

AIDS and Its Oral Ramifications

By Anne Jayne

*“For death begins with
Life’s first breath And
Life begins at touch
Of death.”*

-John Oxenham

According to the CDC, 1.2 million people in the United States are living with the HIV, Human Immunodeficiency Virus, which can lead to AIDS, Acquired Immunodeficiency Syndrome. One in seven people in the United States are not even aware that they are living with the HIV. Dentists are one of the first healthcare providers to notice signs of a weak immune system, symptoms of HIV often show up in the mouth which is why everyone should be going to their dentist every six months for their check-ups.

What is HIV and AIDS

HIV was discovered in the early 1980s by a scientist in the United States, Dr. Anthony Gallo, and a scientist in Paris, Dr. Luc Montagnier. HIV and AIDS are not the same disease, HIV can lead into AIDS if a person does not seek medical treatment. There is no current cure for HIV but a person can undergo “antiretroviral therapy” or ART, which can keep the level of the HIV in your body low, allowing you to live a longer more normal way of life. HIV is passed on from person to person through the transfer of bodily fluids, including blood transfusions, injection drug use, nursing, occupational exposure and the most common way is through sexual contact. HIV attacks your T-cells or CD4 cells and uses these cells to make copies of themselves, weakening your immune system, denying your body the ability to fight infection. When the body’s immune system is severely damaged and cannot fight infection anymore, the body is open to *opportunistic infection or Ois*, which then leads to different cancers and AIDS because it takes advantage of the body’s weak immune system, this is the late stage of the HIV. The most life threatening Ois happen when the body’s T-cell count is under 200 cells which leads to death. If a person has HIV and one or more of the following opportunistic infections then they will be diagnosed with AIDS.

- Candidiasis of bronchi, trachea, esophagus, or lungs
- Invasive cervical cancer
- Coccidioidomycosis
- Cryptococcosis
- Cryptosporidiosis, chronic intestinal (greater than one month's duration)
- Cytomegalovirus disease (particularly CMV retinitis)
- Encephalopathy, HIV-related
- Herpes simplex: chronic ulcer(s) (greater than one month's duration); or bronchitis,

- pneumonitis, or esophagitis
- Histoplasmosis
- Isosporiasis, chronic intestinal (greater than one month's duration)
- Kaposi's sarcoma
- Lymphoma, multiple forms
- Mycobacterium avium complex
- Tuberculosis
- Pneumocystis carinii pneumonia
- Pneumonia, recurrent
- Progressive multifocal leukoencephalopathy
- Salmonella septicemia, recurrent
- Toxoplasmosis of brain
- Wasting syndrome due to HIV

Changing the way dentists practice

In the mid 1980s, a Florida dentist named Dr. David J. Acer, was the first healthcare worker to actually transmit the AIDS virus to six of his patients. Kimberly Bergalis was the first person that came forward who this doctor infected with this horrific disease and who would eventually die in 1991 from AIDS. Kimberly's family traced it back to this doctor because Kimberly was a virgin, did not use intravenous drugs and never had a blood transfusion. The parents found out Dr. Acer had AIDS and five more of his patients eventually came forward diagnosed with the same disease. Dr. Acer's actions would cause major changes in the way dentists practiced forever. At the time that Dr. Acer was practicing, dentists were not required to wear gloves, actually very few did. These changes in the dental industry include standardized universal infection control, including mandatory wearing of gloves; the rights for HIV patients to receive care; and the right of an HIV-positive health care worker to practice.

Symptoms of HIV in the Mouth

At least 90% of HIV patients will experience at least one oral disorder. Signs of HIV often manifest in a person's mouth and can be discovered by your dentist professional during routine exams. If a person is unknowingly walking around with the HIV virus and goes to the dentist and he discover a symptom, the dentist would then prescribe you to take an HIV test. Some of the symptoms are:

- Dry mouth and tooth decay.
- Candidiasis (thrush) is a disease that is characterized by an inflammation of the tongue and mouth, there is also a thick white film on the affected areas.
- Canker sores are sores in the mouth that are round, white or gray, with a red edge or border.
- Gum disease, which causes extremely severe bleeding of the gums in HIV patients.
- Hairy leukoplakia, which is a white patch on the side of the tongue with a wrinkled or hairy appearance.
- Kaposi's sarcoma, this sometimes shows up on the skin but 50 % of patients

experience Kaposi's sarcoma in the oral cavity. The sarcoma looks like oral patches and these lesions are red or purple and can be flat or bumpy.

