

SUMMARY BENCHMARKS FOR PREFERRED PRACTICE PATTERN® GUIDELINES

Introduction:

These are summary benchmarks for the Academy's Preferred Practice Pattern® (PPP) guidelines. The Preferred Practice Pattern series of guidelines has been written on the basis of three principles.

- Each Preferred Practice Pattern should be clinically relevant and specific enough to provide useful information to practitioners.
- Each recommendation that is made should be given an explicit rating that shows its importance to the care process.
- Each recommendation should also be given an explicit rating that shows the strength of evidence that supports the recommendation and reflects the best evidence available.

Preferred Practice Patterns provide guidance for the pattern of practice, not for the care of a particular individual. While they should generally meet the needs of most patients, they cannot possibly best meet the needs of all patients. Adherence to these Preferred Practice Patterns will not ensure a successful outcome in every situation. These practice patterns should not be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed at obtaining the best results. It may be necessary to approach different patients' needs in different ways. The physician must make the ultimate judgment about the propriety of the care of a particular patient in light of all of the circumstances presented by that patient. The American Academy of Ophthalmology is available to assist members in resolving ethical dilemmas that arise in the course of ophthalmic practice.

The Preferred Practice Pattern® guidelines are not medical standards to be adhered to in all individual situations. The Academy specifically disclaims any and all liability for injury or other damages of any kind, from negligence or otherwise, for any and all claims that may arise out of the use of any recommendations or other information contained herein.

For each major disease condition, recommendations for the process of care, including the history, physical exam and ancillary tests, are summarized, along with major recommendations for the care management, follow-up, and education of the patient. For each PPP, a detailed

literature search of PubMed and the Cochrane Library for articles in the English language is conducted. The results are reviewed by an expert panel and used to prepare the recommendations, which they rated in two ways.

The panel first rated each recommendation according to its importance to the care process. This "importance to the care process" rating represents care that the panel thought would improve the quality of the patient's care in a meaningful way. The ratings of importance are divided into three levels.

- Level A, defined as most important
- Level B, defined as moderately important
- Level C, defined as relevant but not critical

The panel also rated each recommendation on the strength of evidence in the available literature to support the recommendation made. The "ratings of strength of evidence" also are divided into three levels.

- Level I includes evidence obtained from at least one properly conducted, well-designed randomized controlled trial. It could include meta-analyses of randomized controlled trials.
- Level II includes evidence obtained from the following:
 - Well-designed controlled trials without randomization
 - Well-designed cohort or case-control analytic studies, preferably from more than one center
 - Multiple-time series with or without the intervention
- Level III includes evidence obtained from one of the following:
 - Descriptive studies
 - Case reports
 - Reports of expert committees/organizations (e.g., PPP panel consensus with external peer review)

PPPs are intended to serve as guides in patient care, with greatest emphasis on technical aspects. In applying this knowledge, it is essential to recognize that true medical excellence is achieved only when skills are applied in a such a manner that the patients' needs are the foremost consideration. The AAO is available to assist members in resolving ethical dilemmas that arise in the course of practice. (AAO Code of Ethics)

Keratorefractive Surgery (Initial and Follow-up Evaluation)

Initial Exam History

- Present status of visual function [A:III]
- Ocular history [A:III]
- Systemic history [A:III]
- Medications [A:III]

Initial Physical Exam

- Visual acuity without correction [A:III]
- Manifest, and where appropriate, cycloplegic refraction [A:III]
- Computerized corneal topography [A:III]
- Central corneal thickness measurement [A:III]
- Evaluation of tear film [A:III]
- Evaluation of ocular motility and alignment [A:III]

Care Management

- Discontinue contact lenses before preoperative exam and procedure [A:III]
- Inform patient of the potential risks, benefits, and alternatives to and among the different refractive procedures [A:III]
- Document informed consent process; patient should be given an opportunity to have all questions answered before surgery [A:III]
- For LASIK, residual stromal bed thickness should not be less than 250 μm [A:III]
- Check and calibrate instrumentation before the procedure [A:III]
- Surgeon confirms the identity of the patient, the operative eye, and that the parameters are correctly entered into the excimer laser's computer [A:III]

Postoperative Care

- Operating surgeon is responsible for postoperative management [A:III]
- For surface ablation techniques, examine on the day following surgery and every 2 to 3 days thereafter until the epithelium is healed [A:III]
- For uncomplicated LASIK, examine within 48 hours following surgery, a second visit 1 to 4 weeks postoperatively, and further visits thereafter as appropriate [A:III]

Patient Education

Discuss the risks and benefits of the planned procedure with the patient. [A:III] Elements of the discussion include the following:

- Range of expected refractive outcomes
- Residual refractive error
- Reading and/or distance correction postoperatively
- Loss of best-corrected visual acuity
- Side effects and complications (e.g., microbial keratitis, sterile keratitis, keratectasia)
- Changes in visual function not necessarily measured by Snellen acuity, including glare and function under low-light conditions
- Night vision symptoms (e.g., glare, haloes) developing or worsening; careful consideration should be given to this issue for patients with high degrees of ametropia or for individuals who require a high level of visual function in low-light conditions
- Effect on ocular alignment
- Dry eye symptoms developing or worsening
- Monovision advantages and disadvantages (for patients of presbyopic age)
- Conventional and wavefront-guided ablations advantages and disadvantages
- Advantages and disadvantages of same-day bilateral keratorefractive surgery versus sequential surgery. Because vision might be poor for some time after bilateral same-day photorefractive keratectomy, the patient should be informed that activities such as driving might not be possible for weeks.
- Postoperative care plans (setting of care, providers of care)