



## Complete Summary

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### GUIDELINE TITLE

Oral health management of children and adolescents with HIV infections.

### BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Oral health management of children and adolescents with HIV infections. New York (NY): New York State Department of Health; 2004 Jun. 9 p. [11 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: New York State Department of Health. Oral health management of children and adolescents with HIV infection. New York (NY): New York State Department of Health; 2003. 10 p.

## COMPLETE SUMMARY CONTENT

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IDENTIFYING INFORMATION AND AVAILABILITY  
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## SCOPE

### DISEASE/CONDITION(S)

- Human immunodeficiency virus (HIV) infection
- Oral lesions and periodontal disease
  - Oral candidiasis
  - Angular cheilitis
  - Parotid swelling
  - Caries and gingivitis
  - Xerostomia
  - Aphthous ulcers
  - Herpetic stomatitis
  - Hairy leukoplakia

- Kaposi's sarcoma
- Linear gingival erythema
- Periodontitis

### **GUIDELINE CATEGORY**

Diagnosis  
Evaluation  
Management  
Prevention  
Screening  
Treatment

### **CLINICAL SPECIALTY**

Allergy and Immunology  
Dentistry  
Family Practice  
Infectious Diseases  
Pediatrics  
Preventive Medicine

### **INTENDED USERS**

Advanced Practice Nurses  
Dentists  
Health Care Providers  
Physician Assistants  
Physicians  
Public Health Departments

### **GUIDELINE OBJECTIVE(S)**

To develop guidelines for oral health management in children and adolescents with human immunodeficiency virus (HIV) infection

### **TARGET POPULATION**

Human immunodeficiency virus (HIV)-infected children and adolescents

### **INTERVENTIONS AND PRACTICES CONSIDERED**

#### **Screening, Diagnosis, and Evaluation**

1. Initial dental screening
2. Preventive information and anticipatory guidance regarding bottle-feeding, eruption sequence, and infant oral hygiene
3. Primary care provider and oral health care provider communication, coordination, and education

#### **Prevention and Treatment**

1. Anticipatory guidance
2. Food and medicine removal on the oral tissues (mucosa, gingiva) and on the teeth
3. Orthodontic care
4. Treatment strategies according to age, medical condition, and previous oral health history (e.g., cleanings, sealant applications, fluoride supplementation, specific dental hygiene routines)

### **Management of Oral Lesions and Periodontal Disease**

1. Diagnosis, observation, and management of oral mucosa lesions
2. Maintenance of adequate caloric intake

#### *Oral Candidiasis*

1. Oral rinsing
2. Nutrition and medication (antifungal) management
3. Routine cleaning of mucosal and gingival tissue

#### *Angular Cheilitis*

1. Assessment of diet, oral habits and/or human immunodeficiency virus (HIV) status
2. Provision of nutritional support and vitamin supplements

#### *Caries and Gingivitis*

1. Comprehensive restorative care

#### *Xerostomia*

1. Use of sugarless gum
2. Frequent consumption of water or highly diluted fruit juices

#### *Aphthous Ulcers*

1. Topical corticosteroids and anesthetics

#### *Herpetic Stomatitis*

1. Support therapies, such as topical medications

### **MAJOR OUTCOMES CONSIDERED**

- Nutritional status
- Oral health status
- Adverse effects of treatments

## METHODOLOGY

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

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

### **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 (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 stated

### **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

### **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The Human Immunodeficiency Virus (HIV) Guidelines Program works directly with committees composed of HIV Specialists to develop clinical practice guidelines. These specialists represent different disciplines associated with HIV care, including infectious diseases, family medicine, obstetrics and gynecology, among others. Generally, committees meet in person 3 to 4 times per year, and otherwise conduct business through monthly conference calls.

Committees meet to determine priorities of content, review literature, and weigh evidence for a given topic. These discussions are followed by careful deliberation

to craft recommendations that can guide HIV primary care practitioners in the delivery of HIV care. Decision making occurs by consensus. When sufficient evidence is unavailable to support a specific recommendation that addresses an important component of HIV care, the group relies on their collective best practice experience to develop the final statement. The text is then drafted by one member, reviewed and modified by the committee, edited by medical writers, and then submitted for peer review.

