



# Supply Chain Management

## *FY'2021 Year in Review*

August 1, 2021

### TriHealth Team Members:

In my more than 35 years working in healthcare supply chain I can't recall a more challenging and rewarding year as FY'2021. There was nothing typical about the work that was done by all of our team members. The challenges first; basic supplies were disrupted to the point that the sourcing team was forced to deal with non-traditional vendors in a moment's notice, purchasing, accounts payable, finance, logistics, nursing, infection control and other stakeholder departments were on stand-by to vet products, set up new vendors and arrange transportation of supplies from various parts of the Globe. I recall conversations with China, Portugal, Canada, Spain, Malaysia and Taiwan, some through interpreters to lock down Personal Protective Apparel, (PPE) for our front-line workers and ultimately all team members. Companies came out of the woodwork and we had to act decisively to determine the reliability of the vendor and probability that they could deliver what they promised. I must admit, that more times than not, they failed to consummate the transactions. Then it was back to the War Room at Norwood to plan our next procurement strategy. I was never prouder of the TriHealth Team Members that worked tirelessly, in concert to make sure that we were able to bring in the products and protect our patients, team members and Community. We had the support of every executive and were provided the financial authority to do what it took to bring in the PPE.

Our Community also contributed to our success by donating critical supplies as they were needed. Large companies like Proctor and Gamble, The Reds, AtriCure, theatre groups, breweries, distilleries and school districts stepped up to provide what they could and played major roles. Individuals from the community also stepped up and provided everything from CPAP Machines, UV Lighting, hand sanitizers, cleaning wipes, 3D Printed mask clips, toilet paper, masks and snacks.

Perhaps one of the most rewarding attributes was that TriHealth was able to give back to the Community by providing gowns, face-shields, masks and other PPE to our long-term care partners.

Overall, every TriHealth Team Member played a critical role in our efforts to protect our patients. PPE was used responsibly, changes to products were embraced, thank you notes, email and phone calls of thanks and support were frequently received.

On behalf of the entire Supply Chain Team I would like to thank all of you for your patience, support and flexibility throughout the last 18 months. Please see the attached pages for some of the great Non-COVID work that was also accomplished.

Warm Regards,

A handwritten signature in blue ink that reads "Kevin J. Connor".

Kevin J. Connor  
VP, Supply Chain

## WINS!

- ✓ Conversion of Medtronic Linq to Boston Scientific Lux-Dx – Internal Cardiac Monitor (ICM) Device Conversion
  - Estimated annual savings: \$68,975
- ✓ EP Cath Lab ablation and mapping reprocessing – Utilizing Sterilmed to collect and buy back reprocessed Biosense Webster devices
  - Estimated annual savings: \$500,000
- ✓ Ethicon Endomechanicals, Suture and Biologic products standardization
  - Estimated annual savings: \$227,803 line item savings on existing suture and endomechanical products.
  - Additional annual savings: \$231,822 in standardization and conversion
- ✓ Surgical Automatic Tourniquet Conversion - Converted and standardized to Stryker units and cuffs
  - Estimated annual savings: \$21,123
- ✓ Flexicare CO2 Monitoring – Converted Medtronic and Philips capnography tubing and standardized to Flexicare
  - Estimated annual savings: \$150,935
- ✓ Medtronic Interstim
  - Estimated annual savings: \$41,360
- ✓ Synergy XD Coronary Stents
  - Annual Savings Implemented: \$71,500

### Quidel Sofia Testing Platform - Laboratory

TriHealth and Accumen worked together to reduce pricing on our Quidel Sofia reagents across the board. The Sofia performs COVID, Flu, RSV, and Strep A testing. We were able to successfully combine the acute and non-acute sites under one agreement giving us a yearly savings of \$121,000.

### Quidel BNP Testing - Laboratory

Our BNP testing was on a previous contract set to expire. TriHealth and Accumen worked together to negotiate a competitive price per test. Previously, we were paying \$15.32 each and we were able to get testing down to \$12.24 per test. This provided us an estimated savings of \$158,000 based off our previous year's spend.

### Baxter Vaporizers

TriHealth was able to successfully restructure our agreement with Baxter, reducing our obligation to purchase bottles of Desflurane (Suprane). We were able to negotiate a lower bottle per vaporizer rate down from 2 bottles per vaporizer per month to 1 bottle per vaporizer per month. Additionally, Trihealth, in conjunction with Clinical Engineering and the anesthesia doctors, rationalized the number of vaporizers needed in our facilities and we were able to return 41 vaporizers, further alleviating our obligation for Suprane usage. TriHealth finished CY 2020 without a Suprane shortfall for the first time in at least four years and avoided paying the required penalty or buying the unused bottles of Suprane.

