

Recycling of Laboratory Disposable Supplies

- Warren V. Ferber, MT

Introduction

- The clinical laboratory offers new and innovative ways to recognize significant savings in supply costs, as well as affording this section of the health care field to participate in the “greening” of our industry.

Topics of Discussion

- Disposables have simplified work in the lab over the past several years; however, opportunities are arising to reduce waste and realize significant savings by cleaning and re-using some consumables.
- Now might be the time to re-think the disposables trend, in light of current and future needs and demands.



The Dade Behring BCS



Case Study

- Case in point: since November of 2004, the Hematology section of the laboratory at the Methodist Hospitals of Gary, Indiana, have re-cycled the plastic cuvette rotors from the Dade Behring BCS coagulation instruments, and recognized significant savings as a result.

The recycling process

- Used rotors are disinfected with a bleach/water solution, and packaged for shipping by Fed-Ex in Tupperware containers holding up to 78 rotors/container.
- The recycling company, L.E.S.S., cleans the rotors further with an enzymatic protein-digesting compound.
- Quality control checks are performed on all rotors to ensure proper performance. We have detected no failures of the recycled rotors since starting this service with L.E.S.S.



A low-tech solution

Costs and benefits

- The current cost per rotor for new disposable rotors is about 3 dollars.
- The current cost per recycled rotor is about \$1.36; less than half the cost of new.
- By recycling rotors, the savings over the first 8 months of 2005 (when the rotors were being recycled for only \$1.05 apiece) amounted to more than \$8,000.
- Recycling price has since risen, however, savings over the past 4 1/2 years still has probably amounted to between \$35k - \$45k.

Other facts

- Rotors can be recycled several times, not necessarily just once.
- Over 4 ½ years, recycling has kept more than 24,000 plastic rotors from our hospitals' facilities alone out of land-fills.
- There are probably many other opportunities for recycling in the lab, and we are looking for them.

Other notes

- Reaction of primary suppliers
 - ◆ Skepticism as to quality has been overcome
 - ◆ Reluctance to appear “anti-conservationist”
- Future trends
 - ◆ More recycling
 - ◆ Move by primary manufacturers to offer their own recycling services?

Thank you!