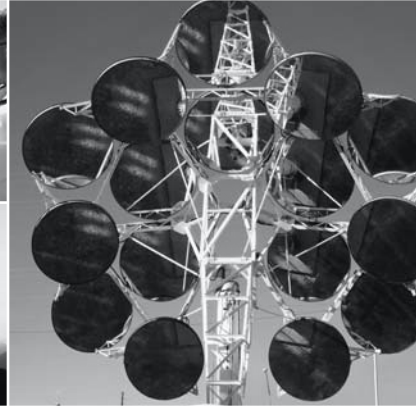


CASE STUDY

POMONA VALLEY HOSPITAL MEDICAL CENTER IMPROVING PATIENT SAFETY AND ENHANCING EDM



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Nationally recognized as a Top 100 Hospital, Pomona Valley Hospital Medical Center (PVHMC) is a 453-bed acute care, not-for-profit teaching hospital serving Eastern Los Angeles and Western San Bernardino counties. In addition to its national designation, PVHMC is also recognized throughout the state and the region for outstanding medical care and the efficient use of resources. Founded in 1903, PVHMC is accredited by the Joint Commission on Accreditation of Healthcare Organizations.

PVHMC is staffed by more than 650 physicians, 3,200 employees and 975 volunteers offering comprehensive medical services through three Centers of Excellence - The Robert and Beverly Lewis Family Cancer Care Center, The Stead Heart Center and The Women’s Center.

To better meet patients’ care needs, PVHMC is using healthcare IT solutions from Siemens. As the facility prepared to roll out Siemens Enterprise Document Management (EDM), administrators recognized a need to interface forms directly into this new module. Getting paper forms into Siemens EDM and any other document/content management system typically involves affixing sticky labels to each page of a form, and then manually indexing these pages after scanning. This wastes the time of clinical, admissions and HIM staff, and delays the availability of patient information.

To sidestep these challenges, PVHMC CIO Kent Hoyos decided that a forms automation suite should be implemented before the hospital deployed Siemens EDM. Account representatives from Siemens recommended Access Enterprise Forms Management (Access EFM).

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Getting More from Siemens EDM

Prior to implementing Access EFM, nurses pulled pre-printed paper forms and affixed a sticky label on each page. This was particularly time-consuming for large, multi-page forms packets, and nurses sometimes forgot to label some pages, leading to redundant effort for the HIM team before they scanned the forms.

Now, seamless integration with the Siemens system enables PVHMC users to launch Access e-Forms Repository (EFR) directly from their Siemens Soarian Portal, without needing additional sign-in information. EFR gives clinical, admissions and administrative staff a single source for a complete library of standardized and current forms. Once completed, these forms are scanned into Siemens EDM, which uses barcodes to auto-index them with patient records.

“The tight link between Access EFR and our Siemens dashboard gives clinicians a simple way to retrieve forms without altering their workflow,” Hoyos says. “Nurses and HIM staff no longer waste time with sticky labels, because forms are barcoded by the Access system.”

Quick Facts

Focus: Acute care, not-for-profit teaching hospital

Location: Pomona, California

Beds: 453

Integration: Siemens Soarian Portal, Siemens EDM

Departments using Access EFM: Patient registration, clinical areas





The Business Problems

Manually indexing forms in Siemens EDM would be time-consuming and error-prone

Need a way to positively identify patients before dispensing medicine, obtaining samples and blood sugar tests

Paper based forms increase costs, cause version control issues and delay processes

When the Siemens HIS goes down, admissions clerks register patients by writing on paper forms. This limits information availability.

The Solutions

Forms barcoding facilitates auto-indexing upon scanning

Barcoded wristbands support positive patient ID for specimen collection, blood sugar testing and medication dispensing

Print on demand e-forms cut costs, save paper and speed clinical and registration processes

Staff can register patients electronically during HIS downtime

Before moving to electronic forms automation, patients or clinicians filled out redundant information on each form. With the Access system pulling patient data onto each form using unique data mapping technology, this is unnecessary.

“Each form output by Access EFR has patient demographics pre-filled, which saves time,” Hoyos says.

When relying on pre-printed paper forms, some nurses hoarded forms because they were worried that they’d run out during their shifts. Hoyos recalls that one nurse would come to her shift with a cart full of forms. Clinicians could also be using outdated versions without even knowing it, as it was hard to keep track of which hard copies were circulating. Access EFR has put a stop to this.

“With Access EFR we know our clinicians are only using the current versions of forms, and they’ll never run out like we did with hard copies,” Hoyos says. “We’ve also created standardized sets of documents – so cardiac nurses are only presented with the cardiology forms they need, for example.”

