

## Improving Hospital Supply Chain Processes

A 12-Month Approach to Process Improvement

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### Introduction

Jump Technologies recently interviewed several healthcare system supply chain leaders to gain deeper insights into their plans for driving change and improving results. While there are similarities – for example, each business leader noted ways in which they're engaged in driving greater automation of their supply chain processes to capitalize on cost reductions – there were also unique views on how to drive more savings, improve supply chain strategies, leverage technology, and expand supply chain responsibilities and oversight. These insights can help identify new ways to improve supply chain strategy within other provider organizations; many are ideas that can be implemented within the next 12 months.

### Participants



**Doug Clark, Director of Supply Chain**  
Community Hospital of the Monterey Peninsula



**Leland Kuhn, Director of Materials Management**  
Wythe Community Hospital



**Mike Hopkins, Director Supply Chain Performance**  
Owens & Minor



**Joe Loya, Director of Materials Management**  
St. Joseph Candler Hospital

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## The Challenge

Cost pressure on hospitals is soaring while business leaders across healthcare continue to work to identify ways to reduce costs and help their organizations survive. In 2013, the Center of Medicare and Medicaid Services reported 27 percent of hospitals were at negative margins and they expect that number will grow to 30 percent by 2019. They predict by 2040, **over half the hospitals in the U.S. will be losing money.** As the Affordable Care Act increases pressure on hospitals, and reimbursements decline even further, the need grows for more significant cost reductions. With labor and supply chain as the first and second largest operating expenses in hospitals, drastic cuts to meet financial pressures are inevitable and could be difficult to achieve without impacting patient care. It's clear there is an expectation that supply chain will be a key driver of required cost reductions, given the impact on both labor costs and supplies.

## Interviews

***With even greater supply chain savings expected in the future, we asked hospital business leaders in what areas they believe savings will be achieved. Some of the overarching comments focused on the reduction of variation, both in the way care is delivered to the way business is conducted. It was generally agreed that significant savings are available by reducing variation whenever possible, and making exceptions when warranted based on the needs of the patient or needs of the business. Additional comments included:***

"We are looking at operational efficiencies first and finding all kinds of opportunities, starting with the many manual processes that we know we need to 'fix' electronically, said Doug Clark, director of Supply Chain, Community Hospital of the Monterey Peninsula. "We're currently in the process of a 2 year conversion to 2Bin and are starting with barcode technology, which will help us gain new efficiencies. Phase 2 of this project will be moving 2Bin into the OR, Cath lab,

Radiology and all of our offsite facilities. As we complete several of our supply chain initiatives, we know there are about 8-10 FTEs that need to be repurposed. The good news is that our executive leadership has said 'we are not losing people...we will retrain them, cross-train them and provide the competency to do other things.' We've also begun a healthcare lean transformation project, which includes value stream mapping bringing together our front line people and resulting in wonderful ideas because they are the ones performing the work and handling our day to day operations. I like how we are proceeding and engaging with our employees instead of managing from a 30,000 foot view, mandating "this is what we will do."

"I see hospital supply chains now penetrating into all aspects of the hospital, Mike Hopkins, director Supply Chain Performance, Owens & Minor. "This is very beneficial, not only financially, but also to the clinical areas as well because they can start performing clinical duties and stop worrying about supply chain."

Leland Kuhn, director of Materials Management, Wythe Community Hospital, added, "I expect to see significant savings coming from better supply chain management in the OR. There are huge dollars being spent with many opportunities to standardize."

"I believe we'll see reduced waste in the supply chain and increased utilization management," said Joe Loya, director of Materials Management, St. Joseph Candler Hospital. "Utilization savings are not new, however supply chain hasn't performed well in this area and there are plenty of opportunities. Improvements in information technologies would be required to reveal these opportunities and how purchasing decisions relate to improved patient outcomes."



***For the last several decades, hospital supply chain leaders have worked to drive change in their supply chain processes, to create more efficiency and automation, and most notably, to reduce costs. Most agree they've already achieved price reductions on supplies working with their vendors. A more recent change observed is that supply chain leadership is being asked to take responsibility for operations in other areas, such as the Operating Room and Pharmacy, bringing new expertise, more efficient business processes and savings to these key areas, which represent significant supply chain expense. We asked leaders what additional changes are planned within their supply chain organizations:***

"I'll be looking into going Low Unit of Measure (LUM) with our prime distributor," said Doug Clark. "This will enable us to shut down our warehouse and possibly take central supply to stat levels, as well as have LUM go to 2Bin modes at the clinical level. Even though that does drive pricing at the line level, there are some efficiency gains. Your fill rate goes up to 99% when you go from bulk to LUM. You have few issues and faster receipt. We're also looking at Advanced Ship Notices to help with auto-receiving. We're also looking at Physician Preference Items, where we anticipate over \$1M in savings. While PPI is a very difficult category, there is too much money on the table to not tackle it. I'm also tackling the challenge of losing money in tiered pricing and not optimizing as well as we might."

"I plan to do top down analysis of spend and work with our GPO to determine if they're on the best contract," added Leland Kuhn. "If the supplies we need aren't on contract, we'll work to get one. And when we need to make a conversion of a product or supply, we'll make selections using dollar amount as key criteria."

