

OrthoRehab Improves Inventory Management with BlackBerry

OrthoRehab provides an advanced technology called Continuous Passive Motion (CPM) that helps postoperative patients exercise limbs and joints to promote faster healing. Managing this inventory – more than 17,000 pieces of equipment – was proving ineffective with their current paper-based method. Paperwork was lagging two to four weeks behind service and support, leaving the company unsure of where its equipment was and slowing down their billing processes.

In 2003, they looked at leveraging their current BlackBerry® solution for management into the field. The field solution involved barcode scanning with BlackBerry handhelds, deployed with Flowfinity Forms, an electronic forms application. Each of the 173 OrthoRehab field workers was equipped with a laser scanner tethered to a BlackBerry handheld, so CPM units could be instantly scanned, electronically recorded at patient sites and the information relayed wirelessly to the corporate headquarters.

The company received compelling ROI, such as:

- A reduction in inventory tracking paperwork and an increase in accurate reporting
- More efficiency in separating billing and inventory tracking
- Financial losses reduced by \$250,000/year in unreported losses
- Increased employee productivity and enhanced patient care
- Reduced administrative work in updating the master database

OrthoRehab had always tracked its inventory using a paper-based process. Their Patient Service Representatives manually completed a form every time one of the company's CPM units was transferred to a patient, hospital or clinic. The form was faxed to regional or corporate centers, where it was transferred to an electronic billing database. With more than 17,000 pieces of equipment in rotation at all times, paperwork lagged two to four weeks behind services. The lack of precision meant 2,000 to 3,000 devices could show up missing during an inventory period, costing the company both time and money.

Industry

Healthcare

Situation

A paper-based inventory tracking system for OrthoRehab's equipment was inefficient and slow, resulting in lost revenue, confusion about the location of inventory and cumbersome, error-ridden reporting systems that affected the speed at which they billed for services.

Company Profile

OrthoRehab, Inc. is the nation's leading supplier of rehabilitative goods and services to postoperative limb surgery patients. Based in Tempe, Arizona, OrthoRehab employs more than 225 people and has offices in major locations across the country.

Solution

Patient Services Representatives began carrying a BlackBerry handheld with a tethered laser scanner to scan barcodes on the machinery. A Flowfinity application would run on the BlackBerry handheld to offer wireless forms that could be instantly communicated to the company's head office.

Results

OrthoRehab estimates they are saving \$250,000 annually with the ability to better track their inventory. Paperwork has been reduced and streamlined, reporting is faster and billing is now conducted more effectively, saving the company both time and money. Field employees have improved their productivity and can often save up to two hours per day with their new wireless solution.

Investigating a Wireless Solution

In 2001, OrthoRehab began looking for a better way, with electronic tracking through another mobility solutions provider. A limited roll out tested a combined PDA and scanner. The results were unimpressive. With a battery life of less than one day, and the need to synch the device to a desktop computer, the company found the solution was not meeting its goals. The price also proved prohibitive, at \$1,500 per device.

"We just wanted to come up with a way for inventory to be recorded electronically every time it was touched," says Brian Tower, Director of Information Technology. "I was also trying to separate inventory from billing. Because the two had been joined for so long, it was having a negative effect on our revenue."

In 2003, already using BlackBerry for senior levels of management, they realized the solution could also be used in the field. "We figured out that we could take information from a device, communicate it to the BlackBerry handheld and then bring it into our database," says Tower. A wireless inventory tracking solution was built on the BlackBerry handheld, with a tethered scanner, using a Flowfinity application for tracking and forms. The system would run over AT&T's GSM/GPRS network.

BlackBerry could offer its well-documented superior battery life, giving mobile workers a reliable solution at a competitive price per handheld. BlackBerry push technology meant that field workers were always online, receiving important data in close to real-time, rather than having to dial-up or synch up handhelds at the end of the day. All of this was enabled on the BlackBerry Enterprise Server™.

Seamless Integration

Minimal time was required for system integration, largely because the Java™ platform used with BlackBerry is engineered for ease of deployment across multiple systems. It took a developer only one month to integrate the new solution with the existing Microsoft .NET system. Tower and his team used Flowfinity Forms, a data collection application, to develop electronic versions of the original paper forms. No custom programming was required to make these forms digital and the software was up-and-running within 72 hours.

