SAN FRANCISCO
HEALTH SERVICE SYSTEM
Affordable, Quality Benefits & Well-Being

MEMORANDUM

DATE: February 14, 2019

TO: Karen Breslin, President, and Members of the Health Service Board

FROM: Abbie Yant, RN, MA Executive Director SFHSS

RE: Cataract Surgery Coverage Recommendation

Introduction

SFHSS gathered input from subject matter experts, network health plans, and clinical research to ensure that current cataract surgery coverage supports best practice approaches for our membership. SFHSS recommends maintaining traditional cataract surgery coverage provision in our medical plans based on these findings:

Rationale

- Traditional cataract surgery and the most common type of artificial lens (monofocal) are considered the standard of care, medically necessary, and are covered under Medicare.
- Patients who have traditional surgery and implant a basic artificial lens will need glasses for reading and even sometimes distance.
- Electing to use laser-assisted cataract surgery and investing in premium artificial lenses to eliminate dependence on glasses is based on cosmetic preference, usually not medically necessary, and is not routinely covered under Medicare.
- All types of artificial lenses (basic and premium) can be implanted using the traditional cataract surgery technique with proper measurement by the treating physician to guide accurate incision and placement.
- There is no evidence of improved patient outcome in laser-assisted surgery and it is associated with slightly higher complication rates.
- Laser assisted surgical time is longer compared to traditional cataract surgery.
- Traditional cataract surgery supports the most cost-effective delivery and value of HSS benefits to members.

Background

Traditional cataract surgery is a covered benefit and involves the removal of a cloudy lens that is impairing vision. The eye's natural lens is replaced with an artificial clear plastic lens called an intraocular lens (IOL). The desired outcome is for the new artificial lens to bend light rays that enter the eye to help you see better [1] Traditional cataract surgery can be offered to most patients with problematic cataracts. Traditional cataract surgery and the most common type of artificial lens (monofocal) are considered the standard of care, usually medically necessary, and are covered under Medicare [2] Monofocal lenses are set to focus for up-close, medium range or distance vision. Most people have monofocal lenses set for clear distance vision and use eyeglasses, post-surgery, for reading or up-close work [3]

Patients with certain types of presbyopia or astigmatism may meet medically necessary criteria and qualify for premium lenses that can be implanted during traditional cataract surgery. Most patients' conditions do not meet medically necessary criteria for premium lenses. If that is the case, then patients may choose to consult with their physician and negotiate price based on cosmetic preference.

Presbyopia results as a part of the natural aging process and creates close-up vision problems. Presbyopia can be addressed via reading glasses, bifocals, trifocals, progressive lenses, and contact lenses [4] Astigmatism is an uneven curve in the cornea or lens that blurs vision. Most astigmatism can be corrected with eye glasses or contact lenses. LASIK (laser thermal keratoplasty) surgery and premium lenses designed to correct Presbyopia and Astigmatism decrease the need for computer and reading classes but are not considered medically necessary [5]

Clinical Research

A large body of clinical research has compared traditional cataract surgery with laser-assisted cataract surgery. A meta-analysis of 14,567 eyes by Popovic, Marko et al (2016), one of the larger literature reviews of its kind, was presented at the American Society of Cataract and Refractive Surgery/ American Society of Ophthalmic Administrators Symposium & Congress in May 2016. Awarded Best Paper of the Session, this meta-analysis screened 2,802 articles, 15 randomized controlled trials, and 22 observational cohort studies to investigate the safety and efficacy of laser-assisted cataract surgery relative to traditional cataract surgery. Basic artificial lenses (monofocal) and premium artificial lenses (multifocal, accommodative, and toric) can be implanted using the traditional cataract surgery technique with proper measurement by the treating physician to guide accurate incision and placement. Visual and refractive outcomes were not statistically different for both surgical practices, but laser-assisted surgery did reflect a statistically significant difference for secondary outcomes including: (1) higher prostaglandin concentrations that cause pain by direct action upon nerve endings and (2) higher rates of posterior capsular tears (a complication of surgery during which cataract particles may travel through the cavity making them harder to remove) [6]