Joe Loya noted, "We need better management of procedure requirements and preference cards to reduce waste and supply costs. Today, items are opened in anticipation of use during a procedure and wasted if not used in the procedure. We've recently implemented a lean process for bagging supplies that are germane to a procedure and need to be "opened" in a

clear bag and supplies that are only "to be available" in a clear pink bag. Using two color tones of clear bags affords visibility and clear ease of access during the procedure. Differentiating the colors of bags, resulted in less wasted supplies because staff knew which supplies to open versus opening all supplies and throwing away the supplies that only needed to be available. We estimated a decrease in wasted supplies of \$229,000 and a reduction in labor cost of \$39,000.

"One of my favorite sayings is if you throw technology at a bad process, you just have a really expensive bad process," Mike Hopkins concluded. "You have to marry the things together, and either have a good process or build good processes around the technology."

***As additional supply chain improvements work into hospital plans, we asked leaders to discuss the technology that must be either extended or augmented to capture the savings and efficiencies you're targeting:***

"We are expanding our handheld technology to end users –enabling them to add items to procedures and/or billing," said Joe Loya. "We are already using barcode and handheld technology for patient billing, patient billing, inventory decrementing, and electronic order placement. We have been awarded the GHX Best 50 for our utilization of supply chain technology I see the future of RFID, expanding and becoming a focus for utilization. For example RFID technology could exist in the packaging so when the packaging is disposed of during a case, it would trigger the patient charge.

"We are at least a year away from bringing in the technology needed in house," added Doug Clark. "We could purchase it, but I really like the idea of building it. There is a huge labor reduction with 2Bin, a huge customer satisfier, so I really see this as the next step for us."



“RFID technology has so much benefit,” noted Mike Hopkins. Nine months ago I was director of Supply Chain at the University of Chicago Hospital and implemented RFID for Kanban and in the OR for tracking lot, serial numbers and expiration dates.”

“At the very core, organizations must have a good MMIS system that enable visibility to usage and dollar amounts,” added Leland Kuhn.

***As supply chain emerges as a corporate strategy at many healthcare organizations, we asked supply chain leaders for more detail about assuming oversight of new areas within their organizations and if so, what people, processes or technology would be required:***

“Yes, with the 2Bin implementation, we will be increasing our scope of responsibility and removing ordering from clinical hands, giving them back that time and resource for patient care,” said Doug Clark. “I’m standardizing with job descriptions for supply chain team members and I’m requiring they all become yellow belt six sigma to elevate our staff, which was really well accepted. As we move to LUM there will be some assignment changes as far as what people know how to do – they won’t be picking and delivering as much, they’ll be scanning and ordering. We want to build a higher level of value analysis and sourcing. That will be another layer within supply chain to use the data strategically with clinical evidence based outcomes as the driver.”

“Technology won’t have the bang for the buck if you don’t have the right people to manage it,” added Mike Hopkins. “Supply chain has to get more penetrated in the other areas with the technology to be more efficient. Supply chain doesn’t need to grow in FTEs, but they do need to become smarter.”

“Supply chain manages OR purchasing, Cath Lab/EP Lab, ER, and GI,” said Joe Loya. “However, special items are ordered by each department based on physician requests, done case by case, not allowing enough lead time to evaluate: if we can elevate supply chain to manage these requests, cost savings can be

achieved. We’re probably not in need of new technology in these cases, just an expansion of existing technology. New human capital would be great, but not required if we leverage technology and standardize processes.

Leland Kuhn noted, “In our organization, it’s likely that non-clinical areas, such as laundry/linen, CSS and dietary, could fall under supply chain oversight.”

***With healthcare leaders pointing to supply chain as a key strategic area for future business improvement, the group noted their strategies are changing, with operational improvements as the focus. In addition, supply chain leaders agreed they have seen more executive-level support of supply chain initiatives to increase strategic focus. Some of the additional changes in supply chain strategies in the coming years included:***

“I see even more focus on cost reduction with more pressure from state and federal legislation,” added Leland Kuhn.

“I’m starting to see demand-driven inventory versus push,” said Doug Clark. “For us, this involves using the surgery schedule for the week to order OR supplies, instead of having inventory sitting. It’s a huge concept shift and culture change, but the forward-thinking supply chain operations are looking at that, as well as consolidated distribution centers. Print management, sterile processing, food, record retention, mail – we’re thinking about all those things that can be centralized – if you have a truck available, you can centralize that movement. I also think we’ll shift past current issues with systems not speaking to each other. GTIN will change the world; even with two major data standards out there, I’m starting to see GTIN gain ground.”

“RFID technology will help create new supply chain strategies,” said Joe Loya. “Healthcare moves slowly, but there are ways to leverage existing technologies to expand automation. For example, we can use handheld technology more than we do now.



I think the next disruptive technology will link everything together – replenishment, utilization, billing and reimbursement. I also expect we'll see more 'practice standards' related to the ACO requirements beyond ancillary products. We'll do more to compare physician utilization, to answer why so many different items are being used, with so many different outcomes. More formularies and standards of practice are needed. I believe we'll see deviation from line item cost savings and movement towards best overall cost, which would include patient outcomes."

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"Supply Chain will become more of an upfront partner to everybody in the hospital and not an afterthought," noted Mike Hopkins. "I see supply chain being brought to the table as soon as a new idea is thought of instead of the very end of the process. New projects or new strategies, I see supply chain people being at that meeting as opposed to being brought in at the end as they've been previously. The value that they provide will be recognized and embraced by the organization."



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