

A New, Smart Approach to Brain and Spine Surgery

Midwest hospital introduces technology to compassion. Advanced imagery and mapping technology of Sacred Heart Hospital's Smart OR helps neurosurgeons perform complex brain, spine and trauma procedures.

December 17, 2008 – EAU CLAIRE, Wisc. – A medical revolution emerges when technology blends with smart care. Sacred Heart Hospital makes this connection with its new Smart OR™ – a specialized neurosurgical suite providing state-of-the-art treatment for neurosurgery, spine and trauma patients.

A configuration of advanced imagery and mapping technology, the Smart OR helps neurosurgeons perform complex brain, spine and trauma procedures in a more effective way.

Sacred Heart Hospital – in Eau Claire, Wisc. – is the first hospital in the country to use this technology configuration for both surgery and diagnostics. It is also the first hospital of its size to have a BrainSUITE® with the IMRIS iMRI (intra-operative magnetic resonance imaging) operating suite and eventually the iCT (intra-operative computed tomography) operating suite. And Sacred Heart is one of only 17 hospitals in the world to offer this technology configuration for patients.

The delicacy of brain and spine surgery can be compared to tightrope walking, proposes Kamal Thapar, MD, Marshfield Clinic neurosurgeon and director of the Brain & Spine Institute at Sacred Heart Hospital.

“Imagine navigating a tightrope blindfolded. If you deviate off the path, even slightly, you fall. In surgery, the Smart OR is the ultimate tool ensuring that we don’t ‘fall,’” Thapar says. “The technology goes beyond what the human eye can see, removing that blindfold. It provides real-time, high definition data, allowing us to chart an exact path to tumors during operations – so surrounding, healthy tissue is not damaged.”

“The Smart OR is the operating room of the future,” Thapar adds. “It is a quantum leap forward in the way surgery is performed. It’s ‘smart’ technology – it’s ‘smart’ care.”

‘Smart’ Technology:

Various technological elements work together to equip Sacred Heart Hospital neurosurgeons with the highest level of precision and accuracy for removal of brain and spine tumors.

One distinguishing element of the Smart OR is that the iMRI technology moves to and from the patient – helping keep them still, lessening the risk of complications that can occur with movement. Up-to-the-second imagery is available during surgery to help assure tumors are removed, before the patient ever leaves the operating table. Prior to this technology, standard MRI scans could only be done pre and post surgery. Conducting an iMRI scan while the patient is still in surgery drastically reduces the need for follow-up surgery.

In addition, real-time images are captured with the VectorVision Sky, considered the global positioning system (GPS) for the brain, and the high magnification Zeiss OPMI Petro C Microscope.

All of this imagery is managed via a surgical mapping system called the BrainSUITE. This tool provides easy access to data throughout procedures – allowing the surgical team to quickly reference information on flat screens mounted in the operating room.

Collectively, the Smart OR components are housed in a unique neurosurgical suite at Sacred Heart Hospital's Brain & Spine Institute.

'Smart' Care:

Ultimately, the Smart OR reduces trauma, leading to a faster recovery time and shorter hospital stay. It also reduces the risk of various complications, significantly reducing the need for follow-up surgery.

"Patients entrust us with their lives, and we owe it to them to invest in the world's best technology and treatment options. The Smart OR is an innovative tool that helps our neurosurgeons perform operations with greater accuracy and precision," says Steve Ronstrom, Chief Executive Officer of Sacred Heart Hospital.

Sacred Heart Hospital employs a calculated, yet aggressive, approach to identifying strategies and tactics to blend the latest technology with its strong tradition to uphold quality care.

"The Smart OR provides unmatched healthcare value," Ronstrom adds. "Our patients benefit greatly from the neurosurgical expertise found in our Smart OR and with our nationally renowned neurosurgical team."

For more information about the Smart OR, please visit the Smart OR microsite: www.sacredhearteauclaire.org/smartor.

About Sacred Heart Hospital

Sacred Heart Hospital strives to provide patients the best, most specialized treatment available by blending advanced technology with the Franciscan tradition to improve health by treating the whole person – body, mind and spirit. The Smart OR is an excellent example of this commitment. As an affiliate of the Hospital Sisters Health System, the hospital has been meeting patient needs in Western Wisconsin, since 1889, with the latest medical innovations and technology. For additional information about Sacred Heart Hospital, visit www.sacredhearteauclaire.org.

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