



Colorado's largest cancer care provider, Rocky Mountain Cancer Centers, underwent an inventory management makeover in 2012 to improve efficiency.

Saving Time, Money, and Trouble With an Inventory Management Upgrade

BY MCKESSON

Current industry discussions highlight many challenges today's independent community oncology practices face. Changes in cancer care, regulations, and reimbursement create more pressure on practices than ever before to improve care, reduce costs, and remain viable in an atmosphere of mergers and acquisitions.

To help mitigate these pressures, practices can improve clinical and operational efficiency by taking a close look at drug inventory management processes, which can have a major influence on a practice's profitability. In many practices, the process of ordering, pulling, replacing, and reconciling consists of numerous time-consuming steps. Often, admixture/pharmacy staff and RNs must access multiple systems to complete the process. But just how much efficiency can really be gained through streamlining?

In 2012, we worked with Colorado's largest cancer care provider, Rocky

Mountain Cancer Centers (RMCC), to study its drug inventory management process and quantify the impact that installing an inventory management, charge capture, and reporting system would have on the provider's inventory management, specifically with regard to labor costs. The results were eye-opening.

Before installing the system, the admixture staff and RNs were using 4 separate systems to complete the entire process, including (1) an online ordering system to place orders for drugs; (2) a practice management system (PMS) to print patient schedules; (3) iKnowMed, the practice's electronic health record (EHR) system, to compare planned treatments for patients with the list of scheduled patients; and (4) Pyxis Oncology Station (2011/12 version), for pulling inventory, printing labels, etc.

Perhaps even more astonishing was the realization that the entire process



required 16 different steps. It began with the ordering of drugs at the end of the day in preparation for the following day's patients, and ended with reconciling charges. Many of the steps, such as comparing the PMS and EHR patient lists and reconciling labels and shipping orders, were performed manually with no technological integration and were very time and labor intensive. We learned that staff members involved with the inventory management process were each spending an average of 133 minutes a day to complete the cycle.

To quantify the labor costs associated with these steps, we multiplied time per task by the median wage per full-time employee (FTE). At the time of data collection, median wages were \$0.33 per minute for admixture technicians and \$0.57 per minute for RNs. This translated into \$134,600 per year in admixture labor and \$67,716 a year in RN labor, for a total labor cost of \$202,316 per year.

RMCC then implemented a Web-based inventory management, charge capture, and reporting system specialized for oncology practices. This particular McKesson system, Lynx, which replaced Pyxis, interfaces with the practice's existing PMS and EHR system. It helps staff monitor and manage inventory and the usage of chemotherapy drugs and related supplies by capturing existing inventory, scheduled treatments and active patient treatment regimens in real time.

Using the system gives staff a complete view of inventory levels, each patient's history, treatment regimens, and queued orders to ensure the right drug is on hand in advance of patient visits. Since patient information is automatically populated from the practice's existing EHR and PMS, the staff no longer need to key in handwritten data, log in to several different systems, or cross-reference patient records. Eliminating these extra steps and all of the duplicate data entry substantially reduced the time needed to manage inventory and the potential for errors at the RMCC sites in our study.

After implementation of the system, the evaluation of the inventory management process revealed that the cycle was completed in an average of 64 minutes per day versus the 133 minutes per day using the previous system—a 52% improvement in process efficiency (Figure 1). Much of the time savings was a result of the system's interaction with the practice's PMS and EHR systems. This integration reduces both the number of steps and amount of time required for admixture technicians and RNs to complete the ordering, pulling, replacing, and reconciling process. In fact, the number of steps required to complete the process was reduced from 16 to 7.

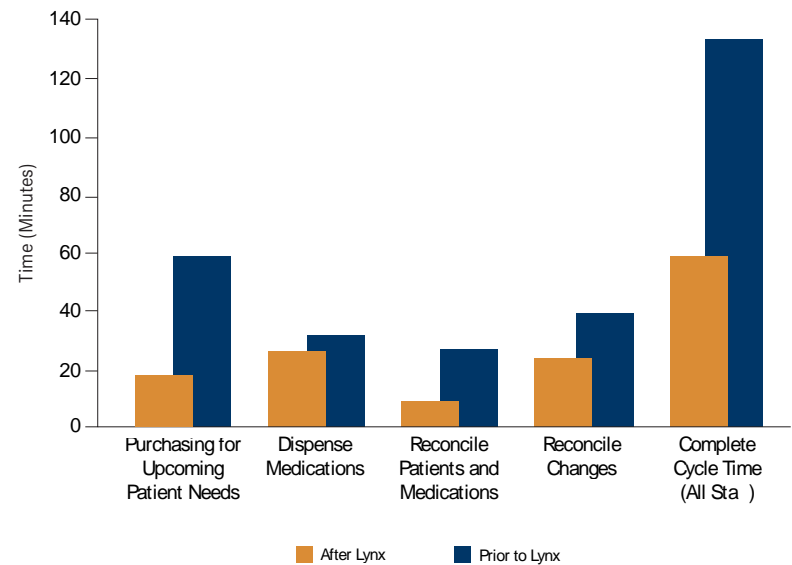
The practice's labor costs while using the system decreased significantly, to \$102,643 per year: \$57,499 in admixture labor and \$45,144 in RN labor. Comparing this with the \$202,316 in annual labor costs before the system was implemented shows a reduction of \$99,673 for the inventory management process, equating to 49% in savings (Figure 2).

Sometimes it's hard for practice leadership to accept the idea of investing in new technology or solutions, especially when they are feeling squeezed financially. It's important to really weigh the costs against the long-term benefits and to search for "low-hanging fruit" that can easily make an immediate impact.

For RMCC, implementation of a new drug inventory management system was just that. The efficiency that resulted from using the inventory management system translated into a significant savings in labor costs, which outweighs the cost of the system. Also important, eliminating some of the manual steps reduced the practice's risk of error in ordering and dispensing and saved a significant amount of time.

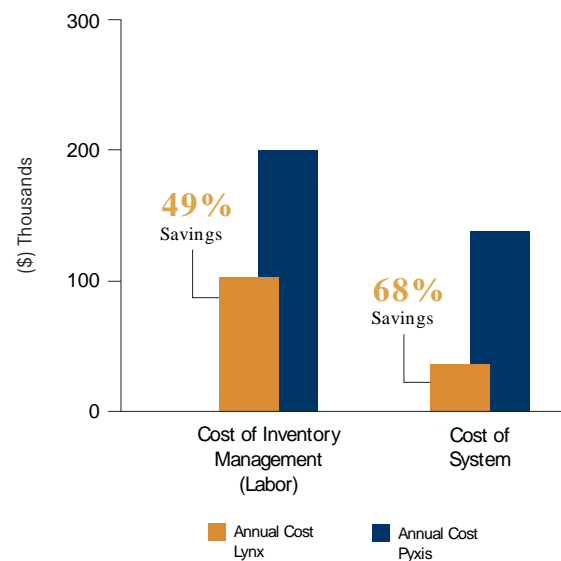
While drug inventory management procedures may vary, and certainly different sizes of practices would experience different results from implementation of a system like Lynx, there's no doubt that drug inventory management is an area that deserves attention when it comes to finding opportunities for efficiency and revenue optimization. <

Figure 1. Inventory Management Cycle Time Allocations Comparison



Source: McKesson

Figure 2. Annualized Cost Associated With Inventory Management System in Community Oncology



Source: McKesson

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