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International Council of Ophthalmology/  
International Federation of Ophthalmological Societies

## ICO International Clinical Guidelines

### Amblyopia (Initial and Follow-up Evaluation)

**(Ratings:** A: Most important, B: Moderately important, C: Relevant but not critical  
**Strength of Evidence:** I: Strong, II: Substantial but lacks some of I, III: consensus of expert opinion in absence of evidence for I & II)

#### Initial Exam History (Key elements)

- Ocular symptoms and signs **(A:III)**
- Ocular history **(A:III)**
- Systemic history, including review of prenatal, perinatal, and postnatal medical factors **(A:III)**
- Family history, including eye conditions and relevant systemic diseases **(A:III)**

#### Initial Physical Exam (Key elements)

- Visual acuity **(A:III)**
- Assessment of fixation pattern **(A:III)**
- Pupil reactivity and function **(A:III)**
- Ocular alignment and motility **(A:III)**
- External examination: lids, lashes, lacrimal apparatus, orbit, face **(A:III)**
- Evaluation of the fundus (including posterior pole of retina) **(A:III)**
- Cycloplegic refraction **(A:III)**

#### Care Management

- Provide ongoing management until approximately age 10 years. **(A:III)**
- Choose treatment to meet the patient's visual, physical, social and psychological needs and based on potential risks and benefits for the patient. **(A:III)**
- Treatment goal is to achieve equalization/normalization of fixation patterns or visual acuity. **(A:III)**

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- Once maximal visual acuity has been obtained, treatment should be tapered or stopped. **(A:III)**

### Follow-up Evaluation

- Follow-up visits should include:
  - Amount of occlusion and /or spectacle wear achieved by report **(A:III)**
  - Side effects (e.g., skin irritation, ocular redness, flushing and psychosocial issues) **(A:III)**
  - Visual acuity or fixation of each eye **(A:III)**
  - Ocular alignment **(A:III)**
  - Repeat cycloplegic refraction, as indicated (at least yearly, and 4-6 month intervals may be necessary) **(A:III)**

### Amblyopia Follow-up Evaluation Intervals During Active Treatment Period **(A:III)**

Age (years)	High Percentage Occlusion ( $\geq 70\%$ of waking time)	Low Percentage Occlusion ( $\geq 70\%$ of waking time) or Penalization	Maintenance Treatment or Observation
0-1	Days to 4 weeks	2-8 weeks	1-4 months
1-2	2-8 weeks	2-4 months	2-4 months
2-3	3-12 weeks	2-4 months	2-4 months
3-4	4-16 weeks	2-6 months	2-6 months
4-5	4-16 weeks	2-6 months	2-6 months
5-7	6-16 weeks	2-6 months	2-6 months
7-9	8-16 weeks	3-6 months	3-12 months
Over 9	8-16 weeks	3-6 months	6-12 months

### Patient Education

- Discuss diagnosis, severity of disease, prognosis and treatment plan with patient, parents and /or caregivers. **(A:III)**
- Develop a team approach with the patient, family/caregiver and others such as teachers or day-care providers, giving attention to visual, psychological, social and economic factors, and assuring that they understand the disease process, rationale and goals of treatments, and the benefits and complications. **(A:III)**
- Discuss potential psychological side effects with the parent/caregiver. **(A:III)**

- Explain the importance of monitoring and long-term follow-up of the problem with the parent/caregiver and patient. **(A:III)**

\* Adapted from the [American Academy of Ophthalmology Summary Benchmarks, November 2006 \(www.aao.org\)](http://www.aao.org)

(For more ICO International Clinical Guidelines, see [www.icoph.org/guide](http://www.icoph.org/guide))

### **Preface to the Guidelines:**

International Clinical Guidelines are prepared and distributed by the International Council of Ophthalmology on behalf of the International Federation of Ophthalmological Societies.

These Guidelines are to serve a supportive and educational role for ophthalmologists worldwide. These guidelines are intended to improve the quality of eye care for patients. They have been adapted in many cases from similar documents (Benchmarks of Care) created by the American Academy of Ophthalmology based on their Preferred Practice Patterns.

While it is tempting to equate these to Standards, it is impossible and inappropriate to do so. The multiple circumstances of geography, equipment availability, patient variation and practice settings preclude a single standard.

Guidelines on the other hand are a clear statement of expectations. These include comments of the preferred level of performance assuming conditions that allow the use of optimum equipment, pharmaceuticals and/or surgical circumstances.

Thus, a basic expectation is created and if the situation is optimum, the optimum facets of diagnosis, treatment and follow up may be employed. Excellent, appropriate and successful care can also be provided where optimum conditions do not exist.

Simply following the Guidelines does not guarantee a successful outcome. It is understood that, given the uniqueness of a patient and his or her particular circumstance, physician judgment must be employed. This can result in a modification in application of a guideline in individual situations.

Medical experience has been relied upon in the preparation of these guidelines, and they are whenever possible, evidence-based. This means these Guidelines are based on the latest available scientific information. The ICO is committed to provide updates of these guidelines on a regular basis (approximately every two to three years).

(Also see the Introduction to the ICO International Clinical Guidelines at [www.icoph.org/guide/guideintro.html](http://www.icoph.org/guide/guideintro.html) and the list of other Guidelines at [www.icoph.org/guide/guidelist.html](http://www.icoph.org/guide/guidelist.html).)