The Silent Money Pit: The Cost of Poorly Managed Central Supply

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Purpose: We have noted that surgical instrument tray preparation by the central processing department is frequently flawed, prompting the "opening" of additional trays to subsidize deficiencies. Each tray incurs a tangible cost, suggesting significant financial and safety implications. Industry representatives often manage tray readiness, but their potential reduction raises concerns about cost and quality issues as it applies to equipment management. We hypothesize that flawed tray preparation leads to increased costs and potential patient safety risks.

Methods: We analyzed the rate of new tray openings (NTO) because of faulty preparation over a set 3-month time period. Operating room (OR) nurses documented each NTO, categorizing causes as missing instruments, damaged/faulty instruments, or sterility breaches. Tray preparation costs were obtained from financial and OR processing records at our institution. The results were compared across specialties and to the total inpatient surgical volume.

Results: Among 3020 inpatient cases, 315 NTOs occurred (10.4% rate), averaging 105 per month. Causes included missing components (32%), damaged instruments (1%), and sterility breaches (67%). With an average tray preparation cost of $75 (range $60–$92), the estimated annual cost of improperly prepared trays ranged from $75,600 to $115,920.

Conclusion: Significant costs and inefficiencies stem from poor central supply processes, with sterility breaches (67%) and missing components (32%) being the primary causes. Our study likely underestimates true costs, as the NTO data collection was not a formal OR policy. We propose reevaluating central supply processes, providing quality control metrics, considering incentivizing performance of central supply employees, or future innovation in technology that could mitigate such costs and potential safety hazards.