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DIGITIZING HEALTH CARE

Innovators
in Technology



This special insert to *H&HN* developed in connection with InSight





InSight Partners Providing
Vision, Voice & Value



CYNTHIA D. JONES
President, InSight
CIO, St. Luke's Health System
Bethlehem, Pa.



DAVID M. SCHMAHL
Executive Director, InSight

WELCOME TO ***DIGITIZING HEALTH CARE***

We hope you enjoy the following case-study publication, produced once again through a unique partnership among McKesson, InSight's V³ partners and *Hospitals & Health Networks*. ● This second volume of "Digitizing Health Care" features examples of innovative solutions that are making health care safer and more efficient. These innovations require coordinated partnerships among McKesson, each respective business partner and the provider facility. By publishing this special insert, we hope to accelerate the adoption of similar innovations among more and more hospitals.

● In doing this, we are supporting a core mission of InSight: education through collaboration. As the independent association for customers of McKesson, InSight manages special interest groups, hosts online discussion forums and amplifies the product enhancement/influence suggestions of all its members. ● We are all too aware of the growing complexity of health care. This complexity creates challenges in our efforts to reduce expenses and improve patient safety. We believe that partnerships are vital tools to help in this regard. That is why we formed V³—InSight Partners Providing Vision, Voice, & Value. ● Our V³ partners have demonstrated effective partnerships with McKesson and our member facilities. We applaud their successes, and we urge you to contact them to learn more. ● Enjoy "Digitizing Health Care!"

Cyndi Jones *David M. Schmahl*



INSIDE

CASE STUDY | ADDRESSING PATIENT SAFETY

Patient safety is a passion at John Muir/Mt. Diablo Health System. Its latest safety initiative: medication administration. **intel**® Changing clinician practice patterns and implementing solutions from Intel and McKesson at John Muir Medical Center led to a 33 percent decrease in medication errors hospitalwide.



CASE STUDY | RESTRUCTURING REVENUE FLOW

The future never looked brighter at Sisters of Mercy Health System, especially for the revenue management team. IT tools from SearchAmerica and **SearchAmerica** McKesson reengineered its revenue cycle processes to help prevent claims denials, improve payer performance and accelerate cash collections.



CASE STUDY | MEDICATION INNOVATION

Seeking a way to continue offering innovative and exceptional care, Singing River Hospital **Dell** Healthcare System teamed with Dell and McKesson to provide mobile and remote technology that provides caregivers with immediate, reliable and secure information at the point of care.



CASE STUDY | INTEGRATION WAS THE GOAL

Wheaton Franciscan Services Inc. had a problem: How could it integrate its vast and varied health care systems? The answer came from McKesson and Oracle. The vendors' technology solutions ensure that Wheaton's caregivers can meet the challenges of delivering 21st century health care. **ORACLE**®





1 CASE STUDY | JOHN MUIR/MT. DIABLO HEALTH SYSTEM AND INTEL ADDRESSING PATIENT SAFETY



BACKGROUND

Since the days when its two hospitals first served the small towns of rural Contra Costa County, Calif., the John Muir/Mt. Diablo Health System has evolved into a nationally recognized leader. As it has grown, so has its reputation for pioneering and perfecting some of the most advanced technologies and innovative procedures in medical science.

The organization attributes its success to a deep commitment to patient safety and care. Recognizing that deploying information technology in the hospital can help to decrease the risk of errors and other situations that might be detrimental to patients, the hospital has launched a five-year, \$40 million initiative to apply IT to improve patient safety throughout the organization.

The health system's largest hospital, John Muir Medical Center in Walnut Creek, Calif., is a 321-bed acute care facility and the designated trauma center for Contra Costa County. The hospital's continued passion for safety is highlighted in recent improvements in its medication

administration process. By changing clinician practice patterns and implementing innovative solutions from Intel and McKesson, JMMC has transformed medication administration safety.

The combination of McKesson Corp. software and Intel mobile technologies, along with re-engineering processes, has significantly improved medication administration. The medication solution is now used to administer more than 75,000 doses per month. According to hospital data, staff compliance with bar-coding procedures has improved from 80 percent to 94 percent hospital-wide and to 96 percent for medical-surgical and critical care units. As the clinicians have embraced the technology, potential medication errors and adverse drug events have decreased. JMMC reports that the hospital has been able to decrease medication errors by 33 percent.

