

# HIV in North Carolina, 2016

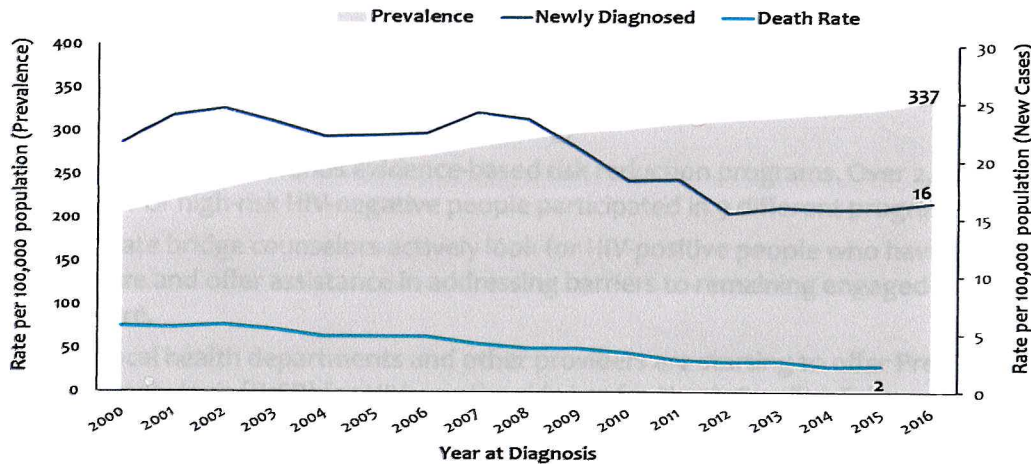
## North Carolina Newly Diagnosed Prevalence Rates, New HIV Infection Rates, and HIV-related Death Rates



**Want More Information?**

**HIV/STD Facts and Figures web site:**  
<http://epi.publichealth.nc.gov/cd/stds/figures.html>

**Centers for Disease Control and Prevention Fact Sheets on HIV:**  
<http://www.cdc.gov/hiv/library/factsheets/index.html>



- An estimated 36,700 people are living with HIV/AIDS in North Carolina at the end of 2016. Of this number, an estimated 2,500 are undiagnosed and unaware that they are infected.
- 34,187 people were diagnosed with HIV and living in North Carolina as of December 31, 2016.
- 1,399 adults/adolescents were newly diagnosed with HIV/AIDS (rate of 16.4 cases per 100,000 population), which is a slight increase from the 1,334 new diagnoses in 2015 (rate of 15.9 cases per 100,000 population).

### 2016 HIV among Men:

- 80% were men who report sex with men (MSM)
- 5% were exposed through injection drug use (IDU), which is the same as 2015
- 53% were young men (aged 13 to 29)
- African-American men continue to experience the highest rates of new HIV diagnoses (81.0 cases per 100,000 compared to 13.3 cases per 100,000 among other men).

### 2016 HIV among Women:

- 90% were exposed through heterosexual contact
- 9% were exposed through IDU, which is an increase from 2015 (5%)
- 47% were women over the age of 40
- African-American women continue to experience the highest rates of new HIV diagnoses (18.5 cases per 100,000 compared to 2.2 cases per 100,000 among other women).

### Data Sources:

enhanced HIV/AIDS Reporting System (eHARS) (data as of June 27, 2017), North Carolina Vital Statistics, Volume 2: Leading Causes of Death 2000-2015, and North Carolina Engagement in Care Database for HIV Outreach (NC ECHO) (data as of August 2017).

### Contact Us

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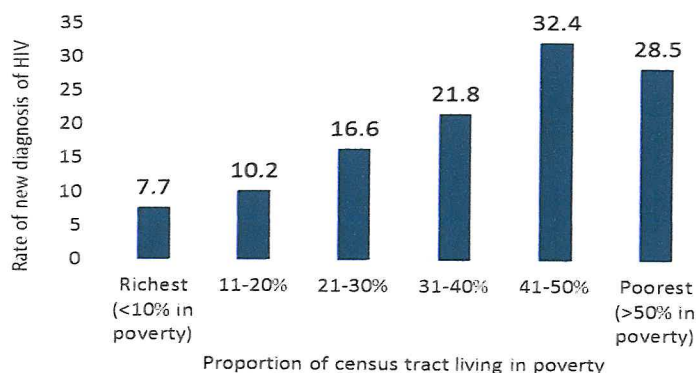
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Created by the HIV/STD/Hepatitis Surveillance Unit, Communicable Disease Branch  
 11/23/2017

HIV rates are highest among people living in the most impoverished neighborhoods.

