

Operating Room Waste Reduction in Plastic and Hand Surgery, A Cost-Analysis

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Background: Operating rooms, combined with labor and delivery suites, account for approximately 70% of hospital waste.¹ Cost-saving initiatives have popularized the concept of reprocessing single-use devices, however, these reprocessed instruments are not disinfected and sterilized properly.^{2,3} We propose a method of decreasing cost through judicious selection of instruments and supplies used in plastic and hand surgery. Other studies have shown that recycling can have a considerable financial impact on a hospital-wide basis, however, its importance in the OR has not been demonstrated.

Methods: The authors examined the current sets of disposable items and instruments designated for common plastic and hand surgery procedures at one teaching hospital affiliated with our institution. We identified the supplies and instruments that are routinely opened and wasted, and calculated the savings that can result from eliminating extraneous items. We also performed a cost-analysis comparing the expense of OR waste and recycling.

Results: We removed 15 total items from the disposable plastic pack and 7 total items from the hand pack. A total of \$17,381.05 could be saved per year from these changes alone. Our redesigned plastic instrument pack is composed of 43 instruments, compared to the 54-item soft tissue set and 30-instrument plastic supplement. Our new hand instrument set is composed of 23 total instruments, which is a reduction compared to the previously used 35-piece hand set and 22-piece fracture set. These changes are potentially cost-saving through reductions in autoclaving, labor, and turnover time.

Conclusions: OR waste reduction is an effective method of cutting cost in the surgical setting. By revising the contents of current disposable packs and instrument sets designated for plastic and hand surgery, hospitals can reduce the amount of opened and unused material. Significant savings can result from this judicious supply and instrument selection, as well as implementation of recycling.

References:

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