## **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**

### **The Primary Care Clinician's Role in Oral Health Care**

The primary care clinician should perform an initial dental screening at approximately 12 months of age in human immunodeficiency virus (HIV)-infected children. Preventive information and anticipatory guidance regarding bottle-feeding, eruption sequence, and infant oral hygiene should be given to parents at this time. By 24 months of age, children should be referred to an oral health care provider.

The primary care clinician should inform the oral health care provider of important changes in the patient's status and supply current information that may influence dental treatment, including staging of the patient's disease, medications, nutritional status, and laboratory tests (e.g., recent CD4/CD8 counts, viral load, and platelet count).

The primary care clinician and the oral health care provider should discuss preventive and restorative dental treatment plans, work collaboratively to resolve questions of contraindications to dental procedures, and coordinate medical appointments with dental appointments.

### **The Importance of Prevention**

The primary care team should follow the American Association of Pediatric Dentistry (AAPD) guidelines for anticipatory guidance.

The primary care clinician should instruct patients and caregivers on how to maintain oral hygiene.

### **Considerations for Treatment Planning**

Dental treatment modifications for children and adolescents should be based on the patient's medical condition and treatment rather than HIV status.

The clinician should consider the following factors when devising the best treatment strategies for each patient:

- Age of the child/adolescent (the frequency of cleanings, sealant application, and specific dental hygiene routines will vary with age)
- Medical condition (progression of HIV may affect risk of procedure or may increase infections, specific medications may be cariogenic or may affect risk of anesthesia)
- Oral health history (history of dental problems may warrant more aggressive measures)

HIV-infected adolescents should be evaluated for and should receive appropriate orthodontic care.

### **Oral Lesions and Periodontal Disease in the HIV-Infected Pediatric Patient**

Oral and primary health care providers should work together to provide diagnoses, observation, and management of any lesions that disrupt the integrity of the oral mucosa in children.

### **Oral Candidiasis**

Primary care clinicians should clearly instruct patients and caregivers on the following oral hygiene measures, which will help control oral *Candida* and delay the progression of oral candidiasis. These preventive measures should begin at birth and should be performed by the caregiver of younger children and independently by older children:

- Rinsing or mechanical cleansing of food and medicine residue on the oral tissues (mucosa, gingiva) and on the teeth
- Nutrition and medication management
- Cleansing the entire mucosal and gingival tissue area

See Table 2 in the original guideline for suggested antifungal therapies.

### **Angular Cheilitis**

The clinician should assess the diet, oral habits, and/or HIV status of a child with angular cheilitis.

The primary care team should collaborate regarding nutritional support and vitamin supplementation for HIV-infected children with angular cheilitis.

### **Caries and Gingivitis**

Primary care clinicians should refer patients with extensive caries or chronic demineralization for comprehensive restorative care as soon as possible.

### **Xerostomia**

Clinicians should recommend sugarless gum and frequent consumption of water or highly diluted fruit juices to alleviate xerostomia.

### **Aphthous Ulcers**

Clinicians should manage aphthous ulcers with topical corticosteroids and anesthetics.

### **Herpetic Stomatitis**

In addition to systemic therapy, clinicians should use supportive therapies, such as topical anesthetics, in children with herpetic stomatitis to encourage hydration and the intake of food.

*Note from the National Guideline Clearinghouse (NGC):* The original guideline document includes discussion of the following conditions: parotid swelling, hairy leukoplakia, Kaposi's sarcoma, linear gingival erythema, and periodontitis, but no recommendations are presented.

## **CLINICAL ALGORITHM(S)**

None provided

## **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**

Appropriate oral health management of human immunodeficiency virus (HIV)-infected children and adolescents including general screening and treatment and management of oral lesions and periodontal disease.

