

WORKING WITH INDUSTRY TO REDUCE SURGICAL WASTE



Collaborative efforts are necessary to reduce surgical waste and improve sustainability in ophthalmic practices.

BY JOHN A. HOVANESIAN, MD

The quest for sustainability in ophthalmology is both necessary and challenging. A major step forward on this journey occurred with the inception of EyeSustain, an initiative founded by David F. Chang, MD. EyeSustain represents a global cooperative composed of eye surgeons, institutions, and the industry, all united with a common goal: to minimize surgical waste and foster more ecofriendly surgical practices. As the field navigates the complexities of changing entrenched norms within surgical processes, the pivotal role of the industry cannot be overstated, given their critical function in manufacturing the products ophthalmologists use.

INDUSTRY'S MOTIVATION AND CHALLENGES

The industry's motivation to reduce surgical waste is strong. Before launching EyeSustain, Dr. Chang conducted a survey of doctors and nurses across the United States, and 96% of respondents expressed

concern over excessive surgical waste and a strong desire for its reduction.¹ This sentiment is echoed within the industry, as demonstrated by a similar survey we conducted of members of the Medical Device Manufacturing Association.

Industry's efforts to implement sustainable practices are complicated by regulatory challenges. Companies must navigate a labyrinth of multifaceted and sometimes ambiguous regulations. These regulations help ensure patient safety but can hinder progress toward reducing waste.

STRATEGIC INTERVENTIONS AND MULTISOCIETY POSITION PAPERS

To address the aforementioned challenges, the Ophthalmic Instrument Cleaning and Sterilization Task Force identified several strategic interventions. We focused on the so-called low-hanging fruit—areas where consensus on waste reduction is clear and regulatory bodies are likely to agree. One significant stride in this direction is our work on position papers

that are endorsed by major societies such as the AAO, ASCRS, and ESCRS.

Single-Use Eye Drops

Our first position paper tackled the issue of eye drop waste in surgical centers.² (Editors' note: For more on this topic, see "Topical Drug Waste" on pg 38.) Common practice has dictated the use of a single bottle of eye drops per patient, which results in considerable product and packaging waste. We found that this practice does not align with the requirements of evidence-based medicine and, importantly, that multiuse of these bottles for multiple patients does not compromise sterility or patient care. The paper served as a clarion call for institutions to reconsider these inefficient practices.

Our subsequent position papers have focused on other aspects of surgical waste and provided guidance that aligns with both environmental sustainability and regulatory compliance. Each publication advances our understanding and solidifies the collective voice of the supporting

societies, thus amplifying their impact. Going forward, it will be crucial to ensure that our efforts are aligned with our core mission and that we continue to engage all stakeholders effectively.

Streamlining Surgical Packaging

A notable area of wastefulness in surgical procedures is the packaging of small products. For example, IOL packages typically include voluminous printed instructions for use (IFU) in multiple languages. Paper IFU, often unread at the point of surgery, unnecessarily enlarge the packaging. We recommend replacing the paper IFU with a QR code on the package's exterior. Scanning the QR code would direct users to a website where IFU can be provided in numerous languages and updated as necessary. This method not only reduces waste but also ensures that the information is accessible and current. Our position paper on this topic has laid out these arguments thoroughly and has been met with broad agreement within the industry and beyond.³ (Editors' note: For more on this topic, see "Why Are IFUs Still Being Printed?" on pg 36.)

Collaboration With Regulatory Bodies

Our efforts to reduce surgical waste have also involved constructive dialogues with regulatory authorities. For instance, our discussions with Jeffery Shuren, MD, PhD—the director of the Center for Devices and Radiological

Health at the US FDA—have been fruitful. He has expressed support for our initiatives and committed to assisting in the streamlining of US FDA regulations to reduce packaging. This collaboration is crucial because it helps align regulatory practices with sustainable innovations.

Revisiting Product Usage Guidelines

Another area of focus has been the IFU for surgical tools such as phaco needles. The needles are typically labeled for single-patient use, yet it is a common practice, both domestically and internationally, to use them across multiple surgeries. This practice, although efficient, contradicts existing labeling and exposes manufacturers to potential liability. By adjusting these guidelines, we aim to reduce waste and ease the regulatory burdens on manufacturers, making it easier for them to endorse sustainable practices without undue liability.

THE EYESUSTAIN PLEDGE

To catalyze change at a grassroots level, EyeSustain has introduced a pledge that any surgical facility can adopt (scan the QR code to access the pledge). The pledge encompasses several actionable steps that facilities can take to reduce surgical waste significantly. These include reassessing the necessity of every item in a surgical pack, considering the use of alcohol-based surgical scrubs that waste less water,

and advocating a multiuse policy for items such as eye drops. Our philosophy emphasizes the power of collective action; we believe that widespread, if imperfect, sustainable practices can have a more substantial impact than perfect sustainability practiced by only a few.

Although the challenges of reducing surgical waste are significant, the combined efforts of EyeSustain, industry partners, and regulatory bodies are developing practical, meaningful solutions. By adopting innovative approaches and encouraging facilities to take actionable steps toward sustainability, we are making strides toward a more environmentally responsible future in ophthalmic surgery. ■

1. Chang DF, Thiel CL. Ophthalmic Instrument Cleaning and Sterilization Task Force. Survey of cataract surgeons' and nurses' attitudes toward operating room waste. *J Cataract Refract Surg*. 2020;46(7):933-940.
2. Palmer DJ, Robin AL, McCabe CM, Chang DF. Ophthalmic Instrument Cleaning and Sterilization Task Force. Reducing topical drug waste in ophthalmic surgery: multisociety position paper. *J Cataract Refract Surg*. 2022;48(9):1073-1077.
3. Schehle EM, Hovanesian J, Shukla AG, Talley Rostov A, Findl O, Chang DF. Reducing ophthalmic surgical waste through electronic instructions for use: a multisociety position paper. *J Cataract Refract Surg*. 2024;50(3):197-200.



JOHN A. HOVANESIAN, MD

- Private practice, Harvard Eye Associates, Laguna Hills, California
- Member, CRST Editorial Advisory Board
- drhovanesian@harvardeye.com;
- X (formerly Twitter) @DrHovanesian
- Financial disclosure: None acknowledged