- Enlarged saliva glands.
- Shingles in the mouth would cause a lot of pain, so much pain that it can prevent a person from sleeping, which can cause other side affects.
- Oral warts are abnormal raised bumps that appear on the lips and within the mucous membranes of the mouth.

“ Truly the universe is full of ghosts, not sheeted churchyard spectres, but the inextinguishable elements of individual life, which having once been, can never die, though they blend and change, and change again for ever. “

-H. Rider Haggard

This quote is talking about the angels that are present around us everyday of our lives and not the white ghosts flying around scaring everyone which is the typical ghost we tend to know through television and scary stories. They are the beautiful souls of our beloved ones that have passed.. Their souls are here forever and will never die, they will just walk among us and we will never see them, only feel that they are with us.

A close friend of mine, Dan, was diagnosed with one of these horrific oral conditions. Dan and I went to high school together in New Jersey back in the 80s when times were very different from today, we did not have to wear seat belts in the car, we had no cell phones or computers and no one had ever heard of the horrific word AIDS. We listened to cassette tapes on our boom boxes with our favorite hair bands very loudly, including Poison, Slaughter, and Bon Jovi, and drove around in fast cars without seat belts because it was not the law to wear them then. We also played Pac-Man and Donkey Kong on the game system Atari, which was not realistic looking at all like today's video games on the X-box or the computer. Dan was a very promiscuous young man in high school and had always been known to have multiple sexual partners. He definitely was not a loyal boyfriend, he would have at least two or three girls on the side which I never approved of and would always let him know but it was his life. He was always a true and loyal friend but a disaster when it came to being a trusting boyfriend. We always kept in touch throughout the years after high school. In our early forties, I was happily married and Dan was still single but dating one woman faithfully for about five years to my surprise. Knowing that I worked in the dental industry, one day Dan called me crying with an excruciating toothache that he could no longer take. I referred him to the doctor I was working for at the time in New Jersey, he had an excellent reputation and was featured in New Jersey magazine as one of the top dentists. Dan came in extremely fearful because he had not been to a dentist or physician since high school which absolutely astonished me, after all, it has been over twenty years. Dan explained that he had a horrible experience as a child in a dental office, having a filling done while being held down because he was kicking and crying. He said that he never received any Novocain and he felt a lot of pain while the dentist was drilling vigilantly into his tooth which is why he was screaming. Dan said he never trusted another dentist or doctor ever again because of this traumatic experience in his earlier life. I reassured him and told him

that absolutely would not happen here, there will be no pain. The dentist proceeded to do an exam and looked into Dan's mouth and said he may have Kaposi's sarcoma on the roof of his mouth and on the inside of his cheeks, a type of rare cancer. Neither one of us had ever heard of this cancer before, I just winked at him letting him know that everything was going to be okay. In the mean time the dentist proceeded to do a root canal on the tooth that Dan was complaining about and he said it was not bad, the only pain he felt was the syringe full of Novocain going into his gum tissue. He was then referred to a physician who confirmed the cancer in his mouth and also diagnosed him with AIDS. We were in absolute shock, everything was not okay, how could this happen now?

After reading and learning about AIDS, we learned that it had to be Dan's promiscuity without using protection back in the 80s that caused this terrible disease. Apparently, he must have been walking around with the HIV virus for years and did not know it and now it is too late and the HIV turned into AIDS. Dan lived for another two years experiencing different rare cancers with other illnesses and being in agonizing pain. In 2010 his pain ended, he died in his bed with his family and close friends around him. Sometimes, I wonder, "Would Dan be alive today if he had gone to the dentist regularly and the dentist diagnosed an HIV symptom sooner?"

