Developing a Network for Endodontic Services

Mary Orticke, RN, MPH
Chief, Quality Management Division
Office of AIDS Programs and Policy

OAPP Medical Advisory Committee Meeting
July 30, 2010

Burden of Oral Health Problems

- Negatively impacts quality of life
- Creates nutritional and psychological problems
- Complicates the management of other medical conditions
- Negatively impacts medication adherence

County of Los Angeles
Public Health

Limited Oral Health Services

- LACHNA, 2007 & 2008
  - >64% needed oral health care
  - 42% did not get needed services in the past year
- Meet the Grantee Meetings, 2007-2008
- Reports by oral health providers
- Denti-Cal elimination for adults, 7/2009

COUNTY OF LOS ANGELES
Public Health

Limitations of System of Care

- Inability to perform more extensive dental care; no endodontics
- Tooth extraction is the only option for most patients
- Loss of teeth adversely affects patient's health and self-image

Collaborative Efforts

- HIV Commission and OAPP response

  need + funding opportunity = expansion

- Developing a plan and consensus
  - Provider meetings: June 2009 through February 2010
  - USC School of Dentistry Meetings: December 2009, January 2010

- Surveys

County of Los Angeles Public Health

Networking Mechanics

- Eligibility requirements
- Referral system process & training
  - referral form
- Data entry training
- Billing & invoicing
- Reporting

Endo Data: First Six Months

- 127 clients served
- 492 procedures rendered

Dental Treatment Modifications in Patients with HIV

Piedad Suarez, DDS
Herman Ostrow School of Dentistry USC
Assistant Professor
Chair of Special Patients and Geriatrics
PAETC
suarezdu@usc.edu

Impact of Oral Conditions in HIV (+) Patients

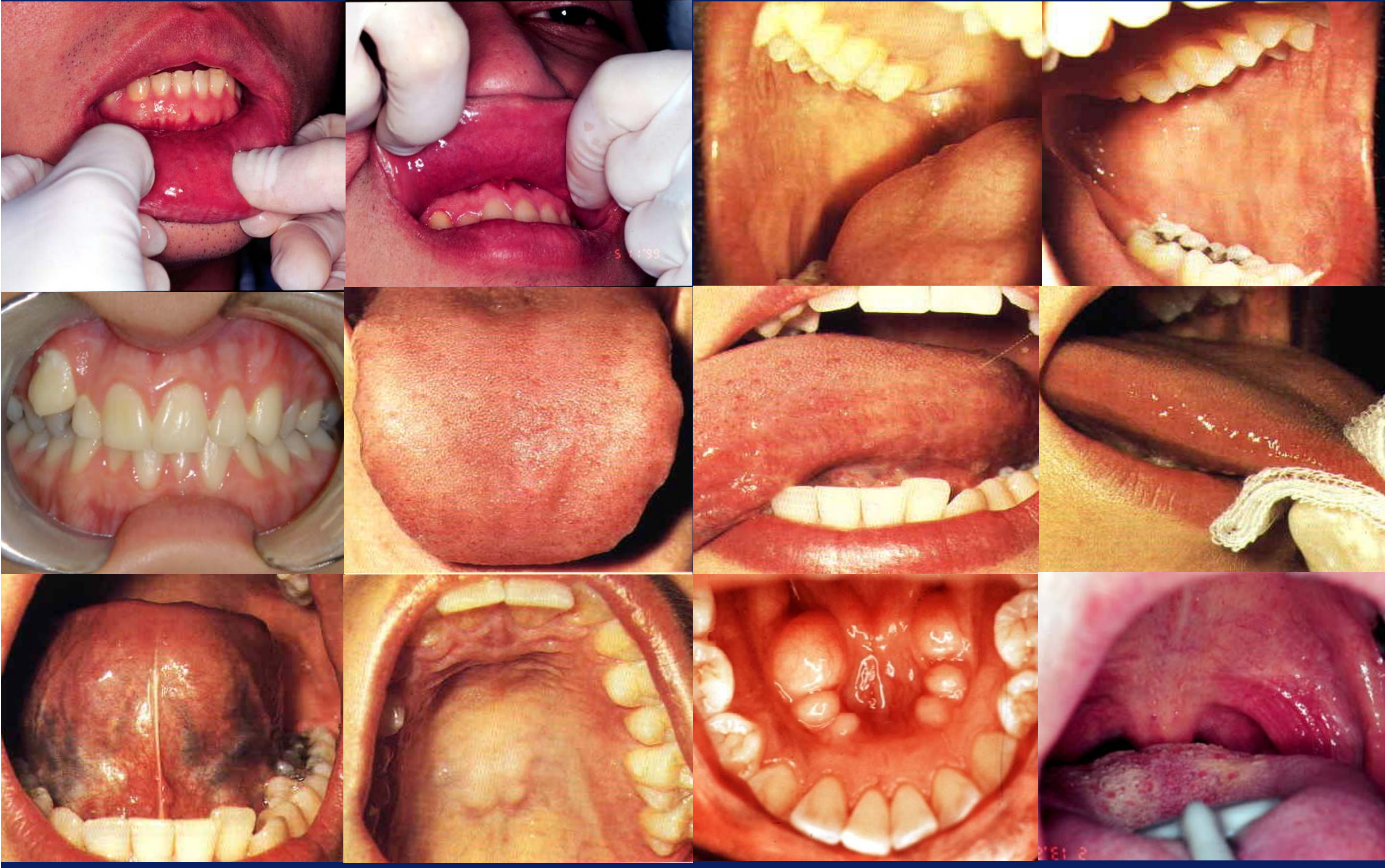
- High occurrence of oral manifestations
- Relative ease in recognizing these manifestations
- Potential impact on health care outcomes
- Potential impact on quality of life