People living in impoverished areas often have less access to resources, including health resources. This can result in less viral suppression and increased potential for transmission.

### New HIV Diagnoses by Poverty Indicator, 2016



# Occupational HIV Transmission and Prevention among Health Care Workers

June 2015

## Fast Facts

- Occupational transmission of HIV to health care workers is extremely rare.
- CDC recommends proper use of safety devices and barriers to prevent exposure to HIV in the health care setting.
- For workers who are exposed, CDC has developed recommendations to minimize the risk of developing HIV.

Only 58 cases of confirmed occupational transmission of HIV to health care workers have occurred in the United States. The proper use of gloves and goggles, along with safety devices to prevent injuries from sharp medical devices, can help minimize the risk of exposure to HIV in the course of caring for patients with HIV. When workers are exposed, the Centers for Disease Control and Prevention (CDC) recommends immediate treatment with a short course of antiretroviral drugs to prevent infection.

## The Numbers

As of December 31, 2013, 58 confirmed occupational transmissions of HIV and 150 possible transmissions had been reported in the United States. Of these, only one confirmed case has been reported since 1999. Underreporting of cases to CDC is possible, however, because case reporting is voluntary.

Health care workers who are exposed to a needlestick involving HIV-infected blood at work have a 0.23% risk of becoming infected. In other words, 2.3 of every 1,000 such injuries, if untreated, will result in infection. Risk of exposure due to splashes with body fluids is thought to be near zero even if the fluids are overtly bloody. Fluid splashes to intact skin or mucous membranes are considered to be extremely low risk of HIV transmission, whether or not blood is involved.

## Prevention Strategies

To prevent transmission of HIV to health care workers in the workplace, health care workers must assume that blood and other body fluids from all patients are potentially infectious. They should therefore follow these infection control precautions at all times:

- Routinely use barriers (such as gloves and/or goggles) when anticipating contact with blood or body fluids.
- Immediately wash hands and other skin surfaces after contact with blood or body fluids.
- Carefully handle and dispose of sharp instruments during and after use.

Safety devices have been developed to help prevent needlestick injuries. If used properly, these types of devices may reduce the risk of exposure to HIV. Many percutaneous injuries, such as needlesticks and cuts, are related to the disposal of sharp-ended medical devices. All used syringes or other sharp instruments should be routinely placed in "sharps" containers for proper disposal to prevent accidental injuries and risk of HIV transmission.

Although the most important strategy for reducing the risk of occupational HIV transmission is to prevent occupational exposures, plans for postexposure management of health care personnel should be in place. CDC issued updated guidelines in 2013 for the management of health care worker exposures to HIV and recommendations for postexposure prophylaxis (PEP): *Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis*. ([www.ncbi.nlm.nih.gov/pubmed/23917901](http://www.ncbi.nlm.nih.gov/pubmed/23917901))

Occupational exposure is considered an urgent medical concern and should be managed immediately after possible exposure—the sooner the better; every hour counts. The CDC guidelines outline considerations in determining whether health care workers should receive PEP (antiretroviral medication taken after possible exposure to reduce the chance of infection with HIV) and in choosing the type of PEP regimen. For most HIV exposures that warrant PEP, a basic 4-week, two-drug regimen is recommended, starting as soon as possible after exposure (within 72 hours). For HIV exposures that pose an increased risk of transmission (based on the infection status of the source and the type of exposure), a three-drug regimen may be recommended. Special circumstances, such as a delayed exposure report, unknown source person, pregnancy in the exposed person, resistance of the source virus to antiretroviral agents, and toxicity of PEP regimens, are also discussed in the guidelines.

