

Perioperative “Green” Opportunities

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Introduction

Environmental consciousness is increasingly important in our world. The operating room and perioperative areas create large amounts of waste. Much of this waste is due to packaging and other materials which have been treated as medical and regular waste in the past. By considering strategies to reduce the amount of waste created in the perioperative period as well as segregating waste appropriately we can improve our environment and reduce cost.



Results

The separation of regular waste from hazardous medical waste resulted in a \$20,000 savings in the first 6 months. Anticipated cost reduction from the recycling and reprocessing changes is projected to range from \$50,000 to \$100,000 in the first year. The amount of regular garbage in the anesthesia lounge has been reduced by 60% after the addition of recycling bins. The compost areas have been utilized but education is critical and emptying of the bins must take place every day. Operating room turnover time has not been adversely affected. Participation and interest of employees has been excellent.

Methods

A group of people who represented all areas of the perioperative environment including a surgeon, a scrub technician, a circulating nurse, an OR manager, an anesthesiologist, preoperative and postoperative nurses, an environmental services representative and hospital sourcing person were invited to participate in an OR “Green” team. The group identified areas in which waste could be reduced as well as areas where waste could be segregated more correctly.

Actions

Surgical kits were reviewed to remove unneeded items such as betadine trays and to ensure that items were as environmentally sensitive as possible. New recycling bins on trolleys were created for the operating rooms to allow for separation of clean recyclable materials when surgical kits were opened. Recycling in the operating room was first done as a trial in 2 high turnover operating rooms prior to introduction in all OR’s. Separate recycling bins for the anesthesiology cart and circulating nurse were added. Bins in the clean core were refreshed for collection of unused items for the 3rd world. Reprocessing of surgical items was introduced to the surgeons as a possible waste reduction strategy. Alternative drug disposal bins were incorporated to prevent drug contamination of ground water. Anesthesia waste bins were changed from hazardous medical waste (red bags) to regular waste (clear bags). Composting stations were started in the preoperative and postoperative areas as well as employee lounges for coffee grounds, paper towels and food items.

Conclusions

The perioperative environment can be improved by applying green principles in a hospital setting. Reduction of waste can occur through selection of appropriate items and via waste segregation. Recycling bins may be utilized in the operating room for clean waste created during each surgical case and by anesthesiologists without negatively impacting turnover time or OR cleanliness. Environmental consciousness can be fostered through teamwork and education.



References

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