

# Automation Improves Profitability and Increases Workflow Efficiencies

A CUBEX CASE STUDY



The introduction of the Cubex solution at Veterinary Specialty Hospital of San Diego achieved the following results:

- \$83,475 reduction in on-hand inventory
- \$30,500 reduction in annual operating cost through reallocation of a staff member
- Implementation of automated ordering
- Five pharmacy locations consolidated to one location

## A Cubex Case Study:

# Veterinary Specialty Hospital of San Diego

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TYPE:  
24/7/365 Specialty Hospital

SIZE:  
26,500 sq. feet (3 stories)

NUMBER OF EMPLOYEES:  
145

NUMBER OF DOCTORS:  
34

MONTHLY SPEND ON PHARMACY:  
\$50,000

Veterinary Specialty Hospital (VSH) of San Diego has been a leader in specialty veterinary care since 1990, fulfilling the need for specialty healthcare and emergency services for animals in San Diego County and the western United States.

At VSH, the pharmacy services department is an integral part of the hospital's mission to improve operational efficiency, patient safety and medication charge capturing. The pharmacy provides both in-patient and outpatient services and relies heavily on having the right medications in the right place at the right time.

Keith Richter, DVM, DACVIM has been the Hospital Director at Veterinary Specialty Hospital since 1990. Since his tenure began, he has consistently developed policies and procedures for continuous hospital-wide improvements. As the hospital continued to grow over the years and add new specialties, it became apparent that the manual medication dispensing and ordering processes were labor-intensive, disjointed, and would soon be non-congruent with the opening of VSH's new specialty hospital. The ordering system was creating hospital-wide inefficiencies and decreasing profits for VSH.

### The Challenge

In addition to these operational inefficiencies of supply and pharmacy management, Dr. Richter and his management team were concerned that managing supplies and medications manually placed an undue burden on staff members.

Three pharmacy technicians spent 90% of their time dispensing medications, documenting usage and placing manual orders to suppliers. "We needed to redesign our medication and supply distribution process to make it more efficient," said Dr. Richter.

With the development of a new sister specialty hospital scheduled to open in 6 months, Dr. Richter and Dr. Margo Karriker, PharmD, developed a vision to improve their pharmacy supply chain. The VSH team had five main objectives:

- Improve financial performance by automating the complete inventory management process, including the dispensing of medication and automatic ordering from suppliers.
- Improve pharmacy procedures by closing the "open" pharmacy while alleviating the cumbersome controlled-drug dispensing and tracking process.
- Obtain real-time data of their on-hand inventory, medication and supply usage, as well as overall spending information on these items that would allow for more powerful negotiations with vendors/distributors.
- Reduce overstock items and eliminate product outdates.
- Move the inventory used in the Surgery Department to a consignment program. Surgical items are extremely expensive; VSH stocked these supplies in amounts that exceeded what they truly needed.

“We had an “open” pharmacy where everybody had access to everything. Now with Cubex, we have control over who accesses medications.”

Keith Richter, DVM, DACVIM, Hospital Director, Veterinary Specialty Hospital of San Diego



## The Solution

In early 2009, after evaluating various automated medication dispensing models, VSH chose to partner with Cubex LLC, to further develop and implement their inventory management vision. “We knew we had to do something and Cubex provided both the technology and inventory management expertise that would allow us to implement a comprehensive solution,” said Richter. A key initiative of the implementation was to dismantle the open pharmacy and put medications in a centralized, controlled location. To meet this requirement, Cubex installed two Cubex 2000 cabinets in the treatment area and one Cubex 1000 cabinet in the emergency room. In conjunction with automating the pharmacy and ER, VSH implemented a Cubex 3000 cabinet in their surgery suite.