Adapted from Sifri R, Diaz V, Gordon L, Glick M, Anapol H. et al. Oral health care issues in HIV disease: developing a core curriculum for primary care physicians. J Am Board Fam Pract 1998; 11(6):434-44.

Impact on health and quality of life

- Oral manifestations may be the first sign of HIV infection/AIDS
- People with HIV infection are living longer
- These patients will seek regular dental care as well as care for the oral complications from this disease

Physical Evaluation – Intra-oral



History

Diagnostic Tests

Exam

Issues

- Post- op bacteremia / opportunistic infections
- Post - op bleeding
- Drug allergy
- Drug interaction
- Transmission of infection

Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents

December 1, 2009

COUNTY OF LOS ANGELES
Public Health

Lab Values

COUNTY OF LOS ANGELES
Public Health

Table 3. Laboratory Monitoring Schedule for Patients Prior to and After Initiation of Antiretroviral Therapy (Updated December 1, 2009)

Abbreviations: ABC = abacavir; ART = antiretroviral therapy; EFV = efavirenz; HIVAN = HIV-associated nephropathy; TDF = tenofovir; ZDV = zidovudine

	Entry into care	Follow-up before ART	ART initiation or switch[1]	2–8 weeks post-ART initiation or switch	Every 3–6 months	Every 6 months	Every 12 months	Treatment failure	Clinically indicated
CD4 T-cell count	√	every 3–6 months	√		√[2]			√	√
HIV RNA	√	every 3–6 months	√	√[3]	√[2]			√	√
Resistance testing	√		√[4]					√	√
HLA-B*5701 testing			√ (if considering ABC)						
Tropism testing			√ (if considering a CCR5 antagonist)					√ (if considering a CCR5 antagonist)	√
Hepatitis B serology[5]	√		√ (may repeat if not immune and if HBsAg was (-) at baseline)					√	√
Basic chemistry[6]	√	every 6–12 months	√	√	√				√
ALT, AST, T. bilirubin, D. bilirubin	√	every 6–12 months	√	√	√				√
CBC with differential	√	every 3–6 months	√	√ (if on ZDV)	√				√
Fasting lipid profile	√	if normal, annually	√	√ (consider after starting new ART)		√ (if borderline or abnormal at last measurement)	√ (if normal at last measurement)		√
Fasting glucose	√	if normal, annually	√		√ (if borderline or abnormal at last measurement)	√ (if normal at last measurement)			√
Urinalysis[7]	√		√			√ (patients with HIVAN)	√ (if on TDF)		√
Pregnancy test			√ (if starting EFV)						√

…ty of Los Angeles
…blic Health

1. Antiretroviral switch may be for treatment failure, adverse effects, or simplification.

2. For adherent patients with suppressed viral load and stable clinical and immunologic status for >2–3 years, some experts may extend the interval for CD4 count and HIV RNA monitoring to every 6 months.

