

Oral Health Fact Sheet for Medical Professionals

Children with Human Immunodeficiency Virus (HIV)

Human immunodeficiency virus (HIV) disease is a syndrome resulting from the acquired deficiency of cellular immunity caused by a complex family of lentiviruses. These are composed of 2 sub types HIV-1 and HIV-2. It is characterized by the reduction of the Helper T-lymphocytes in the peripheral blood and the lymph nodes (ICD 9 code 042)

Oral Manifestations and Considerations

Oral lesions may be among the first manifestations of disease; generally oral manifestations are less common among children than adults

- Candidiasis
 - * Pseudomembranous type most common in children, followed by erythematous type and angular cheilitis
- Aphthous lesions
- HIV-associated periodontal diseases
 - * Linear gingival erythema
 - * Necrotizing ulcerative gingivitis (NUG) and Necrotizing Ulcerative Periodontitis (NUP)
- Viral Infection: Herpes Virus Family -HSV, CMV, EBV, Varicella-zoster, Human Papilloma Virus
- Necrotizing Stomatitis
- Hairy leukoplakia (primarily on the lateral border of the tongue, can involve other areas)
- Salivary gland enlargement
- Kaposi's sarcoma
- Intraoral, head and neck lymphomas
- Facial palsy
- May exhibit delayed dental development
- Increased caries risk with xerostomia that can be heightened by the use of sugar containing medicines

Other Potential Disorders/Concerns

- Progressive wasting and diarrhea if not well managed
- Nausea and vomiting

Medication Management and Side Effects

Highly Active Antiretroviral Therapy (HAART) to suppress viral load and delay immune suppression, can include:

- Protease inhibitors (PI)
- Nucleoside reverse transcriptase inhibitors (NRTIs)
- Non Nucleoside reverse transcriptase inhibitors (NNRTIs)
- Integrase inhibitors
- Fusion inhibitors

Side Effects

- Peripheral neuropathy
- Salivary gland enlargement
- Dysgeusia (taste alteration)
- Melanotic pigmentation and skin rashes
- Hepatotoxicity, Hyperglycemia, Hyperlipidemia, Lactic Acidosis, Lipodystrophy
- Osteonecrosis, Osteoporosis, Osteopenia
- Neutropenia, Thrombocytopenia which can cause an increase in the potential for bleeding
- Stevens-Johnson Syndrome/Erythema multiformae

Children with Human Immunodeficiency Virus (HIV) continued

Parent/Caregiver Support and Guidance

- Communicate with dentist and dental hygienist for helpful information regarding the child's special oral health needs. Plan to coordinate medical and dental care whenever necessary.
- Discourage consumption of cariogenic foods and beverages.
- Prescribe sugar-free medications, if available.
- Recommend preventive measures, such as topical fluoride and sealants.
- Advise the use of fluoridated toothpaste twice daily and support the family in following dental care instructions.
- Instruct caregiver on appropriate protocol following dental trauma (locate/preserve missing tooth and put in cold milk; seek immediate professional care).
- Review safety issues appropriate to the age of the child, such as mouth guards to prevent oral-facial trauma.
- Recommend rinsing with water thoroughly after taking each dose of sugar containing medication and frequent water intake for patients taking xerostomic medication.
- Discuss habits that may harm the child's teeth, such as propping baby bottles, putting child to bed with bottle.
- Refer to dentist any oral developmental abnormalities.

Additional information: [Special Needs Fact Sheets for Providers and Caregivers](#)

References

- Little, J., Falace, D., Miller, C., Rhodus, N., (2008) Dental Management of the Medically Compromised Patient. 7th edition
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- Holderbaum RM, Veeck EB, Oliveira HW, Silva CL, Fernandes A. Comparison among dental, skeletal and chronological development in HIV-positive children: a radiographic study. *Braz Oral Res.* 2005 Jul-Sep;19(3):209-15. Epub 2005 Nov 21.
- Church, JA. HIV disease in children. The many ways it differs from the disease in adults. *Postgrad Med.* 2000 Apr;107(4): 163-6, 169-71, 175-7 passim.
- 5 Minute Clinical Consult

Additional Resources

- [NIH Institute for HIV](#)
- [Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs](#)
- [Bright Futures Oral Health Pocket Guide](#)
- [American Academy of Pediatrics Oral Health Initiative](#)
- [American Academy of Pediatric Dentistry: 2011–2012 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)