AUTOMATING MED ADMINISTRATION

In 1996, the hospital led the industry in the adoption of innovative bar-code technology to improve medication administration. The system was designed to ensure the right medicines are given to the right patients at the right time. However, an evaluation of the process revealed that the system needed updating because full safety and quality benefits were not being realized.

JMMC turned to McKesson and Intel and deployed McKesson's Horizon Admin-Rx™, an advanced point-of-care medication safety system, and equipped clinicians with Intel® XScale® technology-based handheld bar-code scanners along with laptops and tablet PCs powered by Intel® Centrino™ mobile technology. Using the scanners, clinicians identify them-

selves, their patient and medications at the point of administration. Using the hospital's wireless infrastructure and the Intel-based mobile devices, the clinicians view up-to-date patient information, such as medication profiles and drug administration records, and capture data automatically at the point of care. JMMC simultaneously redesigned many of its clinical processes. It fine-tuned the medication order process, increased the readability of bar-coded unit-dose medications, modified documentation screen flows and content and educated staff on bar-coding and its role in patient safety.

TECHNOLOGY AND THE CARE PROCESS

"The combination of Intel-based lightweight mobile devices with wireless access and McKesson applications creates a solution core to our commitment to patient safety," says Eric Saff, JMMC CIO. "The clinicians really value the new system as it makes their job more dependably thorough. They now see it as more than a documentation system—it's part of the care process and helps them feel safer."

Saff adds, "In the years ahead we expect to continue setting new standards of excellence and Intel technology will play a key part in this. We know that Intel will be a critical partner helping us to ensure our ultimate goals for patient safety."

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2 CASE STUDY | SISTERS OF MERCY HEALTH SYSTEM AND SEARCHAMERICA

RESTRUCTURING REVENUE FLOW



SITUATION

The Sisters of Mercy Health System, the ninth largest Catholic health care system in the United States, is restructuring its revenue management activities for greater efficiency and better customer service. The Chesterfield, Mo.-based system recognizes that consumer-driven health care coverage is fast becoming a reality in the marketplace.

To improve patient and provider interactions, Mercy's Revenue Management team is implementing cutting-edge solutions and technology from SearchAmerica and McKesson. Mercy is implementing McKesson's STAR 2000™ hospital information system, Pathways Contract Management™, Pathways Contract Management Denial and Appeal Analysis module, Pathways Compliance Advisor™ and EC2000™ Claims Administrator. Mercy will reengineer and standardize its revenue cycle processes using these tools, which help prevent claims denials, improve payer performance and accelerate cash collections.

In particular, increased emphasis on

patient self-pay requires new workflow and technology integration on the front end. With more patients assuming responsibility for a greater portion of their health care bills, the organization must address patient needs immediately.

APPROACH

Mercy identified a need for automated verification of patient/guarantor demographic information as well as probability of payment. Mercy selected the SearchAmerica system for two major reasons: 1) it has a proven track record with various health systems around the country in demographic validation, prediction of payment and automated charity processing; and 2) an analysis of previously written-off accounts showed automation would improve classification of write-offs. The objective was to attain a desired "future state": lower bad debt write-offs, and higher charity write-offs and net collection percentage on self-pay accounts.

Sheri Beekman, vice president of patient financial services, says, "Speeding the identification of patients who do not have the ability to pay allows us to classify these accounts as charity care as early as possible, thus saving the time and expense associated with billing procedures."

RESULTS

Mercy plans to implement the automated system in all of its hospitals, including staff training and information systems integration. At present, only Mercy's St. Louis hospitals have fully installed SearchAmerica, and the other hospitals are in the implementation process. The system enables the organization to capture the most

valid demographic information available. Automated technology provides many workplace improvements and simplifies work processes, improving basic registration and financial counseling workflow.

For example, when a new address is returned at the point of registration, the registrar can immediately verify the new address. Many times the corrections are minor, but they could have been enough to delay delivery of hospital bills.

For financial counseling workflow, automated processes now help to identify patients who are likely to qualify for charity care, and help to speed the required paperwork. Financial counselors can then reverify the information through a personalized patient discussion. "We now have access to detailed patient financial information, so we are able to make better decisions and serve those patients who need financial assistance," Beekman says.