I have been working at the dental faculty practice at NYU Langone Hospital one day a week just so I could interview some of these patients living with AIDS or HIV. The center advances research in HIV/AIDS by supporting clinicians and researchers in a number of departments and affiliated institutions. One morning, I came across a young woman that came to the office for her routine cleaning and check up. I read this beautiful woman's medical history and she is HIV positive to my surprise. Her name was Mimi, and she was born with HIV and has taken medication all of her life to keep her from getting AIDS. Her mother had AIDS when she gave birth to Mimi, she was a heroin user prostitute living on streets of New York and had sexual intercourse with multiple people to pay for her drugs. Mimi said that she was adopted when she was about three years old and loves her family very much. She said that her dreams of being a wife and mother would never come true, she was afraid of getting into a relationship, knowing that she could pass this virus on to another human being. The same went for having children, she could never have a child and pass this virus to an innocent baby so she would never experience having a family. I never thought of this aspect of the disease, not being able to have a family if you don't already have one. The hygienist proceeded to clean her teeth, and the dentist entered the room to do the check up. The dentist said that because of Mimi's HIV and the medications that she takes everyday, she has a severe dry mouth condition called xerostomia and always comes into the office with multiple cavities in her mouth. Xerostomia is a condition when your mouth is constantly dry due to the lack of saliva to keep your mouth wet which causes tooth decay and infections. She has had about eight root canals, five extractions and many fillings by the age of twenty two. The dentist said that it was almost better to extract all her teeth and put in dental implants but because of her HIV, there was a great likelihood that many of them would not integrate and fail, due to her weakened immune system.

Lenny would be the second person that I interview at the hospital and he has full blown AIDS. Lenny is a patient at the hospital and would come to the office for his dental cleanings and if he was experiencing any kind of tooth or mouth pain. He was

hospitalized because he has different rare cancers and has chronic recurrent pneumonia and some days he is extremely weak. His mouth was usually covered with herpes simplex when he came in which is not a pretty sight. With all this, Lenny melted my heart, here is this man basically dying and he was the happiest and nicest person I knew. One day he came in with his blanket wrapped around him just like a toga and tissues wrapped together to make a crown over his head and said, "Honey, I am starving, please order a pizza." He would constantly joke and just be the nicest person to be around even though his body was covered in spots, this was the skin cancer. I began having a close relationship with Lenny and I came to find out that he lived as a homosexual man since high school in the eighties, he is forty five years old. He now lives in the East Village in New York and is an aspiring artist, even though the hospital seems to be home now. He said he remembers going to all of the homosexual bath houses in the city when he was in his twenties, he called it, "heaven, the best time of my life." For the last two years, he has had a serious boyfriend but he left Lenny as soon as he was diagnosed with AIDS. Lenny said that he tried to contact him a few times but the ex-boyfriend would not return his calls, so Lenny does not know if his ex-boyfriend is living with the same virus or not. He said that his last wish would be to talk to his ex-boyfriend and tell him how much he loved him and to let him know how happy he made him. I was almost enticed to take his ex-boyfriend's phone number and attempt to contact him but I was not sure if I necessarily wanted to get in the middle of this, but it is something to think about. The next time I see Lenny I may ask him for that phone number and see what happens.

"We must bring our own light to the darkness."

-Charles Bukowski

The moment I read this quote, I knew I had to use it because it reminded me so much of Lenny from the hospital. Lenny is the essence of this quote, he is facing death head on and yet he is so full of life, so humorous, just the most delightful person you would ever want to be around. He is always the one making me laugh and it should be the other way around but that's why this is Lenny, "*We must bring our own light to the darkness.*" We can all really use this in our lives, when there is something terrible happening in our lives, we need to bring some happiness in.

