HIMSS Analytics Stage 7 Case Study

The Ohio State University Wexner Medical Center

Profile

Ranked as one of "America's Best Hospitals" for 20 years in U.S. News & World Report, The Ohio State University Wexner Medical Center (OSUWMC) is central Ohio's only academic medical center. Our expert physicians and researchers are creating the future of medicine through our leadership in personalized healthcare, giving people access to unique disease prevention and treatment options based on their own genetic makeup and lifestyle. Comprised of six hospitals, two campuses and 263 clinics, OSUWMC has a staff of approximately 16,000, with over 1,500 physicians, 900 fellows/residents and 500 advanced practice professionals.

OSUWMC achieved HIMSS Analytics EMR Adoption Model[sm] Stage 7 recognition for inpatient in May 2012 and for ambulatory in January 2014.

The Challenge

OSUWMC has a long history of utilizing EMR technology and advanced analytics dating back to the early 1980s. Embracing a best-of-breed approach, we had a very complex environment that yielded many benefits and efficiencies. However, as healthcare began to evolve with a greater emphasis on the longitudinal continuity of the medical record, it became increasingly clear that a multi-system approach was becoming a limiting factor in achieving our objectives. To support these goals, OSUWMC chose Epic as our EMR system.

Implementation Overview

OSUWMC chose to pursue a strategy of implementing a comprehensive, single-vendor EMR that spanned acute and ambulatory settings and also supported both clinical and business functions. Having a single platform better supported our patient-centric strategy, which was designed to decrease multi-platform integration complexities that existed previously, when we had 169 interfaces. We also chose to pursue a strategy of building content in the system to improve patient care and minimize paper records and dictation. OSUWMC began its implementing in the ambulatory setting spanning approximately 2007-2010 with large go lives every two to three months. This ongoing implementation included comprehensive functionality spanning all specialties, 250+ clinics and a total of 2,900 physicians. Because of the success of Ambulatory and the need to retire numerous legacy systems, we executed the inpatient transition in October 2011 in a "Big Bang" fashion, when almost all applications went live on the same date. This massive go live required an all-hands-on-deck approach, with the entire organization rallying to support the go live.

Resulting Value / ROI

Advanced Decision Support for Health Maintenance

To achieve top quality performance and regulatory goals, OSUWMC implemented preventive health alerts through the use of Epic's health maintenance tools, including alerts and modifiers, which allow providers to customize preventive health reminders. Personalization of the health maintenance alerts increased the use of appropriate tests and screenings for a variety of departments, including Family Medicine and OB/GYN, and also was increasingly viewed as valuable by specialty departments. We saw both a dramatic increase in the number of modifiers used, and a steady increase in the number of users of the tool. We attribute higher levels of adoption of the modifiers in certain departments to both education and leadership. The more providers were educated about the modifiers and the more leadership encouraged their use, the more those modifiers were used. Use of modifiers improved ordering of screenings and facilitated monitoring of compliance with these required screenings, as well as identification of target populations for care.

Continuity of Care

We see the involvement of patients in their care as the first step in improving health care for an individual. Continuity with their local provider is the second step for those being discharged from a tertiary care facility. Being a medical center that serves all of Columbus as well as having outreach to all areas of Ohio, Indiana, West Virginia and Pennsylvania, communication with referring physicians can sometimes be difficult. We utilized our patient portal, a referring physician portal and the integration of the letter production and faxing system to assure the notification of patients and referring providers of the events and decisions made at the tertiary care center during both inpatient and outpatient visits.

Another very important endeavor that we accomplished relates to outside reporting facilities. We focused on making sure that we protected our employees from duplicating entry of data if we had the data discretely to be able to report out to a reporting agency. When we implemented our Ambulatory application in 2008, one important goal for us was decreasing workloads for staff. We decided that one area where we could maximize this opportunity was in developing an interface with the Ohio Department of Public Health. No other Ohio practice sites were sending data directly to the health department from their EMR to track vaccine data. The institution is required to report this data on all patients who receive free vaccines through our Vaccines for Children program. It is also suggested but not a requirement for all other vaccines. Our interface team worked closely with the IT team of the Ohio Department of Public Health and accomplished an interface that nightly sends all appropriate vaccine data to ODH and keeps us compliant with the requirements without the need to have staff enter data into two systems. This made for a very happy group at go live, who were expecting more work and instead found more rewards. This interface has been duplicated and is now used by most of the other Ohio Epic sites to download their vaccine information to the state vaccine registry.

Quality Metrics

The opportunity to qualify for meaningful use for eligible providers and hospitals came at just the right time for us. We qualified over 95% of our eligible providers for stage one, year one and year two as well as qualifying for stage one hospital. The use of the EMR has facilitated the qualification for our sites to be NCQA-qualified patient centered medical homes as well as many of our providers being NCQA-qualified diabetic care providers. Our biggest concern in our implementation was to not fall below our present standard with quality metrics as most

other institutions advised us had happened to them. We accomplished this with the building of alerts, disease specific order sets, and close supervision of expectations.

Lessons Learned

Expectation Setting for Go Live and Post-Go Live Planning
For an EMR go live, setting realistic expectations can be an overlooked step. Even the most well executed implementations have numerous challenges, periods of confusion, frustrated users and other myriad issues. At OSUWMC, the project team worked hard to ensure that leaders and users had a realistic picture about the challenges the organization would experience at go live and during the subsequent months of stabilization.

Preparation for Inpatient Go Live
Going live with our Ambulatory EMR over several years allowed us to gain implementation experience that prepared us for our inpatient "big bang" go live in 2011. Initially, the magnitude of the Big Bang go live was daunting; the scope was almost incomprehensible. However, in analyzing our organization's structure and needs, coupled with our Ambulatory success, it became clear that a big bang go live was the best option, and in hindsight, it proved to be a very good approach.

Monitoring System Metrics
After implementation, our EMR steering committee developed an optimization scorecard to help leaders monitor adoption and ROI metrics. The monthly scorecard includes color-coded key performance indicators, such as regulatory compliance and the completeness of the EMR. Having a well-informed and strategy-driven leadership team is important for maintaining and improving both our EMR system and our organizational goals.

Patient-Centric Focus for Decision Making
Complex projects have numerous options and challenging decisions, such as balancing provider efficiency, accommodating specific needs in specialty areas, fine-tuning workflows and so on. These priorities can sometimes compete with one another and yield inconsistent results. At OSUWMC, we found that a continued focus on the patient helped keep our priorities in perspective. For example, if a specialty area had a unique application or process that didn't fit into the overall continuity of data vision, we worked to develop a solution that kept the single EMR as the sole source for clinical documentation. Isolated applications or those requiring complex integration solutions were highly discouraged, because although they may meet a niche requirement, such a solution doesn't serve the best interests of the patient across the continuum of care. Having a patient-centric focus guided our decision making and led us to better, more sustainable results.