SearchAmerica is a new McKesson business partner that offers proven solutions to improve the financial performance of companies by reducing bad debt and increasing cash reserves. McKesson and SearchAmerica will jointly market and sell an integrated solution designed to enable health care organizations to use accurate and pertinent consumer data to verify patient identity, addresses and insurance eligibility and predict payment ability. This joint solution will enable providers to reduce IT costs, reduce bad debt and improve patient relations. STAR 2000, Pathways Contract Management, Pathways Compliance Advisor and EC2000 are trademarks of McKesson Information Solutions LLC.



SearchAmerica



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CASE STUDY | SINGING RIVER HOSPITAL SYSTEM AND DELL MEDICATION INNOVATION



BACKGROUND

While its poetic name is a tribute to local history, Singing River Hospital System in Jackson County, Miss., is focused on the future: growth, clinical advances and the well-being of the community. The leadership team continually seeks ways to offer innovative care to patients. Last fiscal year, SRHS saw an 8 percent increase in emergency department visits, an 8 percent increase in surgeries and a 46 percent increase in heart procedures. The organization has turned to Dell Inc. and McKesson Corp. to provide the technology to support exceptional patient care.

"We want to continue to improve the quality of our services," says Carl Cloer, director of information services for SRHS. "Digitizing our operations is a large part of accomplishing that goal, and having the right technology forms the foundation upon which everything else rests."

One key initiative is providing mobile and remote technology that provides the care team with immediate bedside medical record access. Additionally, Singing River needs to ensure that medication is consistently being administered

properly while addressing data security concerns. "While convenient and quick access to data is critical to providing high-quality care, it is equally important to have the highest level of data security in place to protect the privacy of patient medical records," Cloer adds.

SOLUTION

SRHS implemented McKesson's Horizon Clinicals™, which provides decision support, computerized physician order entry, bar-coded medication administration and secure access to patient information. "One of the main reasons we selected McKesson is its 'closed-loop' approach to medication management," Cloer explains. The McKesson Medication Safety Advantage™ helps safeguard against medication errors through a comprehensive combination of software, automation, packaging, distribution and consultation. SRHS also uses McKesson's Horizon Expert Orders™ clinical decision support system to give caregivers access to best-practice information.

Singing River has been a Dell customer for many years, so it was important to the team to make Dell part of its McKesson solution. "We encouraged the partnership between Dell and McKesson," Cloer says. "For us it comes down to value. Dell offers quality, reliability, price and support." McKesson packaged Dell PowerEdge™ servers as well as nearly 1,000 Dell Inspiron™, Latitude™ and OptiPlex™ notebooks, desktops and workstations with its software to provide Singing River with a complete IT solution. Through the Dell/McKesson partnership, SRHS found the right combination of innovative software and high-performance hardware.

RESULTS

With Horizon Clinicals™, the care team delivers high-quality care efficiently and confidently. They have access to patient information quickly. With Horizon Expert Orders they have access to clinical protocols, diagnostically appropriate orders, rules, treatment advisories and references. McKesson's medication management helps ensure medication safety, an issue in which SRHS particularly strives for excellence.

SRHS has the added confidence that its technology is supported by Dell hardware and services. Dell PowerEdge servers provide state-of-the-art features such as built-in reliability, easy management tools and high-performance Intel processors. The Dell workstations, desktops and notebooks are also easy to deploy and use and offer exceptional performance.

"We are a community hospital system, so on any given day we admit patients who are my neighbors, my friends or my relatives," Cloer says. "That's a strong incentive to make sure that the patient care you deliver is the best it can be."

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Dell | Healthcare



4 CASE STUDY | WHEATON FRANCISCAN SERVICES INC. AND ORACLE INTEGRATION WAS THE GOAL



CHALLENGES

In the late 1990s, Wheaton Franciscan Services Inc. faced an integration challenge. Each of its large health care regions—Covenant Health-care System in Milwaukee; Covenant Health System in Waterloo, Iowa; All Saints Healthcare in Racine, Wis.; and Marianjoy Rehabilitation Hospital in Wheaton, Ill.—had either developed its own software or selected systems based on a best-of-breed approach. The health care service provider needed to make its systems more manageable, but achieving integration was complicated because of the variety of institutions Wheaton Franciscan Services supported. For example, Covenant Healthcare System, its largest region, has five hospitals, including The Wisconsin Heart Hospital, 33 clinics and a large outpatient center.

