Nebraska Community Blood Bank

Overview

Region: Nebraska
Industry: Healthcare

Customer Profile
The establishment of an open-heart surgery program in Lincoln, Nebraska was the motivating factor for the Lancaster County Medical Society to form a community-based blood bank in October 1968. Since then, Lincoln's medical community has experienced phenomenal growth. Much has changed; yet one thing remains the same, Nebraska Community Blood Bank's (NCBB) commitment to connecting people and saving lives.

Business Situation
In order to deploy and properly support the new Blood Enterprise Computing System provided by Blood Bank Computer Systems, Inc. (BBCS), NCBB needed a very specific type of computing platform.

Solution
After an in-depth search, NCBB found tablets to be the ideal form factor. Motion® Tablet PCs, with a Windows operating system, integrated barcode scanner and a variety of docking stations, such as ReadyDock™ by ATS, offered the ideal tablet solution to meet its requirements. NCBB deployed its first Motion Tablet PC in 2005 and since then has grown its deployment to 50 units, including the Motion CL900 Tablet PC.

Benefits
- Mobile team saves approximately 830 hours per year with the computerized solution
- Questionnaire-related deviations went down 74 percent in the first two years of use

Nebraska Community Blood Bank Saves 830 Hours per Year with Help from Motion Tablet PCs

"While NCBB benefits from time and cost savings, what really matters is that the entire process has been streamlined using BBCS' SRQ software on Motion Tablet PCs, meaning we can get blood to those in need faster and more safely. The questionnaire is the first step in the donation process, and it's essential that it starts off right."

Jason Fenner, director of information systems, Nebraska Community Blood Bank

In an effort to completely eliminate paper-based workflows, Nebraska Community Blood Bank's (NCBB) implemented a new Blood Enterprise Computing System provided by Blood Bank Computer Systems, Inc. (BBCS). The BBCS Self-Registration Questionnaire (SRQ), an electronic version of the Universal Donor Health Questionnaire (UDHQ) that the FDA requires all donors to complete for eligibility, enabled donors to complete the questionnaire in a fully paperless environment. By eliminating its dependence on paper, NCBB hoped to reduce errors, simplify workflows and increase the efficiency and accuracy of information.

With the BBCS SRQ software running on Motion Tablet PCs, NCBB has increased efficiency, saved time and reduced errors; enhancing overall employee and donor satisfaction. With the paper questionnaire, staff was required to manually input donor information into the database. For the mobile staff, this meant returning to the centers at the end of the day. Now, staff benefit from wireless, real-time connectivity that keeps both fixed and blood drives live and connected at all times. Any information collected is automatically updated in the database in real time, saving the staff extra work at the end of the day. According to Fenner, the mobile team saves approximately 830 hours per year with the computerized solution.

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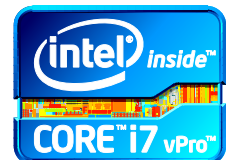
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With three fixed donation centers and four mobile donation vehicles, NCBB provides quality blood products and other related services to countless donors, patients and physicians as well as healthcare facilities in six counties.

Challenge

In an effort to completely eliminate paper-based workflows, NCBB implemented a new Blood Establishment Computer System provided by Blood Bank Computer Systems, Inc. (BBCS) in 2005. The BBCS Self-Registration Questionnaire (SRQ), an electronic version of the Universal Donor Health Questionnaire (UDHQ) that the FDA requires all donors to complete for eligibility, enabled donors to complete the questionnaire in a fully paperless environment. By eliminating its dependence on paper, NCBB hoped to reduce errors, simplify workflows and increase the efficiency and accuracy of information.

In order to deploy and properly support the BBCS SRQ software, NCBB needed a very specific type of computing platform that met several requirements, including:

- Security. As the BBCS SRQ must comply with high security standards associated with FDA regulation, the technology had to support its existing security infrastructure.
- Space constraints. Desktops were out of the question due to space constraints and the cost of reconfiguring the waiting rooms. A lightweight, highly-mobile form factor was needed.
- A complete solution. NCBB needed a complete solution that included a Windows operating system for optimal compatibility with the Windows-based BBCS SRQ software, integrated features, such as a barcode scanner, as well as docking solutions.

