BEST PRACTICES IN MEDICAL SUPPLY INVENTORY COUNT PROCESSES
OVERVIEW

The pressure for hospitals to reduce costs and waste while improving patient care appears to be endless. Government healthcare reform increases this for many hospitals, especially the thousands that are already losing money. Changes in the way hospitals manage supply chains now involves more than just reducing costs. Today, hospital supply chain management responsibilities extend to include clinical outcomes rather than just process alone.

With up to 40% of hospital budgets allocated to supply chain costs, logically this has been one of the first areas hospitals seek to reduce expenses. While inventory optimization can reduce supply chain costs by 10% or more, many hospitals still have yet to streamline this process to realize these bottom line benefits. Insight gained into how hospitals perform inventory counts demonstrates that steps toward getting tighter inventory control are underway.

The ongoing interest in tighter inventory control, reduced par levels while improving patient care is reflected in a recent survey of medical supply inventory count methods conducted by WIS International. Over 100 hospitals across the United States responded to an electronic questionnaire. Respondents’ functions ranged from materials management director, purchasing director, pharmacy services and supply chain.

The survey reveals how hospitals are managing their supply inventories:

• Conduct organized, physical inventories of supplies for multiple reasons including, financial, perpetual, supplier negotiation, regulatory compliance, inventory control and to reduce par levels.

• A large majority of respondents conduct their inventories on an annual basis utilizing hospital staff rather than through an outside service provider, with a significant percentage of them doing so manually via handwritten methods. Results indicated that 30% perform counts more than once a year, but did not provide details as to the reason for doing so.

• Most hospitals polled utilize a database management system, e.g., MMIS, to maintain a master file and perpetual inventory.

“Health care businesses are going to rise or fall on their ability to find and eliminate the current waste in the system.”

Brent James, M.D., executive director of Intermountain Healthcare’s Institute for Health Care Delivery Research.
Count methods and frequency establish benchmarks to aid hospitals, optimize inventory, reduce costs and improve the quality of patient care. More than 90% of the hospitals surveyed reported financial reasons for counting inventory which can naturally be attributed to more effectively negotiating pricing with suppliers as well as controlling shrink. Interestingly, 59% of respondents also cited perpetual and another 72% included inventory control/reduction as factors driving their counts. These results present a best practice improvement opportunity for those hospitals that use their inventory results for inventory control or reduction without conducting a perpetual inventory. While reducing supply costs is one benefit, controlling shrinkage from theft, damage, loss and late night requisitions are also key reasons hospitals must gain better item level control of inventory.

Hospitals seeking to improve inventory management should at a minimum include perpetual counts in their processes for increased accuracy. Optimally, hospitals will perform cycle counts in conjunction with their annual inventories so that all items are counted at least four times per year. Increasing count frequencies with 68% of surveyed hospitals doing so manually and over 80% using their own staff presents concerns about accuracy and efficiency. Administrators need to evaluate utilizing staff for these less strategic functions and possibly explore service providers and/or current tools that automate inventory counts.
SHIFTING ROLES OF HOSPITAL STAFF

The health care industry continues to focus on clinical outcomes and this involves all aspects of hospital staff, including supply chain. In the past, most hospitals were concerned that materials management teams were keeping supplies on-hand at all times. With shifting priorities toward cost reduction and high quality patient care emphasized at all levels, simply reducing stock and personnel to improve bottom line performance is no longer the only value that supply chain must contribute. Now hospital supply chain managers must balance dollars spent on physician preferred items (PPI) with optimizing resources available through distributors and suppliers.

Ongoing changes, technology advancements and new treatment patterns bring about the need for more vendor and supply customization resulting in new inventory shipment models that aid in reducing on-hand levels and storage demands. However, to implement many of the new models – low unit-of-measure (LUM) or best unit-of-measure (BUM), just-in-time (JIT) distribution, real-time flow of data is a requirement. This investment in technology, training and staff allocation suggests that inventory expenses could better align with demand, in support of improved clinical outcomes.

Who conducts the inventory?

- Supply Chain Staff: 81%
- Nursing Staff: 17%
- Outside Service: 24%
- Other: 13%

DATA INTEGRITY

To meet financial performance and positive clinical outcome goals, hospitals must invest more in technology to support data capture needs of their supply chain management systems. Without sufficient tools and methods in place, data integrity is most certainly questionable.

Better than 90% of survey respondents cited they are maintaining a supply master file and 75% also maintain a perpetual inventory. The data also showed that only 60% of those perform perpetual physical counts, indicating that there are 15% that are missing the relevant inventory information to provide an accurate count. These metrics are steps in the path toward meeting goals, but not yet indicative of best practices.

To gain better inventory control and reduce par levels, the best practice to strive for is to maintain a perpetual system while performing cycle and annual physical inventory counts. Planning and conducting these inventories also calls for the use of the latest technology to enable higher quality data capture, accuracy and faster turnaround. Applying automation with this methodology allows for hospitals to optimize many of the new supplier distribution models of LUM, BUM, and JIT as well as improve inventory control, shrinkage and reduce par levels.
BEST PRACTICES
Survey data established benchmarks of supply inventory count methods and frequency. This data was evaluated against inventory best practices used by retailers, manufacturers and warehouses to reveal process improvements that support current healthcare industry initiatives. The following best practice recommendations serve to streamline supply inventory count methods so that hospitals are better equipped to achieve their financial and quality of patient care objectives.

1. **Maintain a perpetual inventory.** Keeping a perpetual system while performing cycle and annual physical inventory counts allows for better inventory control and the ability to reduce par levels.

2. **Perform annual and cycle inventory counts so that all inventory items are counted at least four times per year.** Conducting more frequent counts enables improved metrics for inventory turnover rate, backorder fill rate and inventory adjustment ratio.

3. **Reduce or limit manual inventory counts.** Automating count methods has shown to improve accuracy, data quality, timeliness, enable near real-time system integration and provide enhanced reporting.

4. **Organize inventory and reduce the number of expired products per month.** Replace dated inventory stock with newer items. Position oldest inventory in front of shelves and newest in the back to reduce the potential loss of use before expiration dates to improve patient safety and lower potential inventory replenishment expenses.

5. **Standardize similar or redundant inventory.** Utilize inventory data captured from more frequent counts to benefit from greater economies of scale and reduce costs per purchase order.

Survey Sample
Participants in the survey conducted by WIS International were from 101 hospitals across the United States. Respondents’ functions ranged from materials management director, purchasing director, pharmacy services and supply chain with multiple locations.

Methodology
- Self-administered electronic survey distributed via e-mail.
- Online questionnaire consisted of 10 questions.
- Content covered supply inventory management methods, count frequency and reasons for performing counts.
- Data collection conducted by WIS International.
- Total of 101 completed responses via online survey tool.

References