Cubex completely automated the medication dispensing process. Now, staff members gain access to the items they require for patient care without having to search multiple locations and they are confident that the product they need will be in stock. They are also able to gain access to items themselves without having to wait for the pharmacy staff to dispense the medications. This resulted in a marked improvement in work flow. All staff members have an access code to the cabinet. They simply enter the code by using the keypad, and then select the item and quantity to dispense. Once the door unlocks, a guiding light leads them to the item they have selected. They take the item and return to the patient. Prior to Cubex, this process

could take minutes. Now, it takes just a few seconds. Controlled drugs are also managed through the Cubex cabinet but are locked individually in Cubex Narcotic Drawers. Only a handful of staff members have access to these drawers within the cabinet and are able to access only the item they’ve chosen, rather than the full inventory of controlled drugs. “We had an “open” pharmacy where everybody had access to everything,” said Richter. “Now with Cubex, we have control over who accesses medications.”

Not only are all the medications tracked and accounted for, the Cubex System integrates with a web-hosted portal where all items are automatically reordered from their suppliers when pre-determined minimum levels are reached. Pharmacy technicians and hospital management can access reports on consumption, inventory aging and other data. This new process allows them to analyze their inventory levels as well as identify obsolete or slow moving items within the hospital. The new system is timesaving, accurate, and far more efficient than the manual system.

The implementation of Cubex in the Surgery area enabled VSH to work with Securos on a consignment program for the majority of their surgical pins, plates, and screws. Ownership of the Securos inventory is transferred to VSH on a per-item basis; this means VSH is not charged for the item until a VSH employee uses it for patient care. The Cubex System then produces an automated order report back to Securos for billing.

The Cubex cabinet also manages other surgery-related items, and has allowed the surgery staff to organize and gain greater control over their inventory.

## The Results

Dr. Richter and other VSH management believe the Cubex solution and process enhancements have paid off. The results include significant efficiency gains, quality improvements and an improved financial position. Prior to Cubex, the pharmacy staff was consumed by manual inventory tasks that are now automated.

For example, each week pharmacy staff spent up to 7 hours placing manual medication orders with multiple vendors. With Cubex, orders are sent to suppliers automatically. Additionally, 54% of pharmacy medications that were previously stocked in five locations were consolidated into one with the implementation of the Cubex cabinets in the treatment area. This has had a positive impact on staff efficiency levels because now, employees only have to look in one area for the majority of patient medication needs.

Through the use of Cubex and the detailed inventory usage data captured by the system, VSH significantly reduced on-hand inventory. This has lowered their overall carrying costs of pharmacy inventory and has freed up valuable cash. The business intelligence reports allow for more accurate tracking of slow-moving items and obsolete or expired items. For example, VSH discovered that in the first 60 days, over 90 pharmacy

items had not been used at all. These reports help to make decisions about items that can be deleted from the inventory completely. Prior to Cubex, Inventory Aging information was difficult to assess.

