Complete Summary

GUIDELINE TITLE

Blepharitis.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Ophthalmology Cornea/External Disease Panel, Preferred Practice Patterns Committee. Blepharitis. San Francisco (CA): American Academy of Ophthalmology (AAO); 2003. 17 p. [44 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Ophthalmology (AAO), Preferred Practice Patterns Committee, Cornea/External Disease Panel. Blepharitis. San Francisco (CA): American Academy of Ophthalmology (AAO); 1998. 16 p.

All Preferred Practice Patterns are reviewed by their parent panel annually or earlier if developments warrant.

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SCOPE

DISEASE/CONDITION(S)

Blepharitis

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Ophthalmology

INTENDED USERS

Health Plans
Physicians

GUIDELINE OBJECTIVE(S)

To preserve visual function, to minimize structural damage to the eyelids and ocular surface, and to improve patient comfort and appearance, by addressing the following goals:

- Establish the diagnosis of blepharitis, differentiating it from other causes of irritation and redness
- Identify the cause of blepharitis
- Establish appropriate therapy
- Relieve discomfort and pain
- Prevent complications
- Educate and engage the patient in the management of this potentially chronic disease

TARGET POPULATION

Individuals of all ages who present with symptoms and signs suggestive of blepharitis, such as eyelid and ocular irritation and redness

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Comprehensive medical eye evaluation, including complete patient history
2. Physical examination, including measurement of visual acuity, an external examination, and slit-lamp biomicroscopy
3. Diagnostic tests may include cultures of the eyelid margins and eyelid biopsy, when applicable

Treatment

1. Warm compresses
2. Eyelid hygiene
3. Antibiotics
4. Topical corticosteroids

Management

1. Follow-up
2. Counseling and referral, when applicable
3. Patient education

MAJOR OUTCOMES CONSIDERED

- Prevent loss of visual function
- Minimize structural damage
- Reduce symptoms and signs of blepharitis

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A detailed literature search of articles in the English language was conducted in July 2002 on the subject of blepharitis for the years 1997 to 2002.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Ratings of strength of evidence

I. 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.

II. 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

III. Level III includes evidence obtained from one of the following:
- Descriptive studies
- Case reports
- Reports of expert committees/organization
- Expert opinion (e.g., Preferred Practice Pattern panel consensus)

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The results of a literature search on the subject of blepharitis were reviewed by the Cornea/External Disease 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 panel also rated each recommendation on the strength of the evidence in the available literature to support the recommendation made.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Ratings of importance to care process

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

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

These guidelines were reviewed by Council and approved by the Board of Trustees of the American Academy of Ophthalmology (September 2003). All *Preferred Practice Patterns* are reviewed by their parent panel annually or earlier if developments warrant and updated accordingly.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The ratings of importance to the care process (A, B, C) and the ratings for strength of evidence (I, II, III) are defined at the end of the "Major Recommendations" field.

Diagnosis

The initial evaluation of a patient with symptoms and signs suggestive of blepharitis should include the relevant aspects of the comprehensive medical eye evaluation. [A:III]

Patient History

Questions about the following elements of the patient history may elicit helpful information:

- Symptoms and signs [A:III]
- Duration of symptoms [A:III]
- Unilateral or bilateral presentation [A:III]
- Exacerbating conditions [A:III]
- Symptoms related to systemic diseases [A:III]
- Current and previous systemic and topical medications [A:III]
- Recent exposure to an infected individual [C:III]

The ocular history may take into account details about previous eyelid and ophthalmic surgery and local trauma, including radiation and chemical trauma.

The medical history may take into account information about dermatological diseases such as acne, rosacea, and eczema, and about medications such as isotretinoin.

Examination

The physical examination includes measurement of visual acuity, [A:III] an external examination, [A:III] and slit-lamp biomicroscopy. [A:III] The external examination should be performed in a well-lighted room with particular attention to the following:

- Skin [A:III]
- Eyelids [A:III]

The slit-lamp biomicroscopy should include evaluation of the following:

- Tear film [A:III]
- Anterior eyelid margin [A:III]
- Eyelashes [A:III]
- Posterior eyelid margin [A:III]

- Tarsal conjunctiva [A:III]
- Bulbar conjunctiva [A:III]
- Cornea [A:III]

Diagnostic Tests

A biopsy of the eyelid may be indicated to exclude the possibility of carcinoma in cases of marked asymmetry, resistance to therapy, or unifocal recurrent chalazion that do not respond well to therapy. [A:II] Consultation with the pathologist is recommended prior to obtaining a biopsy for suspected sebaceous gland carcinoma. [A:III]

Treatment

There is insufficient evidence to make definitive treatment recommendations for blepharitis. Treatments that are helpful include the following:

- Warm compresses
- Eyelid hygiene
- Antibiotics
- Topical corticosteroids

Patients should be advised that eyelid hygiene may be required for life, and that symptoms may recur if treatment is discontinued. [A:III]