### RadioPharmaceutical - Imaging

We were already ordering from Cardinal for our Radio-Pharmaceutical products and we were able to sign an agreement to put these products on contract and provide a savings without having to switch vendors or products. Savings off products prior to signing and as part of COVID relief saved us \$22,000 and we were able to negotiate a one-year price hold saving an additional \$41,000. Part of this contract is that we should receive quarterly rebate checks and our first check for quarter one was \$6,246.00.

## Value Analysis

### Peri-op Value Analysis

Even though COVID-19 affected TriHealth's OR case-loads in '20 & '21, in their monthly meetings the Peri-op VA Team reviewed & made decisions on 89 product requests from 7/1/19 thru 6/30/20, & 93 product requests from 7/1/20 thru 6/30/21. The format we adopted in 2019 in which the product requester (Surgeon, STL, OR Manager, or other) must participate in the VA meeting review to support their request has been very successful. The surgeons have been great & engage in the reviews without hesitation. We have also decided that if the Budget Manager for a request does not participate in the meeting discussion the review of the request will be cancelled. The VA Team provides the clinical & financial data; we cannot make any decisions.

**Peri-op Value analysis has also developed Ad Hoc Teams with Cardiology & Women's Health & meet with them on an as needed basis.**

### Patient Care Value Analysis

The Patient Care VA Team was re-developed in August 2020. This VA Team meets monthly & is comprised of clinical representation from Med/Surg., Critical Care, ED, OB, IP, Safety & Risk, Biomed, Respiratory, Skin & Wound Care etc. The participation of the group is very enthusiastic & clinicians often ask us if they can be included on the team. This past year Patient Care VA has worked closely with the CLABSI/CAUTI Team on several initiatives to reduce HAPIs. Quality Patient Care, Safety of Patients & Caregivers, Standardization, & Savings when possible are the main "Theme of the VA Team."

**Patient Care Value Analysis is already scheduling some trials & initiatives for FY 21-22 which will definitely improve Patient Care & the clinician's ability to safely provide quality care. Stay Posted!**

## Anti-Infection Devices

### Antimicrobial Dressings



To further reduce TriHealth's Central Line Related Bloodstream Infection (CLABSI) and Catheter Related Urinary Tract Infection (CAUTI) rates, Supply Chain, in partnership with Infection Prevention and Nursing, implemented 3M's Tegaderm CHG dressing in February of 2021. In addition to the best in clinical care, patients with central lines, PICC, lines, dialysis catheters, and ports now receive the proven technology of chlorhexidine gluconate (CHG) to further prevent infections. This project took many months to complete, including a trial of 2 leading brands, and education by our vendor partner, 3M.

### Disinfection Caps



Based on clinical feedback and to align with Premier's ASCEND contract, TriHealth transitioned to 3M's CUROS line of disinfection caps in April of 2021. This implementation was met with excitement from the clinical departments, as the new 3M Curoso product is available in strips of 5 (rather than by the each). This new unit of measure and design has allowed for greater use of product and most importantly, keeps our patients protected against infection-causing microorganisms. In FY2022, Supply Chain and Nursing plan to implement 2 more CUROS products to further prevent the possibility of infections.

## Supplier Diversity

FY 21 was a difficult year for supplier diversity efforts, however through it all TriHealth was able to exceed its \$16M goal for the FOURTH CONSECUTIVE YEAR!!! We also were able to add a number of minority and women owned vendors to our supply list including vendors in the medical supply category. There were a number of minority suppliers that helped us to obtain needed PPE supplies during the height of COVID and thanks to those suppliers we have a healthy stockpile of protective gear available for TriHealth patients and caregivers!

Construction continues to lead the way with 38% of our spend with contractors, followed by housekeeping with 17%. The work in supplier diversity continues as we try to grow the diversity of our supplier base to better reflect the communities we SERVE.

## Renewed Premier Relationship

Renewed and reinvigorated TriHealth relationship with Premier, gaining additional analytical support and access to enhanced Premier tools along with an increased admin fee share, an impact of over \$420,000. The new relationship also included support in the Purchased Services area through Conductiv, Premier's, Purchased services GPO. Conductiv will provide support in identifying opportunities, developing strategies and contracts in the vast area of purchased services. TriHealth also established linkage with CommonSpirit Health, which will provide additional contracting leverage on a large portfolio of product categories.

