

# Proof positive

Study proves that WaveMark™ supply management and workflow solutions return significant time and cost savings at Adventist Health White Memorial

By now, it's an all-too-familiar challenge for today's hospitals and health systems. Nationwide, they're under increased pressure to provide safer, higher quality care, while also driving down costs and improving efficiency so they can serve more patients.

Soon after joining Adventist Health White Memorial in Los Angeles, Daniel Moreno, RN, MS, saw tremendous opportunity to answer many of those challenges, by transforming the way the hospital's Heart and Vascular Center managed cardiovascular supplies.

Moreno, who serves as Cardiovascular Line Administrator, started out by identifying the obstacles his team faced:

- **Inconsistent, manual and time-consuming processes for ordering, storing and replenishing supplies** led to a lot of wasted staff time — and money.
- **No easy way to locate or track expired and recalled products** puts patient safety at risk, and caused the hospital to lose money every time a product expired before it could be pulled from the shelf.
- **Little supply chain visibility** meant more lost money due to excess inventory. Staff had no easy way to see which products were available, how they were being used or whether they had been charged to a patient.
- **Inconsistent workflows** because each staff member had his or her own approach to managing supplies manually.

Moreno and his team knew things needed to change. They needed a tool that would help reduce costs, drive efficiency, support patient safety and free up time to focus on patient care.

They addressed each one of these goals by implementing the WaveMark™ supply management solution powered by RFID (radio frequency identification) technology to manage more than 1,700 SKUs in White Memorial's five-room Cardiovascular Department.

## About Adventist Health White Memorial

Adventist Health White Memorial is a 353-bed, not-for-profit, faith-based, teaching hospital, which provides a full range of inpatient, outpatient, emergency and diagnostic services to communities in and near downtown Los Angeles.

Keeping its communities healthy has been the mission of White Memorial Medical Center since its founding by the Seventh-day Adventist Church in 1913.

Today, White Memorial is one of the region's leading not-for-profit hospitals. Services include cardiac and vascular care, intensive and general medical care, oncology, orthopedic care, rehabilitation, specialized and general surgery, and women's and children's services.

White Memorial has earned an array of awards and recognitions, acknowledging its commitment to clinical excellence and safe care. In 2016 and 2017, it was named one of America's 100 Best Hospitals™ by Healthgrades, received a "Grade A" 2016 Spring/Fall Hospital Safety Score™ from The Leapfrog Group, and The Women's Choice Award®, which recognizes America's best hospitals for patient safety.

## How much impact can the WaveMark RFID solution really have on one hospital?

A Time-and-Motion study was conducted by a third party at White Memorial, measuring how much time staff spent on a wide range of supply management activities within two of its cardiac catheterization labs and an electrophysiology lab.

- **Phase I Research: Manual Supply Management**  
Measured how much time staff spent using purely manual processes for nearly all supply management activities. Also collected anecdotal data from staff to study their experiences with supply-related activities like pulling inventory reports and accurately billing products to patients.
- **Phase II Research: RFID-enabled Supply Management**  
Measured the time staff spent on these same activities, just three months after the implementation of the WaveMark RFID solution. Also measured anecdotal feedback from staff regarding supply-related pain points.

The study findings were compelling.

### Manual vs. RFID: Real results, real fast

Overall, the Time-and-Motion study proved that the WaveMark solution delivered immediate, significant time and cost savings — *in just the first three months after implementation.*

#### The big picture

Automated inventory management delivered big, measurable savings



Average weekly time savings<sup>1</sup>



Yearly time savings<sup>1</sup>



Overall time savings<sup>1</sup>

#### Before RFID

White Memorial staff share their frustrations with manual supply management:

*"Our [manual] process works, but it's not practical. It's a bad use of time."*

*"Right now we have a lot of disjointed ways to make sure items get reordered. Placing orders is very frustrating and time consuming. Sometimes we end up not having a product we need."*

*"When the pace is slow, it's easier to keep good inventory records. When the pace is fast, it's hard to stay on top of it. When we're busy, inventory and supply ordering is the last priority for the staff, and manual counting is the last thing to get done."*



#### RFID: A Game Changer

WaveMark RFID-enabled technologies automate hospital supply chain processes, providing real-time, end-to-end visibility that helps healthcare providers dramatically improve workflows and virtually eliminate manual cycle counting. All while providing quick and easy access to data that can drive new insights into improving performance and driving down costs.

