



Volume 13

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Taking Advantage of Radiology Peer Reviews

TAKING OUR PULSE

Radiology studies play a major role in workers compensation, since diagnosis and therapy are determined in part on the basis of accurate visualization of bone and soft tissue structures which have been, or are alleged to have been, injured.

Please note that these studies are more accurately referred to as “diagnostic imaging”, because the term radiology historically meant x-rays, whereas our menu of imaging studies now includes not just x-rays, but everything from MRIs and CTs to ultrasound to nuclear scans.

Just as Broadspire’s Physician Review Services (PRS) unit offers peer reviews in orthopedics and physiatry and 30+ more specialties, we also offer imaging reviews by board-certified radiologists. These provide a quick and cost-effective “second opinion” on the interpretation and significance of findings which can have a major impact on the optimal diagnosis and treatment of the injured worker.

JUST WHAT THE DOCTOR ORDERED

- Prior to all spinal surgeries. Surgery of the spine is sometimes needlessly performed, or may entail a more extensive procedure than is necessary. Spinal fusions in particular have come under great scrutiny as they often yield no benefit and may result in a permanent debilitating condition: the “failed-back” syndrome. Clarifying the presence and nature of the spinal pathology via a radiology peer review can assist you in handling the claim, and can also provide invaluable information to the orthopedic peer reviewers who are pre-certifying the surgery.
- Prior to any other significant surgical or interventional procedures, particularly when the imaging report uses language that appears to be vague or ambiguous, rather than clear and definitive, about the nature of the findings. This is particularly applicable to shoulders and knees.
- It is important to be proactive in anticipating the potential need for these surgeries. When the procedure is already submitted to Utilization Management (UM), there is a very limited timeframe available to do a radiology peer review within regulatory UM timeframes for reviews.

Medical records from, and conversations with, surgeons or other treating physicians can provide an early indication of spinal and other proposed surgeries allowing early referral for radiology review.

- Prior to any repeat surgical/interventional procedure on the same body part, and whenever repeat studies have been performed on the same body part.
- Determinations of causality. It can be difficult to distinguish acute from chronic, degenerative changes in a joint or soft tissue structure. A second opinion review can help to “age” the injury and therefore evaluate the compensability of a condition. This is a standard component of the radiology review process.
- Re-evaluation of the diagnosis in claims that are failing to progress. After prolonged treatment periods and delayed RTW beyond guidelines for a particular condition, it may be useful to obtain a radiology peer review to ascertain whether the initial diagnosis established by an imaging study was in fact accurate and valid.

Radiology reviews are initiated like any other peer review, with the exception that the imaging study needs to be provided for review by our radiology reviewer. Once you obtain a copy of the imaging study, create the referral in PRS. Mail the imaging study (disc) to the Medical department at:

Broadspire – Medical Dept.
Attn: June Sullivan/Lizzette Paulino
1391 NW 136th Avenue
Sunrise, FL 33323

Send an e-mail to June and Lizzette notifying them that the disc is being mailed for the referral (include the claimant name and PRS ID#).

More than one imaging study may be submitted via the same referral, and will be handled and billed as a single event (e.g. both an MRI and CT of the lumbar spine).

Please use Broadspire’s PRS unit exclusively for these reviews, and avoid referrals to external radiologists for this service.

The following standard questions may be selected when you submit a referral via the PRS system, with an opportunity to insert any custom questions as you see fit:

- ✓ Provide your diagnostic interpretation of the requested imaging study.
- ✓ Comment on and explain discrepancies (if any) between your interpretation v. the original imaging report.
- ✓ Please “age” the imaging findings, i.e. acute v. chronic.
- ✓ Which imaging findings are causally related to the described injury/illness?
- ✓ Which imaging findings are not causally related to the described injury/illness?
- ✓ Is there evidence of any pre-existing or other medical condition identified by the imaging study that

may have been impacted by the described injury/illness?