Subject Matter Expertise

Dr. Stephen McLeod, chair of the Department of Ophthalmology at University of California, San Francisco, is an ophthalmologist who specializes in cataracts, corneal disease and refractive (vision corrective) surgery. McLeod's research focuses on diagnosing and treating corneal infections, as well as developing devices to improve cataract surgery. Dr. McLeod asserts that the evidence -retrospective, prospective, meta-analysis- is consistent in showing that there is no clinically significant benefit to laser-assisted cataract surgery over traditional cataract surgery, but that there is increased cost, and in some cases reduced efficiency. Dr. Stephen Follansbee, MD is a Commissioner on the Health Service Board and an infectious disease specialist in San Francisco that has been practicing for 38 years. Dr. Follansbee notes that astigmatism surgery (one of the two qualifying conditions for Medicare coverage) is cosmetic in nature. He goes on to explain that those who choose premium lenses (the second qualifying conditions for Medicare coverage) can have them implanted using the traditional surgical method and that these premium lenses cost the Medicare recipient extra, regardless of the type of surgery they pursue. Specialized lenses to correct astigmatism (toric lens) are available at an additional cost, can be placed during traditional cataract surgery, and may be more durable in benefit than laser-assisted correction.

Health Plan Response

To develop the most informed recommendation, HSS consulted network health plans regarding coverage considerations. United Health Care (UHC) covers both traditional and laser-assisted surgical cataract removal methods. UHC pays the same as Medicare, which covers the same amount regardless of the surgical method used. Providers that use both methods are opting not to use the laser-assisted method because they are not getting reimbursed any additional dollars versus performing procedures under the traditional surgical method. For non-Medicare members, Blue Shield of California indicated that traditional cataract surgery is eligible for coverage and is customarily performed in an outpatient setting, either in an ambulatory surgery center or outpatient department of a hospital. Laser-assisted cataract surgery is not a covered benefit. Finally, Kaiser Health Plan and The Permanente Medical Group (TPMG) recognize traditional cataract surgery as the “gold standard” for all plans (non-Medicare and Medicare). It is a method of surgery utilized at all Kaiser Permanente centers. Kaiser Health Plan and TPMG assert that laser-assisted surgery simply involves using a different kind of device to complete the same steps as in standard cataract surgery. At this time, Kaiser Permanente does not offer laser-assisted cataract surgery but continues to tract the evolution of this developing technique. Our network health plan responses align with the universal and consistent belief that traditional cataract surgery remains the recommended approach, and that laser-assisted surgery does not deliver any incremental patient outcomes that merit changes to member coverage.

Appendix

Figure 1. Overview of Traditional vs. Laser-Assisted Surgery Technique [1,3,6,7]

	Traditional (Phacoemulsification)	Laser-Assisted (Femtosecond Laser-Assisted Cataract Surgery, or FLACS)
History	▪ Technique introduced in the 1970s	▪ Technique introduced in 2009
Procedure	▪ Surgeon makes an incision in the side of the cornea by hand ▪ Microsurgical instrument is inserted to create a circular opening in the lens capsule ▪ Ultrasound probe is used to break the cloudy lens and suction out the pieces ▪ An artificial intraocular lens (IOL) is implanted	▪ Camera/ultrasound is used to map and gather detailed information about the lens ▪ Laser is computer programmed with lens information to enable the surgeon to make a precise corneal incision ▪ Ultrasound probe is used to break the cloudy lens and suction out the pieces ▪ An artificial intraocular lens (IOL) is implanted
Healing Process	▪ Incision does not require stitches ▪ Vision clears within 1-2 weeks ▪ Full recovery may take up to 3 months	▪ Incision does not require stitches ▪ Vision clears within 1-2 weeks ▪ Full recovery may take up to 3 months
Patient Outcomes	▪ No statistically significant difference found between eyes undergoing traditional and laser-assisted cataract surgery with respect to refractive and visual outcomes.	▪ Laser-assisted surgery has a higher incidence of complications such as posterior or anterior capsule tears, corneal edema, and posterior capsule opacification requiring YAG (a special laser treatment used to improve your vision after cataract surgery).

References

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[3] Boyd, K. (2017). Traditional cataract surgery vs. laser-assisted cataract surgery. *American Academy of Ophthalmology* https://www.aao.org/eye-health/diseases/traditional-vs-laser-assisted-cataract-surgery

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