## COVID-19 PPE Preparedness

Throughout the COVID-19 pandemic, the Supply Chain team worked tirelessly to secure large amounts of personal protective equipment for the health system. The team worked with traditional and non-traditional distribution partners to obtain products like isolation gowns, N95 masks, 3-ply earloop masks, protective eyewear, exam gloves, shoe coverings, hand sanitizer, and disinfection wipes. In total, the team was able to purchase the following:

- 250,000 isolation gowns
- 800,000 N95 masks
- 2.4mm 3-ply earloop masks
- 17mm exam gloves

Due to the vast amount of product needed to keep our team members safe, we created a small warehouse at our Norwood office, and rented space at a large storage facility in Cincinnati. Throughout the pandemic we have been able to send critically important products to our front-line teams.



## WaveMark

WaveMark has been in place since FY20 Q3. We continue to learn and improve our use of the system at both Bethesda North and Good Samaritan in the Cath Labs, EP, and Specials arenas. We are excited to share that as part of implementation our expiration rates of product has gone down significantly, and we are below WaveMark's mature user benchmark in the following areas:

Expiration rate **1.4%** (QoQ, vs. seasoned customers 2.1%) (\$11K less than Q1)

**0.66** manufacturers per product types (benchmark 1.19)

## Courier – Accurate Courier Services

In August 2020, TriHealth started an RFP process for our system courier services. The purpose of the courier is to move lab specimens, medication, mail, and supplies between all TriHealth and customer locations. Key stake holders: Lab, Pharmacy, and Supply Chain were the main participants working through the process of selection, planning and go live.

#### RFP Phase highlights:

- 6 vendors invited to participate in RFP
- Compared 3 major areas: On Demand Pricing Model, Routed Pricing Methodology, Questionnaire
- RFP was conducted in 3 sub phases

#### Evaluation phase highlights:

- 4 vendors were reviewed at this phase with a detailed summary of the RFP questionnaire and routing information provided
- Questionnaire contained 15 categories and over 141 questions

#### Selection phase highlights:

- Vendors made presentations to all Key Stakeholders
- Vendors narrowed to final two (MedSpeed and Accurate Courier Services) for further review by TriHealth Key Stakeholders.
- Key Stakeholders voted unanimously to select Accurate Courier Services for the contract award.

#### Post Award Phase:

- Accurate Courier Services: Immediately began working with TriHealth teams and Key Stakeholders to gather needed information. Began working during the contract negotiation period.
- Go live date: April 26, 2021, currently 2 months, 1 weeks into new contract and we are \$25k below FY20 expenses, with decreased IRIS reports and complaints. We are seeing both quality and fiscal improvements with this change.

## Mail & Copy Center

The Mail and Copy Center worked hard to keep the internal and external mail moving with moving parts the majority of 21, especially with the ups and down of COVID and back to business planning. Investments and rightsizing were done to upgrade the mail and copy center equipment to bring work in house from outside vendors as well as review and optimization of process. The equipment installed and services implemented included envelope printing, address labeling, commercial shipping, e-certified, cutting, and folding.

- Created a new process using PDF printers for daily patient letters sent out through epic
- Started sending out Patient Accounting Insurance mail to 5/3 Bank through our courier instead of through USPS saving roughly \$500/mo. in postage

#### Envelope/Address Printing

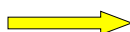
Estimated Additional Savings: \$30,353.09



Actual 6-moth Savings: \$35,215.06

#### Cutting/Creasing Services

Estimated Additional Savings: \$44,786.22



Actual 6-month Savings: \$22,981.79

## Physical Inventories

FY21 brought many challenges and opportunities with the ripple effects of COVID across the global economy. Over the past year the storeroom valuations have fluctuated significantly due to basic commodities and specialty items going on and off backorder, and the needs to go to 3<sup>rd</sup> and 4<sup>th</sup> substitute options due to shipping delay, raw material shortages, and workforce issues across the globe. The Logistics teams have done an outstanding job of working to ensure that the patients are taken care of. North and Good Sam have started a Waste Steering Committee to review opportunities to flush waste from the sites and track the savings and process to ensure review of their opportunities and are really working to drive down on hand dollars, where possible, without impacting patient care.

	Jun-20	Jun-21
<b>AWSP</b>	\$6,775.38	\$8,052.92
<b>BBH</b>	\$26,767.25	\$28,243.65
<b>GSH</b>	\$452,518.01	\$545,700.40
<b>MHHM</b>	\$159,648.60	\$177,916.04
<b>North</b>	\$377,643.30	\$335,307.92

## Intuitive Surgical

Intuitive Surgical provides support, training, and digital insights across the clinical, operational, financial, and educational pillars aligning with TriHealth's vision and mission.

