



## Complete Summary

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### GUIDELINE TITLE

Care of the patient with hyperopia.

### BIBLIOGRAPHIC SOURCE(S)

American Optometric Association. Care of the patient with hyperopia. St. Louis (MO): American Optometric Association; 1997. 56 p. (Optometric clinical practice guideline; no. 16). [124 references]

### GUIDELINE STATUS

This is the current release of the guideline.

According to the guideline developer, this guideline has been reviewed on a biannual basis and is considered to be current. This review process involves updated literature searches of electronic databases and expert panel review of new evidence that has emerged since the original publication date.

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## SCOPE

### DISEASE/CONDITION(S)

Hyperopia

### GUIDELINE CATEGORY

Diagnosis  
Evaluation  
Management

## **CLINICAL SPECIALTY**

Optometry

## **INTENDED USERS**

Health Plans  
Optometrists

## **GUIDELINE OBJECTIVE(S)**

- To accurately diagnose hyperopia
- To document the patient care treatment options for patients with hyperopia
- To identify patients at risk for the adverse effects of hyperopia
- To minimize the adverse effects of hyperopia
- To preserve the gains obtained through the treatment
- To inform and educate parents, patients, and other health care practitioners about the visual complications of hyperopia and the availability of treatment

## **TARGET POPULATION**

Patients of all ages with hyperopia

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### *Diagnosis*

1. Patient history
2. Ocular examination
  - Visual acuity
  - Refraction
  - Ocular motility, binocular vision and accommodation
  - Ocular health assessment and systemic health screening

### *Treatment*

1. Optical correction
2. Vision therapy
3. Medical (pharmaceutical)
4. Modification of the patient's habits and environment
5. Refractive surgery

## **MAJOR OUTCOMES CONSIDERED**

Not stated

## **METHODOLOGY**

## **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Searches of Electronic Databases

**DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The guideline developer performed literature searches using the National Library of Medicine's Medline database and the VisionNet database.

**NUMBER OF SOURCE DOCUMENTS**

Not stated

**METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Expert Consensus (Committee)

**RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

**METHODS USED TO ANALYZE THE EVIDENCE**

Review

**DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not applicable

**METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Not stated

**RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

**COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

**METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

**DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

The Reference Guide for Clinicians was reviewed by the American Optometric Association (AOA) Clinical Guidelines Coordinating Committee and approved by the AOA Board of Trustees.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

#### *Diagnosis of Hyperopia:*

The evaluation of a patient with hyperopia may include, but is not limited to, the following areas:

- A. Patient history
  1. Nature of presenting problem, including chief complaint
  2. Ocular and general health history
  3. Developmental and family history
  4. Use of medications and allergies
- B. Visual acuity
  1. Distance visual acuity testing
  2. Near visual acuity testing
- C. Refraction
  1. Retinoscopy
    - a. Static retinoscopy
    - b. Near-point retinoscopy
    - c. Cycloplegic retinoscopy
  2. Subjective refraction
  3. Autorefraction
- D. Ocular motility, binocular vision, and accommodation
  1. Versions
  2. Monocular and alternating cover test
  3. Near point of convergence
  4. Accommodative amplitude and facility
  5. Stereopsis testing
- E. Ocular health assessment and systemic health screening
  1. Assessment of pupillary responses
  2. Visual field screening
  3. Color vision testing
  4. Measurement of intraocular pressure
  5. Evaluation of anterior and posterior segments of eye and adnexa

#### *Management of Hyperopia:*

The specific elements of treatment should be tailored to individual patient needs. Among the factors to consider when planning treatment and management strategies are the magnitude of the hyperopia, the presence of astigmatism or anisometropia, the patient's age, the status of accommodation and convergence, the demands placed on the visual system, and the patient's symptoms.

Among several available treatments for hyperopia-related symptoms, optical correction of the refractive error with spectacles and contact lenses is the most

commonly used modality. It is the optometrist's responsibility to advise and counsel the patient regarding the options and to guide the patient's selection of the appropriate spectacles or contact lenses. Vision therapy and modification of the patient's habits and environment can be important in achieving definitive long-term remediation of symptoms. The use of pharmaceutical agents or refractive surgery may also be used in treating some patients.