### **POTENTIAL HARMS**

- Growing evidence shows that prolonged and chronic use of antifungal medications has limitations, such as resistant strains, toxicity, and deleterious effects on immature organ systems. Furthermore, both the sucrose in some antifungal preparations and the juice or milk that may be added to ensure adherence will increase the risk of caries. Elimination of the feeding bottle by weaning to a cup as early as possible may reduce candidiasis risk and frequency.
- Thalidomide has been shown to be effective for the treatment of persistent, deep aphthous ulcers in HIV-infected patients; however, serious teratogenic effects associated with thalidomide have been documented in pregnant women. In female adolescents capable of bearing children, thalidomide should only be used when 1) all other options have been exhausted, 2) the patient is known not to be pregnant, and 3) the patient is known to be using effective methods of birth control. Thalidomide is only available through a special access program. A pediatric HIV specialist should be contacted before enrolling a patient in such a program.

## IMPLEMENTATION OF THE GUIDELINE

### **DESCRIPTION OF IMPLEMENTATION STRATEGY**

Following the development and dissemination of guidelines, the next crucial steps are adoption and implementation. Once practitioners become familiar with the content of guidelines, they can then consider how to change the ways in which they take care of their patients. This may involve changing systems that are part of the office or clinic in which they practice. Changes may be implemented rapidly, especially when clear outcomes have been demonstrated to result from the new practice such as prescribing new medication regimens. In other cases, such as diagnostic screening, or oral health delivery, however, barriers emerge which prevent effective implementation. Strategies to promote implementation, such as through quality of care monitoring or dissemination of best practices, are listed and illustrated in the companion document to the original guideline (HIV clinical practice guidelines, New York State Department of Health; 2003), which portrays New York's HIV Guidelines Program. The general implementation strategy is outlined below.

- Statement of purpose and goal to encourage adoption and implementation of guidelines into clinical practice by target audience
- Define target audience (providers, consumers, support service providers).
  - Are there groups within this audience that need to be identified and approached with different strategies (e.g., HIV Specialists, family practitioners, minority providers, professional groups, rural-based providers)?
- Define implementation methods.
  - What are the best methods to reach these specific groups (e.g., performance measurement, consumer materials, media, conferences)?
- Determine appropriate implementation processes.
  - What steps need to be taken to make these activities happen?
  - What necessary processes are internal to the organization (e.g., coordination with colleagues, monitoring of activities)?
  - What necessary processes are external to the organization (e.g., meetings with external groups, conferences)?

- Are there opinion leaders that can be identified from the target audience that can champion the topic and influence opinion?
- Monitor progress.
  - What is the flow of activities associated with the implementation process and which can be tracked to monitor the process?
- Evaluate
  - Did the processes and strategies work? Were the guidelines implemented?
  - What could be improved in future endeavors?

## **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  
Staying Healthy

### **IOM DOMAIN**

Effectiveness  
Patient-centeredness

## **IDENTIFYING INFORMATION AND AVAILABILITY**

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

New York State Department of Health. Oral health management of children and adolescents with HIV infections. New York (NY): New York State Department of Health; 2004 Jun. 9 p. [11 references]

### **ADAPTATION**

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

### **DATE RELEASED**

2003 (revised 2004 Jun)

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

New York State Department of Health - State/Local Government Agency [U.S.]

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

New York State Department of Health

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

Not stated

## **GUIDELINE STATUS**

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This guideline updates a previous version: New York State Department of Health. Oral health management of children and adolescents with HIV infection. New York (NY): New York State Department of Health; 2003. 10 p.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [New York State Department of Health AIDS Institute Web site](#).

Print copies: Available from Office of the Medical Director, AIDS Institute, New York State Department of Health, 5 Penn Plaza, New York, NY 10001; Telephone: (212) 268-6108

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- HIV clinical practice guidelines. New York (NY): New York State Department of Health; 2003. 36 p. Electronic copies: Available from the [New York State Department of Health AIDS Institute Web site](#).
- Oral health care. Tables and recommendations. New York (NY): New York State Department of Health 2004 Jun 9. 6 p. Available in Portable Document Format (PDF) from the [New York State Department of Health AIDS Institute Web site](#).

Print copies: Available from Office of the Medical Director, AIDS Institute, New York State Department of Health, 5 Penn Plaza, New York, NY 10001; Telephone: (212) 268-6108.

This guideline is available as a Personal Digital Assistant (PDA) download from the [New York State Department of Health AIDS Institute Web site](#).

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was prepared by ECRI on January 21, 2004. This NGC summary was updated by ECRI on January 11, 2005.

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