



Complete Summary

GUIDELINE TITLE

Screening for retinopathy in the pediatric patient with type 1 diabetes mellitus.

BIBLIOGRAPHIC SOURCE(S)

Lueder GT, Silverstein J. Screening for retinopathy in the pediatric patient with type 1 diabetes mellitus. Pediatrics 2005 Jul;116(1):270-3. [31 references]

[PubMed](#)

GUIDELINE STATUS

This is the current release of the guideline.

All clinical reports from the American Academy of Pediatrics expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

- Type 1 diabetes mellitus
- Diabetic retinopathy (DR)

GUIDELINE CATEGORY

Risk Assessment
Screening

CLINICAL SPECIALTY

Endocrinology
Family Practice
Ophthalmology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

- To provide recommendations on screening for retinopathy in the pediatric patient with type 1 diabetes mellitus
- To review the risk factors for the development of diabetic retinopathy (DR) and screening guidance for pediatric patients with type 1 diabetes mellitus

TARGET POPULATION

Children with type 1 diabetes mellitus

INTERVENTIONS AND PRACTICES CONSIDERED

Ophthalmic Screening for Diabetic Retinopathy

1. Initial examination 3 to 5 years after diagnosis if older than 9 years, with annual follow-ups thereafter
2. Patient and parent education regarding the benefits of optimal metabolic control

MAJOR OUTCOMES CONSIDERED

Risk for and prevalence of diabetic retinopathy in children with type 1 diabetes mellitus

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

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 stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF 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

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Guidelines for Ophthalmic Screening for Diabetic Retinopathy (DR)

Screening guidelines for diabetic retinopathy (DR) have been published previously by the American Academy of Pediatrics, the American Academy of Ophthalmology, and the American Diabetes Association. The recommendations regarding pediatric patients with type 1 diabetes mellitus are similar. The American Academy of Ophthalmology recommends annual screening beginning 5 years after the onset of diabetes. The guidelines from the American Diabetes Association include annual screening beginning 3 to 5 years after diagnosis of diabetes once the patient is 10 years or older. The American Academy of Pediatrics recommends an initial examination 3 to 5 years after diagnosis if older than 9 years, with annual follow-ups thereafter.

The recommendations reflect the fact that the incidence of DR in young children is negligibly small, and therefore children younger than 9 years do not require screening for DR. The incidence of retinopathy in young adolescents is also very low, particularly for proliferative DR. Although the risk of DR typically does not increase significantly until 8 to 10 years after diagnosis, the recommendation for annual screening beginning 3 to 5 years after diagnosis (in children who are older than 9 years) is reasonable, given that DR has been reported occasionally within this time.

Because children with type 1 diabetes mellitus are at a greatly increased risk of visual loss over the course of their lives, special attention should be given to identifying other causes of visual loss in these patients. Screening for potentially treatable visual disorders such as amblyopia is recommended for all children and should be performed with particular care in children with type 1 diabetes mellitus. Patient and parent education regarding the benefits of optimal metabolic control is also beneficial early in the course of the disease.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Early identification and treatment of diabetic retinopathy (DR) can decrease the risk of vision loss in affected patients.

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

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

DATE RELEASED

2005 Jul

GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Pediatrics

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Section on Endocrinology

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the [American Academy of Pediatrics \(AAP\) Policy Web site](#).

Print copies: Available from American Academy of Pediatrics, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on July 27, 2005. The information was verified by the guideline developer on August 23, 2005.

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