

# WORKSTATION TO WORKSPACE; FOUR RADIOLOGY DEPARTMENT BENEFITS OF A PROPERLY DESIGNED READING ROOM

Most hospitals and healthcare facilities do not consider the full range of vital functions their radiology reading rooms support when designing the space. Historically, radiology was viewed as a cost center and a singular focus on productivity drove many reading rooms to basements and other remote locations. Often, the central reading area was removed entirely from the main radiology department. An increasing realization that radiology must become part of the clinical care continuum and increasingly contribute to clinical value is shining new light on the reading room itself.

Understandably, the purchase of new radiologist workstations often occurs without much thought to the revitalization of other critical reading environment factors. However, these factors are critical in selecting the right workstations and avoiding costly mistakes. Many radiology department administrators are familiar with the American College of Radiology (ACR) Imaging 3.0™ initiative, which advocates a value-based emphasis on radiology department contributions. The initiative highlights improved communications of critical findings, management of imaging appropriateness and actionable reporting as key radiologist contributions, all of which benefit from a well functioning reading room environment.

Significant progress has been made over the past decade to understand radiology reading room workflow and space utilization, in the realm of PACS-based reading. A radiology department can maximize space utilization by leveraging the insights of healthcare design experts who apply good ergonomic design principles. As a result, many radiology departments have begun to incorporate

## ERGONOMIC READING ENVIRONMENT IMPROVEMENTS SUPPORT KEY BENEFITS:

1. Fewer repetitive motion and back-strain injuries due to poor ergonomics and excessive time spent sitting.
2. Improved ability to concentrate due to fewer distractions from phones ringing and reading room conversations.
3. Increased visits by referring physicians looking to quickly confirm diagnostic findings, particularly when outside films or images on CD-ROM are involved.
4. Greater tendency for specialty physicians to seek treatment input from Radiologists.

## REDRICK TECHNOLOGIES UTILIZES A 4-STEP PROCESS TO ASSESS READING ROOM WORKFLOW, SPACE UTILIZATION, AND WORKSPACE ERGONOMICS THAT:

- Facilitates improved radiologist concentration, productivity and interpretive integrity.
- Improves engagement between radiologists, technologists, office staff and patients.
- Increases referring physician visits to the reading room.
- Simplifies management of IT hardware and cabling to eliminate unplanned downtime and improve access.

comprehensive ergonomic design. Elements such as sit/stand workstations sized to maximize space utilization can not only improve ergonomics but also free-up space for patient and physician conferencing/consulting areas or a reading room administrator, while also improving flow and layout. Workstations that are outfitted with integrated adjustable backlighting, for example, can reduce eye-strain from overhead lights. Ergonomic considerations that further address adjustable seating, keyboards and mice can serve to reduce neck, back, shoulder and wrist injuries for radiologists. A comprehensive approach to ergonomic optimization will also incorporate adjustable workstations and display mounts in order to maximize radiologist productivity and interpretive integrity, and reduce the risk of chronic neck injury.

In addition to ergonomic considerations, a complete workflow analysis can help radiology administrators determine the optimal furniture and placement for the space. Because the reading room should be a space that facilitates the exchange of information, a workflow analysis will ensure the broader needs of the organization are met and will contribute to a more efficient department. For example, simply trying to maximize the number of reading workstations may not adequately address the need for radiologists to meet with other physicians while minimizing distractions, or sufficiently account for required storage space. Furthermore, a thorough workflow

analysis should provide space design insights that can be used to optimize room ingress/egress, minimize distraction and provide radiologists with sufficient room for referring physician consultations.

PACS administration and IT support staff needs in the reading room should also be considered and can be achieved with workstations that support computer hardware within fully extending CPU holders, directly to the underside of the work surface. This enables them to be pulled forward for easy service and administration, facilitates cleaner cable management and reduces the risk of disruption from a CPU being kicked or cables being inadvertently disconnected. The design also minimizes the effort required by a radiologist to load and review historical studies from CD-ROM due to improved workstation access.

Whether relocating a room or refreshing an existing space, simple improvements to HVAC, lighting, surface materials and colors, room organization and ergonomics can create a productive and inviting environment that enables radiologists to increase their clinical contributions and improve customer service.

**For more information about how ergonomic design and workflow analysis can assist you in determining the optimal reading room solution for your needs, please contact your RedRick Technologies representative.**