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Greening the Operating Room: Results of a Scalable Initiative to Reduce Waste and Recover Supply Costs

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Learning Objectives

- Develop a blueprint to reduce operating room waste
- Recognize the ways to scale a pilot to a full-scale program
- Identify opportunities to reduce waste and improve efficiency in the operating rooms

Introduction

- Operating rooms generate 42% of a hospital's revenue and 30% of hospital waste.
- Supply costs are 56% of a total operating room budget.
- U.S. academic medical centers use 2 million pounds ($15 million) of recoverable medical supplies annually.

Methods

- Forming a multi-disciplinary leadership team, we analyzed sources of waste focusing on our Department of Neurosurgery.
- We developed an eight week pilot project to recycle "blue wrap," the number 5 plastic polypropylene material that is ubiquitously used in operating rooms across the country to wrap instrument pans and implant trays for sterilization.

Results

- Blue wrap can be baled and sold to recyclers where the material is pelletized and transformed into plastic products.
- During the 39 days of the pilot, we collected 1,247 pounds of blue wrap (32 lbs. collected daily).
- The cost of the pilot was $14,987 which includes a new baler ($11,200) and five transport carts ($3,697).
- The revenue received from baled blue wrap was 8 cents per pound.
- Cost avoidance yielded $1,582.00 in savings.
- We anticipate recouping, through sale of baled blue wrap and cost avoidance, the investment for supplies within 1.6 years of program initiation, assuming 80% blue wrap recycling across our institution.
- Implementation of this pilot across our main hospital (which has 66 operating rooms) would yield $10,000 in savings during the first year.

Conclusions

- This project is scalable and can be replicated at other centers
- This initiative not only reduces the environmental footprint, but also helps generate additional revenue by recycling a necessary packing material that would otherwise require payment for disposal.

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