3. If HIV RNA is detectable at 2–8 weeks, repeat every 4–8 weeks until suppression to less than level of detection, then every 3–6 months.

4. For treatment-naïve patients, if resistance testing was performed at entry into care, repeat testing is optional; for patients with viral suppression who are switching therapy for toxicity or convenience, resistance testing will not be possible and therefore is not necessary.

5. If HBsAg is positive at baseline or prior to initiation of antiretroviral therapy, tenofovir + (emricitabine or lamivudine) should be used as part of antiretroviral regimen to treat both HBV and HIV infections. If HBsAb is negative at baseline, Hepatitis B vaccine series should be administered.

6. Serum Na, K, HCO3, Cl, BUN, creatinine, glucose (preferably fasting); some experts suggest monitoring phosphorus while on tenofovir; determination of renal function should include estimation of creatinine clearance using Cockroft and Gault equation or estimation of glomerular filtration rate based on MDRD equation.

7. For patients with renal disease, consult "Guidelines for the Management of Chronic Kidney Disease in HIV-Infected Patients: Recommendations of the HIV Medicine Association of the Infectious Diseases Society of America" *[1].*

County of Los Angeles
Public Health

Laboratory Test

- Viral Load
- CD4-T lymphocyte Helper Cell
- CD4 %
- Neutrophil (ANC)

- Hemoglobin
- Platelets
- INR
- HgA1C

COUNTY OF LOS ANGELES
Public Health

Normal Range Lab Values
Neutrophils

- Normal range: 3,000-7,000/ mm
- Neutropenia: <1000/mm^3
- **Severe neutropenia <500/mm^3**

  **May require antibiotic prophylaxis before invasive dental treatment

County of Los Angeles
Public Health

Normal Range: Lab Values

Coagulation

Platelets: 150 – 400 x 10^3/ul

INR: 0.9 – 1.1 (2-3.5) **2.5**

Bleeding Time: < 5 - 6 min

Thrombin Time: 10 -14 sec

Coagulation

- Platelets < 60,000 risk of bleeding invasive dental procedure
- Platelets ≤ 20,000, spontaneous bleeding

Factors that predispose to HIV-related oral conditions

- CD4 count of <200/μl
- Viral load of >3,000/ml
- Xerostomia
- Poor oral hygiene
- Smoking

Oral Manifestations of HIV Infection

❖ Fungal infection	Candidiasis, Histoplasmosis, Cryptococcus Neoformans
❖ Viral infection	HSV, HZV, HPV (Oral warts), CMV (Oral ulcers) , EBV (Hariy leukoplakia), HHV-8 (Kaposi's sarcoma)
❖ Bacterial infection	Periodontal diseases (LGE, NUP), TB, Myobacterium avium complex, Bacillary angiomatosis
❖ Neoplastic lesion	Kaposi's sarcoma, Lymphoma, SCC
❖ Others	Oral ulceration, ITP, Salivary gland disease and Xerostomia, Abnormal mucosal pigmentation

