stacy Gregory, RCC, CPC, president of Gregory Medical Consulting Services in Tacoma, WA.

It is common to perform both of these examinations in the same setting for a variety of reasons, but there must be clear and documented medical necessity for both studies, she says.

For example, if during a preliminary transabdominal pelvic ultrasound, some components cannot be visualized (due to obstruction by bowel loops, gas, empty bladder, body habitus, etc.), the technologist may discuss the need for additional imaging with the radiologist.

The radiologist can then request a transvaginal examination to completely evaluate the pelvic contents.

This should not be routine practice or protocol. The transvaginal exam should only be performed on a medically necessary basis, Gregory says.

Have a physician order form on file designed to allow for both examinations (e.g., pelvic ultrasound [with transvaginal ultrasound if needed]).

Duplex evaluations
Q: What CPT code(s) should be assigned for Duplex scans? We normally charge 76870 and 93976. Is this correct?

A: A quick-look use of color flow Doppler simply to...
verify whether an anatomic structure is vascular should not be separately coded, says Gregory.

In order to separately code for Duplex scanning, evaluation of blood flow—both arterial inflow and venous outflow—must be performed in addition to a gray scale evaluation.

Documentation of an order from a physician for both examinations should be maintained, and medical necessity must be present, she says.

In the hospital setting, the ordering physician may be the radiologist.

An order from the referring physician is required in the freestanding (i.e., nonhospital) and independent diagnostic testing facility settings, says Gregory.

**Use of ‘limited’ with Duplex**

**Q:** Can we use the “limited” vascular CPT code 93976 with a prostate ultrasound if we use color the same way it was used during the scrotum exam?

**A:** No, says Gregory. See requirements for reporting Duplex evaluations in addition to real-time ultrasound examinations.

**Documentation and coding for male pelvic scans**

**Q:** Should we always bill for a male pelvis scan when viewing the bladder during an ultrasound? That is our current procedure because our doctors want the prostate measured.

**A:** In order to code a “complete” male pelvic ultrasound (76856), the report must contain documentation of performance—or attempted performance—of measurement and evaluation of the urinary bladder, prostate, and seminal vesicles, and as well as pelvic pathology.

If less than the above components are evaluated, then the exam should be coded as a “limited” study (76857).

If only the urinary bladder is evaluated, 76857 would also apply.

**Q:** Can a 76856 (male pelvis), 76770 (retroperitoneum), and 51798 pulmonary vascular resistance be coded at the same time when imaging renal, inferior vena cava, aorta, bladder, prostate, seminal vesicles, and also post void bladder?

**A:** In this case, 76856 and the 76770 can be billed together if both are ordered and performed, Buck says.

**Insider sources:**

Stacie L. Buck, RHIA, CCS-P, LHRM, RCC, and Stacy Gregory, RCC, CPC, on November 13, 2006. For more information, visit [www.bcmarketplace.com](http://www.bcmarketplace.com).
“You may be working away, and the next thing you know your boss comes over and says, ‘Hey how’d you like to be a PACS administrator?’ [Implementing a successful PACS transition is] only 15% magic. The rest is careful planning,” Reddinger said.

**The PACS support problem: Avoid common mistakes**

The PACS is in, and the hospital CEO is excited. Everything seems to be going great. Then your number-one radiology clerk suddenly becomes unhinged. What happened?

“You underestimated how difficult it is to get people to change the way they do things,” said Reddinger. “We take the people managing our film libraries and we tell them, ‘Guess what? Now you can manage this PACS.’ You cannot take $9-an-hour transporters and tell them they get to be PACS operators now.”

In radiology departments, directors have a tendency to recruit PACS team members from their existing staff. Although there’s nothing inherently wrong with that, you need to provide appropriate training in a reasonable time frame, he said.

Another common mistake is delegating PACS tasks to overburdened staff. Existing staff cannot be expected to handle additional tasks without proper compensation, transition time, or training.

**Successful training means less insanity**

Create specific job descriptions and offer current staff the necessary training to operate under those revised job descriptions, said Reddinger. “Education is a continuum. You need to provide competency-based learning for PACS administration.”

Make staff training a team-orientated experience, he said. “Don’t just educate your internal staff, the ones who are in your department right now. Educate everybody: internal staff [and] external staff.”

Train and hire staff based on the following issues:

- Computers
- Operations/workflow
- Applications
- Quality control
- Troubleshooting
- Security

Include documentation of any and all security training in the handouts and paperwork provided to staff.

Further retain sufficient copies of the documentation in a centralized location so when federal officials—or your hospital’s compliance officer—comes looking, you can ensure that your staff understand the proper security protocols, Reddinger said.

**Convince the staff of PACS pragmatism**

The best laid plans won’t get you anywhere if you can’t sway staff opinion. Follow these tips to ensure appropriate PACS teamwork:

- **Communicate for the buy-in.** Nobody likes to be told what to do all the time. People need to participate in the decision-making process. If you facilitate their involvement, staff investment in PACS outcomes will follow. “Don’t make any dictator decisions,” Reddinger said. “Don’t tell staff it’s this way or the highway. You have let them communicate their needs and you need to listen to them.”

