

Recent Recommendations for Management of Human Immunodeficiency Virus–Positive Patients



Miriam R. Robbins, DDS, MS^{a,b,*}

KEYWORDS

- Human immunodeficiency virus • Acquired immune deficiency syndrome
- Dental management • Treatment planning considerations • Oral manifestations

KEY POINTS

- The delivery of oral health care is the same for the human immunodeficiency virus (HIV)-infected patient as for the non-HIV-infected one. HIV is not a valid reason to deny, delay, or alter treatment.
- There are no absolute contraindications and few complications associated with comprehensive oral health care treatment for asymptomatic HIV-infected patients and clinically stable patients with AIDS.
- Medical assessment of HIV-infected dental patients does not differ from that of any medically complex dental patient.
- The medical history of HIV-infected individuals most likely to impact the delivery of care is not related to HIV immunosuppression, but rather to non-HIV-associated conditions.
- Modifications in dental treatment may be necessary when treating patients with advanced HIV disease or other comorbid conditions that may be present in this population.

INTRODUCTION

Human immunodeficiency virus (HIV) is a retrovirus in the *Lentivirus* group that targets crucial immune cells called CD4⁺ T cells. Two major types of HIV have been identified: HIV-1 (causes the majority of HIV infections globally) and HIV-2. The course of HIV infection is characterized by a long interval between initial infection and the gradual deterioration of immune function leading to AIDS.¹ Once considered a death

The author has nothing to disclose.

^a Department of Dental Medicine, Winthrop University Hospital, 200 Old Country Road, Suite 460, Mineola, NY 11501, USA; ^b Department of Oral and Maxillofacial Pathology, Radiology and Medicine, New York University College of Dentistry, 345 E. 24th Street, New York, NY 10010, USA

* Department of Dental Medicine, Winthrop University Hospital, 200 Old Country Road, Suite 460, Mineola, NY 11501.

E-mail address: mrobbins@winthrop.org

Dent Clin N Am 61 (2017) 365–387
<http://dx.doi.org/10.1016/j.cden.2016.12.006>

dental.theclinics.com

0011-8532/17/© 2016 Elsevier Inc. All rights reserved.

sentence, treatment with current combination antiretroviral drugs (cART) can achieve viral suppression indefinitely, converting an HIV diagnosis to a chronic illness with people living with HIV for decades after diagnosis. In the absence of antiretroviral therapy, the average time between acquiring HIV and the development of AIDS is estimated to be between 10 and 15 years.² Over the past decade, the number of people living with HIV has increased, although the annual number of new HIV infections has remained relatively stable.

EPIDEMIOLOGY AND PREVALENCE

The first documented cases of AIDS were reported in 1981 by the Centers for Disease Control and Prevention (CDC), although the causative virus was not identified until 1983. Since the beginning of the epidemic, almost 71 million people have been infected with the HIV virus and about 34 million people have died of AIDS worldwide.³ Currently, it is estimated that there are 36.9 million people living with HIV/AIDS worldwide, with 1.2 million adults in the United States.⁴ There are about 50,000 new HIV infections per year, and 156,300 (12.8%) HIV-positive Americans do not know they are infected. Only 25% of patients being treated are considered to have controlled disease.⁵ Currently, the CDC recommends that all individuals aged 13 to 64 years have an HIV test as part of routine medical care and that those with high-risk behavior receive annual testing. Specific separate consent for HIV antibody testing is no longer needed but different states have different requirements for pretest and posttest counseling.

PATHOGENESIS

HIV is present in bodily fluids including the blood, semen, vaginal fluid, breast milk, saliva, and tears as both free virus particles and infected immune cells. It is most commonly spread via sexual contact with an infected person or sharing needles contaminated with blood. Additionally, mother-to-child transmission can occur during birth or through breast feeding. HIV attaches to cells with CD4 surface molecule (primarily T lymphocytes, monocytes, tissue macrophages, and dendritic cells).⁶ Once inside the cell, HIV replicates using the reverse transcriptase enzyme and the resulting DNA is imported into the cell nucleus and integrated. The infected cells then release new virus particles via surface budding. Cell death occurs either by direct cell killing via the budding virus, pyroptosis and apoptosis as a cellular reaction to the presence of the virus, or cell death by CD8 cytotoxic lymphocytes that recognize infected cells.^{7,8} This resulting destruction of the cells of the immune systems progressively destroys the body's ability to fight opportunistic infections.

The laboratory criteria for defining a confirmed case were revised to incorporate a new multitest algorithm that expanded the number of tests that could be used and allowed for early detection of HIV infection (**Fig. 1**). Positive results from a fourth-generation combination HIV-1 p24 antigen/antibody enzyme-linked immunosorbent assay and a subsequent positive result from an orthogonal test are needed to determine HIV infection, such as:

- Qualitative HIV nucleic acid amplification testing (DNA or RNA)
- Quantitative HIV nucleic acid amplification testing (viral load assay)
- HIV p24 antigen test
- HIV isolation (viral culture)
- HIV nucleotide sequence (genotype)⁹

Point-of-care rapid tests (such as the OraQuick ADVANCE Rapid HIV-1/2 antibody test and OraQuick In-Home Test, Orasure Technologies, Inc, Bethlehem, PA) use an

Download English Version:

<https://daneshyari.com/en/article/5638747>

Download Persian Version:

<https://daneshyari.com/article/5638747>

[Daneshyari.com](https://daneshyari.com)