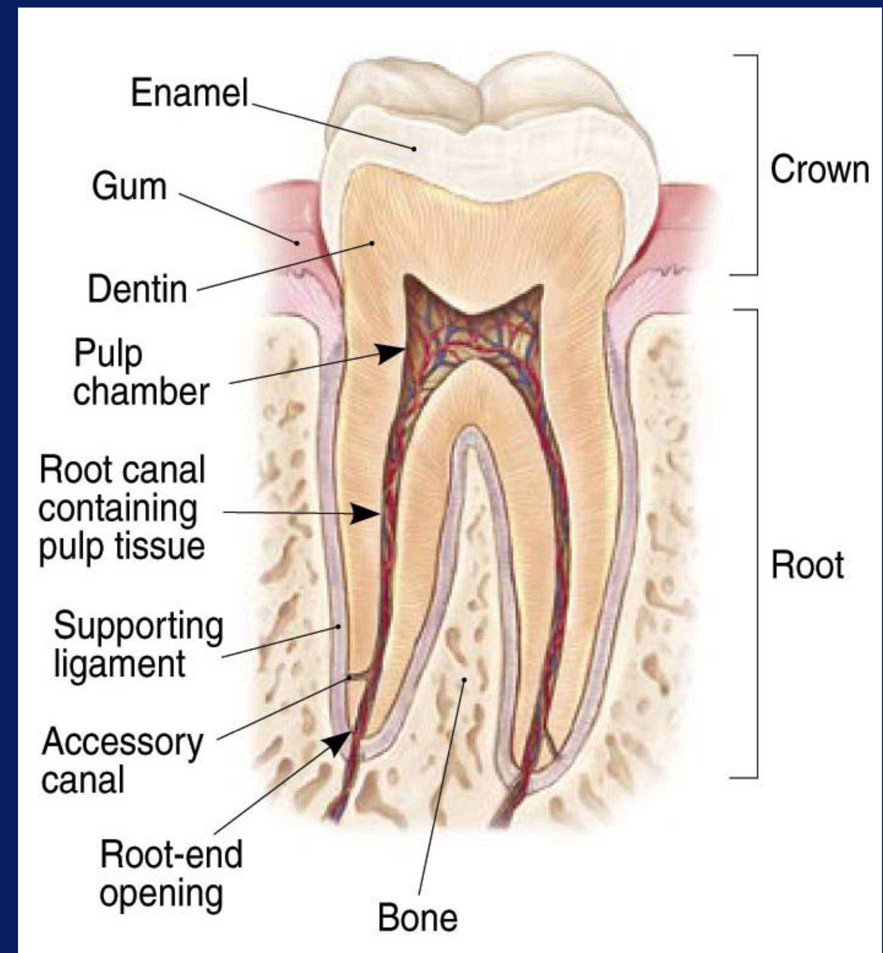
http://hivinsite.ucsf.edu/InSite?page=kb-04-01-14#S3.4X,
http://www.aids-ed.org/ppt/nw_schubert_oralupdate_03.ppt

Rationale for Endodontic Treatment

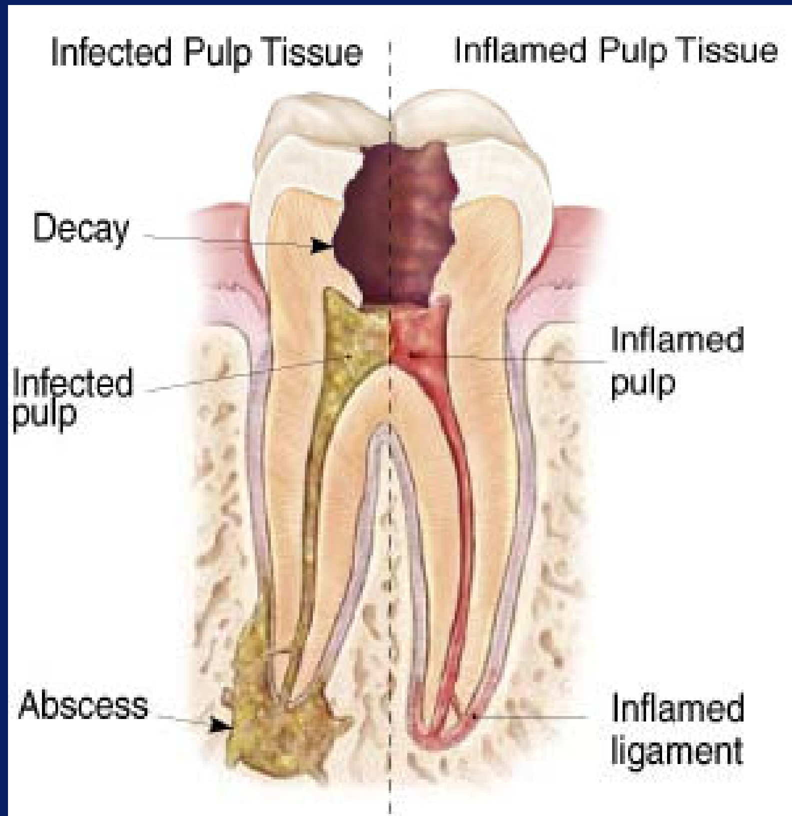
Yaara Berdan, DDS
Herman Ostrow School of Dentistry USC
Clinical Assistant Professor
berdan@usc.edu