Hoyos believes that Access EFM has helped simplify PVHMC’s expansion of the Siemens suite.

“I can’t imagine moving to Siemens EDM without Access EFM,” he says. “It wouldn’t have been possible without additional staffing, and even then there would’ve been delays in getting information into our Siemens system.”

Improving Patient Safety

Another main aim of PVHMC’s forms automation project was increasing patient safety. When an admissions clerk registers a patient in the Siemens system, they click a button to print barcoded forms with demographics pre-filled. At the same time, a wristband is produced with two barcode methodologies – one for bedside medication verification (BMV) and another for specimen collection – that encircle the entire band. This enables clinicians to scan the wristband at the patient’s bedside from any angle, without needing to turn the patient’s wrist to access the barcode as is often the case with similar wristbands.

When a nurse orders a lab test, they enter the details into the order system, which passes the order to the lab. The data is then sent to a handheld device. Upon going into the patient’s room to draw the sample for the test/s, the clinician scans the patient’s wristband with the handheld device and is notified of the test type, how much blood to draw and which color-coded tubes to put this specimen in. They then print barcoded labels for the specimen bottles from a printer on the Phelebotomist cart.

Access EFM also helps facilitate the BMV process. To ensure the right medication and dose is dispensed to the correct patient, a nurse scans the barcoded labels on individual drug doses with the Siemens Medication Administration Check (MAK) system and then the patient’s wristband, and only dispenses the medication if there’s a positive match. Nurses also scan their badges so the hospital can see who has given the patient their medicine.

PVHMC is also using barcodes in testing blood sugars with a barcode-reading glucometer. Hoyos is impressed with the impact of the Access system.

“We’ve advanced our patient safety initiative with Access EFM,” he says. “Its support of two barcoding methodologies on patient wristbands, and of our specimen collection,



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Using Access EFM alongside its Siemens system is also positively impacting patient satisfaction.

“When we scan barcoded wristbands produced by the Access system it gives our patients confidence that we’re doing the right thing, which makes them feel safer,” Hoyos says. “It also gives us another way to engage the patient, and they usually offer their wristbands to us because they’ve come to expect it.”

Eliminating Paper Forms Inefficiency

One of the hallmarks of paper forms is the floor space they consume. This was the case in PVMHC’s registration department and on clinical floors until the arrival of Access EFM.

“Since deploying Access EFM we’ve reclaimed space on clinical floors, where nurses are always fighting for more room,” Hoyos says. “We eliminated 30 linear feet of paper forms in a 12-bed cardiac care unit, and also avoided having to take a patient room for forms storage on one of the main floors.”

Now that forms are managed and accessed electronically, staff can focus more on meeting patients’ needs, and there’s less strain on the hospital’s budget.

“We’ve saved a significant amount of money by replacing paper forms with electronic versions in Access EFM,” Hoyos says. “When you add that to the time savings created by not having to retrieve, photocopy, index and archive hard copies, you can see how the system delivers return on investment.”

Another challenge that Access EFM is helping PVHMC overcome is downtime registration. With paper forms, clerks hand wrote registration information any time the HIS was down. Access EFM will enable these staff members to register patients using e-forms during scheduled or unscheduled downtime.

“If our systems are down we can retrieve e-forms using Access EFM and ensure patients’ information gets into the right places in their charts,” Hoyos says.

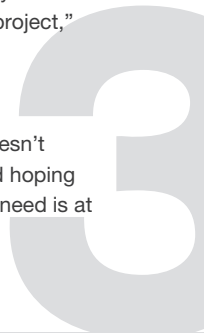
Getting User Buy-In

When it comes to transitioning between paper-based, hybrid and electronic medical records, the biggest challenge is often convincing users – and particularly seasoned employees – to try something new. To overcome these issues, Hoyos and his team formed a cross-department committee to manage the forms automation project, and solicited feedback from clinical and administrative staff at every step. When PVHMC went live with Access EFM, 95 percent of its clinical forms were converted into electronic versions.

“We kept communication open with our clinical users to make sure the e-forms system was tailored to their needs on the floors, and this helped get them on board with the project,” Hoyos says. “We took our time to get everything right.”

This patience is being repaid by widespread user adoption in clinical areas.

“Nurses’ two favorite things about Access EFM are that it’s easy to use and it doesn’t complicate their processes,” Hoyos says. “Instead of going to a storage area and hoping forms are there, they go to an electronic repository knowing that everything they need is at their fingertips.”





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