Galion hospital brings latest MRI technology to community

Galion Community Hospital is now offering patients the opportunity to undergo significantly more comfortable magnetic resonance imaging (MRI) exams with the recent installation of the Vantage-MRI system from Toshiba America Medical Systems.

The Vantage is designed to improve the patient experience with new, exclusive patient comfort features. Highlights include the world's shortest magnet and an ultra-short bore platform, which offers greater openness for claustrophobic patients by minimizing the feeling of being inserted into a tube-like machine.

In addition, the system is equipped with Toshiba's patented Pianissimo — noise reduction technology — which effectively reduces scan noise by as much as 90 percent.

"We are thrilled to have the new Vantage system and its technology available to our patients. Over the years, patients have had concerns with claustrophobia and overall comfort during MRI scans. Now, we can alleviate many of these issues," said Galion Community Hospital Chief Executive Officer, LaMar Wyse.

"The short-bore design also makes the system feel more open, and the quietness of the Vantage during scanning is more calming for the patient. When the patient is more at ease, we have greater success with the scan and capture better images to help the physician make a confident diagnosis."

In addition to its patient comfort features, the Vantage is a high-field MRI system that performs a wide variety of MRI exams including the latest state-of-the-art imaging techniques. For example, the system enables physicians to perform studies including cardiac imaging, EPI functional perfusion, and magnetic resonance angiography (MRA).

Using an advanced MRA technique, physicians can simultaneously view images of vascular structures in the chest and abdomen without the use of contrast agents, which furthers patient comfort, reduces cost and allows the scan to be performed repeatedly, if needed.

PHOTO COURTESY OF GALION COMMUNITY HOSPITAL
Galion Community Hospital radiologic technologists Kelly Gouge, left, and Michelle Feik, right, make adjustments for fellow technician Mary Ramey, who is playing the patient role.

"As medical technology becomes more and more sophisticated, we are able to image and evaluate more medical conditions at earlier stages than ever before. With early diagnosis, we can more effectively plan for a successful treatment," commented GCH radiologist, Dr. James Jerele.

"By expanding our capabilities to perform more advanced MRI studies and deliver outstanding clinical images, our physicians will have even more clinical data to improve their diagnosis and offer more advanced medical service to patients."

How the MRI Works

Instead of relying on x-rays like other imaging technologies, MRI uses a powerful magnet approximately 7,000-times stronger than the magnetic force of the earth. During an exam, the patient lies inside the donut-like opening of the magnet. The hydrogen atoms in the patient's body react to the magnetic field, the computer reads signals from the atom formation and reconstructs data into detailed images of the body's interior.

MRI technology is used to identify tumor masses and other abnormalities in the head, spine, chest, abdomen, pelvis and extremities, as well as to examine bone and joint injuries. Frequently, this type of diagnostic information cannot be acquired with any other medical procedure, except surgery.

The MRI is used in the diagnosis of musculoskeletal injury and illness. More than 50 percent of all injuries each year affect the musculoskeletal system (bones, joints, muscles, ligaments and tendons) — that's 28.6 million injuries annually. And injuries to the musculoskeletal system or conditions like arthritis and osteoporosis rank number one in visits to physicians, offices. One in seven Americans has a musculoskeletal impairment and these disorders cost the U.S. $215 billion yearly.

MRI technology is also valuable in the diagnosis of neurological disorders. MRI's ability to reveal detailed images of the brain and spinal cord make it especially suited for the detection of neurological disorders such as multiple sclerosis, meningitis and Alzheimer's.

And finally, MRI technology continues to be vital in the detection of tumors. The American Cancer Society estimates in the U.S., one out of four people dies from cancer, making it the second leading cause of death in the U.S. (exceeded only by heart disease).

Because of its ability to image soft tissue, MRI plays a critical role in diagnosing cancer. It can reveal the shape, size and location of tumors, and it is used to monitor tumor growth, including malignant and non-malignant tumors in the brain.

Galion Community Hospital, as a part of its recent expansion project installed the new MRI last month. The hospital provides a full range of comprehensive health care services to the greater Galion community.