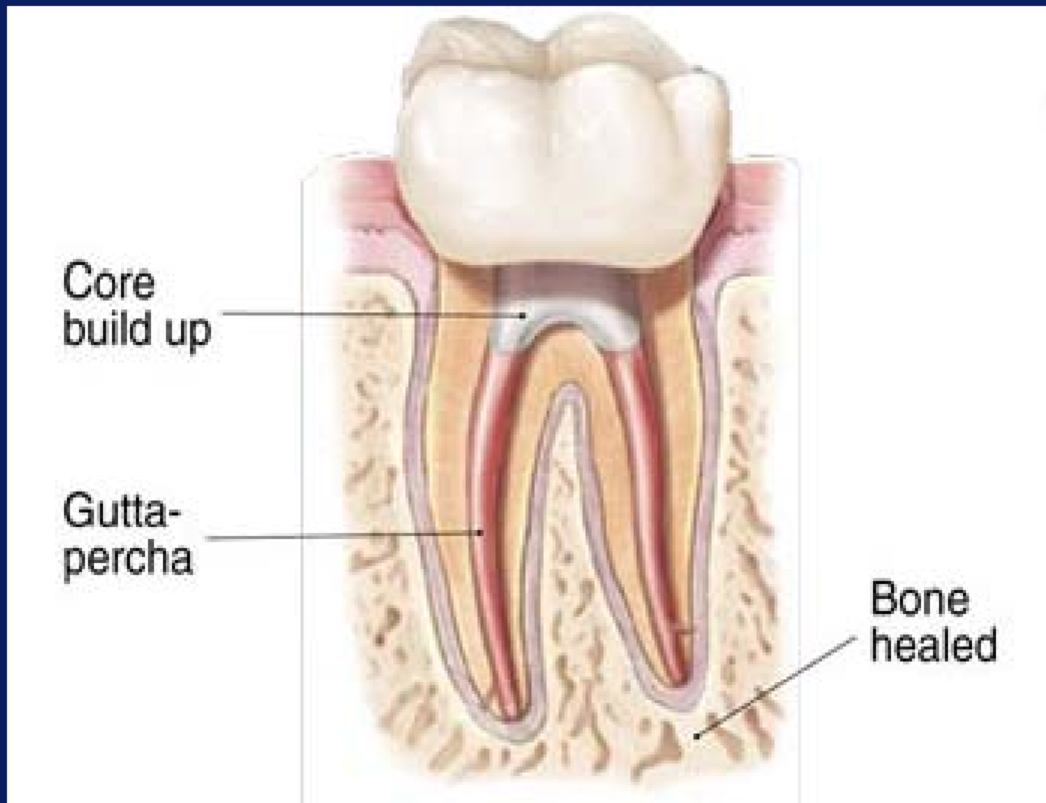
What Is Root Canal Treatment?

- Root canal treatment is needed when the pulp becomes inflamed or infected as a result of:
  - injury
  - deep decay
  - repeated dental procedures
  - a cracked or chipped tooth



COUNTY OF LOS ANGELES Public Health


Infected Pulp Tissue
Inflamed Pulp Tissue
Decay
Infected pulp
Inflamed pulp
Abscess
Inflamed ligament


