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LEARN Engineered EHR Conversion Strategies

Lessons Learned from a Successful LEAN Engineered EHR Conversion at Winthrop-University Hospital

Abstract

There is no bigger, more stressful project that a hospital can take on than an EHR conversion. The EHR is, as Palmira Cataliotti, CPA, FHFA, Senior Vice President and Chief Financial Officer at Winthrop-University Hospital said, “the guts of our organization, so there was no margin for error, literally and figuratively.” A Big Bang EHR conversion places especially high importance on effective program management, as staff bandwidth can be spread thin across the organization. Winthrop University Hospital (WUH), a 591-bed university-affiliated medical center and New York State-designated Regional Trauma Center located in Mineola, NY, recently embarked on a Cerner Soarian Big Bang EHR conversion, transitioning to both Cerner Soarian Financials and Cerner Soarian Clinicals. By utilizing a LEAN Governance Model (“DELTA Team”), visibility tools and a commitment to LEAN project management, WUH was able to achieve a successful conversion. This case study highlights several proven strategies that contributed to the success of the project.

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Strategy One: Eliminate Project Roadblocks with Proper Planning and Purposeful Meetings

One of the first keys to LEAN project management is establishing a LEAN Governance Model ("DELTA Team"), where select executive stakeholders have the authority to make critical decisions quickly, accelerating milestone completion. As WUH implemented both Cerner Soarian Financials and Cerner Soarian Clinicals, a Financial DELTA Team, a Clinical DELTA Team and an Executive DELTA Team were initially established. Later in the conversion, all critical decisions were funneled through the Executive DELTA Team. This type of governance was new for WUH, and it led to many improvements, according to Christopher Iorio, Vice President, Chief Information Officer at WUH. "It was pivotal, I think, when e4 was first engaged to establish the leads, the responsibilities, keep the group small, and delineate what the expectations were from everybody," said Iorio. "You would think that would create silos, but that didn't, it created more cooperation amongst the teams because everybody realized that they relied on each other and one could not be successful without the other."

To quickly draw current and future state components into a cohesive plan, Kaizen sessions were run to create LEAN ‘a3s’ and accelerate planning and design efforts. One session yielded the Technology Plan/Blueprint and one created a CDM ‘game plan’. In less than a day, the Kaizens accomplished what usually takes weeks to achieve.

With the DELTA Teams set and the planning complete, all work is entered into e4caster, e4’s project management and visibility dashboard. e4caster provides a real-time status of all project milestones, with a weighted color-coding system to provide visibility of progress. The transparency of work completion allows easy identification of gaps and the ability to provide immediate intervention. WUH used e4caster to track all facets of the EHR conversion and was able to monitor “program health” for specific departments and for the project as a whole.

"Every single morning I would wake up and the first thing I would check is e4caster, to take a look at where we stood with the dashboards and milestones. I was watching constantly. e4 has been fantastic. One testament to that is that we are using e4caster for our other projects, for IT projects we have."

Faisal Zakaria
Chief Applications Officer
Winthrop-University Hospital

LEAN Ground Rule:

Control the size of all meetings.
e4caster helps ensure Executive DELTA Team meeting time is spent on the most important topics, as missed milestones (reds) are prioritized over projects that are healthy. "The transparency across the organization helped drive the governance of the project", Iorio said. "Now within the DELTA Teams of the organization, we’re bringing up e4caster and we’re seeing what everybody’s reds are, what everybody’s greens are, what everyone’s blues are...although we mostly focused on the reds because those were the areas we needed to be concerned with. It definitely was a tool that was valuable to us because it was easy enough to identify where the risk areas were, where the pain points were and where the areas of focus were that we needed to address as an organization."

The DELTA Teams represent an approachable forum for any team member to present an issue to leadership. This helps prevent "surprises" from popping up and allows leadership enough time to be able to address a problem before it is too late to do anything about it. Dr. Jonah Feldman, Internist and Associate Program Director at Winthrop-University Hospital Department of Medicine, felt that the LEAN Governance Model helped to improve communication. "We worked hard to communicate what was coming so that people would understand," Dr. Feldman said. "We also put a structure around allowing the stakeholders to alert the leadership of issues that might be coming before they come, and sign off on their understanding of certain things that are coming, and their understanding of their responsibilities for education."

**Strategy Two: Balance Model vs Customization**

With a high level of best-of-breed applications, ensuring the systems are able to achieve needed results is critical. Also important is utilizing model as much as possible, where possible. There were certain areas such as in the CPOE and Order Entry where there were gains and sophistication beyond Soarian model, gains WUH did not want to be lost. In other areas such as Documentation and Clinical Summary, more of a model approach fit.

