

Inventory Technology Analysis

A look at the impact of automated dispensing cabinets on costs of goods sold, labor costs and shipping expenses within a general dental practice.



'Smart Inventory Cabinets': Can ADCs make a difference to the bottom line?

Overview

Dr. Joseph Boone, DDS, located in Flowood MS, specializes in implant and denture placements. As a member of Sevaredent, Dr. Boone aimed to reduce increasing supply and labor cost by improving inventory management and operational efficiency via Smart Cabinet technology.

His practice adopted Automated Dispensing Cabinets (ADCs) or so called 'Smart Inventory Cabinets' for a 120-day period from September 2023 through January 2024. The cabinets were utilized for managing dental implants, abutments, controlled substances, bone, collagen, and other critical inventory.

Automated dispensing technology has become standard-of-care for acute care hospitals, and is increasingly common in other areas of healthcare, including long-term care and veterinary medicine.

*ADCs = Automated Dispensing Cabinets



Inventory on hand, expedited shipping, and admin labor cost results at 120 days of ADC use

Inventory on Hand



Admin Labor & Expedited Shipping





"The smart cabinets from Zimbis have made a very significant, positive impact on our finances and on the well-being of our staff."

- Joseph Boone, DMD, FICOI, FAAIP

\$21,747

Reduction in on-hand inventory

By automatically submitting replenishment orders when stock was running low, automated dispensing cabinets enabled Dr. Boone to maintain operational readiness with lower levels of inventory than is practical in a manual system without the risk of running out.

\$1500_{/mo.}

Avg. savings on supplies

Reduction of waste, redundant storage and misuse were key drivers of savings on supply spend. While some inventory loss is unavoidable, automated cabinets placed guardrails in the system that prevented the majority of accidental or intentional shrinkage from occurring.

78%

Decrease in administrative labor costs

Since re-supply orders were placed ahead of time by the Zimbis system, overnight shipping costs dropped to \$0 for the entire study period. Admin labor time also dropped, thanks to electronic tracking of on-hand quantities and automated controlled substance logs.

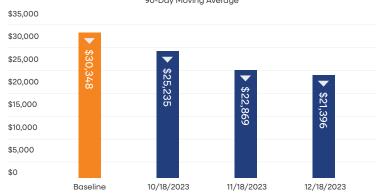
Objectives & Methodology

Dr. Boone procured a suite of smart inventory cabinets from Zimbis company, the leading provider of this technology for dentists. Data from his practice during the first 120 days of smart cabinet use was collected for this analysis, with the following focus areas:

- Inventory on-hand required for operation. The volume of inventory, measured in dollars, sitting on supply shelves.
- Administrative labor related to inventory such as regulatory record keeping, assessing on-hand inventory levels for potential re-order.
- Cost of Goods Sold (COGS), primarily driven by monthly spending on implants, medications and other supplies.

Results & Recommendations

Monthly Supply Spend 90-Day Moving Average



Overall, the automated dispensing technology at Dr. Boone's practice drove significant inventory reduction, dropping inventory on-hand from almost \$60,000 (approximately two months' worth) down to just over \$37,000. Other savings were realized as well, including a steep reduction in labor hours required for regulatory compliance.

While each practice is unique, automated dispensing 'smart' cabinets look poised to offer dentists a range of benefits similar to those brought to other healthcare professionals: time, labor, and costs savings, plus improved staff efficiency and regulatory compliance.