

Reducing Cost by Using a Smaller Tray in Hand Surgery

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INTRODUCTION

- The cost of US healthcare continues to rise at an unsustainable rate.
- A significant amount of waste occurs in the operating room.
- The purpose of our study is to determine the cost to sterilize and process an instrument at our institution and determine the expected savings when using a smaller tray for selected hand procedures.
- Our hypothesis is that many instruments are processed unnecessarily and removing these instruments can result in significant cost savings.

METHODS

- Single site, observational study conducted at an academic medical center
- Determine cost to sterilize an instrument using data from sterile processing department
- Decrease ambulatory hand set used during 5 selected outpatient hand procedures from 105 to 16 instruments.
- Using the calculated cost to process an instrument and the total number of cases, we determined the expected yearly savings when using the smaller tray.
- We also surveyed OR staff with regards to work flow and satisfaction with the smaller tray.

RESULTS

- Sterile processing departments labor cost calculated to be \$0.12 per instrument.
- The cost increased to \$0.60 per instrument after including SPD operating expenses.
- Decreasing the hand tray in selected procedures (carpal tunnel, 1st extensor compartment and A1 pulley releases, and ganglion cyst excisions) can be expected to save ~\$31,000 per year at our institution.
- The smaller tray resulted in improved work flow and high satisfaction scores amongst OR staff.

CONCLUSIONS

- Our calculated expense to sterilize and process an instrument is similar to prior studies.
- Processing less instruments in selected hand procedures is expected to result in significant cost savings and improvement in OR work flow and satisfaction.

Table 1. Results from OR nursing survey.

When compared to the conventional hand set, the revised smaller hand set results in ...	Scale				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Decreased turnover time	-	-	8	-	92
2. Decreased procedure time	-	-	31	8	62
3. Increased operating room efficiency	-	-	-	8	92
4. Improved working environment	-	-	8	8	85
5. Critical instruments being unavailable during the case	46	31	15	-	8
6. Some surgeons not having the instruments he/she needs	46	31	8	8	8
7. Less stress while preparing for the case	-	-	8	8	85
8. Less stress during the case	-	8	-	8	85

- 13 OR nurses completed the survey
- Values listed are percentages