- **Increase urgency—inspire and electrify.** “Tell people this is going to make their lives better,” said Reddinger. “Not only that, but it’s going to make your patient’s lives better. Then show them how.”

Demonstrate how the new system works, he said. Walk them through the process. Let them know that they are not alone. Tell them that they can do it and that you’ll work together to see that it happens.

- **Build the right team.** The best—or worst—person for your PACS system may sit just down the hall. “While many among your current team will be able to make the transition, others may be unwilling or unable to adjust to new skill sets,” Reddinger
said. That may mean that some people may have to be let go. He advised documenting your training attempts as well as getting human resources involved early in the process.

- **Empower action and remove obstacles.** Cross-train your staff and offer preceptor training. Make sure that everyone is able to do every job in the department so no one stands alone.

  “Don’t let staff say they can’t do something because they don’t know how or because it’s not their job,” Reddinger said. “Offer training so everyone performs as active team members.”

**What not to do**

Although planning and precision prove to be instrumental to PACS administrative success, any number of the following common pitfalls may muddle even the most astute minds:

- **Don’t take on too much at once.** Change is difficult for even the most agile spirit. Staff often feel overwhelmed when asked to learn a multitude of new tasks in a limited time frame. Instead, when establishing capital and programmatic improvements, consider staff training and learning needs, Reddinger said.

- **Provide communication channels.** Have an open-door policy to provide staff a conduit for communication. Chances are that those in the trenches will have ideas and difficulties that you, as an administrator, have yet to think of.

  “You have to be able to talk to one another,” said Reddinger. “That’s the bottom line here.”

- **Don’t rely too heavily on vendor support.** Many administrators expect their PACS vendor to enter the facility like a guardian angel. Although vendor training on the intricacies of a specific system is vital, there may be hidden costs and missed opportunities if vendors are the sole providers of PACS education for employees. “This kind of support can cost you big money,” said Reddinger. Sometimes, staff understand more about your specific system needs than will the vendor.

- **Accept blame and seek solutions.** Problems will happen, Reddinger said—that’s life. Attempting to deflect blame, and therefore responsibility, only prolongs the search for resolution.

  “Too often even those in administration forget it’s a team effort. Others say, ‘It’s not my problem, so and so did such and such.’ Forget it. Just fix it. Let’s get beyond the blame game and get to work on the next steps,” said Reddinger.

- **Form committees and continue to meet.** PACS implementation is often seen as a one-time expense—the project is planned, executed, and completed. Don’t let that happen, said Reddinger. “Once the PACS system gets implemented, management forgets about it. They think everything will continue to flow smoothly. Unfortunately, we live in the real world and we know that’s not always the way it works,” he said.

  Form a PACS committee that includes supervisors, radiologists, technologists, administration, and information technology (IT) support staff. Keep the meetings going, Reddinger said. This group will be vital to heading off PACS problems as time goes on.

- **Diffuse territory battles.** In the trenches, IT and radiology support staff take their jobs seriously. Each may see the implementation of PACS as a threat to their professional stability.

  Make sure that you hire or promote the best people for the position regardless of background—and regardless of territory battles. The IT staff may believe that the PACS system falls into their purview because, after all, it is about the flow of electronic information. However, the radiology support staff have specific understanding about how that information needs to be used by the radiologists, technologists, referring physicians, and others.

  “It’s about customer service,” Reddinger said. “If the PACS is down and a patient has to wait, then we’re not doing our job. Put the territory battles to bed. If you can help, great. If not, get out of the way and find someone who can.”
no better time to review the administration of medication protocols at your facility.

“We’ve had procedures and policies in place for a number of years to prevent potential medical errors in the radiology department,” says Scott Trerotola, MD, chief of interventional radiology at the University of Pennsylvania Health System in Philadelphia.

Many standards issued by multiple organizations are already in place to ensure safe patient care, the American Society for Radiologic Technologists (ASRT) said in a release earlier this year. “It is the responsibility of every medical facility and every healthcare professional to understand and follow these standards,” the release stated.

For example, close adherence to the ASRT Practice Standards for Medical Imaging and Radiation Therapy would alleviate many of the medication errors associated with radiological procedures. Among other guidelines, the ASRT practice standards clearly state that the radiologic technologist is responsible for confirming patient identity, gathering pertinent information from the patient’s medical record, and assessing factors that might contraindicate the procedure.

In its response to the USP report, the American College of Radiology said it “constantly refines practice standards designed to eliminate all foreseeable medical errors in the face of advancing technology and increasing demand for medical imaging services,” while admonishing the report’s creators for using flawed methodology.