For patients with staphylococcal blepharitis, a topical antibiotic such as bacitracin or erythromycin can be prescribed and applied on the eyelids one or more times daily or at bedtime for one or more weeks. The frequency and duration of treatment should be guided by the severity of the blepharitis. [A:III]

For patients with meibomian gland dysfunction (MGD), whose chronic symptoms and signs are not adequately controlled with eyelid hygiene, oral tetracyclines can be prescribed. [A:III] A brief course of topical corticosteroids may be helpful for eyelid or ocular surface inflammation such as severe conjunctival injection, marginal keratitis, or phlyctenules. If used, the minimal effective dose of corticosteroid should be utilized and long-term corticosteroid therapy should be avoided if possible. [A:III] Patients should be informed of the potential adverse effects of corticosteroid use, including the risk for developing increased intraocular pressure and cataract. [A:III] Guidelines for maintenance therapy should be discussed. [A:III]

Patients with atypical eyelid-margin inflammation or disease not responsive to medical therapy should be carefully re-evaluated. [A:III]

Follow-up

Patients with mild blepharitis should be informed to return to their ophthalmologist if their condition worsens. [A:III] Visit intervals for patients with severe disease are dictated by the severity of symptoms and signs, the current therapy, and comorbid factors, such as glaucoma, in patients treated with corticosteroids. The follow-up visit should consist of an interval history,

measurement of visual acuity, external examination, and slit-lamp biomicroscopy. [A:III] If corticosteroid therapy is prescribed, patients should be re-evaluated within a few weeks to determine the response to therapy, measure intraocular pressure, and assess treatment compliance. [A:III]

Provider and Setting

The diagnosis and management of blepharitis requires broad medical skills and experience. Patients with blepharitis who are evaluated by non-ophthalmologist health care providers should be promptly referred to an ophthalmologist if any of the following occurs: [A:III]

- Visual loss
- Moderate or severe pain
- Severe or chronic redness
- Corneal involvement
- Recurrent episodes
- Lack of response to therapy

Counseling/Referral

One of the most important aspects of caring for patients with blepharitis is educating them about the chronicity and recurrence of the disease process. [A:III] Patients should be informed that symptoms can frequently be improved but are rarely eliminated. [A:III]

Definitions:

Ratings of importance to care process

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

Ratings of strength of evidence

I. 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.
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    - Well-designed controlled trials without randomization
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CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate treatment and management may reduce signs and symptoms of blepharitis and prevent permanent structural damage or visual loss. In cases of carcinoma masquerading as blepharitis, early diagnosis and appropriate treatment may be lifesaving.
- A schedule of regularly performed eyelid hygiene, daily or several times weekly, often blunts the symptoms of chronic blepharitis.

POTENTIAL HARMS

- Tetracycline and related drugs can cause photosensitization, gastrointestinal upset, vaginitis, and, rarely, azotemia. They have been implicated in cases of pseudotumor cerebri, and they also may decrease effectiveness of oral contraceptives and potentiate the effect of warfarin. Tetracycline should not be used in young children, since staining of teeth may occur; however, oral erythromycin may be substituted. Tetracycline and minocycline have been reported to stain the sclera and cause pigmented cysts to occur in the conjunctiva.
- Patients should be informed of the potential adverse effects of corticosteroid use, including the risk for developing increased intraocular pressure and cataract.

CONTRAINDICATIONS

CONTRAINDICATIONS

The use of doxycycline and tetracycline is contraindicated for

- Pregnant patients
- Patients who are nursing
- Patients with a history of hypersensitivity to tetracyclines

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- 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.
- Preferred Practice Patterns 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.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads
Quick Reference Guides/Physician Guides

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

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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American Academy of Ophthalmology Cornea/External Disease Panel, Preferred Practice Patterns Committee. Blepharitis. San Francisco (CA): American Academy of Ophthalmology (AAO); 2003. 17 p. [44 references]

ADAPTATION

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

DATE RELEASED

1998 Sep (revised 2003)

GUIDELINE DEVELOPER(S)

American Academy of Ophthalmology - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Ophthalmology

GUIDELINE COMMITTEE

Preferred Practice Patterns Committee, Corneal/External Disease Panel

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

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Jayne S. Weiss, MD: Alcon, Allergan - Reimbursement of travel expenses for presentation at meetings or courses. Other authors have no financial interest in the equipment, process, or product presented or competing equipment, process, or product presented.

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Academy of Ophthalmology (AAO) Web site.

Print copies: Available from American Academy of Ophthalmology, P.O. Box 7424, San Francisco, CA 94120-7424; Phone: (415) 561-8540.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Summary benchmarks for preferred practice patterns. San Francisco (CA): American Academy of Ophthalmology; 2006 Nov. 21 p.

Available in Portable Document Format (PDF) from the American Academy of Ophthalmology (AAO) Web site.

Print copies: Available from American Academy of Ophthalmology, P.O. Box 7424, San Francisco, CA 94120-7424; telephone, (415) 561-8540.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on February 20, 1999. The information was verified by the guideline developer on April 23, 1999. This summary was updated by ECRI on April 9, 2004. The information was verified by the guideline developer on May 20, 2004.

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