The frequency and composition of evaluation and management visits of patients with hyperopia are summarized in the table, below.

### Frequency and Composition of Evaluation and Management Visits of Hyperopia

Type of Patient	Number of Evaluation Visits	Treatment Options	Frequency of Follow-up Visits	Composition of Follow-Up Evaluations				Management Plan
				VA	REF	A/V	OH	
Young child with mild to moderate hyperopia and strabismus or amblyopia	1 to 2	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Modify habits and environment</li> </ul>	3 to 12 mos	Each visit	Each visit	Each visit	p.r.n.	No treatment or provide refractive correction; monitor vision
Young child with high hyperopia and no strabismus or amblyopia	1 to 2	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	2 to 6 mos	Each visit	Each visit	Each visit	p.r.n.	Provide refractive correction; treat any accommodative or binocular vision problems; monitor vision
Young child with mild to high hyperopia and strabismus or amblyopia	2 to 3	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Strabismus and amblyopia therapy</li> <li>Modify habits and environment</li> <li>Pharmaceuticals</li> </ul>	2 wk to 3 mos	Each visit	Each visit	Each visit	p.r.n.	Provide refractive correction; treat any amblyopia or strabismus; monitor vision
Older child with mild to moderate	1 to 2	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and</li> </ul>	6 to 12 mos	Each visit	Each visit	Each visit	p.r.n.	No treatment or provide refractive correction;

hyperopia		environment						monitor visi
Older child with high hyperopia	1 to 2	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	6 to 12 mos	Each visit	Each visit	Each visit	p.r.n.	Provide refractive correction; treat any accommoda or binocular vision proble monitor visi
Pre-presbyopic adult	1	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	1 to 2 yr	Each visit	Each visit	Each visit	Each visit	No treatment or provide refractive correction; treat any accommoda or binocular vision proble monitor visi
Presbyopic adult	1	<ul style="list-style-type: none"> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	1 to 2 yr	Each visit	Each visit	Each visit	Each visit	Provide refractive correction; treat any accommoda or binocular vision proble monitor visi

VA = visual acuity testing  
REF = refraction  
A/V = accommodative/vergence testing  
OH = ocular health assessment  
p.r.n. = as needed

### CLINICAL ALGORITHM(S)

An algorithm is provided for Optometric Management of the Patient with Hyperopia.

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

The early diagnosis and treatment of significant hyperopia and its consequences can prevent a significant amount of visual disability in the general population. Because hyperopia is usually not readily apparent, preventive examination of all young children is essential. Periodic eye and vision examinations are needed thereafter to help ensure the provision of treatment appropriate to the changing visual needs of the hyperopic patient.

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

Clinicians should not rely on this Clinical Guideline alone for patient care and management. Please refer to the references and other sources listed in the original guideline for a more detailed analysis and discussion of research and patient care information.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Clinical Algorithm  
Patient Resources

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### **BIBLIOGRAPHIC SOURCE(S)**

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### **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

### **DATE RELEASED**

1997 (reviewed 2006)

### **GUIDELINE DEVELOPER(S)**

American Optometric Association - Professional Association

### **SOURCE(S) OF FUNDING**

Funding was provided by the Vision Service Plan (Rancho Cordova, California) and its subsidiary Altair Eyewear (Rancho Cordova, California)

### **GUIDELINE COMMITTEE**

American Optometric Association Consensus Panel on Care of the Patient with Hyperopia

### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

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### **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

### **GUIDELINE STATUS**

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updated literature searches of electronic databases and expert panel review of new evidence that has emerged since the original publication date.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available in Portable Document Format (PDF) from the [American Optometric Association Web site](#).

Print copies: Available from the American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141-7881

## **AVAILABILITY OF COMPANION DOCUMENTS**

None available

## **PATIENT RESOURCES**

The following is available:

- Answers to your questions about farsightedness. St. Louis, MO: American Optometric Association. (Patient information pamphlet).

Print copies: Available from the American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141-7881; Web site, [www.aoanet.org](http://www.aoanet.org).

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## **NGC STATUS**

This summary was completed by ECRI on December 1, 1999. The information was verified by the guideline developer on January 31, 2000.

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