Did You Know?
Using diffusion-tensor MRI (DTI-MRI), researchers detected brain changes related to improved balance and movement in multiple sclerosis (MS) patients who regularly trained on a Nintendo Wii balance board for 12 weeks. Results were published online in Radiology.

Centers for Medicare & Medicaid Services (CMS) Finalizes EHR Meaningful-Use Rule
The CMS on 8/29 finalized a rule allowing hospitals and eligible professionals more flexibility in how they meet meaningful-use requirements for the electronic health-record incentive program. The agency had originally proposed the idea in a May draft rule. The final rule left the May proposal unchanged. The rule would give providers a longer timeline and more flexibility in meeting the incentive goals created by the stimulus program first created in the 2009 HITECH Act. The incentive program provides doctors and hospitals stimulus funding to implement electronic health records.

The rule pushes back the beginning of the third stage of meaningful use for the first group of adopters until Jan. 1, 2017, as opposed to the old standard of Jan. 1, 2016. Marilyn Tavenner, CMS administrator, said in a release: “We listened to stakeholder feedback and provided CEHRT flexibility for 2014 to help ensure providers can continue to participate in the EHR Incentive Programs forward.” In the final rule, providers unable to adopt 2014 technology because of availability of certified technology have three options. For providers intending to demonstrate Stage 1 meaningful use in 2014, they can use 2011 technology to show they met 2013 first-stage standards; or can use a combination of 2011 and 2014 technology to meet 2013-14 first-stage standards; or could use 2014 technology to fulfill 2014 first-stage standards.

Did You Know?
A new steerable MRI-guided catheter can navigate through blood vessels from the groin to the brain in a search to destroy clots, according to research from the University of California, San Francisco (UCSF). The notion of guidance under MRI for stroke treatment is intriguing because MRI is more useful than X-Ray when brain tissue is involved.

Ultralow-Dose SPECT Provides Top Quality Image, Less Radiation
With an eye toward lowering radiation exposure, a group of researchers found that an ultralow-dose high-efficiency SPECT scan for myocardial perfusion imaging can achieve better image quality than standard low-dose SPECT, according to a study published in the September Journal of Nuclear Medicine. The researchers also concluded that assessment of extracardiac activity, overall perfusion, and ejection fraction was comparable between the scans, which was accomplished at an ultralow dose of 1 mSv -- less than half the dose of standard low-dose SPECT. Based on the results, lead author Dr. Andrew Einstein, PhD, an associate professor of medicine at Columbia University, and his colleagues believe an ultralow-dose high-efficiency SPECT scan is feasible for stress myocardial perfusion imaging. The researchers believe their study is the first to assess image quality, overall perfusion assessment, ejection fraction, and other factors in patients receiving ultralow-dose imaging using a high-efficiency SPECT camera, compared with standard low-dose SPEC imaging in the same patients.
MRI Histogram Analysis Predicts Bladder Tumor Aggressiveness

Sophisticated histogram-based measurements of diffusion on MRI scans can predict bladder tumor aggressiveness noninvasively, according to a new study in *Abdominal Imaging*. The results could potentially help clinicians tailor therapy to individual patients, and even help predict which patients’ tumors will metastasize.

The study included patients with bladder cancer who had an MRI before undergoing radical cystectomy. Results showed that one of the measurements, mean apparent diffusion coefficient (ADC), was significantly lower in patients with advanced cancers (stage T3 and higher) than in those with lower-stage tumors.

In addition, measurements of kurtosis, another advanced metric based on ADC, were significantly lower in patients with nodal disease, and kurtosis also trended lower in the subset of patients who later developed metastases, the researchers from NYU Langone Medical Center reported.

“We found that the combination of metrics had strong potential for predicting the aggressiveness and behavior of bladder cancer,” said lead author Dr. Andrew Rosenkrantz in an interview with *AuntMinnie.com*.

Bladder cancer is a common disease, accounting for some 15,000 deaths per year in the U.S. The disease, however, is heterogeneous, with substantial variability in disease extent, aggressiveness, and prognosis among patients. Five-year survival is 96% for tumors without muscle invasion, though the rate drops to 70% when invasion is present.

Coding and Compliance Tips by Lori Shore, CPC, RCC

The Office of the Inspector General (OIG) has issued its 2014 work plan which includes some imaging issues. Specifically mentioned in the work plan is review of high-cost diagnostic radiology tests. The OIG will be looking not only for medical necessity but also for an increase in utilization of these studies. They will also be looking at the practice expense components of imaging services including the equipment utilization rate. Portable x-rays are new to the work plan this year and will be monitored for the transportation and set-up costs as well as the qualifications of the technologists performing the study. They will also be looking to see if the orders for portable studies were given by a physician.

There are two on-going billing issues on the work plan. The OIG will be looking at non-compliance with assignment rules and excessive billing of beneficiaries. This is when participating providers bill Medicare beneficiaries more than the Medicare allowed amount. Another billing issue under the microscope is place of service coding errors, particularly ambulatory surgical centers and hospital outpatient departments reporting incorrect place of service codes.

The OIG filed 472 civil actions in 2013 with an expected monetary recovery of $5.8 Billion. $5.0 Billion of those recovered funds came from investigations, with $850 Million coming from audit recoupment. The OIG filed 960 criminal actions in 2013 and excluded 3,214 individuals or entities from participation in the Medicare program.