



## The Cost to Serve in the Medical Device Industry

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In a recent survey of medical device manufacturers, improving service to existing customers, driving new market opportunities, and controlling costs were top concerns. However, in a separate survey, only 26% of medical device companies considered their overall supply chain costs very predictable and closely controlled. Another 65% saw their overall supply chain costs as either unpredictable or not readily identifiable. Why? Their existing sales and distribution models focus solely on top-line revenue, and disconnected internal operations blind them from seeing true end-to-end supply chain costs.

### Existing sales and distribution models

In contrast to the complex, multi-channel pharmaceutical distribution chain, medical devices generally ship directly from manufacturers to healthcare facilities. But sometimes the demand is driven by poorly planned, poorly communicated, or emergency procedures.

Some manufacturers have built sales and distribution models that maximize product availability at hospitals. They routinely place products on the hospital shelf, in the trunk of sales representatives' cars, and on expedited delivery trucks. As a hallmark of service in this industry, medical device sales reps even dress in hospital scrubs and carry their products directly into the healthcare facility.

Today, nearly all of AMR Research's medical device clients are wrestling with a difficult issue created by this sales and distribution model: consignment inventory. Manufacturers have consigned products at hospitals to ensure perpetual availability on the shelf to compensate for highly variable or poorly visible demand. However, with limited exceptions, manufacturers and hospitals have not deployed technologies or business processes to create better visibility to demand, consumption, or inventory.

The prevalence of consigned inventory and its role in driving top-line revenue has created the following issues for manufacturers:

- **Lack of inventory visibility and traceability**—Consignment inventory often falls off the radar as it enters a hospital through many channels and migrates throughout the facility without a trace.
- **Lack of a true demand signal**—Sales reps replenish consignment inventory from their own trunk stock, with replenishment orders generated either by the hospital or sales rep well after the time of consumption. These behaviors create a severe disconnect between patient-driven demand and the manufacturer's real-time supply response.
- **Potential compliance issues**—Without documented chains of custody and records in hospital inventory systems, consigned products can expire, get consumed beyond their expiry date, be used and not billed, be billed to multiple patients or procedures, or be lost altogether. All these potential scenarios represent significant regulatory and financial compliance risks for manufacturers and hospitals alike.
- **High costs for expedited transportation**—Despite the prevalence of consigned inventory, manufacturers often incur significant costs for expedited transportation to ensure patients have access to their products.

One small device manufacturer we interviewed spends as much as 20% of list price to expedite delivery of its high-value products and as much as 75% for its low-value products. Despite its willingness to incur such costs, this company still experiences stockouts and customer service failures. So why do medical device manufacturers continue to employ this sales and distribution model?

### The barriers to change

Here are the main reasons why medical device manufacturers continue to consign their products at hospitals and incur high costs for expedited shipping:

- **Focus on top-line revenue**—Manufacturers are very focused on top-line revenue and period-to-period growth. Consignment inventory, trunk stock, and expedited shipping help maximize top-line performance as well as allow sales reps to enforce price and avoid upfront sales negotiations.
- **Disconnected operations**—Aligning internal product development and supply operations was one of the top-three supply performance gaps identified by medical device manufacturers, according to our survey. As is the case in other industries, internal product development and supply functions are simply disconnected.
- **Incentive alignment**—Sales reps at most manufacturers are compensated based on top-line sales. Product supply employees earn their bonuses based on performance to various customer service and on-time delivery metrics. Subsequently, manufacturers don't focus on profitability at the time of order fulfillment. Instead, it's only about filling the sales order, regardless of cost.
- **Hospital and physician expectations**—With unsophisticated and disconnected demand and inventory

management practices of their own, providers have come to expect a high level of product availability and customer service from manufacturers. To date, they have had little stake in the financial or compliance costs.

- **Service component**—Not only is it common for sales reps to carry their products directly into healthcare facilities, but they also provide invaluable information and services regarding product features, product use, and new technologies. This service component drives a high degree of sales-rep ownership for product supply and customer service processes and detracts from their ability to manage multiple accounts.

### **Could cost to serve be the cure?**

Total cost-to-serve analyses could help identify product supply and service issues for medical device manufacturers by surfacing the hidden costs that erode profits below top-line revenue. They could then pursue value creation projects that maximize profitability, even if it means giving a bit on their price enforcement and top-line revenue.

Manufacturers should consider the following elements in their total cost-to-serve analyses:

- Direct materials, including outbound and inbound (i.e., returns) packaging materials
- Transportation, including costs for distribution by sales reps
- Cost of safety stock and consignment inventories
- Cost of lost, expired, and returned inventories
- Warehouse and distribution center management
- Call center and customer service operations
- Consignment replenishment and accounts-receivable processing
- Costs of financial audits for consignment inventory and associated business processes
- Costs of quality and regulatory inspections, investigations, and reporting
- Opportunity costs of time sales reps spend on inventory and order management

Furthermore, cost-to-serve analyses could also draw manufacturers and hospitals into true joint value creation discussions. How? The following advice for manufacturers and hospitals will explain:

- Manufacturers should segment their customers based on total costs to provide products and services, conducting sensitivity analyses for volume and so forth.
- Manufacturers should optimize their product and service offerings and then develop pricing strategies that maximize profit.
- Hospitals should segment their suppliers based on total order management, inventory, and accounts payable costs, conducting sensitivity analyses for volume.
- Hospitals should improve demand and inventory management processes, investing in technologies that provide visibility, traceability, and reporting to manufacturers.
- Hospitals and physicians should calibrate expectations for product availability and service, adjusting expectations as appropriate.
- In pursuit of joint value creation, manufacturers and hospitals should align product supply processes to maximize profits and ultimately lower the overall costs of healthcare for patients.

We welcome the opportunity to discuss medical device supply strategies and associated cost-to-serve analyses with you and your organization. Feel free to contact us at [wmcdonnell@amrresearch.com](mailto:wmcdonnell@amrresearch.com) or [hmooraj@amrresearch.com](mailto:hmooraj@amrresearch.com).