Did You Know?
The "go-to" imaging modality for suspected kidney stones in children is computed tomography (CT), despite national guidelines recommending ultrasound as the preferred initial imaging.

Did You Know?
A novel striatal positron emission tomography (PET) imaging biomarker may identify individuals with early Huntington’s disease (HD).

Promising New MRI Technique Provides Insight Into a Stroke

Researchers from several institutions have used a 21-tesla preclinical MR spectroscopy scanner to develop a new technique for evaluating patients for stroke and possibly neurodegenerative diseases. They now believe the protocol could be migrated to 3- and 7-tesla MRI scanners being used clinically.

The group from the National High Magnetic Field Laboratory at Florida State University (FSU), the Champalimaud Center in Portugal, and the Weizmann Institute of Science in Israel has crafted an imaging sequence that targets specific metabolites in certain regions of the brain to determine their concentration as well as other important pieces of information. The key piece of technology is FSU’s 900-MHz, 21.1-tesla nuclear MR magnet system, which can visualize chemical signatures of metabolites in 125-microliter volumes. The technique details metabolites using a relaxation-enhanced MR spectroscopy (MRS) approach that accentuates the metabolites with the very high magnetic field. “The truly revolutionary part is that we can focus our attention and selectively excite certain regions of the brain by focusing on certain frequencies,” said Samuel Grant, PhD, associate professor of chemical and biomedical engineering and MRI user program director.

Adding digital breast tomosynthesis (DBT) to biennial screening mammography is a cost-effective way to improve breast cancer detection in women with dense tissue, compared with mammography alone, according to a study published in Radiology. Mammography’s effectiveness decreases in dense tissue, prompting the need for supplemental imaging. DBT offers a less expensive and more accessible additional test for dense breast tissue than, say, screening MRI, which is the most sensitive, or ultrasound, which is associated with higher false-positive rates, according to lead author Dr. Christoph Lee, from the University of Washington, and colleagues.

“Tomosynthesis only takes a few more seconds during the regular mammography exam,” Lee said. “It doesn’t require a second modality or contrast, and it doesn’t increase the false-positive rate.”
Brain Changes Point to Root of Chronic Fatigue

Brain scans may identify people with chronic fatigue syndrome, a finding that might point toward potential treatment targets for the mysterious ailment marked by unrelenting exhaustion, researchers found. A small study using advanced imaging techniques showed chronic fatigue patients had less white matter than a healthy comparison group, as well as structural variations in the right hemisphere of the brain. The finding released in the journal Radiology is one of the first that shows a concrete difference in people with the condition, which is currently diagnosed only by ruling out other ailments. The findings may offer relief to patients who can struggle for years to get a diagnosis and are often told the cause is psychological, said lead researcher Michael Zeineh. “We wanted to see what’s going on with chronic fatigue syndrome in the brain,” Zeineh, an assistant professor of radiology at Stanford University School of Medicine proclaimed. “We know these patients are suffering and traditional methods don’t show anything.” The decrease in white matter makes sense because some scientists believe the disease stems from chronic inflammation. Inflammation can harm white matter, the brain tissue composed of nerve fibers that carry signals and connect the brain’s different regions.

Coding and Compliance Tips by Lori Shore, CPC, RCC

The Downfalls of Using a Hospital Charge Feed

In this age of technology and automation many practices are using the hospital charge feed to bill for their professional radiology charges. This is a risky practice for many reasons, most namely compliance. The codes billed from a hospital feed are often the codes that were ordered, which may or may not be the study that was actually performed. Changes in study design and add-on procedures, permissible in a hospital setting, may not necessarily be reflected in the hospital feed. Without a human reviewing reports for accuracy, radiologists don’t receive feedback on their documentation for compliance issues or improved reimbursement. For example, if a CTA Chest is ordered and reported on the hospital feed but the radiologist fails to specify 3-D reconstruction views in his/her documentation, the study should be billed as a CT Chest. If a RAC audit occurred monies received would need to be returned with penalties. Conversely, money could be left on the table because the hospital feed does not reflect all billable professional charges for a given procedure. For example, if the radiologist does a breast localization and also does the specimen radiograph, the specimen radiograph is separately billable. If that is not ordered, or considered bundled, that revenue could be lost. Billing from a hospital feed makes it nearly impossible to bill for claims-based PQRS. Claims-based PQRS reporting requires review of reports for certain measure language to assign the proper code. Reporting through a registry can be costly for larger practices. While billing may be more cost-effective and easier in the short term, the long term ramifications will no doubt be more costly. Again, not only is it a compliance risk, but also a risk of lost revenue.