I will be following these two people, Lenny and Mimi throughout my research paper for one day a week until I am finished with the paper. I am extremely excited, Lenny and Mimi agreed to make their appointments only on the days that I will be there. Mimi has to come back for some cavities and Lenny is always coming in for different complications in his mouth but the hospital has become his new home so I can go upstairs and really see him whenever I want.

After work today I decided to go to the hospital to see Lenny because I wanted to get the phone number for his ex-boyfriend. When I walked into his room, not surprisingly, he still had the crown of tissues on his head and toga made of sheets. His mouth seemed to look worse today, the herpes simplex covered his lips completely, he said he wasn't able to eat solid food today because it was too painful. I told Lenny I wanted the phone number and he was beyond happy, he had tears in his eyes, I think I

made the right decision. He wrote the number down for me with his name, Mitchell.

The moment I got home I apprehensively called Mitchell, to my surprise, he answered the phone with a very firm, "Mitchell here." I told him I was calling for Lenny, he did not hang up, I proceeded to tell him that Lenny just wanted to tell him how happy he has made him the last couple of years and wanted to know if he had the same disease. It turns out that Mitchell was tested and found out that he has HIV, he is taking a lot of different pills everyday but since it is HIV he is able to manage and live with it. I gave him Lenny's phone number at the hospital and begged him to call, even if just to say good bye.

The next day I went to the hospital to work, I asked one of the dentists if it was okay to interview him during my lunch, he agreed.

Anne: "Are you afraid for your safety treating HIV and AIDS patients?"

Dr.: "No, I take every precautionary measure possible, I have to treat every person as though they are infected. I wear masks, gloves, protective eyewear, and disposable gowns. In the room the assistants place plastics barriers on all handles, I will also use rubber dams on the patient with high speed suction to reduce the splatter."

Anne: "Is there anything different that you do, knowing that an HIV or AIDS patient is coming to see you?"

Dr.: "If I am going to perform an invasive procedure, I will wear two masks and two sets of gloves."

Anne: "What would be considered an invasive procedure?"

Dr.: "An invasive procedure would be anything surgical where the patient will bleed, for instance, extractions, implants, gum surgery, grafts or biopsies."

Anne: "Is it hard treating some patients like Lenny?"

Dr.: "Lenny is not an easy case, he is dying, the only thing I can do for him is to keep him out of pain so that he can eat the right foods. Lenny has a lot of oral complications, he first came to me with oral warts and now has developed a severe case of herpes simplex. Sometimes the medication I give him keeps it under control and sometimes it doesn't due to his compromised immune system."

Anne: "Is it true that dentists are often the first to detect a weakened immune system?"

Dr.: "Absolutely, we see so much in the mouth when a patient comes in every six months for check-ups. We can see if there are any changes due to a weakened immune system, not to mention all of the oral symptoms due to HIV and other diseases. I have a patient that comes in every six months for check-ups and cleanings, one day she came in and I diagnosed Oral Candidiasis or Thrush. I told her to take an HIV test, sure enough, it was HIV."

I know there has to be some kind of awareness to the public on how important it is to go to the dentist every six months. The patient that the doctor was talking about was diagnosed with HIV but what if she never went to the dentist on a regular basis, she could have been walking around with it for years and then eventually have AIDS. It is just like my friend Dan who had not gone to the dentist in over twenty years, and eventually went with an excruciating toothache. He was diagnosed with AIDS when they found Kaposi's

Sarcoma in his mouth, it was too late for Dan. This doesn't have to be the case, I think we can make a difference by bringing awareness to people.

Later that day Lenny came in the office with a big beautiful bouquet of colorful flowers for me and thanked me a hundred times for calling Mitchell. It turns out that Mitchell came to the hospital and spoke with Lenny, I couldn't believe it. Lenny said they spoke for hours, he said everything he wanted to say to Mitchell that was buried inside of him for so long, and then they said their good byes. He said Mitchell looked exactly the same, a bigger build because he worked out every day and a youthful looking face because he was twelve years younger than Lenny I learned. I felt really incredible in that moment helping someone, I made Lenny's wish come true, he was more elated than the usual Lenny.