CIRCULATING IN THE PRESS

As with any other area of medicine, imaging interpretations may be suboptimal for a variety of reasons:

- Skill and expertise of the radiologist, who may or may not have subspecialty training in newer imaging tools, or body regions. Some radiologists have fellowship training in neurological, musculoskeletal, MRI, etc.
- The quality of the equipment used. For example, first generation MRIs had a field-strength magnet of 0.6 Tesla, whereas current units at 3.0T have higher sensitivity and resolution.
- The quality of the report produced by the radiologist in terms of clarity, comprehensiveness, and error-free transcription.
- And even the subjective factor of radiologist fatigue which has recently been investigated.

“Long Radiology Workdays Reduce Detection and Accommodation Accuracy”

The aim of this study was to measure the diagnostic accuracy of fracture detection, visual accommodation, reading time, and subjective ratings of fatigue and visual strain before and after a day of clinical reading.

After a day of clinical reading, radiologists have reduced ability to focus, increased symptoms of fatigue and oculomotor strain, and reduced ability to detect fractures. Radiologists need to be aware of the effects of fatigue on diagnostic accuracy and take steps to mitigate these effects.

“Do Long Radiology Workdays Affect Nodule Detection in Dynamic CT Interpretation?”

The aim of this study was to investigate whether diagnostic accuracy for detecting pulmonary nodules on CT of the chest displayed dynamically would be similarly affected by fatigue.

After their usual workday, radiologists experience increased fatigue and decreased diagnostic accuracy for detecting pulmonary nodules on CT. Effects of fatigue may be mitigated by active interaction with the display.

“Frequency and Spectrum of Errors in Final Radiology Reports Generated With Automatic Speech Recognition Technology”

They reported an error rate in finalized reports generated by voice recognition (VR) software of 22%. Additionally, they found that radiologists underestimated their own error rates.

“Unnecessary” spinal surgery: A prospective 1-year study of one surgeon’s experience

During a one-year period [November 2009-October 20120], the senior author, a neurosurgeon, saw 274 patients for cervical and lumbar spinal, office consultations. A patient was assigned to the “unnecessary surgery” group if they were told they needed spinal surgery by another surgeon, but exhibited pain alone without neurological deficits and without significant abnormal radiographic findings [dynamic X-rays, MR scans, and/or CT scans].

Of the 274 consults, 45 patients were told they needed surgery by outside surgeons, although their neurological and radiographic findings were not abnormal. An additional 2 patients were told they needed lumbar operations, when in fact the findings indicated a cervical operation was necessary. These 47 patients included 21 [23.1%] of 91 patients with cervical complaints, and 26 [14.2%] of 183 patients with lumbar complaints. The 21 planned cervical operations included 1-4 level anterior discectomy/fusion [18 patients], laminectomies/fusions [2 patients], and a posterior cervical discectomy [1 patient]. The 26 planned lumbar operations involved single/multilevel posterior lumbar interbody fusions: 1-level [13 patients], 2-levels [7 patients], 3-levels [3 patients], 4-levels [2 patients], and 5-levels [1 patient]. In 29 patients there were one or more overlapping comorbidities.

During a one-year period, 47 [17.2%] of 274 spinal consultations seen by a single neurosurgeon were scheduled for “unnecessary surgery”.

Consequently, there is value in bringing “fresh eyes” to bear on imaging studies which are prone to ambiguity and when major causality and treatment decisions are at stake.

REFERENCES:

- 1) “Long Radiology Workdays Reduce Detection and Accommodation Accuracy”
Elizabeth A. Krupinski, PhD, Journal of the American College of Radiology, September 2010, Vol 7, Issue 9, pp 698-704.
- 2) “Do Long Radiology Workdays Affect Nodule Detection in Dynamic CT Interpretation?”
Elizabeth A. Krupinski, PhD, Journal of the American College of Radiology, March 2012, Vol 9, Issue 3, pp 191-198.
- 3) “Frequency and Spectrum of Errors in Final Radiology Reports Generated With Automatic Speech Recognition Technology”
Peter Andrew Marcovici, MD, Journal of the American College of Radiology, April 2009, Vol 6, Issue 4, pp 282-283.
- 4) “Unnecessary” spinal surgery: A prospective 1-year study of one surgeon’s experience.
Epstein NE, Surg Neurol Int., 2013;1;2:83. Doi: 10.4103/2152-7806.82249.Epub 2011.