Planning The Transition To Digital Imaging In Medicine

STRATEGIES FOR SOLVING THE "FILM PROBLEM"

When planning for the transition to digital imaging, facilities need to do their homework in order to fully understand how the technology will impact operations and costs now and in the future. Understanding key factors such as how to handle prior analog film is imperative for preventing unforeseen problems that can disrupt workflow, frustrate staff, and generate ongoing hidden costs.

The "Film Problem"

Failure to address the "film problem"—handling of prior analog film—is a common mistake made by facilities transitioning to digital imaging. Reviewing prior studies is critical for good clinical decision-making, and whether these studies are from their own file rooms or come in with a patient arriving for a new study, the facility will need to handle prior film for many years. If, however, a healthcare facility deploys an image management system that does not include a viable plan for handling these prior films, workflow is disrupted and costs increase. Over time, these costs rise well above the cost of a digitizer.

Having never gone through the transition before, some facilities think they will only need to deal with analog film for a few months or don't think it's important to digitize prior films. However, while the need to access some types of prior films from an archive may decrease over time, other original films, such as mammography, must be retained and used by the facility for many years. Analog film also will continue to come in from outside sources. The bottom line is that facilities will need to deal with analog film far longer than they may think and certainly longer than a few months.

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In addition, comparing analog films on a light box with digital studies on a computer monitor is cumbersome and difficult for radiologists and lowers the standard of care. For the radiologist, just one analog film a day can create significant workflow and patient-care challenges. As a result, incorporating a film digitizer into digital planning will ensure that these problems don't negatively impact a facility, its staff, and its patients.

Making Film Digitizers a Priority

In light of the importance of having a method to digitize analog prior film, facilities should proactively request that their digital imaging solutions vendor include a film digitizer in their proposal. Vendors and systems solution providers may focus on digital image acquisition components and PACS technologies and overlook key elements that actually make the new "digital" solution/workflow work, such as film digitizers, CD publishers, paper printers, and sufficient clinical viewing stations to actually allow film to be replaced. A film digitizer is vital at every stage in the transition to digital imaging and only adds minimal cost, so if it is not included in a proposal, facilities should request that it be added in order to facilitate the handling of analog prior images.

Medical-Grade Film Digitizers

In planning for the transition to digital, facilities should focus on automating as many processes as possible and maintaining the best possible image quality. Some facilities may be concerned about the amount of time it takes to digitize prior films, as well as the image quality. Today, medical film digitizing solutions, such as those from VIDAR Systems Corporation, offer high levels of automation and superior image quality. They feature advanced software and support for DICOM Modality Worklists that minimize the time and effort needed to digitize films. Compared with general-purpose or office-grade scanners with transparency adaptors,[1] medical-grade film digitizers also have been proven in numerous studies to provide high-quality images, with no difference in diagnostic quality compared with hard-copy film.[2,3]

Cost Considerations

Some facilities may think they don't have the budget to solve the problem of digitizing prior films, but today's new products and programs, such as those from VIDAR, mean that affordable, high-quality digitizers are within reach for all facilities—large and small. In addition, the alternative—not utilizing a film digitizer—is much more expensive over time due to decreased efficiency, unpaid time handling film, and workflow disruptions, among other factors.

Some facilities also may consider buying a used digitizer to save money. Although used digitizers may be less expensive initially, facilities should be aware of potential issues that may arise. For example, most used digitizers:
- Are not factory certified
- Do not have the necessary software (which may need to be purchased separately, and for which the license may not be transferable)
- Are not under warranty
- Lack recent or proper maintenance
- The selling party may not know the condition of the equipment

These issues will result in unforeseen costs and headaches, so extra caution is advised. Those considering this method with a VIDAR digitizer should contact VIDAR with the serial number, and the company can look into the service record and provide a product evaluation. Though VIDAR cannot guarantee the purchase, it can help facilities make a more informed decision about the hardware, as well as review their software needs.

Film Digitizers Fill Critical Need Worldwide

Film digitizers continue to play a critical role across the globe. In countries where facilities have no regulatory obligation to keep patient films, retaining prior radiology exams still is critical because they provide important information during the diagnostic and treatment cycles. In addition, patients often are provided with prints because the film and report are the work product of a quality examination. As a result, healthcare facilities will continue to see films returning with patients. Facilities must develop a plan to handle prior films in order to avoid disruptions in workflow and increased costs. For example, facilities may need to keep light boxes in place, as well as all of the systems, procedures, and people to handle prior films. Without the ability to digitize prior films, facilities will not achieve all of the efficiencies that they expected when they purchased digital technology and PACS—and hidden costs will eat away at their profitability.

Film Digitizers—An Integral Component

It is imperative that film digitizers be considered an integral component of the transition to digital imaging, not a secondary accessory. Digitizers serve as a cost-effective conversion solution, solving the ongoing "film problem" and ensuring that radiologists and staff members remain productive after implementing a teleradiology, analog image management, digital image distribution, or PACS solution. Using a DICOM-based film digitizer with state-of-the-art software is the best way to ensure that prior studies—which are critical to improving clinical outcomes—are available for comparison with new digital studies without disrupting workflow, frustrating staff, increasing costs, and eroding the benefits of digital imaging. High-quality, affordable, and fast film digitizing solutions, such as those offered by VIDAR Systems Corporation, are helping facilities worldwide realize the full benefits of digital imaging and PACS.

To download a complimentary white paper titled, *"The Transition To Digital Imaging in Medicine: The Integral Role of Film Digitizers"* visit www.vidar.com/film.

VIDAR is the world's leading provider of high-quality medical film digitizers for PACS, mammography, computer-aided detection, teleradiology, oncology treatment planning, orthopedic surgery, and dentistry. This is evidenced by the fact that more than 20,000 devices have been placed worldwide. The company's singular focus on medical-grade film digitizers over 20 years has allowed it to pioneer a series of innovations that have dramatically changed the field, and VIDAR products are backed by world-class customer support. When used at any stage in the transition to digital, VIDAR digitizers facilitate significantly improved productivity, workflow, and patient care quality.

References

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3. Gitlin J, Narayan A, Mitchell C, et al. A comparative study of conventional mammography film interpretations with soft copy readings of the same examinations. *J Digit Imaging.* 2007;20:42–52.

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