

A READING ROOM CONSOLIDATION AND DESIGN EFFORT FOSTERS RADIOLOGY STAFF COMMUNICATIONS, COLLABORATIONS AND CUSTOMER SERVICE



When Dr. George Bisset arrived at Texas Children's Hospital in 2010 he wanted to create a primary reading space that could incorporate every pediatric radiology subspecialty.

His vision for the reading room was referred to as the "Ballroom Concept." Like most large institutions, radiologists worked at a number of reading rooms that were spread across the Texas Children's campus. Each room was developed with little thought to room layout, noise control, location, lighting or ergonomics. This scattering of valuable radiology resources made it difficult for the subspecialty clinical staff to contact radiologists when a consultation was needed and subjected all radiologists to unnecessary interruptions.

"The concept of standardizing room design and the radiologists' workstations had not been considered," notes Dr. Bisset. "Not even the monitor configurations the radiologists were reading from at each location. The fixed height desks being shared by radiologists did not meet the ergonomic needs of a group of individuals that ranged in height from 5'1" to 6'6"!"

While the challenge of identifying a space of sufficient size to house a new reading room was resolved when plans to relocate MRI systems were identified, staff concerns about noise abatement, lighting and ergonomics arose early in the planning process.

Alex Koroll, Director of Radiology at Texas Children's Hospital, points out "the process of gathering input, setting goals and documenting concerns from a broad base of stakeholders, was necessary to ensure the reading room vision communicated by Dr. Bisset could be successfully achieved and the necessary budget obtained." Acknowledging that the goals

were to create a facility that incorporated many reading room specific attributes and address a broad range of needs, the Texas Children's team realized they did not possess the required expertise. As a result, RedRick Technologies was asked to provide detailed reading room design guidance, which the architectural team could integrate into their plans, in addition to providing the ergonomic workspaces. During the planning and design process, the Texas Children's team learned to appreciate the intimate relationship between the sit/stand desks, monitor configurations and the space needed to incorporate them. As the planning and design process advanced the idea that the reading workstations needed to be considered in concert with reading room lighting, ergonomics and layout were broadly recognized.

Since moving into the new reading space in the spring of 2015, Texas Children's radiology staff believes productivity and communications have benefited by a reduction in unwanted distractions and interruptions. The centralized location of the new, larger reading room, along with improved flow and design, has helped subspecialty physicians and technologists find the appropriate radiologist. Overall, staff reports being surprised at how quiet the room is even when fully occupied. As a teaching institution, this has enabled multiple radiology subspecialties to hold consultations simultaneously without disrupting others within the reading room.

Dr. Bisset feels the new reading environment enables his staff to achieve their productivity goals



The new centralized, multi specialty reading room at Texas Children's Hospital includes proper lighting, noise control and a layout that reduces interruptions and facilitate small group consultation.

while providing a more consultative service. "The new reading room creates an environment that allows the radiologists' expertise to be conveyed effectively without the fatigue often caused by repeated and unintended interruptions. Efficient clinical staff interactions are facilitating more ad-hoc collaborations with clinical specialists and increasing camaraderie between physicians to the benefit of clinical care."

Dr. Bisset cites the dramatic changes in their daily morning quality and safety huddle as perhaps the clearest example of how the improved room proximity is benefitting staff communications and teamwork. "This daily meeting, intended to facilitate problem solving and idea sharing, is now held outside the main reading area, and is routinely attended by 25 to 30 people. Previously, we would struggle to

have a handful of attendees at these meetings despite attempts to make them easier to attend by holding them in various remote locations." The radiology team is now considering how to apply the lessons learned with this initial project to improve other reading rooms across the campus, now that the design inadequacies of those rooms is more apparent.

To ensure all design and ergonomic factors are considered in-concert, Dr. Bisset recommends that a cross-functional design team be assembled early on in the planning process. In addition, he advises imaging leaders to view PACS as the radiologist's scalpel and the reading room as the radiologist's operating room. "Why shouldn't the reading room be as optimized for the radiologist as the O.R. suite is for the surgeon?" he suggests.