About two hours later Mimi came in to take care of one of her decayed teeth, I gave her a good amount of Biotene to bring home with her which helps with the xerostomia. I spoke to Mimi a little bit and found out she met a guy at her HIV support group, she seemed to be on cloud nine. She still knows that she can never have children but she came to realize she could have a relationship with someone that has the same disease as her, she said that it made her feel comfortable knowing that they both have HIV. I asked her about her first date and she said they went to a great Moroccan restaurant on 38th St. called Tangine and then they walked around the city talking for hours. He then walked her home and they shared a good night kiss that she said was incredible. Mimi said it was a long time since she had kissed a man in a romantic way, she was afraid she forgot how, I just playfully chuckled. I was so happy for Mimi, she was so excited when she was talking about her date and I could tell she had hope in her eyes. She said the next date was going to be this Saturday night and they agreed to a Thai dinner and then planned on going to a Broadway show called The Book of Mormon. This conversation was different from our last one when she said she would never get married or have children, she sounded like she was prepared to die alone, now she looked hopeful for the future.

*"In the end, it's not the years
In your life that count.
It's the life in your years."*

-Abraham Lincoln

I love this quote, it makes me think of Lenny and Mimi because they have to endure a life threatening disease at such a young age. It does not matter if we live to be 90 or 30 years old, if we do not love and experience life to the fullest, we merely exist rather than truly live. Loving life and taking advantage of everything this world has to offer can allow us to have a fulfilled life before death. Although Lenny's life will be cut short, he said he was very fortunate to experience the world of art. He was gifted with transforming blank canvases into beautiful pieces of art. He traveled to many countries to sell his paintings and also made his own personal boisterous expeditions. Overall, he did very well for himself, and for a short time he also had a relationship with Mitchell who he

absolutely adored and loved. I asked him one day if he felt that he lived a fulfilling life, and he answered, “Yes, I would not change one thing. My life felt as though I was the most important guest at the ball, with the most beautiful gown, of course.” I smiled, Lenny would respond with an answer just like this but what did it mean?

Mimi, on the other hand, is so much younger than Lenny, she has not been given the chance at an amazing life yet, being born with HIV to a heroine-addicted mother. She is in her early 20s and has not even been intimate with anyone because of her disease and the fear of it. She is living with HIV, so her life is being prolonged by taking her numerous medications every day. Throughout our conversations, I found out she is dating a spiffy young man now so I will find out the events that take place with them. Mimi was extremely happy the last time I had seen her and I felt that she was making steps towards a fulfilling life for herself.

Last week Mimi had an appointment at the office to take care of another cavity but she also complained about pain she was feeling in another one of her teeth. I took an x-ray of the tooth for the doctor to examine it, “Mimi, it seems that the tooth we were going to fill has decay spreading rapidly and has reached into the nerve,” the doctor had told Mimi, “There is a large infection in this tooth and we need to extract it today.” Mimi was devastated, at 22 years old she is having yet another tooth extracted, she sobbed quietly and I tried to comfort her. I told her it was not her fault, it was the xerostomia that she has that was causing her teeth to decay so quickly and that the tooth would be replaced today with a temporary one, she stopped crying. As the doctor was anesthetizing her, I asked how her second date went last Saturday night and a big smile from ear to ear lit up her face. She said it was incredible, they went to a Thai restaurant in the theatre district and then proceeded to see *The Book of Mormon* on Broadway. They spent the rest of the night walking and talking, she found they have so much in common, both being HIV positive, and shared their own experiences with this virus. Mimi said the next date would be at his place for an intimate dinner that he was going to cook, I was so happy for her. The doctor moved on with the procedure and then made a temporary tooth for Mimi. As she was leaving, I gave her a bag full of Biotene toothpaste and mouthwash to help with the xerostomia and instructed her to sip on water all day. I gave her a hug and told her to have fun Saturday night on her date.

