American Academy of Ophthalmology
*The Eye M.D. Association*

# POSTERIOR VITREOUS DETACHMENT, RETINAL BREAKS, AND LATTICE DENEGERATION 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)

# Posterior Vitreous Detachment, Retinal Breaks and Lattice Degeneration (Initial and Follow-up Evaluation)

### Initial Exam History (Key elements)

- Symptoms of PVD [A:I]
- Family history [A:II]
- Prior eye trauma [A:III]
- Myopia [A:II]
- History of ocular surgery including refractive lens exchange and cataract surgery [A:II]

### Initial Physical Exam (Key elements)

- Examination of the vitreous for hemorrhage, detachment, and pigmented cells [A:III]
- Examination of the peripheral fundus with scleral depression. [A:III] The preferred method of evaluating peripheral vitreoretinal pathology is with indirect ophthalmoscopy combined with scleral depression. [A:III]

### Ancillary Tests

- Perform B-scan ultrasonography if peripheral retina cannot be evaluated. [A:II] If no abnormalities are found, frequent follow-up examinations are recommended. [A:III]

### Surgical and Postoperative Care if Patient Receives Treatment:

- Inform patient about the relative risks, benefits, and alternatives to surgery [A:III]
- Formulate a postoperative care plan and inform patient of these arrangements [A:III]
- Advise patient to contact ophthalmologist promptly if they have a substantial change in symptoms such as new floaters or visual field loss [A:II]

### Follow-up History

- Visual symptoms [A:I]
- Interval history of eye trauma or intraocular surgery [A:II]

### Follow-up Physical Exam

- Visual acuity [A:III]
- Evaluation of the status of the vitreous, with attention to the presence of pigment, hemorrhage, or syneresis [A:II]
- Examination of the peripheral fundus with scleral depression [A:II]
- B-scan ultrasonography if the media are opaque [A:II]
- Patients who present with vitreous hemorrhage sufficient to obscure retinal details and a negative B-scan should be followed periodically. For eyes in which a retinal tear is suspected, a repeat B-scan should be performed within approximately 4 weeks of the initial examination. [A:III]

### Patient Education

- Educate patients at high risk of developing retinal detachment about the symptoms of PVD and retinal detachment and the value of periodic follow-up exams [A:II]
- Instruct all patients at increased risk of retinal detachment to notify their ophthalmologist promptly if they have a substantial change in symptoms such as increase in floaters, loss of visual field, or decrease in visual acuity [A:III]

### Care Management

**Management Options**

| Type of Lesion | Treatment |
|---|---|
| Acute symptomatic horseshoe tears | Treat promptly [A:II] |
| Acute symptomatic operculated tears | Treatment may not be necessary [A:III] |
| Traumatic retinal breaks | Usually treated [A:III] |
| Asymptomatic horseshoe tears | Usually can be followed without treatment [A:III] |
| Asymptomatic operculated tears | Treatment is rarely recommended [A:III] |
| Asymptomatic atrophic round holes | Treatment is rarely recommended [A:III] |
| Asymptomatic lattice degeneration without holes | Not treated unless PVD causes a horseshoe tear [A:III] |
| Asymptomatic lattice degeneration with holes | Usually does not require treatment [A:III] |
| Asymptomatic dialyses | No consensus on treatment and insufficient evidence to guide management |
| Fellow eyes with atrophic holes, lattice degeneration, or asymptomatic horseshoe tears | No consensus on treatment and insufficient evidence to guide management |

PVD = Posterior vitreous detachment