Step into The Indiana Heart Hospital and you’ll quickly see an open architectural design complete with warm, colorful surroundings that don’t miss a beat in the creation of a center of excellence, focused on providing cardiac patients with the most advanced heart care monitoring, diagnostic and imaging technologies. But, when you look closer, it’s what you don’t see that is truly impressive... no paper, no files, no films, not even a medical records or file storage areas. That’s because The Indiana Heart Hospital epitomizes the new vision of healthcare as the most advanced specialty hospital and the most comprehensive all-digital health care facility ever built.

The Indiana Heart Hospital (TIHH) is a $60 million, 210,000-square-foot facility, built from the ground up to deliver an unprecedented level of cardiovascular care to patients. It features a 24-hour, seven day/week, full-service Heart Emergency Department. Cardiologists will also be on-site around the clock. The facility includes a total of 88 patient beds, including 56 inpatient and 32 outpatient beds, partnered with nearly 650 computerized work stations. It also has eight Post-Anesthesia Care Unit (PACU) and eight Surgical Intensive Care Unit beds, four surgery suites, and six cardiac catheterization labs.

The revolutionary vision pumping TIHH’s extraordinary care objectives began with the passion of physicians at the Community Health Network and their focused approach to improving quality, clinical operations and the patient’s experience through the ultimate use of information technology.

“Early on, the physicians decided that they wanted to have some accountability for their patients – to have ownership in the facility and to manage it,” explains David Veillette, President and CEO of The Indiana Heart Hospital. Adds Dr. Michael C. Venturini, Chief Medical Officer, “We stepped back and said, ‘Stop – let’s do this for the right reasons, for better patient care and to enhance our clinical processes, efficiencies and throughput. Let’s design this facility to accomplish these goals.’” Thus, the unique blueprint for The Indiana Heart Hospital was born.

Heartfelt Vision:
The Indiana Heart Hospital is dedicated to the prevention and cure of heart disease in a completely digital environment created to provide superior care, diagnosis, treatment and intervention.
Developing the Technology Partnership

With the vision of creating a new model of healthcare around IT, Neal Bowlen, an experienced healthcare informatics consultant, was hired as Chief Information Officer. “Nobody knew what it meant to be paperless in a unit, so we decided to start there,” says Bowlen. His primary concern was with IT, the change in processes, and the overall implementation.

“Early on in the development of our partnership, it was understood that GE would help us to be best-in-class, along all device and IT product lines, and as new technology was developed, they would bring it in.” The goal was to take an aggressive approach towards integrating the hospital with the physician office. “The electronic medical record was identified as the ‘litmus’ test to our success,” explains Venturini.

Selecting a single-source vendor was not an area of concern, rather it was viewed as a competitive advantage. “We achieved economies of scale by working with one vendor,” Bowlen says. “And having a breadth of systems and services under a series of subsidiaries in one corporate function was economically ideal for us.”

Providing a New Level of Care

The Indiana Heart Hospital and GE Medical Systems set out to be the architects and builders of the hospital of the future – and to deliver a new level of patient care. Harnessing information technology as the lifeblood of the enterprise would bring patient safety, quality of care, staff performance efficiencies and metrics to the forefront of every patient interaction.

At the center of the all-digital facility is the GE Centricity™ Information System, an advanced system that can integrate four types of patient information – cardiac waveforms, images, text and data – into a single longitudinal electronic record that can span a patient’s entire lifetime. Centricity helps medical staff by making patient information readily available at the point of care – from computerized, provider order-entry systems, physician offices and all areas of the hospital, including the emergency room, intensive care unit, operating room, recovery rooms and general care floor.

Immediate access to patient records enhances clinical confidence and facilitates more timely decisions, and allows healthcare providers at TIHH to spend more time at patients’ bedsides. Patients receive prompter care, as there is no wait for charts to be located or pulled from files. Instead, information is directly captured by GE’s clinical monitoring devices, stored electronically and accessed using a sophisticated password system to ensure privacy.

