EyeSustain

SURGICAL FACILITY PLEDGE

We invite any surgical facility, department, or organization performing ophthalmic surgery to adopt this e-pledge to take the following actions. The facility nursing director, medical director, or ophthalmology department chief can sign the e-pledge on behalf of the institution. The EyeSustain website will eventually list the name of the facility making the pledge.

We agree to promote sustainability of quality eye surgery through education and collaboration. To reduce unnecessary ophthalmic surgical waste, we specifically pledge to:

1) Educate surgeons and surgical staff about sustainability and the impact of O.R. waste

- *The ophthalmic nursing and surgeon staff can watch a 15-minute video presentation "Introducing EyeSustain" in the ABOUT section of www.eyesustain.org . Along with Dr. Chang's 2023 JCRS editorial, this video discusses the impact of, and ways to reduce ophthalmic surgical waste. It also provides a quick tour of the EyeSustain website.*[1]
- *Surveys on North American and European ophthalmologists' and ophthalmic nurses' attitudes regarding surgical waste can be downloaded and distributed.*[2,3]
- *Consider appointing a sustainability leader for ophthalmic ORs (e.g., MD or RN leader)*

2) Regularly re-evaluate surgical pack standardization to minimize waste

- *Many standardized packs contain items that are frequently not used, and which could be separately opened when needed.*
- *Surgeons should consult and collaborate with the nursing staff to update their custom packs on a regular basis.*
- *Consider performing a 2-week challenge, by tracking which items in surgical packs go consistently unused over a 2-week interval. Surgeons can then evaluate whether these unused items can be packaged separately and opened only when necessary.*

3) Use multidose bottles of topical medication and betadine on multiple patients when possible

- *Needless waste of ophthalmic surgical topical medication has a significant financial and environmental impact.*[4,5]
- *Four major American societies have endorsed and released a 2022 position statement supporting the use of multidose bottles of ophthalmic drugs on multiple patients until the bottle expiration date.*[6]
- *The statement also encourages allowing patients to take home a bottle of partially used medication, if appropriate, that was specifically opened for them.*[6]

- *Supporting resources and information are available in a section on reducing surgical drug waste on the Eye Sustain website.*

4) Assess the necessity for patient gowns and full body draping

- *In two surveys of ophthalmologists 47% of European surgeons and 44% of North American surgeons had eliminated full body draping (using only a face drape).[2,3] Another 41% (European) or 51% (North American) would consider eliminating the full body drape.*
- *50% of European surgeons and 56% of North American surgeons did not have patients change into gowns (wearing their own clothing instead).[2,3] Another 27% (European) or 34% (North American) were willing to eliminate having patients change into hospital gowns for cataract surgery.*
- *A registry-based retrospective study published in the BJO found no difference in endophthalmitis rates when patients were changed into hospital gowns, compared to wearing their own clothing into the operating room.[7]*
- *In many regions, large plastic eye drapes may be backordered, so this transition may take time to implement.*

5) Regularly reassess options for reusable versus single-use products and instrumentation

- *In both the ESCRS and North American surveys, 8-10 times as many surgeons preferred reusable instruments over disposable instruments of equal cost.[2,3]*
- *Examples of reusable options include reusable metal or diamond blades, reusable phaco tips, etc.*

6) Assess feasibility of alcohol-based surgical scrub for pre-surgical antisepsis

- *Alcohol-based surgical scrub is recommended for presurgical antisepsis by leading health organizations. One study modeled significant savings in cost, water, and scrub time by converting from water-based to waterless scrub techniques for ophthalmic surgery.[8]*

7) Institute or update recycling strategies

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3. *Chang DF, Elferink S, Nuijts RMMA. Survey report: survey of ESCRS members' attitudes toward operating room waste. J Cataract Refract Surg 2023; 49: 3341-347.*
4. *Tauber J, Chinwuba I, Kleyn D, Rothschild M, Kahn J, Thiel CL. Quantification of the cost and potential environmental effects of unused pharmaceutical products in cataract surgery. JAMA Ophthalmol 2019;137: 1156–1163.*
5. *Berkowitz ST, Finn A, Sternberg P Jr, Patel S. Potential Cost Savings Associated with a Multiuse Preoperative and Preinjection Eyedrop Protocol. Ophthalmology. 2022;129:1305-1312.*
6. *Palmer DJ, Robin AL, McCabe CM, Chang DF. Reducing topical drug waste in ophthalmic surgery: multisociety position paper. J Cataract Refract Surg 2022;48:1073–1077.*
7. *Haripriya A, Ravindran RD, Robin AL, Shukla AG, Chang DF. Changing operating room practices: the effect on postoperative endophthalmitis rates following cataract surgery. Br J Ophthalmol 2022; doi: https://doi.org/10.1136/bjophthalmol-2021-320506. Epub ahead of print.*
8. *Javitt MJ, Grossman A, Grajewski A, Javitt JC. Association Between Eliminating Water from Surgical Hand Antisepsis at a Large Ophthalmic Surgical Hospital and Cost. JAMA Ophthalmol. 2020;138:382-386.*