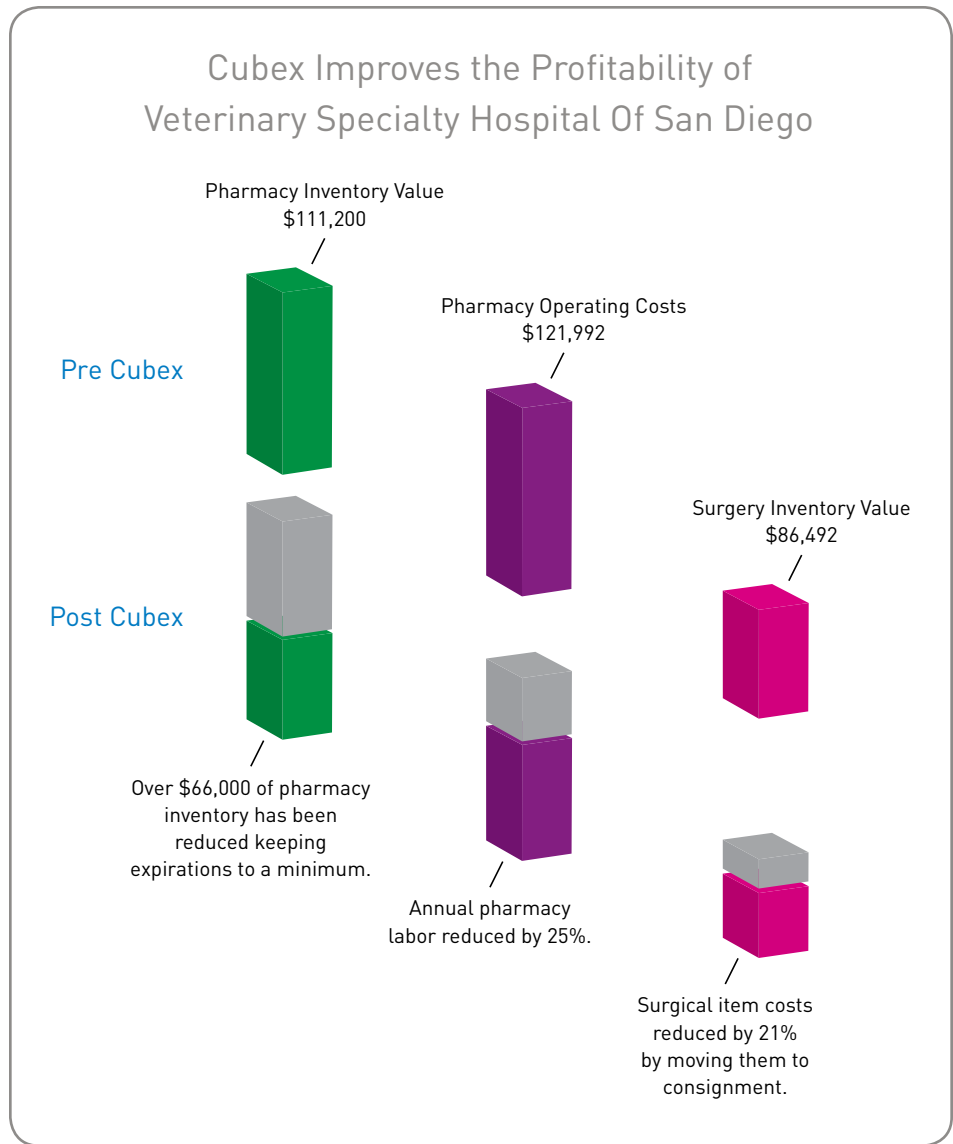
The hospital recognized immediate, financial savings in the Surgery department after implementing Cubex due to the reduction in carrying costs of expensive, surgical items.

### The Financial Benefits

- The pharmacy recognized a 60% reduction in inventory on-hand resulting in a \$66,475 savings on the items that are now being managed through the Cubex System.
- Operational costs in the Pharmacy have been reduced by 25% as a result of the Cubex implementation. VSH has seen annualized savings of \$30,500 in costs related to staff time spent managing pharmacy. One entire pharmacy position was eliminated.
- The introduction of Cubex cabinets in the surgery department removed \$17,000 in inventory from surgical supplies to consignment. This represents a 21% decrease in inventory cost for surgery for VSH.

### The Future

The Cubex service offering includes 6-month and 12-month inventory optimization and maximization scorecards. This helps customers further analyze and reduce the total cost of ownership on their pharmacy and supply inventory. At this time, VSH is in the process of reviewing scorecard data along with their annual hospital-wide inventory numbers and are looking to add more of their pharmacy



inventory into Cubex cabinets and reduce the amount of unused, slow moving inventory. VSH and Cubex are also working together to develop a program that will manage their supply inventory hospital-wide.

Due to the success of the Cubex implementation at their main hospital location, VSH has decided to implement the solution in their new, sister hospital located in San Marcos, California.



**“The value of the Cubex solution does not stop at the technology. We are very impressed with the level of customer service, including administrative and staff training, follow-up, trouble shooting and help in analysis of results that the Cubex team has provided.”**

Margo Karriker, PharmD,  
Veterinary Specialty Hospital of San Diego

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