Each of the 173 field workers – including Patient Service Representatives and sales representatives – was given a BlackBerry handheld with a laser-tethered scanner. The user simply scanned the barcode on the CPM units at the patient site. They then input data into a simple form on their BlackBerry handheld, which was wirelessly sent to corporate headquarters, where it was entered into the billing system.

"The second that we sent the handhelds out there, it really increased everyone's effectiveness," says Tower. OrthoRehab can now see where their inventory is at-a-glance and which patients have been set up with CPM units. Improved inventory tracking has increased the accountability of individual regional offices.

The electronic forms and barcode scanning eliminated human errors (a major concern for health care providers), such as illegible information or having product serial numbers recorded incorrectly. Before, OrthoRehab found itself relying on billing to track the movement of their inventory. With much of their inventory going unreported because of the inefficiencies of the system, they were losing revenue. They now estimate saving \$250,000 annually with their new wireless solution. The billing process is faster, accurate and inventory can be tracked up-to-the-minute.

"Compared to what we were losing," says Tower, "it's practically a no-brainer as far as how quick we're going to pick up our investment. The solution was both a necessity and an investment well worth making."

In addition, BlackBerry has helped improve security. Under HIPPA, companies like OrthoRehab must follow certain guidelines when transmitting patient data to ensure the patient's privacy. Under the old system, confidential information was faxed over phone lines, which do not guarantee security. With Triple DES encryption, OrthoRehab is now able to securely communicate patient data.

The greatest benefits have certainly been felt at the bottom line. Now that OrthoRehab can track its inventory better, they can also order it more effectively. "If we can obtain goods at a lower cost and get inventory to somebody more quickly, then the bottom line is felt by everyone," says Tower.

Unexpected Benefits

But there were spin-off benefits that OrthoRehab didn't expect. "BlackBerry has become the norm for our organization now," says Tower. "When field workers realized that so much of what they do on a day-to-day basis could be rolled up in this little device and how much more efficient they could be, then a few heads started to turn."

In fact, 80 percent of OrthoRehab's 225 staff use BlackBerry on a regular basis. Productivity has improved because of the integrated features of a BlackBerry handheld – mobile email access, phone and calendaring. "Before we pretty much lived and died by cell phones and pagers," says Tower. "If people had to check their email, they would run into their local offices and connect via some type of remote access."

Email accessibility on BlackBerry handhelds has even helped Patient Service Representatives locate patients' houses more easily. Locating an address used to require a phone call and a fax back with directions from a regional office. This could result in lost productivity as employees stood at fax machines waiting for paperwork to come through. Now, reps go online and find the directions themselves on their handhelds. "Just that kind of thing alone is knocking off two hours a day," says Tower.

"For years, the field was pushing us to supply them with laptops," says Tower. "But with BlackBerry, they already get email and calendar. So the push back from the field for laptops became almost nil and we could retire the need for that program and expense."

The Future

Everyone at OrthoRehab is excited about the opportunities that have opened up as a result of the wireless solution. They now have a list of potential new applications. The next project they've planned is to transfer their patient agreement form from paper to a wireless application. Tower and his team are working to recreate this form on the BlackBerry handheld, which will eventually allow them to easily transfer the information to their database. Other forms that are candidates for this kind of process include insurance information, co-pays and even physician prescriptions.

"We have just started down this road and there are so many opportunities ahead of us," says Tower. "Whatever we consolidate and get into a form on the BlackBerry handheld is going to be a win for us."

The Benefits

While OrthoRehab has discovered excellent financial ROI, they have equally enjoyed the unexpected benefits of their new wireless solution, including:

- A reduction in inventory tracking paperwork and an increase in accurate reporting
- Billing and inventory tracking separated for greater efficiency
- Financial losses reduced by \$250,000/year in unreported losses
- Increased employee productivity and improved patient care
- Reduced administrative work in updating the master database
- Expedited processes enables more rapid billing
- Greater employee morale and more communication between mobile and office employees.

For additional BlackBerry case studies, success stories and customer quotes, please visit www.blackberry.com/go/success.

"BlackBerry has become the norm for our organization now. When field workers realized that so much of what they do on a day-to-day basis could be rolled up in this little device and how much more efficient they could be, then a few heads started to turn."

*Brian Tower,
Director of Information
Technology,
OrthoRehab*