Core build up
Gutta-percha
Bone healed

Potential Spread of Odontogenic Infection

Buccinator muscle

Mylohyoid muscle

Platysma muscle

A

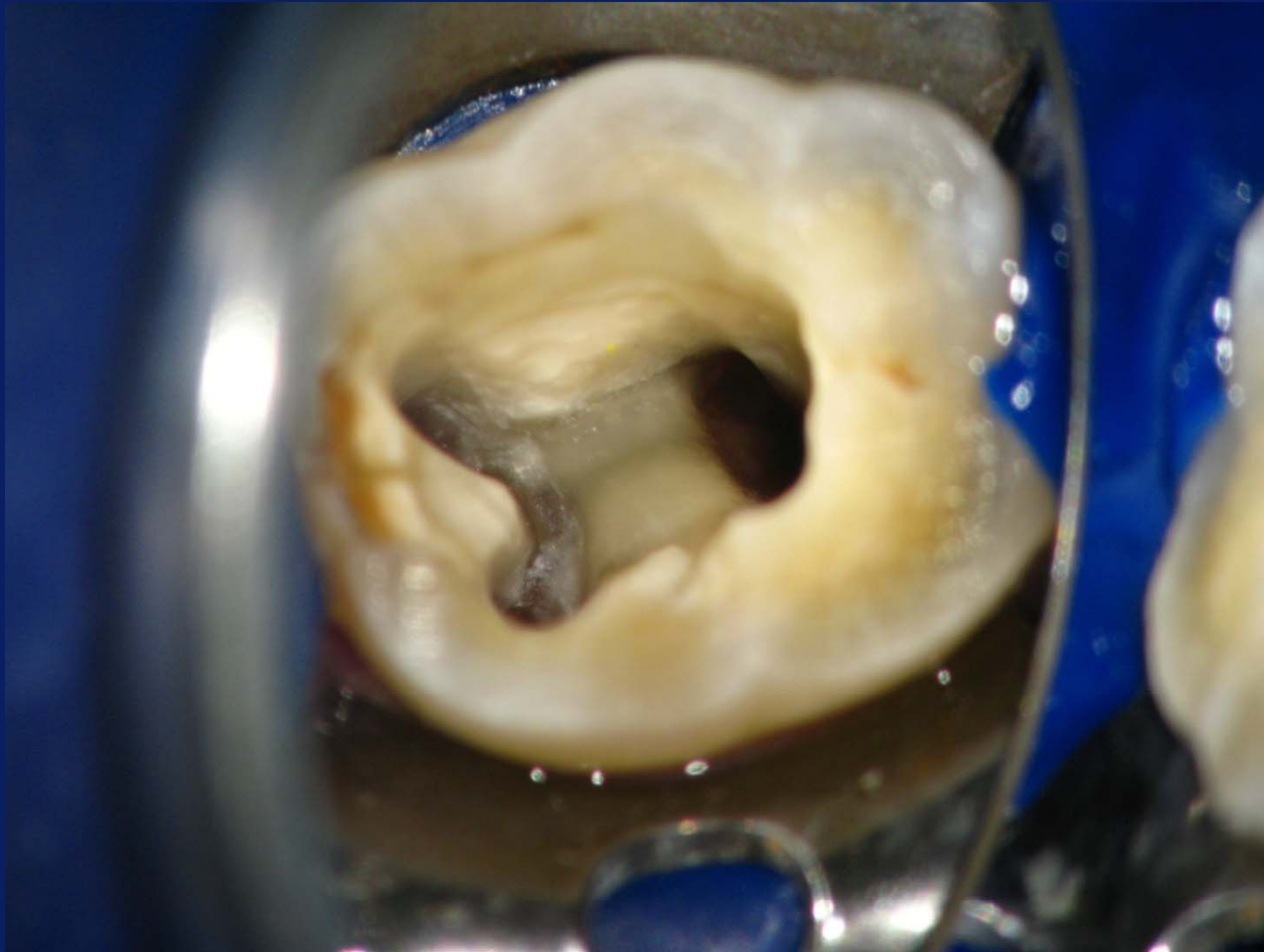
COUNTY OF LOS ANGELES
Public Health

- A review of the literature shows no difference in success rates and post operative complications with respect to root canal therapy in HIV + patients and healthy individuals
  - **The effect of human immunodeficiency virus on endodontic treatment outcome Journal of Endodontics September 2005**
  - **Comparison of the success of root canal therapy in HIV/AIDS patients and non-infected controls General Dentistry March 2008**

Endodontic Considerations

- Endodontic treatment appears to offer many benefits and few drawbacks for HIV patients
  - Reduced infection risk
  - Reduced need for extraction
  - Improved ability to chew
  - Improved self-esteem

1/50
00
109-2806
inside
WASTE



County of Los Angeles
Public Health

Acknowledgements

Herman Ostrow School of Dentistry, USC

- Piedad Suarez, DDS
- Yaara Berdan, DDS
- Thomas Levy, DDS
- Roseann Mulligan, DDS, MS
- Melissa Nuestro

Office of AIDS Programs and Policy

- Mary Orticke, RN, MPH
- David Pieribone
- Marcy Fenton, MS, RD

COUNTY OF LOS ANGELES
Public Health

For More Information on Oral Health and Endodontic Services

Care Division, Office of AIDS Programs and Policy

- David Pieribone, Medical Services Section Manager
  - dpieribone@ph.lacounty.gov
  - (213) 351-8122
- Carlos Vega-Matos, MPA, Chief
  - cvega-matos@ph.lacounty.gov
  - (213) 351-8082

County of Los Angeles Public Health