TriHealth has been a partner with Intuitive Surgical for more than 18 years and was the first Healthcare System in the region to apply daVinci surgery to patient care in 2003. TriHealth has integrated daVinci surgery within every applicable soft-tissue surgical specialty and sub specialty and has the largest number of high-volume providers in the region.

After extensive analysis, TriHealth has updated and reorganized its Robotic Fleet to provide the most technologically advanced platforms



available in a standardized approach, expanding its footprint to include daVinci access at Bethesda Butler and the MISC at Bethesda North. TriHealth has the largest fleet of daVinci systems within the greater Cincinnati area with 9 operational systems and one dedicated resident training system spanning 4 campuses.



TriHealth partnered with G2, Inc., the largest singled-focused telecom contract negotiation firm in the world, to evaluate our ethernet, fiber, and video services. G2 was able to provide benchmark intelligence to assist in re-negotiating TriHealth's rates ultimately saving TriHealth \$1,416,325 over a three year span.

Our partnership with G2 allowed TriHealth to continue to utilize the providers we have established long standing relationships without incurring the extra costs associated with service transitions.



RASMAS

For several years, TriHealth has used disparate workflows and tools to manage product recalls. Supply Chain, Clinical Engineering and Pharmacy all manage and respond to recalls but are currently handled through multiple recall systems.

Currently, Supply Chain utilizes the IRIS system to enter product recalls. There is room for improvement to address recalls including notifications to the applicable recall coordinator, providing notices to the Facilities, responding to respective vendors to confirm recalls have been addressed, and finally closing the recall in a timely manner. Delays in the process could result in the continued use of recalled products and potentially cause harm to our patients and/or team members. An inefficient process also puts TriHealth at risk for legal ramifications.

Because of this critical need to standardize a tool / process to ensure all product recalls are managed in a more efficient manner, TriHealth is implementing RASMAS - a recall management portal that has a direct link to the FDA and other safety authorities; recalls are sent to hospitals *almost* real time. The application gets TriHealth purchase order detail and connects TriHealth product purchases with the recall for faster action. Furthermore, it tracks our work and remediation steps and provides detailed workflows for review by Joint Commission and the Department of Health. By standardizing to this new system and process, recalls will now be managed more accurately and expediently from beginning to close.



Prodigo's Marketplace provides a modern e-commerce front-end for Lawson users. Through a single, managed connection to the enterprise resource planning (ERP) system, Marketplace integrates content from a health system's group purchasing organization (GPO) contract portfolio, local price agreements, catalogs and vendor punch-out sites into a seamless, compliant requisitioning workflow.

The TriHealth implementation involved the integration of Marketplace and Prodigo's Buyer application with Lawson v10. It also included the use of web-services federation to enable Single-Sign-On as the method for all TriHealth users to access the Marketplace. This allows the end users to save time by having a 'one stop shop', seeing detailed item descriptions along with pricing options to better select the products that fit TriHealth contracted pricing.



This year TriHealth Supply Chain successfully implemented 99 initiatives and achieved an overall savings of \$25.2M with a \$23.5 M impact in FY 21 (LEM 3).

A few of the completed initiatives include:

- Established a corporate agreement with Ethicon resulting in savings in excess of \$700k
- Changed to reusable isolation gowns for a \$338k savings
- Roche Chemistry and immunochemistry deal for a \$139k savings

FY 21 Supply Chain Implemented Savings-all TH (Annualized)					
Summary	Jul-Sep 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	
Sum of Actual Achieved Savings	Column Labels				
Row Labels	Q1	Q2	Q3	Q4	Grand Total
Supply Chain (includes Curvo)	\$2,107,653	\$456,090	\$1,442,487	\$3,492,888	\$7,499,119
Rebate	\$1,723,536	\$1,488,687	\$1,898,102	\$416,394	\$5,526,719
Premier	\$2,559,900	\$1,569,561	\$3,551,774	\$822,482	\$8,503,717
Pharmacy	\$823,250	\$1,606,871	\$1,277,919	\$0	\$3,708,040
<b>Grand Total</b>	<b>\$7,214,339</b>	<b>\$5,121,209</b>	<b>\$8,170,282</b>	<b>\$4,731,764</b>	<b>\$25,237,595</b>

	Q1	Q2	Q3	Q4
<b>YTD Cumulative Total</b>	<b>\$7,214,339</b>	<b>\$12,335,548</b>	<b>\$20,505,831</b>	<b>\$25,237,595</b>