“The all-digital technology at The Indiana Heart Hospital means physicians can have life-saving information about patients in a keystroke, rather than having to wait hours or even days for critical medical records and results from previous tests or treatment,” says Dr. Venturini. “This time savings and efficiency is critical – especially when diagnosing and treating people with heart disease.”

With the latest cardiac technology and patient information systems from GE Medical Systems, TIHH is expected to see significant

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– David Veillette is the President and CEO of The Indiana Heart Hospital located in Indianapolis, IN.
results in improving patient care and reducing medical errors – by up to 80 percent – while also saving time and healthcare costs.

Because medication orders are entered at the point of care, there are fewer opportunities for error and misinterpretation. Furthermore, computer systems also serve as a “spell checker,” – if a patient is mistakenly prescribed a drug to which he/she is allergic, or that is counter-indicated to other medications being taken, the system activates a warning.

The accuracy and availability of comprehensive patient information enables physicians to spend more quality time with patients and their families, greatly enhancing the quality of care.

“Like other hospitals, we put the patient’s care first. We are different in that we make the experience of care more efficient, more friendly, more effective and less costly. We will get better results because of the way we handle information,” says Veillette.

In addition to engineering its groundbreaking information technology applications and workflow together, TIHH is also architecturally designed around enhancing patient care. For example, the Cath Lab is situated directly behind the Emergency Department, with the operating room just steps away, eliminating the need to transport critical patients to other areas of the hospital. TIHH is structured from a disease management perspective to service patients immediately, increasing their chances for survival.

**Integrated Innovation for the Next Generation of Healthcare**

The revolutionary approach to building The Indiana Heart Hospital from the ground up was to electronically integrate all of the hospital’s devices, communication networks and integrated information systems. This would allow physicians immediate online access to all of a patient’s information and images, enabling doctors to make faster, more accurate decisions and preventing medical errors.

The selection and implementation of technology centered around closing the loop between medical devices and information systems, and creating a paperless and filmless patient chart. From the beginning, TIHH believed GE presented the most complete device integration. “We identified every opportunity to ‘talk’ to a bed, an IV pump, a ventilator or a patient monitor – we had to capitalize on that. And GE demonstrated to us they could do that,” says Bowlen.

By offering the best-in-class products that are completely integrated and configured to ensure patient data moves as fast as the patient, GE is dedicated to providing the highest level of integration in the industry. GE set out to design its products and information systems using Six Sigma quality methodology and tools, along with critical, ongoing input from TIHH physicians every step of the way. This clear differentiator in the paperless revolution, as is demonstrated at TIHH, is the perfect application for shaping physician workflow and healthcare processes.

Offering the most advanced level of integration in the industry, GE provided TIHH with IT Solutions, Diagnostic Imaging, Financing, IT Professional Services and Equipment offerings. Other advanced technology at TIHH includes the world’s first all-digital cardiovascular imaging system, the GE Innova® 2000, and an advanced LightSpeed™ computed tomography (CT) system.

With Centricity CIS at the heart of TIHH’s IT application, physicians can use advanced software to see PACS radiology images, MUSE® cardiology information, flow sheets, dynamics of patients, medications and more, with a few clicks on a workstation. “We’re helping providers transform care from a paper and film environment to one that is 100 percent digital,” says Greg Lucier, President & CEO of GE Medical Systems Information Technologies.

“Before, collecting this information took upwards of an hour, involving trips to the radiology department, the medical records department for files, and the lab for test results. The unprecedented combination of digital technology, staff commitment and training make The Indiana Heart Hospital a superior health facility for patients, and an excellent prototype for future hospitals.”

– Neal Bowlen, Chief Information Officer for the Indiana Heart Hospital in Indianapolis, IN.
This is the solution to managing the abundance of information and providing it to the doctor when and where it’s needed.”

Bowlen adds, “The unprecedented combination of digital technology, staff commitment and training make The Indiana Heart Hospital a superior health facility for patients, and an excellent prototype for future hospitals.”

Today, approximately five percent of hospitals use digital records. However, more than 60 percent say they plan to invest in such systems in the next three to five years. To learn more about The Indiana Heart Hospital and how they are continuing to set new standards for cardiac care, visit www.hearthospital.com or www.gemedical.com.