Later that day, I waited for Lenny to come in for his appointment. However, he did not show up so I went upstairs to his room during my lunch. When I entered his room, Lenny was lying in bed with his sheet-made toga still wrapped around his body and hooked up to a drip of morphine. His mouth looked especially worse with the herpes simplex completely covering his lips and the inside of his mouth. The nurse said it was a bad day for him, Lenny was in a lot pain due to the Kaposi Sarcoma that now spread to his intestines. He opened his eyes for a minute and said, “Hi gorgeous,” and I squeezed his hand and joked with him that I was upset he missed the appointment. Inwardly, I couldn’t stand to see Lenny like this, it is not him, he is always so jubilant and full of life and to see this disease ravage his body just broke my heart. I left the room to let Lenny sleep and walked back downstairs to my office. I told the doctor about Lenny’s condition and he said it is only a matter of time now, he is only being kept comfortable, there is nothing that anyone can do, there is no cure for AIDS. This is not the response I wanted to hear when talking about Lenny, but I knew this was inevitable when I started this research paper.

The cancer that Lenny has, Kaposi Sarcoma, started on his skin as black and blue lesions all over his body and now has progressed into his intestines. This is causing severe abdominal pain and chronic diarrhea and the herpes simplex all over his lips and the inside of his mouth are now preventing him from eating normally. He has to be fed intravenously because of this condition. Kaposi Sarcoma of the skin or mouth had become a staple in the 1980s as a sign of HIV/AIDS. The book, "And the Band Played On," talks about the politics and epidemic of AIDS in the early 1980s when the disease first came out. Kaposi Sarcoma of the skin was the first typical symptom and people who had it were ashamed and tried to hide it. The reason they tried to hide it was because AIDS was supposedly only a homosexual disease, it was called the "gay man's cancer." This book showed how AIDS was allowed to spread rapidly just because of politics and institutions that were so ignorant, prejudice and afraid. Washington did not want to spend the money on AIDS research because they said it would not stop it. President Reagan would go down in history as the president who did the bare minimum when it came to this disease. It started as a homosexual disease so no one took it seriously and it seemed as though they did nothing about it until the first heterosexual male and first heterosexual female came forward and were diagnosed with HIV. Today, this book has changed the way we look at AIDS because we have learned so much from author Randy Shilts' writings in the first years of the AIDS epidemic. We have learned from the mistakes made in the early 1980s and have progressed into the present, educating others on the risks, symptoms and the devastating result of AIDS. It will never again be just "a gay disease," it is a disease that affects every one of us.

*"Hell strives with grace for conquest in my breast.
What shall I do to shun the snares of death?"*

-Christopher Marlowe

I visited Lenny at his hospital room again this week and I asked him to give me a special quote for my research paper and this quote from Christopher Marlowe is the one he wanted me to use. He was so honored that I asked him, it put a beautiful smile on his face which I was so happy to see. This quote symbolized to me that AIDS is fighting to take over Lenny's body and all he wants to do is escape death.

Week two and Lenny is still in the gloomy hospital room hooked up to the IV of morphine and being fed intravenously. I am very devastated about this whole situation, which is why I asked Lenny to give me a quote for this week, he was more than happy to help, he also gave me a magnificent one about beauty that I will use later. He still tries to smile but does not wear his sheet made toga or crown anymore which is how I am used to seeing him. So I decided to work on making a crown as I conversed with Lenny about some gossip in my love life, he always loved to hear about that. After a little while, he seemed drowsy so I put the homemade crown on his head before I left. I squeezed his hand and said, "Good bye gorgeous, I will see you later," he smiled with the herpes lesions still stuck to his lips that I wish I could take away.

I went back to the office, I knew Mimi would be in today to check the area where her tooth had been pulled and to take care of another cavity. I walked into the office and

started to get the room ready for Mimi, I took everything out for a composite filling and also put out scissors and college pliers so the doctor could remove the sutures from the extraction site. I also put together a bag for her to take home with a lot of Biotene products for her dry mouth condition.

