

Overview of Organization

South Texas Health System

Facilities

- McAllen Medical Center, McAllen, TX
- McAllen Heart Hospital, McAllen, TX
- Edinburg Regional Medical Center, Edinburg, TX
- Edinburg Children's Hospital, Edinburg, TX
- South Texas Behavioral Health Center, Edinburg, TX

Over 1,000 beds total

Approx. 2,000 users

Problem

Needed to replace an old character-based clinical system and replace the paper nursing documentation with an integrated clinical system that included multi-facility functionality and the ability to easily scale up for expanding facilities.

Challenges

- Complete assessment of hardware needs
- Training a very large number of users from various departments
- Multiple facilities to be integrated into one clinical data repository
- Share patient data and print reports among all facilities

Solution

Implemented the Enterprise versions of

- *OpusOM*® (Order Management)
- *OpusClinDoc*® (Clinical Documentation)
- *OpusFoundation* (Patient Care Dashboard) Version 2.0.9

These applications are part of the second generation, web-based *OpusClinicalSuite*®.



Product Characteristics

- Web-based applications with intuitive user interface
- User-defined flexibility
- Integrated solution that streamlines data entry
- Flexible reporting capabilities
- Integrated medical necessity checking for user-defined patient population
- Visual reminders, alarms and pop-ups that ensure complete documentation
- Clinical content logic and conflict alerts
- Integrated plans of care
- Trending and graphing capabilities

Benefits

- Fully electronic charting to virtually eliminate problems with legibility
- Increased patient safety
- Higher accuracy with documentation compliance
- Cost savings inherited from accurate charge capture functionality
- Increased effective management of interdepartmental communication flow
- Automation of manual processes
- Order management tool for improved debit and credit validation-checking, patient dietary reports and integrated messaging systems
- Improved security and ease-of-accessibility
- Full audit functionality
- Improved risk management functionality
- Reduced training time for new users
- Multi-disciplinary approach to patient care

● Situation

The Rio Grande Valley in South Texas is experiencing explosive growth and is home to many of the fastest growing cities in both the U.S. and Mexico. The total population of the Valley has doubled from 1.1 million to more than 2.2 million since 1970, and it's expected to double again by 2030. It's no wonder, then, that after being established only ten years ago, South Texas Health System (STHS) is already the largest hospital system in the Valley. Owned and operated by Universal Health Services, Inc. (UHS), one of the nation's largest hospital management companies, STHS cares for thousands of patients a year and specializes in an array of medical services with recognized programs in cardiology, maternity care, pulmonary, stroke care, vascular care and women's health.

For a number of years, the hospital system was using a character-based clinical solution, but with five facilities and a growing staff, STHS wanted a more modern looking, browser-based system with the ability to reduce paperwork, scale up, and handle a multi-facility workload. By implementing *OpusOM* and *OpusClinDoc* from Opus Healthcare Solutions, STHS was able to implement a system that met these challenges while providing top-tier service.

● The Technology

"Because the Opus system is browser-based and has shortcuts built into it, it's much more user-friendly and time effective," explained Bonnie Mihealsick, RN, Clinical Project Manager for UHS. "The ClinDoc solution especially is beneficial for increased JCAHO compliance and saves our clinicians time because it pulls information forward from screen to screen."

According to Nathan Read, COO of Opus Healthcare, the main challenges STHS wanted to overcome with the implementation of the Opus systems included getting its physicians online, establishing a complete EMR online and tying all five facilities into one system. "With the solutions installed by STHS, all five facilities are treated as one entity, but information can be viewed for each facility or across all the facilities. *OpusOM* and *OpusClinDoc* are permission-based systems, so the STHS administration can select a specific facility for build-in, and employees are able to work at multiple facilities with one account, one username, and one password."

"The multi-facility capability of our systems allows clinicians at STHS to evaluate and trend results for patients and provides a more real-time, automated system," remarked Read. "The physicians are able to examine data for patients over time and over multiple facilities. With the dynamic patient list function, ancillary departments can set up lists based on orders."

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- Bonnie Mihealsick, RN
Clinical Project Manager for UHS

● The Implementation Process

From start to finish, the implementation of *OpusOM* and *OpusClinDoc* at STHS was three months with ongoing training during the entire period. The sheer size of the implementation in terms of number and type of users presented a challenge in itself.

Opus Healthcare provided STHS with a pre-built training system, and key users, or "super-users", provided training for the rest of the staff. As Rosie Mendiola, Area IS Director at STHS, explained, "We took a collaborative approach in preparing for the implementation. Based on my previous experience with Opus systems, I was confident that our training would be successful. We had almost 2,000 employees to train, so we separated them by department to maximize their time. We dedicated several weeks for our nursing staff, several weeks for our ancillary staff and followed up with unit clerks so they could do their training a week or two before we went live. We allotted plenty of time for our super-users to get fully trained and had a very committed, technology-savvy senior administrative team that made us very successful with the enormous task we had at hand."

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A typical day's workflow during the implementation process at STHS involved Rosie and her staff, all trained as super-users, working at a master support center with smaller satellite support people working in each building to take calls, open up tickets, set and reset passwords, create frequent order screens and tweak minor changes. Having the whole team, for the most part, in one room helped because staff members could answer each other's questions. Additional super-users were brought in from other UHS hospitals to help with the implementation, and trainers on site were equipped with radios to call the master support center with questions from the trainees.