## Building Better Prevention Programs for Health Care Workers

Continued diligence in the following areas is needed to help reduce the risk of occupational HIV transmission to health care workers:

- **Administrative efforts.** All health care organizations should train health care workers in infection control procedures and the importance of reporting occupational exposures immediately after they occur. Organizations should develop and distribute written policies for the management of occupational exposures.
- **Development and promotion of safety devices.** Effective and competitively priced devices engineered to prevent sharps injuries should continue to be developed for health care workers who frequently come into contact with potentially HIV-infected blood. Proper and consistent use of such safety devices should be continuously evaluated.
- **Monitoring the effects of PEP.** Data on the safety and acceptability of different regimens of PEP, particularly regimens that include new antiretroviral agents, should be monitored and evaluated continuously. Furthermore, health professionals who administer PEP must communicate possible side effects before treatment starts and follow patients closely to make sure they take their medicine correctly.

All cases of suspected occupationally acquired HIV should be reported to state health department HIV surveillance staff and the CDC coordinator for "Cases of Public Health Importance" at 404-639-2050.

View the bibliography at [www.cdc.gov/hiv/workplace/occupational.html](http://www.cdc.gov/hiv/workplace/occupational.html)

### Additional Resources

#### CDC-INFO

1-800-CDC-INFO (232-4636)

[www.cdc.gov/info](http://www.cdc.gov/info)

#### CDC HIV Website

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)

#### CDC Act Against AIDS

##### Campaign

[www.cdc.gov/actagainstaids](http://www.cdc.gov/actagainstaids)

# Oral Health Fact Sheet for Dental Professionals

## Adults 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. HIV infection is characterized by the reduction of the Helper T-lymphocytes in the peripheral blood and the lymph nodes. (ICD 9 code 042)*

### United States Prevalence

- >1,000,000 persons in US living with HIV infection; 21% are undiagnosed

### Manifestations

#### Clinical – among untreated or treatment resistant adults

- Generalized lymphadenopathy, fever, weight loss, and chronic diarrhea
- Marked suppression of immune function resulting in opportunistic infections such as: pneumocystis carinii pneumonia, cytomegalovirus (CMV) infections, tuberculosis, HSV infections, and cryptococcosis
- HIV-associated Neoplasms (usually non-Hodgkin's lymphoma and Kaposi's Sarcoma)

#### Oral – oral lesions may be among the first manifestations of disease

- Candidiasis of the oral mucosa (most common oral manifestation)
  - \* Pseudomembranous type is most common, followed by atrophic/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, VZV, and Human Papilloma Virus lesions
- Aphthous ulcerations
- Hairy leukoplakia (primarily on the lateral border of the tongue but can involve other areas)
- Salivary gland enlargement and decreased salivary gland function
- Kaposi's sarcoma
- Intraoral, head and neck lymphomas
- Increased caries risk with xerostomia that can be heightened by the use of sugar containing medicines

#### Other Potential Disorders/Concerns

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

#### Behavioral

- Apathy
- Depression
- Anorexia
- Fatigue

#### Medication Management and Side Effects

- Highly Active Antiretroviral Therapy (HAART) are multidrug protocols that allow for suppression of HIV replication (thus lowering viral load) and will allow for recovery to CD4 cell counts and ultimately can lead to improved immune function. Several classes of antiretroviral drugs are available and HAART protocols can include one or several drugs from the drug classes listed below:
  - \* Protease inhibitors (PI)
  - \* Nucleoside reverse transcriptase inhibitors (NRTIs)
  - \* Non Nucleoside reverse transcriptase inhibitors (NNRTIs)
  - \* Integrase inhibitors
  - \* Fusion inhibitors

# Adults with Human Immunodeficiency Virus (HIV) continued

## Side Effects

- Peripheral neuropathy
- Dysgeusia (taste alteration)
- Lactic acidosis
- Lypodystrophy (disturbances in fat distribution, one of which results in “sunken cheeks”)
- Skin rash
- Melanotic pigmentation and skin rashes
- Hepatotoxicity, Hyperglycemia, Hyperlipidemia, Lactic Acidosis, Lipodystrophy
- Altered bone metabolism: Avascular necrosis of the hip and shoulder, Osteoporosis, Osteopenia
- Neutropenia, Thrombocytopenia, which can cause an increase in the potential for infection and bleeding
- Stevens-Johnson Syndrome/ Erythema Multiforme

HAART therapy can significantly affect the metabolism and elimination of drugs by the liver. Some HAART drugs will cause medications to be broken down and eliminated from the body more slowly than usual resulting in higher than usual blood levels with standard doses. Other HAART drugs can have the opposite effect leading to more rapid breakdown and elimination of drugs from the blood stream resulting in sub optimal blood levels with standard dosing. When prescribing medications to HIV+ patients on HAART therapy, be sure to have considered these possibilities and check with the patient’s physician or pharmacist about needs to adjust the doses of drugs you will be prescribing.

