

Investing in Technology can Redefine a Service Line and Transform a Hospital



By Juliet M. Nguyen

In the compartmentalized world of hospital management, return on investment in new technology is typically evaluated in terms of the direct revenue a new device likely will generate. While this calculation is necessary, by itself it is strategically inadequate. It overlooks the immense transformative potential of technology investments that enable building a state-of-the-art clinical service line. When executed as part of a comprehensive service line and hospital-wide development plan, targeted clinical technology investments can be a powerful strategic lever, dramatically boosting hospital market position and financial performance.

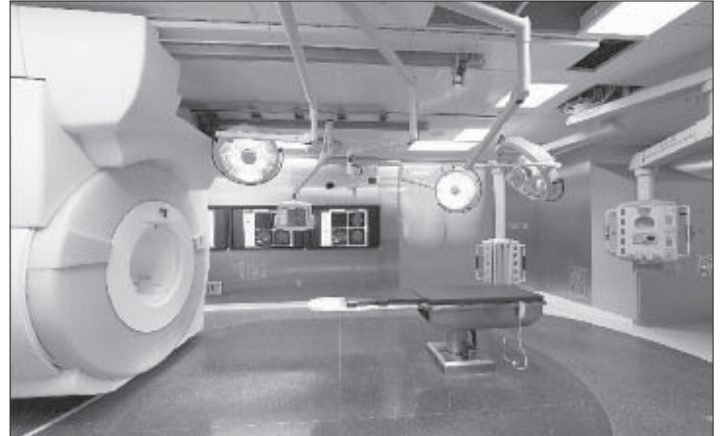
Sacred Heart Hospital in Eau Claire, Wis., is a case in point. A decade ago, senior managers recognized the 344-bed facility's role as a community hospital delivering compassionate, mission-driven care was both clinically obsolete and financially unsustainable. Like many community hospitals, their operating margins had eroded for years. To compete and thrive in the 21st century, the hospital needed to evolve into a tertiary care medical center.

The first step was expanding the existing one-surgeon neurosurgery service into a comprehensive service. Over several years, the hospital made substantial investments in state-of-the-art technology, including two "smart" operating suites equipped with advanced intra-operative imaging and 3-D mapping. This was accompanied by innovative physician leadership, improved pre-op and post-op care, and a sophisticated administrative structure to support it all.

The "halo effect" created by the enhanced emergency department, critical care and multi-disciplinary team-based approaches to care developed for the neuro service line was more than just a marketing opportunity. It also allowed the hospital to upgrade clinical capabilities in other service lines. Most significantly, an open heart surgery program was added as well as advanced capabilities in orthopedics and cancer care. These changes raised the case mix index for these services from 1.19 in 2005 to 1.40 in 2010 while maintaining overall volume.

The bottom-line impact of this increase in acuity has been dramatic. Contribution to overhead from neurosurgery rose from break-even in 2002 to nearly \$6 million in 2009, while contributions from cancer, orthopedics and cardiac services are up 50 percent since 2005. As a result, Sacred Heart's total operating margin grew by nearly 2 percent per year since 2008 and is projected to increase again in 2010, reaching levels not seen for 15 years.

These developments not only make previously unavailable services accessible to the 450,000 residents of Eau Claire and the surrounding rural and semi-rural region, they also have raised the standard of care in Sacred Heart's historic service area. While the hospital's efforts have ensured that the health services the community relies will remain in place, they also stimulate the regional economy.



Smart Operating Suite at Sacred Heart.

SACRED HEART HOSPITAL'S INVESTMENT

The hospital's strategy to establish the neurosurgery line focused on investing in cutting-edge technology and physician talent, and building the clinical staffing and administrative programs to support them.

The investment in physician talent and commitment began with recruiting two neurosurgeons to join the one neurosurgeon practicing at the time. The physicians agreed to provide coverage for the emergency services, participate in regional outreach and accept all cases regardless of payment.

Investing in these programs aimed to provide the neurosurgeons with the time and authority to manage the program clinically and operationally, utilizing an administrative dyad. The hospital also placed an assistant administrator who can move across all departmental lines to achieve results. In the process, a number of clinical success factors emerged:

DEDICATED OPERATING TEAM

- Just-in-time training, technology and procedures for all staff
- A trainer to validate staff competence, support training and facilitate problem resolution
- Formal team communication structures
- Reward and recognition for employees

In addition, a key leadership component is a clinical nurse specialist to coordinate patient care and maximize the time of the neurosurgeon. Finally, clarity and measurement of goals, including quality, cost, service and growth, is vitally important.

CONCLUSION

By leapfrogging ahead to the most advanced technology available, Sacred Heart transformed itself from a struggling community hospital to a financially sound institution that provides the highest standard and quality of care throughout the system. This experience demonstrates how investment in state-of-the-art technology can fundamentally change how patient care is delivered and financial performance is maximized. †

Juliet Nguyen, director of strategic services for Hospital Sisters Health System Division (Western Wisconsin), guides strategic planning processes for both Sacred Heart and St. Joseph's hospitals within the Division, and coordinates the Divisional and System strategic priorities to ensure alignment through consistent updates and reporting. She also supports the strategic initiative management process through monitoring industry trends and identification of critical issues and/or opportunities. Nguyen holds a bachelor of arts in biology from the College of Saint Benedict and a Master of Healthcare Administration from the University of Minnesota, School of Public Health.

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