Letters to the Editor

Classifying Waste by Reducing Its Generation

To the Editor:

In reporting the results of their commendable attempt to determine whether any waste generated in preparation for surgery was labeled incorrectly as infectious or contained material that could be recycled,[1] the authors, surprisingly enough, concluded that there was only a modest cost reduction to be derived from the effort. However, what was not taken into consideration was another category of materials that could be considered, namely, reusable. In reality, the solution to reducing waste is not necessarily to be found in the classification of its contents, but rather in reducing its generation at the source.

For example, in a quantitative, qualitative, and critical assessment of surgical waste reported several years ago, the researchers did just that.[2] By using reusable textile products and engaging in available recycling methods for other materials, they estimated that weight reductions of 73% and volume reductions of 93% in surgical waste were possible.

Admittedly, source reduction of the myriad of products used is not an easy task. Perhaps the most difficult one to overcome is changing the personnel's deep-rooted behavioral attitudes and their habitual single-use throwaway mentality. However, considering the impending restrictions on landfill space and the recently enacted stringent incinerator emissions,[3] is there any other choice?

One of the major problems with many disposable types of healthcare products is that the materials of which they are made are neither recyclable nor degradable. Attempts to modify their composition, if successful, certainly would enhance their value, provided, of course, such modifications did not affect their functional value. However, while a positive step, such efforts more than likely would increase cost.

Furthermore, in those situations in which the product is contaminated with blood and classified as infectious or hazardous waste, whether or not the material of which it is made is recyclable is not relevant.

On the other hand, a reusable product is just that. It is designed and intended to be used repeatedly in its original shape and form and can be reprocessed to render it suitable for another identical use and sterile if need be.

Not to be overlooked are the economic benefits to be derived from the use of reusables. As reported in one of the references cited by the authors, a group of surgeons compared the cost of the reusable clothing provided them by one facility with the cost of the comparable disposable items provided them at another facility. Having found the reusables to be substantially less expensive, they concluded that "it was inappropriate for hospitals to place pressure on physicians to practice fiscal austerity in patient diagnosis and treatment and then to waste dollars on the expensive conveniences of modern 'disposable' society".[4]

Today's concerns for the environment are accompanied by a clear and distinct message. The surprise may be that the healthcare community may find a real economic, as well as an environmental, benefit to some aspects in the reprocessing of reusables and that the era of disposables ultimately will be recorded in history as a passing experience in the relentless process of change.

REFERENCES

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The author replies.

Dr. Belkin's comments are very important, especially since costs have become such a large focus in waste management. The authors do believe that reusing materials can be necessary and critical in this age of conservation and cost-containment. We believe the future will find a transition from the period that exists now, which involves very little recycling of potentially reusable resources including paper and plastic materials. It is inevitable that our society will restrict landfills and force industry to be more creative in reducing waste.

Certainly, even if operating room waste were viewed as a microcosm for all the problems of waste management in the world, we could see that solutions exist and that functionality of the answers should not be viewed only in dollars and cents. Diverting and recycling waste would provide employment that would require minimum training and expertise.

Social benefits of providing such employment and promoting recycling, rather than spending an equal amount of money on waste removal, will provide solutions that are constructive in this area. A common ground in terms of economics and environmental benefits may indeed be emphasizing the increased use of reusable materials.

Our study has far-ranging economic and social implications, but we can not comment fully on the actual success of reusables. Although we agree with Dr. Belkin's ideas, there is a significant bias against reusables and difficulties associated with implementation of such policies in this country.

As mentioned in the article, excluding the noninfectious waste from the infectious waste stream would reduce the volume of infectious waste, making it easier and cheaper to dispose of infectious waste on an environmental level. Also, by recycling, we can help to preserve our future resources by using our present resources to their fullest potential. Environmental implications of infectious waste disposal include

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