Generally, the most commonly prescribed antibiotics for dental infections (e.g., amoxicillin and clindamycin) are not affected by HAART therapy. Additionally, dosing of nystatin rinses and clotrimazole troches are not affected by HAART therapy. However, as noted above, it is always wise to check with the patient’s medical team before prescribing for patients on HAART therapy.

## Dental Treatment and Prevention

**Consult with patient’s physician to establish current level of immunocompromise and acceptable procedures specific to treatment plan**

- Rule out significant risk for infection due to immunosuppression associated with neutropenia by obtaining blood values from a current CBC with Differential. Look specifically for ANC (absolute neutrophil count) prior to treatment. ANC <1000/mm<sup>3</sup> indicates a significant increase of risk for infection and the need for consideration of prophylactic antibiotics for any dental treatment that potentially can cause bacteremia or put the patient at risk for aspiration pneumonia.
- Rule out risk for excessive/prolonged bleeding. Thrombocytopenia (low platelet count) increases risk for bleeding. Platelet count should be obtained and a physician consult is recommended for patients with a platelet count <60,000. Other factors that can also contribute to prolonged bleeding time are liver diseases and medications (including Warfarin and NSAIDS). Obtain INR (International Normalized Ratio) – a value above 2.5 to 3, can require medical interventions if surgeries or invasive treatment is planned. Ask physician about any other bleeding risk factors.
- Document history of any opportunistic infections.
- Determine the current CD4+ lymphocyte count as this will indicate the current level of immunosuppression:
  - \* Those with CD4+ cell counts of more than 400 may have reasonable immune response.
  - \* As CD4 counts drop below 400 there can be a steadily increasing risk for systemic opportunistic infections such as PCP (Pneumocystis carinii Pneumonia), and other opportunistic systemic as well as local infections. There can be a significant risk for infection when CD4 counts drop below 200.
- Even **asymptomatic** adults may experience infection after oral manipulation. Patients with neutropenia, in particular, are prone to infection and consideration for antibiotic prophylaxis may be indicated for procedures that place the patient at risk for infection. Risk for infection in association with dental treatments will still primarily be related to neutrophil count.
- Obtain a complete list of the patient’s medications including non-prescription agents and supplements.

## Adults with Human Immunodeficiency Virus (HIV) continued

- Provide dental procedures in accordance with patient's desires and needs. For patients with advanced AIDS, render only more urgently needed treatment to control pain and infection, consistent with the patient's desires and needs.
- Consider aggressive caries prevention programs for patients with xerostomia and/or poor oral hygiene including increased frequency of recall, fluoride varnish application, 1.1% neutral sodium toothpaste/gel or concentrated calcium/fluoride products.
- As needed for patients with xerostomia:
  - \* Educate on proper oral hygiene (brushing, flossing) and nutrition.
  - \* Recommend brushing teeth with a fluoride containing dentifrice before bedtime. After brushing, apply neutral 1.1% fluoride gel (e.g., Prevident 5000 gel) in trays or by brush for 2 minutes. Instruct patient to spit out excess gel and NOT to rinse with water, eat or drink before going to bed.
  - \* Recommend xylitol mints, lozenges, and/or gum to stimulate saliva production and caries resistance.

**Additional information:** Special Needs Fact Sheets for Providers and Caregivers

### References

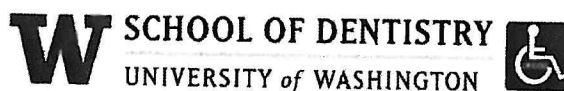
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- Church, J.A. HIV disease in children. The many ways it differs from the disease in adults. (2000) *Postgrad Med*. 107(4): 163–6, 169–71, 175–7 passim.
- 5 minute clinical consult
- NIH Institute for HIV

### Additional Resources

- NIH Institute for HIV
- HIV/AIDS Oral Health Care Resource (HIVdent.org)
- Free of charge CDE course: NIDCR CDE (2 CDE hours)