Trerotola recommends the following seven-step process to protect your facility and patients from potential medication gaffes:

1. Conduct an initial patient assessment
2. Ask whether the patient has any allergies
3. Check existing medications
4. Go over the site markings checklist
5. Double-check patient identification
6. Create and follow a conscious sedation checklist
7. Review Joint Commission on Accreditation of Healthcare Organizations’ (JCAHO) requirements

Keeping track of medications may seem to be a daunting task, but the solution can be as simple as marking syringes with permanent pen or purchasing pencil boxes for storage of medications. “Labeling medications is the latest thing to actually prevent medication errors,” Trerotola says. “The goal is to reduce them to their absolute minimum.”

That’s what JoAnn Belanger, RN, patient services manager at the University of North Carolina Health Care System in Chapel Hill, and her team did. They resolved one JCAHO goal—improving accuracy of drug administration—with colored pencil boxes. Each box contained a specific patient’s medication to ensure that the correct patient received the correct doses. “By labeling the medications and keeping them in the right box, we can be sure the syringe doesn’t get mixed up with any other meds,” she says.

Tip: Review internal medication error records every quarter. Try to examine at least 100 records if possible to provide a good sample. This practice will help provide an accurate understanding of what’s happening.

Communication saves lives
The USP reports indicated that medication errors frequently come from communication breakdowns. These often take place between departments as patients are transferred into the radiology department or back to their floor. Robert Henkin, MD, professor emeritus and former director of nuclear medicine at the Loyola University Medical Center in Maywood, IL, spoke with AuntMinnie.com in January about the USP report.
“The most interesting issue [the USP] raises is the difficulty in communication between nursing units and other places in the hospital,” Henkin said. The ASRT attributes these medication errors to a lack of access to patient data.

Trerotola’s hospital has medical records databases that allow his team to cross-reference patient medications and prevent potential mistakes. “Even if patients come in, and they haven’t been seen for more than a 10-year period, we have their record and we can pull it up,” he says. “The e-record is the key here.”

Although most organizations understand the importance of implementing a self-reporting system, cost, time, and fear of reprisals keep staff from being forthcoming.

Leading by example and maintaining an open dialogue between managers and staff can alleviate this problem.

Resolving this issue facilitates the flow of more accurate data with organizations such as the USP. Better data means better care and healthier patients, says Trerotola.

Further, ASRT calls for additional education requirements for technologists in the following areas:

- Proper use, indications, and administration routes for contrast media and medications used in radiology
- Pharmacology, including drug interactions and contraindications
- Charting and documentation techniques
- Use of electronic medical records systems and information retrieval systems
- Communication skills for healthcare

Insider source
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**Ask the Insider**

**Follow JCAHO guidelines to reduce medication errors**

Q. Are there specific guidelines from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) on reducing medication errors in the radiology department?

A: Each organization must decide how to best serve patients’ needs. The intent of all Joint Commission standards and National Patient Safety Goals (NPSG) is to enhance patient safety. Following are examples as they apply to radiology:

- **NPSG #1A** requires the use of two identifiers to ensure that the correct patient receives the correct medication or treatment. Compliance with this safety goal in radiology departments ensures that the correct patient receives the correct contrast media, sedation/anesthesia, and radiological exam, as applicable.

- **NPSG #3D** requires you to label medication containers in procedural settings. In radiology or nuclear medicine, when medications such as contrast media are moved from the original container to another container (e.g., a syringe, basin, or cup), the second container must be labeled. This ensures that the medication is identifiable after being removed from the original container.

- **NPSG #8A** requires medication reconciliation of any new medication orders against current medications being taken by the patient. Compare new medications to current medications to avoid errors such as drug-drug interactions.

- **Medication Management (MM) standard 1.10** requires all persons involved in the MM process to have access to patient-specific information (e.g., current medications, allergies, diagnoses, laboratory values, etc). Information must be readily accessible to the staff of the radiology department prior to the administration of medications.

- **Standards MM 2.10–4.50** addresses the safe procurement, storage, ordering, preparation, and dispensing of medications.
**JCAHO guidelines**

- **MM 5.10** outlines the requirements for safe medication administration (e.g., verifying the correct medication, medication stability, correct time, dose, route, etc).

- **MM 6.20** requires monitoring of the effects of medications on patients (e.g., side effects, adverse reactions, and the efficacy of the medication).

- **MM 8.10** requires the hospital to evaluate its MM system for risk points and identify areas to improve safety. This standard requires organizations to evaluate literature and new technologies, as well as internal data to identify trends.

Based on this information, organizations must implement improvements, measure the new processes, and make changes as needed to improve the MM system.

Other standards also affect MM. For example, the management of human resources (HR) standards address qualifications, training, and competency.

- **HR 1.20** requires the hospital to ensure that staff are qualified to perform their job responsibilities. This includes verifying certification, licensure, or registration of radiology technicians and ensuring that their responsibilities within the MM system are allowed within the scope of their profession, law, and regulation.

All of the above standards—plus others not mentioned—apply to the radiology department. The intent of each of these standards is to prevent medication errors by addressing specific points in the MM process and requiring specific actions that will minimize risk at each point of the process.