SOLUTION

After carefully evaluating several vendors, Wheaton Franciscan Services selected McKesson as its preferred vendor in 1997. Today the company uses several solutions from

McKesson's Horizon Clinicals™ suite to ensure that its caregivers across the organization, in the physician practice and at its home care agencies, have up-to-date patient information. All of these solutions run on Oracle Database. In addition, Wheaton Franciscan Services uses other McKesson solutions for enterprise inventory management and scheduling.

The McKesson deployment not only met Wheaton Franciscan Services' integration needs, it also has equipped the health care service provider with tools to meet the challenges of delivering 21st century health care. Oracle Database allows the McKesson applications to automate processes for accurately collecting, storing, analyzing and delivering information to caregivers when they need it. In addition, Oracle Database allows using McKesson tools to access and store records with automatic detailed auditing, in which records are time and date stamped when viewed and modified to ensure compliance with HIPAA accountability requirements for patient data. Oracle Database also keeps the records private and secure through the use of Oracle's virtual private database, a state-of-the-art method of controlling database access to suit the organization's security policy.

Oracle Database's easy maintenance allows the IT staff to use some of the time allotted for maintenance for other pressing tasks. "It takes less time to maintain Oracle databases than other databases we've managed," says Roger Loomis, who leads Wheaton Franciscan Services' database team. "With Oracle you don't have to reindex or defragment data as regularly. We can get by with monthly maintenance, and it

doesn't even take the time we set aside for it. This efficiency helps to keep IT costs down." Wheaton Franciscan Services also relies on Oracle Database's efficiency to execute ad hoc queries, such as those required to comply with Medicare's reporting regulations.

As the health care service provider continues to enhance its electronic health management system, which allows its clinicians to instantly share information, Wheaton Franciscan Services will continue to rely on McKesson and Oracle products. "Accessing information whenever we need it, such as in emergencies, allows us to save precious time, which in turn saves lives," says Larry Young, director of integration for Wheaton Franciscan Services Inc. "We're migrating more applications [onto the database] that allow for direct clinician input. This is not only to achieve cost savings, but also to save critical minutes in emergencies. As a result, we need a highly available environment, and McKesson on Oracle is the solution that will help achieve that for us."

Horizon Clinicals is a trademark of McKesson Information Solutions LLC. McKesson Corporation is a Fortune 15 health care services and information technology company dedicated to helping its customers deliver high-quality health care by reducing costs, streamlining processes and improving the quality and safety of patient care. Over the course of its 170-year history, McKesson has grown by providing pharmaceutical and medical-surgical supply management across the spectrum of care; health care information technology for hospitals, physicians, home care, and payers; hospital and retail pharmacy automation; and services for manufacturers and payers designed to improve outcomes for patients.

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PAMELA J. PURE
President,
McKesson Provider
Technologies

SUPPORTING INNOVATION IN HEALTH CARE

After years of incremental adoption, the use of information technology in health care delivery is rapidly accelerating. We fundamentally believe that this is the decade that information technology will transform health care delivery. From Web-based information access and bar-coded medications to evidence-based decision support and electronic prescriptions, health care providers increasingly use technology to make health care safer. ● As health care leaders, we must think and act strategically as we work together to determine the most impactful sequencing for these new technologies. We must manage the challenges associated with limited capital and expertise while finding innovative ways to deploy these technologies at the point of care. ● Together, we can make this technology pervasive. In the past year alone, logins to McKesson's physician portal have more than doubled to almost 2 million each month. Every day, more than 15,000 clinicians use McKesson systems to access diagnostic images, speeding time to treatment and improving physician productivity. And in a group of 75 hospitals using McKesson's bedside bar-code scanning tool, we found that our systems help caregivers prevent more than 56,000 medication errors each week. We're making progress, but there's much work to be done. Physicians, nurses, pharmacists—all care providers—must have the technology they need to make more informed decisions and deliver safer care. ● Independent user organizations such as InSight play an important role by providing forums where members can share best practices and successes with technology and process change. McKesson is proud to be associated with InSight, Dell, Intel, Oracle and SearchAmerica through the V³ program this year. And we commend John Muir/Mt. Diablo Medical Center, Singing River Hospital System, Wheaton Franciscan Services Inc. and Sisters of Mercy Health System for their innovative use of technology. Organizations like these are leading the way to a safer, more effective health system. ● We look forward to sharing more successes with our customers. Working side by side, we will support the innovations that will make health care safer and more accessible for all patients.

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