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# HIV and the Dental Team

## HIVDent – Dental Treatment Considerations

*Dimensions of Dental Hygiene. June 2006;4(6): 14-16.*

**Table 1. Pertinent Laboratory Information**

Lab Values	Normal, Male	Normal, Female	Abnormal Values of Importance	Impact on the Provision of Invasive Dental Care <sup>1</sup>	Need to Premedicate
CD4 count	400 – 1,200 cells/mm <sup>3</sup>	500 – 1,600 cells/mm <sup>3</sup>	< 200 cells/mm <sup>3</sup> is an AIDS defining condition	None	No
HIV viral load	Undetectable	Undetectable	40 copies/mL, <750,000 copies/mL	None, even at the highest levels	No
Platelet count	150,000 – 450,000 per microliter (mcl) of blood		< 20,000 platelets/mcl may lead to spontaneous bleeding	Dental procedures can safely be performed with a platelet count of 60,000 mcl or greater.	No
Hemoglobin	14.0 g/dL – 17.4 g/dL	12.3 g/dL – 15.3 g/dL (nonpregnant women)	Anemia in men <13 g/dL Anemia in women < 12/dL	Periodontal and minor surgical procedures (eg, single extraction) are usually routine for patients with hemoglobin level above 7 g/dl and no bleeding abnormalities	No
Hematocrit	40% - 52%	35% - 47%	Values that fall below the normal limit indicate anemia	Monitor hematocrit as excessively low values may indicate severe anemia	No
White blood cell count/ absolute neutrophil count (ANC)	4,500 – 10,000 white blood cells/mcl		< 1,000 white blood cells/mcl	May signify low absolute neutrophil count. An absolute neutrophil count <500 cells/mcl requires premedication prior to invasive dental procedures.	Yes

Note: Normal lab values obtained from Medline Plus, a service of the National Institutes of Health

# Pacific Protocols for the Dental Management of Patients with HIV Disease

This Protocol was redesigned and supplemented January 2007 by:

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## **I. Medical Assessment of HIV Infected Patients:**

Medical assessment HIV infected patients, relative to their safe dental treatment, is primarily based upon current laboratory test values.

"Significant Laboratory Tests" are listed below, along with their relevance to the patient's health.

"Critical Laboratory Test Values", the values at which a change in dental management is appropriate, is listed in the next section.

The "Frequency of Laboratory Tests" is also outlined and is primarily dependent on the patient's CD4 T-helper cell count.

If you feel the patient needs a more thorough medical evaluation, then they should be referred to their physician. Such an evaluation/physician consult is seldom necessary relative to dental treatment planning. Appropriate and timely laboratory tests, along with a current health history, are almost always adequate to identify any problems and safely manage the patient.

### **Significant Laboratory Tests**

The laboratory tests listed below provide important information relative to the HIV infected patient's overall health. All, except CD4 and viral load, can be gotten by ordering a "Complete Blood Count (CBC) with a differential". The next section "Critical Laboratory Test Values," outlines their impact on dental management.



### **CD4, T-helper Cell Count**

Measures the number of T-helper cells. These cells stimulate the immune system to fight infections. As their numbers go down, the risk of infection goes up.

### **CD4 – CD8 ratios**

CD4 cells, as mentioned above, are T-helper cells. CD8 cells are T-suppressor cells. As this ratio goes down, essentially by a decrease in the number of CD 4 cells, the risk of infection goes up.

### **Viral load/Plasma HIV-1RNA**

This measurement reveals the number of copies of the virus per milliliter of blood. Ideally, there would be zero detectable copies (virus). As the viral load goes up, indicating the virus is replicating at an increasing rate, the incidence of secondary problems increases. However, even the highest number of copies has no impact on the provision of dental care.

### **CBC with differential**

**Platelets:** Platelets are necessary, along with other factors, for blood to clot. An important concern in HIV-infected patients is low platelets (thrombocytopenia) (see critical laboratory test values). If this occurs the risk of bleeding may be so severe as to delay any elective and, at times, even emergency therapy, until the platelets can be replaced.

**White count:** The white cells in the body are designed to do a variety of things including fight infections. As the white count decreases (leukopenia), the risk of infection increases.

