Workers' Comp

Outdated imaging equipment can affect quality of care and cost of claims

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Among specialty services, diagnostic imaging—such as an MRI, CT, or PET scan—is often the first critical step to assess the severity of an injury and develop a treatment plan for prompt recovery and return to work. That's why it's imperative an imaging facility produces a quality image from the onset to ensure best-possible outcomes for injured employees.

However, obsolete imaging equipment has become an issue. Today, if injured employees require a scan, they could be sent to an imaging facility with old or outdated equipment, especially if that facility or equipment was not properly vetted.

According to a position paper published by the European Society of Radiology, imaging equipment less than five years old is considered state-of-the-art technology. Properly maintained equipment between six and 10 years old is suitable for practice, but organizations should have a plan in place to upgrade these machines. And equipment over 10 years old is considered antiquated and should be switched out with newer models.

A recent report published by AXREM, an association representing suppliers of diagnostic imaging equipment, suggests more than 50% of MRI and CT scanners in the UK are more than five years old, with more than 10% of CT scanners and more than 20% of MRI scanners being over 10 years old. A similar study—with similar results—was performed in Canada.

Although a comparable study has not been performed in the United States, imaging equipment in our country is in a similar predicament. Regional newspapers across the U.S. have reported that local hospitals and facilities urgently need to replace aging scanners. However, these providers face critical challenges that triggered this trend in the first place. The primary one is cost. The financial outlay for newer machines is extremely high, creating a substantial barrier to ongoing equipment renewal in the market. In addition, continued downward pressure on provider reimbursement has made it extremely difficult for imaging facilities to save up the necessary funds for equipment upgrades.

The benefits of imaging advancements

While investments in newer machines have been difficult to make, their advancements offer great promise. The latest equipment can enable health care providers to diagnose and treat patients with greater precision, giving them unprecedented visual and functional information on a patient's condition. At the same time, newer

equipment facilitates faster, more intelligent imaging services that support medical decision-making, improve outcomes, and boost the economics of imaging departments and facilities.

Since scans are faster, newer technology improves the patient experience. Twenty years ago, a CT might have taken 30 minutes. Today, newer technology can get the same information in less than two seconds. By that same token, an MRI might take up to 20–40 minutes, but the actual imaging itself only takes a few seconds or minutes of that time. Quicker scans enable facilities to see a greater number of patients in less time. Wait times are reduced. Patient safety also improves. Manufacturers have worked to develop machines that use lower doses of radiation, while maintaining or enhancing the image readability. However, with the number of aged scanners out there, injured employees may not experience the benefit of these advancements, including reduced exposure to radiation.

It's important to note that for imaging equipment already on the market, their life and usefulness can be extended with system upgrades. However, these upgrades often only provide incremental improvements. And, over time, older equipment will experience incompatibilities, which make updates impractical, if not impossible.

Consider the analogy of trying to hang on to a personal computer for as long as possible. Over time, a computer's operating system and software might begin to run slow. The computer hardware may be incompatible with newer Wi-Fi routers. Upgrades could be made, but at some point, it's not worth the cost or effort and, eventually, it's not even possible due to incompatibilities.

Results of aging equipment

Old equipment can lead to poor scans. Treating physicians may not have detailed information to diagnose and properly treat injured employees, or a bad scan could cause them to miss important diagnostic information for the injured employee's condition.

Radiographics ran an article entitled, “Fundamentals of Diagnostic Error in Imaging,” which estimated that average diagnostic imaging error rates ranged from 3% to 5%. Poor imaging would be a subset of that percentage. Even though poor imaging occurs with low incidence, it can still have a negative impact on claims.

A treating physician might have expected to receive the results within 24 to 48 hours of ordering the scan. When a poor image is returned, the injured employee must be contacted to schedule another appointment. With added time for appointment coordination, a week could go by, delaying treatment and return to work.

With older equipment, a lack of speed could also mean injured employees have to wait for tests. If they are hospitalized, this could increase the length of their stay. All of these factors contribute to increased medical and indemnity costs, not to mention disrupting the continuum of care, which could lead to less-than-optimal medical outcomes.

Addressing the challenge

What's needed is a thorough vetting process for diagnostic providers to ensure they have relatively new and up-to-date equipment that is capable of producing quality scans. Today, sophisticated specialty network organizations are able to work with claims adjusters and payers to schedule imaging services only within a network of reputable imaging facilities. These facilities have undergone a rigorous credentialing process to ensure the practice and staff have the proper licensure, certifications, and insurance.

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