Decisions on any needed customizations were made through DELTA Team meetings after thorough trial and error. A depth of clinical knowledge helped to accomplish this, according to Maureen Gaffney, Senior Vice President, Chief Medical Information Officer at Winthrop-University Hospital. “We know systems and we know our organization and how it reacts to systems and what clinical decision support we needed, and what process support we needed within the system,” said Gaffney. “But e4, you adapted, you respected it and we found that sweet spot where we could still get the work done and still be respectful of each other’s opinions.” To accelerate the development process, WUH leveraged e4designer, an e4 software tool that allows a user to design clinical forms and screens to demonstrate what end users will see in a system before it is actually designed.
LEAN Engineered EHR Conversion Strategies

Strategy Three: Improve Provider Adoption

There are several factors that contribute to successful provider adoption, and WUH took strides to engage hospital physicians and providers early to not only inform and educate, but also to request feedback. “Honestly on the physician side, a lot of times, for a project like this you heard ‘well I didn’t know, why didn’t anyone ask me’ – no one said that,” said Dr. Jonah Feldman, MD, Internist and Associate Program Director at Winthrop-University Hospital Department of Medicine. “We all had ideas about how it would go, it might have gone slightly differently, but nobody said I didn’t know, nobody told me, nobody asked me. Everyone felt they had their opportunity, they were involved ahead of time, and what they were seeing was what they were expecting.”

One factor that improved provider adoption was the creation of a Physician Advisory Board, through which key stakeholders, physicians and providers in the hospital met weekly to weigh in on important decisions. They met not only because their advice was needed to make decisions, according to Dr. Feldman but “also because we felt it was important for them to feel ownership for the system even before the system went live.” Additionally, a physician website, brochures and pocket guides were customized for WUH, enhancing the Soarian source material and providing key information in a timely fashion.

One system that contributed to physician adoption was Dragon dictation. “We brought into our project Dragon dictation late in the game, but that was a real key to our success at go-live,” said Dr. Feldman. “We had an honest evaluation of the Soarian system and thought that there might be a complementary technology that would be helpful in terms of physician adoption and working with the system, and it really was a key to our success.”

Strategy Four: Achieve Superior Stakeholder Communication and Accessibility

Hospitals are 24/7 facilities. While no one can truly be available 24/7, a commitment to availability and quick action is critical to be able to make decisions and provide the support needed. Keeping these top level communication channels open provides peace of mind for both parties so that they know that quick action can be taken when necessary. With so much on the line, Palmira Cataliotti, CPA, FHFMA, Senior Vice President, Chief Financial Officer at Winthrop-University Hospital sees the commitment to accessibility as vital. “You know, this wasn’t an eight-to-five engagement, everybody was committed, and it almost seemed like they were committed on a 24-hours-a-day, seven-days-a-week basis,” said Cataliotti. “You (e4) were always accessible to us. I think that was a big differentiator with your team.”

“e4designer appealed to myself and my informatics team because many times it’s very hard when you’re designing something or building something to see the end result ahead of time, and that (e4designer) gave us the ability to have something that we could at least show end users to say ‘is this what you really want’ instead of waiting for all that work to be done. We were very impressed with the tool.”

Maureen Gaffney, RPAC, RN
Senior Vice President,
Chief Medical Officer
Winthrop-University Hospital

LEAN Ground Rule:
Mark project late if the start date is missed.
Strategy Five: Allocate Proper Resources to Go-Live Command Center

In preparation for go-live, a command center with elbow-to-elbow staffing was built, and Sharepoint was utilized for tracking, addressing and fixing issues, and putting items in a future enhancement bucket. Some 6,500 tickets were resolved through the command center. A key to the success of the three week go-live was not only having enough support available, but also aligning all support staff on the goal of the event. "I think what made the event special, it didn’t matter what badge you were wearing," said Christopher Iorio, Vice President, Chief Information Officer at Winthrop-University. "It didn’t matter if it said Winthrop employee, e4 employee or Cerner employee, we just all worked well together and we all stepped up and did what we had to do and I think the credit goes across the board to all the teams involved." Faisal Zakaria, Chief Applications Officer felt that the go-live was successful because there were enough resources available. "It was by far a very successful go-live and we are extremely proud of it," Zakaria said. "I gauge the status of success by how quickly the users adopted it. Our physicians, our nurses, our registrars, they started using the system right away. We did not have to turn back to the old system. We had the right number of resources at the time of go live to cope with the technical issues and challenges. We were smart in having enough people there." Importantly, WUH maintained resources for a 3 month post go-live stabilization period to help with future enhancements and any issues that were not addressed in the command center.

Traditional vs. e4/LEAN Engineered Implementation

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*e4 is proud to have worked with the talented team at Winthrop-University Hospital to achieve a successful big-bang conversion. To learn how e4’s LEAN Engineering® software and methods accelerate complex programs and eliminate waste to reduce overall expenses, email info@e4-services.com or visit e4-services.com.*