"A lot of work went into the rollout, and we had a good team effort to make that happen," remarked Carol Mejia, RN, Clinical Supervisor for STHS, who also is a super-user of the system. "In addition to having a very competent staff, we got a lot of help from other UHS facilities. The thorough preparation that went into the implementation and rollout resulted in a very smooth transition from our old system to the new Opus system."

● Improved Clinical Workflow

"The administration of STHS was impressed with the functionality of our software, the user-friendly design of the screens, and especially the ease of creating patient orders in the system. The overall goal of the project was to get the system up and running very quickly, while ensuring that end-users experienced a smooth, thorough transition," added Jason Atkins, RN, Project Manager for Opus Healthcare. "The nurses were excited to see the dynamic patient list built through our solutions and how the software gave them the information they were used to seeing in a format that more concisely followed their workflow."

Many aspects of *OpusClinDoc* help reduce charting time. For example, clinicians have the ability to chart by exception. In addition, the functionality that allows clinicians to create frequent orders and order sets is also a huge time saver since the nursing staff doesn't need to dig for the information; it is readily available.

"Nursing documentation is very thorough, yet the time spent charting has not increased."

- Carol Mejia, RN
Clinical Supervisor for STHS

Improved workflow is one of the biggest benefits of *OpusOM*, an order management system with which users can more effectively manage the flow of interdepartmental communication, including orders, results, charges, work orders, e-mails, patient education and rounds reports. Reports can be automated and turned into graphs, allowing clinicians to perform trending analyses across functions.

According to Leann Moyer, RN, Senior Clinical Analyst at UHS, "The *OpusOM* system is easier to navigate and gives a better overall presentation of the patient because of its clinical data repository. Our old system included only 60-90 days of information. Our users can utilize one login to access all five facilities or domains and can stay in the same system to complete tasks. We're able to have all patient data in one CDR for all of our end users, and the users don't have to go through multiple screens. As a result, there is a net reduction of time dedicated to data entry and results viewing."

With *OpusClinDoc*, users at STHS have point-of-care, fully electronic charting along with improved security, vastly enhanced communication, and ease of accessibility. To ensure higher accuracy with documentation compliance, *OpusClinDoc* triggers reminders and alerts if a user accidentally enters misinformation or no information where some is needed.

● Improved Clinical Outcomes

Mendiola believes the most impressive results STHS has achieved and will continue to achieve through the use of *OpusOM* and *OpusClinDoc* include improved clinical efficiencies, reduced errors, quicker charting time, faster access to patient results, enhanced communication between departments, enhanced security and reduced costs.

Clinical Collaboration

Real time availability of the medical record.

"The staff never has to fight over a chart anymore. We can concurrently view and enter patient information," commented Carol Mejia, RN.

Accurate and More Complete Documentation

Minimum data entry with maximum legibility.

"Nursing documentation is very thorough, yet the time spent charting has not increased," added Carol Mejia, RN.



Patient Safety and Compliance

The integration of *OpusOM* and *OpusClinDoc* at STHS also provides the facilities with increased patient safety. “Clinicians are reminded to double check patients with allergies and special care needs. The information charted on the admission assessment by the clinicians can flow into the collection screens when creating orders, and the information entered on the clinical profile can update the collection screens when entering orders. The accuracy it provides is one of the multiple aspects that helps us meet our JCAHO requirements,” remarked Bonnie Mihealsick, RN.

Audit Capabilities

STHS went from having no audit functionalities to having a complete set of tools. “The risk management department is now able to perform a complete audit trail to follow up on any incidents. Also, from an order management perspective, STHS is now able to check turnaround times for orders and tests being done and verify those turnaround times, which enhances proper clinical documentation,” said Rosie Mendiola.

Charge Captures

The charge capture functionality has proven to be a true cost saver for STHS. “The Opus reporting tools and automated charge reconciliation have really helped ensure that we really capture our charges. We have had absolutely no issues with charge capture since implementing the Opus system,” stated Rosie Mendiola.

Patient Lists Visual Cues

“Visual cues for critical results and isolation improve patient care and reduce time for clinicians, because the data is readily available. Clinical and lab results pull immediately. The cues are a true positive!” explained Carol Mejia, RN.

Integrated Plans of Care

STHS is planning on fully using the care plans within a few months. One of the many benefits of the care plans module is to allow clinicians to show previously charted data, therefore saving time.

“The highest satisfaction indicator from our implementation of the Opus system is that it’s much more user-friendly, and physicians and other staff love the remote functionality. We’ve added different types of services, and it would be very easy to expand the system both geographically and in terms of business. There are no limitations on this system’s ability to scale up and out. The installation of the Opus systems provided a solution to our technology challenges and simultaneously improved employee satisfaction and patient care. What more could you ask?”

- Bonnie Mihealsick, RN
Clinical Project Manager for UHS

● **Looking Ahead**

By deploying Opus Healthcare core clinical systems, STHS has laid out a solid foundation. Over the next few years, STHS will add several applications from the *OpusClinicalSuite*, which include Medication Administration Checking and Charting, CPOE, and Decision Support Tools.

