

## **St. Luke's Rehabilitation Institute -- Spokane, WA**

### **Improving Rehabilitation Care through Technology and Collaboration**

#### **Overview**

Located in Spokane, Washington, St. Luke's Rehabilitation Institute serves patients throughout the Inland Northwest including central and eastern Washington, northern Idaho and western Montana. Specializing in comprehensive inpatient and outpatient rehabilitation for adults and children, St. Luke's was established as a division of Inland Northwest Health Services (INHS) in 1994. INHS, a non-profit organization formed by Spokane's two competing hospital systems, provides collaboration in health care services. Since the region did not have a freestanding rehabilitation hospital, the opening of St. Luke's was one of the first collaborative projects undertaken by INHS. Together they are transforming the way health care is delivered.

St. Luke's, the largest freestanding medical rehabilitation facility in the northwest, has a 102-bed rehabilitation hospital, a medical office building and outpatient clinic at its main downtown campus as well as two additional outpatient clinics – one in Spokane Valley and the other of Spokane's north side. St. Luke's treats more than 6,500 patients each year in both inpatient and outpatient settings. In 2009, more than 72,400 outpatient rehabilitation therapy sessions were provided at one of St. Luke's three locations and more than 22,500 inpatient rehabilitation days of care were devoted to getting patients back to their highest quality of life. Comparatively, the second largest provider of inpatient rehabilitation in Washington provided less than 10,000 inpatient days of care.

Since opening, St. Luke's Rehabilitation Institute has been dedicated to providing high quality, patient-centered care in an efficient manner. Rather than duplicating services available in the community, the medical rehabilitation functions from the INHS member hospitals were combined to create and operate the rehabilitation hospital.

#### **Impact**

In order to streamline operations and maximize efficiencies, St. Luke's made use of information technology and shared services in both administrative and clinical areas. Member hospital leadership believed that health care providers should compete on quality of care and not on medical data. Through INHS, the two competing hospital systems collaborated on a common regional health information system – incorporating a single master patient index, common data and technology standards, interoperability, and utilizing a centralized data center and technology staff. This technology is used at all regional hospitals, including St. Luke's, increasing the quality of care for patients throughout the continuum of care. This system also minimizes costs of providing health information technology (HIT) solutions, eliminating the need for separate data centers which require considerable start-up capital and ongoing expenditures.

The shared Electronic Medical Record (EMR) which began with the inpatient setting is now available through the entire Inland Northwest region. Currently 38 hospitals and health care facilities, including all hospitals in the greater Spokane area, are on the INHS health information exchange network. Use of the system reduces transcription errors, improves documentation and compliance, eliminates duplication of effort and supports clinical decision making. It also provides clinicians with fast, secure access to comprehensive patient information in real-time at any point-of-care.

St. Luke's uses treatment teams that typically include physiatrists (physicians dedicated to medical rehabilitation), psychologists, nurses, therapists, counselors and dieticians that collaborate on rehabilitation plans for each patient. Use of the EMR facilitates communication among all care providers. Valuable patient information including historical, medication management, laboratory tests and radiological images can be securely transferred between facilities and practitioners via any Web-enabled computer as well as mobile devices (such as PDAs and smart-phones) regardless of where they are located. Most recently, St. Luke's incorporated Computerized Physician Order Entry (CPOE) that enables physicians that admit

patients to St. Luke's to input their orders and electronically sign charts, reducing misinterpretation and medical errors.

The hospital's Health Information Technology (HIT) incorporates case management tools designed by INHS and shown to improve patient care. Inpatient and outpatient data that supports quality and safety measures required by Joint Commission as well as those of the Commission on Accreditation of Rehabilitation Facilities are captured. The system also supports mandatory Medicare reporting documentation of medical necessity, including functional capacity.

While St. Luke's works with private practice physiatrists in the community, the hospital recently also created an in-house physiatrist group. The physiatrists benefit from being employed by the hospital, as it allows them to focus on patient care rather than on running a practice. It also ensures they are able to direct patient care plans aligned with the hospital's goal of helping patients regain functional independence through collaborative rehabilitation care.

St. Luke's use of a team approach to patient care allows specially-trained rehabilitation professionals to maximize their experience by working together to provide compassionate treatment to the whole person, with all activities coordinated by case managers. The hospital also uses rapid response teams (RRTs) comprised of highly-trained nurses and respiratory therapists that are called upon when a patient begins to show signs of developing a serious medical problem. The RRT evaluates patients', providing recommendations to potentially mitigate a medical emergency, such as a heart attack. The RRT has been successful in reducing the number of patients who have required a full emergency response.