**Absolute neutrophils:** The neutrophils are a special class of white cells which are also important in fighting infection. If their numbers decrease, the risk of infection increases.

**Hematocrit:** The hematocrit is the percentage of whole blood that is red cells. In most cases of anemia the hematocrit will decrease.

**Hemoglobin:** Hemoglobin is the oxygen carrying component of the red blood cells. In certain types of anemia it is possible to have an adequate number of red blood cells, but inadequate amount of hemoglobin and, therefore, a decreased capacity for the blood to carry oxygen.

**Red Blood Cell Count:** Red blood cell count measures the number of red blood cells per cubic mm of blood. A decrease in number means an inadequate number of red blood cells (anemia). This leads to an inadequate ability to carry oxygen. The patient becomes easily fatigued and is a poor healer. A low red blood cell count is usually reflected in a low hematocrit.

## **Critical Laboratory Test Values**

These lab test values represent critical information relative to dental management. All, except CD4 and viral load, can be gotten by ordering a "Complete Blood Count (CBC) with a differential").

### **White Blood Count (total)**

Less than 2,000 (Granulocytopenia) (Normal values: 4,000-10,000 cells/mm<sup>3</sup>). Low counts are a cause for concern because the body becomes more susceptible to infection. Consider a therapeutic regimen of antibiotics concurrently with invasive procedures or delay elective dental procedures until white count improves.

### **Absolute Neutrophils**

Less than 1,000 (Neutropenia) – Consider therapeutic regimen of antibiotics concurrently with invasive procedures. Delay elective dental procedures until white count improves.

### **Platelets**

Less than 60,000 (Thrombocytopenia) (Normal values: 150,000-450,000 cells/mm<sup>3</sup>) Consult with physician and recommend intervention to boost platelets prior to invasive procedures. Physician may elect to give platelet infusion or administer prednisone to increase platelet count. The dentist must receive laboratory confirmation of platelet count immediately (1-2 days) before invasive procedure. Delay elective dental procedures until platelet count improves. Platelet count should be above 60-80,000, depending on invasiveness (risk of bleeding) and extent of planned procedure.

### **Hematocrit (%) (HCT)**

Less than 10% – Consult with physician (Normal values: female 37-47%, male 42-52%) – consider red cell transfusion, at the recommendation of the physician, for invasive procedures. Low values are an indicator of anemia.

### **Hemoglobin (HGB)**

Less than 10 (Normal values: female 12-16g/dL, male 14-18g/dL) – consult with physician – consider red cell transfusion, at the recommendation of the physician, for invasive procedures.

### **Red Blood Cell (RBC)**

Less than 1.0 million/mm<sup>3</sup>. (Normal values: female 4-5 million/mm<sup>3</sup>, male 4-6 million/mm<sup>3</sup>). Consult with physician - consider red cell transfusion at the recommendation of a physician, for invasive procedures. Low values are an indicator of anemia.

### **CD4 T-Lymphocytes (Helper cells) (absolute)**

Less than 50 (normal values 590-1120 cells/mm) – Evaluate patient for severe opportunistic disease. Usually there is no problem with routine dental care. If white count is expected to increase, then you may consider delaying elective dental procedures until white count improves. Emphasize good oral care and have them contact you immediately if oral problems start.

### **Viral Load**

As noted, viral load does not have an impact on dental treatment planning. The number of viral copies is indicative of disease, but any modification of dental treatment would be based on the other above laboratory test results and not on the viral load.

### **Suggested Frequency of Obtaining Lab Reports**

Laboratory tests are important to monitor the patient's health. The suggested frequency of tests is listed below and is based on the patient's prior CD4 test results. Current laboratory test results are very important for some dental procedures, for example those associated with significant bleeding or dental infection. At the same time, clinical judgment is appropriate; most dental procedures should not be delayed just because the laboratory results are older than ideal.

#### **CD4 Above 200**

Obtain a lab report minimally every 6 months, or as performed by primary care physician.

#### **CD4 Less than 200**

Obtain a lab report minimally every 3 months, or as performed by primary care physician.

#### **Any CD4 count – all patients**

Inform all patients that you would like to be sent a copy of their laboratory reports any time a test is done, in order to keep their dental records current. Doing so will insure that no unknown medical problems will impact their dental care and will help in keeping their dental care progressing smoothly.

