



Charles John Palenik

Greener Infection Prevention

The term 'green' offers a variety of working definitions. It involves different activities, usually centred on environmental responsibility. Becoming greener is not easy. It requires commitment based on evidence and is highly influenced by associated costs, availability of products and technology and having the authority to take action.

Green can mean doing with less, reducing waste and pollution and conserving resources. This can involve the use of the Three Rs – Reduce, Reuse and Recycle.

The best way to manage waste is not to generate it in the first place. This involves greater efficiencies and cutbacks in use. Reduction can be achieved by buying in bulk or concentrated form and avoiding over-packaging and the purchasing of disposable items. Limiting the use of energy and resources, such as water and fossil fuels, is also helpful.

It makes economic and

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environmental sense to reuse. This means repeated use of a product in the same manner (reusable versus disposable, such as a ceramic coffee cup instead of a paper version) or reusing products in different ways.

Recycling is a series of steps designed to take used materials and processes and remanufacture them, creating new products. Today, recycling of paper, plastic, metals, glass, batteries and electronic devices is commonplace. Success is increased by the purchase of products that are recyclable and/or made of recycled materials.

Being green may involve a fourth R - Re-think, which is the review of the current situation, and then developing schemes to do more with less. However, when it comes to infection prevention in dentistry, becoming greener cannot compromise patient and practitioner safety. Ideally, safety and disease prevention continues in combination with reductions in adverse health and environment effects. This is a difficult proposition because many infection prevention methods involve the use of chemicals and energy and the generation of waste.

There are examples of greener infection prevention:

- Using hand rubs for the majority of hand hygiene procedures instead of handwashing with soap and water;
- Using wipes for disinfection instead of spraying, reducing the amount of chemical used and placed in the air;
- Running full loads in sterilizers and instrument cleaning units, reducing the number of cycles run each day.

In addition, digital radiography uses fewer resources and generates less waste than film X-ray technologies.

However, there are two sides to every argument. An example is using reusable, sterilizable metal or plastic high volume evacuation tips rather than disposable plastic types. Reusables are usually more expensive initially, however, repeated use leads to savings over time. Reusables produce less waste, lower inventory demands and save resources. Disposables individually are usually inexpensive and do not have to be reprocessed after use, saving energy and chemicals. Single use also minimizes the chances of equipment malfunction.

Ideally, greener dentistry helps implement cost-saving, eco-friendly initiatives, while still maintaining the highest standards of patient and practitioner safety.