Solution

After an in-depth search, NCBB found tablets to be the ideal form factor. Motion® Tablet PCs, with a Windows operating system, integrated barcode scanner and a variety of docking stations, such as ReadyDock™ by ATS, offered the ideal tablet solution to meet its requirements. NCBB deployed its first Motion Tablet PC in 2005 and since then has grown its deployment to 50 units, including the Motion CL900 Tablet PC.

According to Jason Fenner, director of information systems at NCBB, "The Motion Tablet PCs are ideal because we didn't have to change our workflow or physical work area to make the deployment work. The Windows operating system means enhanced compatibility and security, and with the privacy protectors on the screens, the donors' information is kept completely confidential even when they are sitting right next to one another. When they're done filling out the questionnaires, they return the tablets to the registration desk staff who dock them in the docking solutions, which also charge the devices."

Fenner notes that all donor information is stored on a server, not the tablets, so if a device were to go missing, patient information would remain secure.

Integrated features create an all-in-one device

NCBB cites the Motion Tablet PCs' built-in barcode scanner as an essential tool during the registration process on mobile drives. At their first donation, donors receive an official donor card provided by the BBCS SRQ software. Each card has a barcode that when scanned by the tablet, pulls up all relevant donor information. "Instead of having donors fill out a registration form each time, we can scan their cards and have that information immediately pop-up and quickly verify it," said Fenner.

The tablets' durability is another feature NCBB cannot do without. "The tablets are in the hands of the public, and there's no guarantee how they will treat them," said Fenner. "Sometimes donors hit the displays so hard with the pen or their fingernails that they leave a mark on the screen protector. And of course they bump and drop them, but we don't have to worry because the tablets are built to withstand our environment."

Expanding the deployment to the mobile donation trucks

"Once the blood drive staff saw what was going on in the donation centers, they wanted to know when they could get their hands on the tablets because they liked the process so much," said Fenner.

Just weeks later, all four of NCBB's blood drive donation vehicles were outfitted with Motion Tablet PCs. NCBB found the tablets to be especially useful because of the limited amount of space in the trucks. The Blood Bank was able to maximize storage and provide a secure docking solution by mounting ReadyDocks into the trucks' existing cabinets.

Results

830 hours of time savings per year

With the BBCS SRQ software running on Motion Tablet PCs, NCBB has increased efficiency, saved time and reduced errors; enhancing overall employee and donor satisfaction. With the paper questionnaire, the staff was required to manually input donor information into the database. For the mobile staff, this meant returning to the centers at the end of the day. Now, staff benefit from wireless, real-time connectivity that keeps both fixed and blood drives live and connected at all times. The SRQ software automatically updates collected answers into the database in real-time, eliminating the need for staff to hand-enter all data at the end of each day. According to Fenner, the mobile team saves approximately 830 hours per year with the computerized solution.

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Questionnaire-related deviations went down74 percent in the first two years of use

"While faster job completion is a huge benefit, we also receive a tremendous advantage with regard to quality assurance, since the SRQ software automatically double checks data at the time of entry," said Fenner.

Previously, the staff was tasked with double checking the paper questionnaires. Now, the BBCS system automatically does this, enhancing accuracy and freeing up the staff's time.

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According to FDA regulation, any errors that cause deviation from the standard operating procedure must be captured in a deviation document, and those documents have to be reviewed and signed off by three NCBB employees. With the computerized solution in place, NCBB was able to reduce the number of deviations by 74 percent through real-time data entry. The reduction in deviations saves NCBB employees' time as well as expenses. Most importantly, the reduction of deviations increases the safety, purity and potency of each product that is made at NCBB.

Enhanced donor satisfaction

"As the average donor age is 45, going into the project, we were concerned that the older population would have some trouble with it, but the solution is so intuitive that we didn't have any problems," said Fenner.

According to Fenner, the solution has made donors more comfortable as well. "We're required to ask some very personal questions, and people are more comfortable answering honestly to a computer than to another person."

Conclusion
Looking forward, NCBB plans to incorporate the tablets' integrated cameras for donor photo documentation, further enhancing and streamlining the donor registration process. "It's everything we need in one device," concluded Fenner.

"While NCBB benefits from time and cost savings, what really matters is that the entire process has been streamlined using BBCS' SRQ software on Motion Tablet PCs, meaning we can get blood to those in need faster and more safely," said Fenner. "The questionnaire is the first step in the donation process, and it's essential that it starts off right."