

# **The Ochsner TeleStroke “Hub and Spoke” Program: A “Spoke” Perspective**

## **St. James Parish Hospital – Litcher, LA**

### **Background**

St. James Parish Hospital is a 25-bed critical access hospital in Louisiana offering a growing range of inpatient and outpatient services to the southeast river parishes. In 2008, a new state-of-the-art facility was constructed offering room for growth and expansion. Less than five years later, the hospital opened its first medical plaza to house an array of hospital-owned practices and specialty clinics to better serve the needs of patients. From a 24-hour emergency department (ED) to state-of-the-art surgical suites and cutting-edge laboratory and radiology departments, the hospital delivers emergency and routine medical care by highly trained physicians and nurses utilizing some of the latest technology. Throughout its history, St. James Parish Hospital has remained focused on bringing more services home to its community.

In 2010, hospital leaders conducted a community needs assessment, which showed that the rate of death caused by stroke was much higher than the state (76.9/100,000 population versus 54.9 for Louisiana). St. James ranked 15<sup>th</sup> in the top 30 parishes targeted for high mortality rates in the state. In addition, it ranked second highest for prevalence rates and third highest for mortality in the region.

Based on these findings, St. James leaders set a goal to provide more service for stroke treatment. In mid-2011, the partnership between St. James Parish and Ochsner Health System began. A CDC grant provided hardware/start-up costs for rural hospitals to gain access to a stroke specialist at all times.

### **Program Overview**

Through Ochsner Health System’s TeleStroke program, ED physicians in rural and urban hospitals have the ability to consult immediately with Ochsner vascular neurologists 24 hours a day, 7 days a week, 365 days a year using telemedicine equipment to determine the best treatment options for stroke patients. Since August 2009, Ochsner Medical Center was the first hospital in Louisiana to use telemedicine to treat stroke and has become one of the fastest growing networks in the country with 34 active spoke hospitals across Louisiana and Mississippi. With Ochsner Medical Center in New Orleans functioning as the “hub,” TeleStroke links specially trained vascular neurologists to “spoke” hospitals 24/7 for collaborative care. Via Ochsner CareConnect 360, Ochsner stroke neurologists are present virtually at 34 hospitals. Through secure wireless data and video communication, Ochsner’s stroke team partners with on-site clinicians to evaluate, diagnose and direct care for patients, as well as to ensure that timely thrombolytic therapy is administered when appropriate.

Typically, only 3 percent of qualified stroke patients received the clot-dissolving medicine tissue Plasminogen Activator (tPA) mainly because their “window” would close before a determination for eligibility could be made by a specially trained vascular neurologist. Using Ochsner’s Telestroke program, St. James Parish clinicians can (1) reduce the time for making that determination (by the neurologist); (2) improve the percentage of patients receiving tPA; and (3) reduce the morbidity associated with stroke.

The program allows the rural physicians to collaborate with vascular neurologists at a tertiary hospital in developing the best treatment plan for acute stroke patients. The vascular neurologist is provided with the patient's critical assessment findings; he/she conducts a remote physical assessment and makes recommendations for interventions and treatment plans. Patients are treated close to home, if possible. If a transfer is necessary, it happens more quickly. And the vascular neurologist already has the patient's assessment findings.

St. James Parish leaders implemented the Telestroke program in mid-2011, employing a 12-week timeline that included hardware acquisition and installation, development of outcome measures, scheduling of neurologist coverage, staff training, and community marketing.

### **Impact**

The number of stroke consults has increased from 6 in the second half of 2011 to 42 in 2015. In the first four months of 2016, there have been 18 consults. The percentage of patients evaluated with Telestroke that needed to be transferred to a higher level of care lowered over time. Before the program started, nearly all patients presenting with stroke symptoms were transferred for further evaluation. Now, more than 60 percent stay at St James, allowing patients to remain close to home and their loved ones during treatment. The most rewarding part of the program is to see the effect on patients' lives. In the first four months of 2016, the percentage of patients receiving tPA is 17 percent of consults, far exceeding the typical 3 percent. This greatly reduces the debilitating effects of stroke. For example, a patient arrived in a non-verbal state with total left-side paralysis – and was talking and responding to commands before being transferred.

### **Lessons Learned**

ED physicians tended to hesitate about calling for Telestroke consults, believing that they needed to be sure that a consult was warranted. The average time from patient arrival to calling for a Telestroke consult was averaging more than 50 minutes. As the ED physicians feel more comfortable with the program and the consulting physicians, the hesitation has diminished. In addition, successful treatment hinges on a quick response from everyone, including ancillary support. St. James leaders started "Dr. Brain," which is their version of a brain attack response team (BART). A "Dr. Brain" code is basically a scaled-down version of a cardiac-respiratory collapse, code blue-style rapid response team for suspected strokes. The team's goal is to work up these cases quickly using a clinical protocol. In the first four months of 2016, the "door-to-call" time has reduced to an average of 23 minutes.

### **Future Goals**

In May 2014, St. James Parish and Ochsner began partnering on a TeleCardiology service for inpatient consults and patient follow-up. The long-term partnership allows more local patients to be cared for at home, 24/7 cardiology coverage for inpatients and ED consultations, seamless transfer options, access to a national leader in cardiac care, outpatient cardiology clinics Monday through Friday, and quicker turnaround times on cardiology diagnostic tests.

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