

# Transition from single-use, disposables to reusables



This commitment goal entails transitioning products and supplies from single-use, disposable products to reusable products for primary/general use in five of the 10 supply categories on the checklist (Exception: disposable products may be necessary for special cases).

Product categories include: Pulse oximetry probes; blood pressure cuffs; patient positioning devices; patient linens (includes patient/exam gowns, sheets, bath towels, washcloths, blankets, pillowcases; excludes isolation/surgical gowns, surgical drapes); surgical basins, pitchers, bowls, and medicine cups; laryngoscope blades/handles; trocars; surgical light handles; surgical towels; and surgical safety belts.

## The opportunity

Over the years, many products in the operating room setting have transitioned to single-use, disposable products, due to convenience, low cost, and infection prevention concerns. The process has led to significant volumes of plastics and other waste, often with little or no available recycling markets. While the upfront price tag of a reusable product may seem more expensive compared to a disposable product, a life cycle cost analysis or total cost of ownership - which takes into account considerations such as production/manufacturing, distribution/transportation, energy, water, waste, and cleaning/sterilization - often yield break-even or positive return on investment and reduced environmental impacts without compromising quality patient care.

According to a study in the [Journal of Health Services and Research Policy](#), two-thirds of physicians believe the amount of surgical waste generated in the operating room is excessive and increasing, and the majority (95%) of the physicians support efforts to reduce waste by opting for the use of reusable surgical tools, instruments, and equipment over disposable items where clinically equivalent.

Practice Greenhealth data reveals:

- The 10 product categories in this goal were identified as the most common reusable products used by Practice Greenhealth Environmental Excellence award winners.
- 81% of award-winning facilities are using reusable textiles and products in the operating room.
- \$2,126 per operating room per year saved (\$16,750 per facility per year saved) from reusable surgical supplies (median).

## Getting started

**1. Assess current practice.** Review the list and determine whether the facility is primarily using reusable or disposable items. Identify annual usage, purchase volume, and cost data for the disposable items on the list.

**2. Engage and prioritize.** Review the list of items with a team of clinical representatives from nursing, anesthesia, surgery, and other inpatient and interventional areas who use the items most. Together, identify and prioritize

conversion opportunities (i.e., highest utilization, greatest ROI, biggest waste reduction impact, easiest to implement).

**3. Market analysis.** Identify reusable product criteria, alternatives and/or services, (if possible, perform a cost analysis. Include estimated impact on waste volumes and costs). Consider utilizing Practice Greenhealth's [cost of ownership calculator](#) to assess and compare costs. Conduct pilot study and product trial/evaluation, and upon conversion, position reusable alternative as primary vendor/product in purchasing information system.

## How Practice Greenhealth can help

The Practice Greenhealth [website](#) provides a wealth of resources for our network partners, and our sustainability specialists may provide more personalized support on [reusables](#). A sample of these additional resources include:

- Suggested RFP questions for reusable products.
- Our cost of ownership calculator.
- Reports, case studies, and guidance materials.

## Success story

Beaumont Health System Royal Oak Hospital in Royal Oak, Michigan, worked with suppliers to try reusable trocars as an alternative to single-use, disposable trocars. They looked at doctor satisfaction, waste reduction, return on investment and cost savings - taking into account the total cost of ownership - as key factors.

Beaumont was looking for ways to divert waste from landfills. In 25 operating room suites, they average 30 laparoscopic surgeries per week and each surgery uses approximately three disposable trocars, averaging about \$64 in price (based on the various sizes needed). They estimate they were spending \$300,000 per year on the purchase and use of 4,700 disposable trocars.

After testing reusable trocars with all surgeons, six doctors switched to the reusable brand. Based on the total cost of ownership, they estimate a savings of \$275,000 per year. They reduced 470 pounds of regulated medical waste and waste cost. They found a rapid payback; the return on investment was reached after 3.5 surgeries.

**Let Practice Greenhealth help you lead change in your hospital. To get started today, email [join@practicegreenhealth.org](mailto:join@practicegreenhealth.org).**