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## **Advanced Technology Distinguishes Midwest Hospital**

*High-tech tools lend a virtual hand for 'smart' brain and spine surgery*

**January 7, 2009 – Eau Claire, Wis.** – In today's world technology constantly improves, and the healthcare industry is no exception – it continually experiences evolving transformations and advancements. Sacred Heart Hospital understands the importance of being at the forefront of medical innovation and takes technological capabilities to the cutting edge with its new Smart OR™.

A configuration of advanced imagery and mapping technology, the Smart OR provides state-of-the-art treatment for brain, spine and trauma patients. Housed in a unique neurosurgical suite at the hospital's Brain & Spine Institute, the Smart OR is comprised of specialized visioning tools. There is also a host of other advanced equipment helping to successfully remove tumors with precision to the millimeter.

"The Smart OR is revolutionary because we combine medicine with circuits, software code, wires, cameras, monitors and digital information to form an entirely new technological consciousness of providing quality care for patients," says Kamal Thapar, MD, Marshfield Clinic neurosurgeon and director of the Brain & Spine Institute at Sacred Heart Hospital in Eau Claire, Wisc. "But more fascinating is what's not seen. There are beams of information transmitted everywhere – it's the concept of cloud computing. The virtual world of digital imagery is super imposed onto the real world, the patient. It's the operating room of the future."

Sacred Heart Hospital 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. Total, there are only 17 hospitals in the world to offer the technological capabilities of the Smart OR.

The iMRI moves to and from the patient. Prior to this technology, standard MRI scans could only be done pre and post surgery. Comprised of a six ton Siemens MAGNETOM Espree™ magnet, the iMRI makes up-to-the-second imagery available *during* surgery to assure tumors are removed.

Real-time accessibility is also possible with the VectorVision Sky. Considered the global positioning system (GPS) for the brain, this navigational equipment consists of many infrared cameras tracking every move as neurosurgeons guide the surgical instruments. This navigational data is then directly fed into the high magnification Zeiss OPMI Petro C Microscope giving neurosurgeons optimal visualization. All this digital information is managed via the BrainSUITE, a surgical mapping system providing instant access to data throughout operative procedures.

“The BrainSUITE brings all the technology together, like a search engine passing data seamlessly from one component of the Smart OR to another,” Thapar explains. “Projected on large, high-definition monitors, a repository of information is accessible to the entire neurosurgical team.”

Technology continues transforming the way healthcare is practiced. The Smart OR is an innovative tool improving the way Sacred Heart Hospital neurosurgeons operate – helping deliver optimum accuracy.

“The leadership team at Sacred Heart Hospital strives to be at the forefront of healthcare advancements, and the Smart OR takes us there. It’s a medical revolution,” says Steve Ronstrom, Chief Executive Officer of Sacred Heart Hospital.

“The Smart OR is unique technology, found in only a few places throughout the world. Yet these high-tech tools can be found in Western Wisconsin, in middle-America,” Ronstrom adds. “Patients entrust us with their lives, and we owe it to them to invest in the world’s best technology and treatment options. That’s why Sacred Heart Hospital built the Smart OR.”

For more information about the Smart OR, please visit the Sacred Heart Hospital media center: [www.SmartORmediacenter.com](http://www.SmartORmediacenter.com). In addition, information can be accessed on the Smart OR microsite: [www.sacredhearteauclaire.org/smartor](http://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](http://www.sacredhearteauclaire.org).

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