Category: Resource Management and Finance - Completed project

What a Waste: Rampant Oversupply in Industry-Sponsored Trials and How Roswell Park Comprehensive Cancer Center Used Slope's Data-Driven Approach to Address It

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1. Background

Purpose: This abstract examines the impact of supply waste in clinical trials conducted at a National Cancer Institute (NCI)-designated academic research center, focusing on the quantity of unused items, additional time spent managing surplus inventory, and the financial implications of oversupply. It aims to raise awareness of data-driven environmental sustainability efforts at Roswell Park Comprehensive Cancer Center, inform other research sites on how they can strive for similar benefits, and advocate for more controlled auto-resupply strategies on industry-sponsored trials.

Background: Oversupply in industry-sponsored trials poses challenges such as increased costs, inefficiencies, and environmental consequences. Despite these widespread issues, effective strategies to mitigate oversupply have historically been limited.

2. Goals

This analysis aimed to define the inventory oversupply problem across multiple disease teams at a high-performing NCI-Designated Comprehensive Cancer Center. It looked at the scope of the problem from three angles: number of excess supplies sent to Roswell Park by sponsors, total cost of those supplies, and the additional time required by site staff to manage those supplies. Knowing the extra expense on resource-strapped sites would inform our suggestions to address the problem. The analysis included the use of inventory data to push back on exceedingly high oversupply rates from sponsors and kitting vendors.

3. Solutions and Methods

Over an eight-month period (June 2023-February 2024), site staff at Roswell Park meticulously documented surplus items across 13 product categories from 150+ clinical trials. Metadata—including item description, cost, quantity, redistribution details, final destination, and expiration status—were recorded in Slope, a free clinical inventory and sample management software for sites.

4. Outcomes

Roswell Park identified 75,516 excess supplies—estimated at over $91,000 in value—and calculated that they needed to spend 608 staff hours writing notes-to-file, breaking down kit boxes, and communicating with responsible parties. Through proactive efforts and utilization of Slope's inventory data, 99.9 percent of surplus supplies were identified as eligible for redirection to partner organizations instead of being directly discarded.

5. Lessons Learned and Future Directions

The findings underscore the detrimental effects of oversupply on sponsor budgets, site productivity, and environmental sustainability. Advocacy for adjustments to auto-resupply rates in industry-sponsored trials is essential to prevent unnecessary expenses and inefficiencies. Roswell Park's experience highlights the importance of data-driven approaches in addressing oversupply, with the potential for broader adoption across research sites. Implementing clinical inventory management systems like Slope can facilitate informed decision-making and support efforts to optimize trial supply utilization.