## Manual vs. RFID: Real results, real fast (continued)

### Time savings by inventory management tasks



### Beyond the numbers

The WaveMark RFID solution is delivering many additional benefits that help Moreno's team work in a smarter, more efficient, more patient-centered way. The solution's highly visual, user-friendly dashboard gives the team 24/7 visibility into all aspects of their supply chain, giving them immediate access to data so they can:

- **Support patient safety.** They now have peace of mind that the risk of expired or recalled products being used on patients is significantly reduced.
- **Proactively locate soon-to-be-expired products.** Staff can quickly identify, then return or exchange products before they expire, avoiding lost revenue.
- **Right-size inventory.** They can now quickly adjust par levels to prevent understocking or overstocking, while also avoiding waste.
- **Instantly access comprehensive, complete inventory data.** The process of pulling annual inventory reports used to take months. Now it takes minutes.
- **Quickly pull reports.** To analyze — and proactively manage — overall spend, cost-per-case, par levels and other metrics.
- **Dramatically simplify workflow and improve process consistency.** Now, any staff member — even temporary staff — can easily order, track or replenish supplies. Clinicians can quickly grab the products they need and have more time to spend on patient care.



*"We used to have four different staff members using four different processes. We don't have to worry about that now. Our team no longer has to spend time running around looking for products.*

*We're not seeing lost product like we used to because someone from the OR comes down in the middle of the night and takes a product. We have that visibility now — and with RFID technology, we know exactly where to find each product."*

**Daniel Moreno, RN, MS**  
Cardiovascular Service  
Line Administrator  
Adventist Health White Memorial

## More ways to save

The Time and Motion study measured the results the WaveMark RFID solutions generated for White Memorial within just the *first three months* of installation. But White Memorial has only just begun to tap the power of RFID. Additional opportunities to further expand the ROI of the WaveMark RFID solutions include:

- Fully integrating the solutions into hospital ordering, billing and patient records systems.
- Expanding the solution into other procedural areas.
- Leveraging its dashboard data to facilitate forecasting, planning and resource discussions with the hospital C-suite, clinicians and supply chain teams.
- Improving charge capture and cost-per-case by tracking each product's use to a patient.
- Using the tool's data to monitor and drive physician participation in product standardization initiatives.
- Redeploying staff members to more strategic tasks ranging from personal education and cross training to managing Fluoroscopy labs.
- Adding smaller supplies, which are currently kept in bins and scanned by wand, to automated cabinets to reduce scanning time while improving par levels and charge capture.

## ROI at-a-glance

After White Memorial implemented WaveMark in two cardiac catheterization labs and one electrophysiology lab:

\$42,000

in initial savings from improved charged capture



100%

elimination of manual counting



Eliminated

100%

of rush shipping costs due to stockouts



\$120,000

in savings, annually, by identifying products before they expire



100%

consistency — all labs now use same process for supply management



*"We were tossing out \$10,000-\$12,000 worth of expired product every month. Now we're alerted when a product's going to expire, and we know exactly where to find it. I no longer have to worry that an expired product will be used in a procedure because it was laying around in a back closet."*

**Daniel Moreno, RN, MS**

Cardiovascular Service  
Line Administrator  
Adventist Health White Memorial

## About Cardinal Health

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Cardinal Health, Inc. (NYSE: CAH), is a global integrated healthcare services and products company, providing customized solutions for hospital systems, pharmacies, ambulatory surgery centers, clinical laboratories and physician offices worldwide. The company provides clinically-proven medical products and pharmaceuticals and cost-effective solutions that enhance supply chain efficiency. Cardinal Health connects patients, providers, payers, pharmacists and manufacturers for integrated care coordination and better patient management. Backed by nearly 100 years of experience, with more than 37,000 employees in nearly 60 countries, Cardinal Health ranks among the top 25 on the *Fortune 500*. For more information, visit [cardinalhealth.com](http://cardinalhealth.com), follow @CardinalHealth on Twitter and connect on LinkedIn at [linkedin.com/company/cardinal-health](https://www.linkedin.com/company/cardinal-health).

### SOURCES

<sup>1</sup>Data based on time and motion study led by third party research firm, Kaleidoscope. Study conducted at White Memorial Hospital, Los Angeles, CA. 2017.

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