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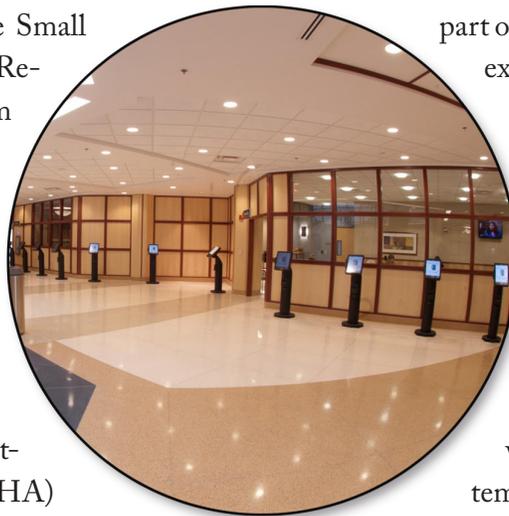
PATIENT-CENTRIC REGISTRATION DELIVERS A BETTER PATIENT EXPERIENCE FOR
VETERANS AND CIVILIANS ALIKE.

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Thanks in large part to the Small Business Innovation Research (SBIR) program from the Department of Defense, self-service kiosks in the nation's largest healthcare system are saving millions of dollars a year even while giving military veterans more control over their personal health information.

Deployed throughout the Veterans Health Administration's (VHA) facilities, these kiosks, powered by a groundbreaking VetLink technology platform, give veterans the option of checking themselves in for their appointments as well as taking care of tasks such as renewing prescriptions, making co-pays, and completing health screening surveys. As veterans access the kiosks, staff behind the scenes use real-time dashboards to manage patient queues with the facility's workflow, resulting in prioritized care for those most in need and reduced wait times for all.

VetLink was developed by Burlington, Massachusetts-based Vecna Technologies under an SBIR contract with the DoD's Defense Health Agency (DHA). It was then adopted by the Department of Veteran Affairs (VA) as part of a VA initiative to speed workflow and improve interactions with veterans. It has since been approved for use throughout the VHA, as well as DoD medical facilities managed by the DHA. "The VA, and the DoD as a whole, really took the lead on automated check-in technology as



part of their focus on improving the patient's experience," said Deborah Theobald, CEO of Vecna Technologies. "As a result, with VetLink we were able to fully automate the entire process and provide DoD and the VA with the most feature-rich automation platform available."

Key to its performance is VetLink's ability to interface with a wide range of proprietary legacy systems, including the Veterans Information Systems and Technology Architecture (VistA). "That creates powerful efficiencies down the line," said Theobald.

Once a veteran updates his or her insurance, for example, the information is written back into VistA, eliminating the need for veterans to submit changes to every medical, dental, pharmacy, or other VA entity that might need the new information. That saves time as well as reduces the risks of multiple data entries leading to inaccuracies in the system. "The information is entered just once by the person who knows it best," Theobald said. The streamlined processes and other staff tools built into VetLink have been shown to reduce staff workload by 30 percent.

Giving veterans more control over their health information can also lead to improved health and treatment, as shown by a study done at the VA Palo Alto Healthcare System in collaboration with Stanford University and the University of California. Researchers wanted to know if a patient check-in



kiosk decision-support system could affect the over-prescription of antibiotics. During the study, after veterans input data about their illness in VetLink's survey-and-forms module, a decision-support algorithm developed by the researchers then generated customized recommendations for the healthcare providers treating the patients. Study results suggested that such an approach could indeed reduce unnecessary use of antibiotics to treat acute respiratory tract infections (ARIs) by as much as 30 percent.

It also found a high level of veteran engagement, both in study participation and in their ensuing interactions with their providers.

Vecna has transitioned the automated check-in technology to the commercial market; the platform is now used by small and large healthcare enterprises across the country. Improved patient satisfaction, staff efficiencies, and the scalability of Vecna's technology are all strong incentives for these customers.

"When we talk to our potential commercial customers, we've found that all are eager to visit the VA facilities and see how the technology performs," said Theobald. "There are levels of complexity when you are delivering information across multiple locations and settings. So when they see how VetLink works for a patient community of nine million, they know they can apply best practices and make it work at their facility."

Their metrics prove the theory. At a community-owned health system with 54 specialties and 540 physicians, for example, after installation of kiosks, patients' registration wait times were decreased to under five minutes with most patients then seen by providers within ten



Deborah Theobald

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Vecna Technologies, Inc.

Greenbelt, MD

Modernization Priority: General Warfighting Requirements (GWR)

SBIR contract: W81XWH-09-C-0063 • Agency: DHA • Topic: OSD08-H13, Improving patient safety by enhancing the medication delivery and administration process into a seamless system

minutes.

Vecna's automated check-in kiosks are available as free-standing, tablet, and wall-mounted systems. Patients can complete pre-visit registration from their home computers as well. Theobald believes that ultimately the systems will be accessible through mobile technology in all markets. "Healthcare is tracking the airlines," she said. "Everyone now trusts that they can go online on their phones, see their options and book their flights. Healthcare is moving in that same direction: ease of scheduling, managing co-pays, even getting follow-up care. So we're working to move people forward in healthcare with the models and paradigms they already are comfortable with."

A 2011 winner of the prestigious Tibbetts Award, recognizing excellence in SBIR achievements, Vecna's success in leveraging the SBIR program for commercialization goes back to the company's early days in 1999. At that time, it received SBIR funding from the National Institutes of Health to work with Boston hospitals to track real-time health data concerning healthcare-acquired (nosocomial) infections and antimicrobial resistance. That project led to commercialization of the Vecna Clinical Surveillance Platform, its infection control platform that monitors and shares data and reports among hospital staff and reporting agencies.

"We continue to innovate our platforms through the SBIR program—whether for automated check-in, infection disease surveillance, or even robotics—and bring those improvements to bear both within the DoD and the VA, and for our commercial communities," Theobald said. 🌸