#### **Use good clinical judgment**

Evaluate each patient on a case-by-case basis. Use the above recommendations as general guidelines. Proper and timely patient care, especially urgent care, may require flexibility with critical values. Keep current on your patient's medical care and antiretroviral therapy. Your knowledge of their medical status, just like your knowledge of all of your patients' medical status, will insure their safest and most efficient dental care.

## II. Suggested Drug Management of Common Oral Conditions

### **Oral Candidiasis** (erythematous, pseudomembraneous, hyperplastic)

Rx Mycelex troche, 10 mg (clotrimazole)  
Disp: (70) seventy tabs  
Sig: Dissolve one tab in mouth 5 times a day

For resistant cases, use systemic antifungal

Rx Nizoral, 200 mg (ketoconazole)  
Disp: (28) twenty-eight  
Sig: Take one tab per day  
Refill x 2

or

Rx Diflucan, 200 mg (fluconazole)  
Disp: (28) twenty-eight  
Sig: Take one tab per day

### **Angular Cheilitis**

Rx Mycolog cream  
Disp: (15) fifteen grams  
Sig: Apply to corners of mouth 4 times a day

Note: Consider antifungal therapy when the patient is recommended for antibiotic treatment.

### **Herpes Simplex Virus (HSV)**

Rx Valacyclovir 500 (Valtrex<sup>®</sup>)  
Disp: (28) twenty-eight  
Sig: Take 1 tablet two times per day

Rx Acyclovir, 200 mg (Zovirax)  
Disp: (70) seventy tabs  
Sig: Two tabs three times per day

## **Herpes Zoster Virus (HZV)**

Rx Acyclovir, 200 mg  
Disp: (140) one hundred forty tabs  
Sig: Two tabs every 3 hours for up to 10 tabs/day

## **Recurrent Aphthous Ulceration (RAU)**

**Mild** - (few lesions present in accessible area of mouth)

Rx Lidex ointment in Orabase, 50:50  
Disp: (30) thirty gms  
Sig: Apply to oral lesions 4-6 times a day

**Moderate to Severe** – (or for lesions in inaccessible areas such as tonsillar pillars, soft palate, or oropharynx regions)

Rx Dexamethasone elixir, .5 mg/5ml  
Disp: 200 ml  
Sig: Rinse and gargle with ½ oz 4-6 times a day

In some cases of very severe or persistent RAU consider systemic prednisone. This should be done only in consultation with patient's physician. In fact you may recommend systemic prednisone therapy as the treatment and the physician will do the prescribing and managing.

Rx Prednisone 5 mg  
Disp: 87  
Sig: Take 4 tabs a.m., 4 at noon for 7 days, then reduce dose by 1 tablet a day over next 7 days until O

Rx Solumedrol dose pack  
Disp: 1  
Sig: Take as directed on package

## **HIV- Related Periodontal Diseases:**

### **HIV-Gingivitis (Marginal Gingival Erythema)**

Rx Chlorhexidine Gluconate, .12% (Perio Gard) or (Peridex)  
Disp: 16 oz  
Rinse with ½ oz twice a day

## **HIV-Acute Necrotizing Ulcerative Gingivitis (ANUG), or Necrotizing Ulcerative Periodontitis (NUP) (formerly HIVPeriodontitis)**

Rx Metronidazole, 500 mg  
Disp: (21) twenty-one tabs  
Sig: One tab three times a day

Rx Augmentin, 500 mg  
Disp: (24) twenty four  
Sig: One tab three times a day

or

For severe or resistant cases

Rx Clindamycin, 300 mg  
Disp: (21) twenty one tabs\  
Sig: One tab three times a day

## **Palliative Treatment for Oral Lesions**

Rx Xylocaine 2% viscous  
Disp: 45 ml  
Sig: Rinse with two teaspoons as needed for pain

Rx Baking soda and hydrogen peroxide  
1 teaspoon baking soda in cup of solution that is ½ water and ½  
3% hydrogen peroxide.

## **Useful Internet Resources:**

[www.hivdent.org/main](http://www.hivdent.org/main) The best overall site for HIV dental care information.

[www.critpath.org/daac/standards.html](http://www.critpath.org/daac/standards.html) Learning modules for all aspects of HIV dental care.

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