A serious safety issue, medication errors were reduced significantly following installation of a barcoding medication verification (BMV) system in 2003, ensuring that the correct medication is being given to the correct patient, at the correct time and in the correct dosage. The number of medication errors per 10,000 doses in 2004 was 1.6 compared to 1.0 in 2009; one of the lowest number of errors reported in the community.

Treatment costs are also lower than those of other hospitals in Washington that provide rehabilitation care. Due to the nature of medical rehabilitation and the high complexity of the patient cases that St. Luke's receives, the length of stay at St. Luke's in 2007 was 12.7 days, slightly higher than the average 11.4 days at other Washington hospitals. However the average charge per day of treating a patient at the St. Luke's in 2007 was \$1,451 compared to that of other hospitals in the region that averaged \$2,231 per day.

Based on the results of surveys conducted by MedTel Outcomes, an independent national organization, the hospital's overall inpatient satisfaction scores for clinical care and service are generally above the national average. In addition, the durability of St. Luke's rehabilitation services is routinely demonstrated in patients' Functional Independence Measure (FIM) scores. Ninety days after discharge, St. Luke's patients' FIM scores continue to show increased mobility and functioning, and are typically above average scores when compared to national data.

As the largest provider of medical rehabilitation in the Northwest, St. Luke's volume of complex cases has helped the hospital develop the expertise necessary to provide exceptional care for its post acute patients. Following inpatient care, MedTel surveys conducted 90 days after discharge compare free-standing rehabilitation facilities throughout the nation; these surveys show that more than 90% of St. Luke's patients discharged to the community remain in the community.

### **Future Direction/Sustainability**

St. Luke's and Inland Northwest Health Services (INHS) are transforming health care through the creative application of information technology and shared services that are effective, affordable, and promote positive outcomes for rehabilitation patients throughout the region.

Hospitals and physician offices face a wide variety of financial and administrative challenges, especially in rural communities. Implementing advanced information technology, offering extra services to the community, conducting program evaluation and research – all of these activities can be difficult for individual organizations to undertake on their own. INHS has applied the shared services model successfully to a wide variety of programs and activities. Not only do these programs provide a more efficient, effective way to deliver services to multiple health care organizations and their patients, the shared services model creates extensive research opportunities. Health care information from a wide geographic region is concentrated in a single location, where large numbers of patients can be accessed for special studies.

For example, in 2003, INHS was selected by the state of Washington Department of Labor & Industries (L&I) to conduct a pilot project for injured workers. The Center of Occupational Health & Education (COHE) project, sponsored by St. Luke's Rehabilitation Institute, began in three Washington counties but was expanded to now include 16 counties. INHS developed electronic case management tools to be used by health care providers to promote best practices and to improve communications among providers, employers and injured workers. More than 900 providers and 27 hospitals emergency departments in 16 eastern Washington counties that provide primary injured worker care participate in the COHE project that aims at providing the most appropriate treatment soon after an incident. Improved communication and adherence to best practices has reduced the amount of time necessary to get injured employees back to work; and even more important, it has decreased long-term disability. Workers treated by doctors involved in the program are 33% less likely to miss work and need wage-replacement benefits. The program has produced a projected savings to the state's workers compensation system of \$8.9 million (an estimated savings of \$1,300 per claim). This is just one of the many examples of how St. Luke's Rehabilitation Institute and INHS are working for a better future in health care.

#### **Advice to Others**

For those interested in implementing integrated health information technology, hospital leaders suggest consulting with organizations that have experience in the implementation of integrated information systems, as they will have useful information on how to and/or how not to proceed. Consider sharing resources among providers in your area. You don't have to do it alone and you don't have to do everything at once, start small and build on experience and success.

Also, put a focus on being transparent – St. Luke's Rehabilitation Institute posts information on quality and patient satisfaction on its Web site and promptly reports errors to the Washington State Department of Health. This transparency helps patients, providers and the community while raising the bar for health care throughout the region.

#### **Contact:**

Thomas Fritz  
Chief Executive Officer  
Inland Northwest Health Services  
509-232-8101  
Email: FritzT@inhs.org

Chuck Gersdorf  
Administrator  
St. Luke's Rehabilitation Institute  
509-473-6049  
Email: GersdoC@st-lukes.org

Dr. Stefan Humphries  
Medical Director  
St. Luke's Rehabilitation Institute  
509-473-6910  
Email: HumphrS@st-lukes.org

Nicole Stewart  
Director, Marketing & Communications  
St. Luke's Rehabilitation Institute  
Inland Northwest Health Services  
509-232-8131  
Email: [stewarn@inhs.org](mailto:stewarn@inhs.org)