A half hour later a perky Mimi walked in the office, I seated her into the prepared treatment room. I did observe that her lips were extremely dry today, they were cracked and looked very sore so I gave her some Vaseline to put on them. Immediately, Mimi excitedly started to talk about her date, she did not wait for me to ask any questions, she did not even let me talk at all. She said Tom cooked a beautiful candle-lit dinner for them at his apartment on Twenty-Third Street. He made a beautiful Chilean sea bass over angel hair pasta and also a goat cheese and arugula salad. She said it was a very romantic night and she stayed with him until morning. I was taken back by this information for a moment, Mimi, the girl I know to be afraid of love, spent the night with Tom. I was so happy for her, she finally found love and this is a whole new Mimi, smiling, laughing, full of hope for her future. The doctor came in to start working on Mimi and said, "Your lips are extremely dry Mimi, most likely due to the xerostomia, I want you to keep putting Vaseline on your lips every day. How do you feel about doing a filling today with your lips in that condition? It can become worse after this visit." She said she wanted to do it before it got deeper like the other one that had to be pulled so he proceeded to numb her. As Mimi was getting numb, the doctor took out the sutures from the last visit, everything looked good there. I started to put my mask and gloves on and we started to work on Mimi, she opened wide and the doctor started to drill. Her lips started cracking more from being open and some spots were bleeding a little, I stopped the doctor for a moment and put some more Vaseline on her lips. After an hour, Mimi was finally finished, she sat up to rinse and said thank you. Mimi stood up and said she is meeting Tom now to go shopping, she was so ecstatic, her lips did not even seem to be an annoyance to her. I gave her a big hug and told her how happy I was for her, gave her the bag and told her to make sure to use the Vaseline every day.

World AIDS awareness day is December 1, I think I should do something on that website that discusses the link between your mouth and HIV and the importance of going to the dentist for routine check-ups. I can have some quotes from the dentists and oral surgeons at NYU Langone speaking about how important it is, how a weakened immune system can be almost always be diagnosed in the mouth.

I eventually finished at the office and went upstairs to see how Lenny was doing, he didn't look well at all. The herpes on his lips looked like open sores now and he even had more of the skin cancer lesions now spreading to his face. The doctor said he has been sleeping all day, I called his name but he remained sleeping, I squeezed his hand and left. I started to tear up as I was walking out of the hospital, I never thought I would care this much about Lenny. I started to wonder where his family was and did Mitchell see him again, he can't lie there and die all alone. It's funny, Lenny always spoke about his fabulous life but we never got a chance to talk about his family, I don't even know if he has any brothers or sisters or if his parents are still alive. There are so many questions I still want to ask him, maybe tomorrow he will be awake.

"If you have never seen beauty in a moment of suffering, you have never seen beauty at all. If you have never seen joy in a beautiful face, you have never seen joy at all."

-Johann Friedrich Von Schiller

That was the other quote that Lenny gave me to use. Lenny explained to me that it is a beautiful quote about beauty, joy and suffering.

“The fear of death follows from the fear of life. A man who Lives fully is prepared to die at any time.”

-Mark Twain

This quote makes me think about Lenny because he was never afraid to die because of the “fabulous” life he lived. Lenny is not doing well at all, he has a masseuse that comes in once a day to massage his muscles because he has been immobilized and confined to a bed for so long. During my spring break I had the opportunity to meet Lenny’s family, they came up from Ohio, his mother, father and two younger sisters. They were sweet as could be, they made me feel as though I was part of the family after I introduced myself. His mother had a priest come in to give Lenny his Last Rights which really broke my heart because realization set in and I knew he was not coming back from this, he was just lying there dying slowly.

Lenny’s mother wants to go to the NAMES Project Foundation to obtain a panel in Lenny’s memory for the AIDS Memorial Quilt. She asked me to give something that Lenny and I shared to put into the quilt, I gave her my gold bobby pin which had a faux diamond on it, Lenny loved it and always made a comment on how fabulous I looked wearing it. I also told them about the toga and crown that he would always wear at the hospital, hoping they would incorporate that into the quilt as well.

Watching someone you care about deteriorate from AIDS is a very tragic nightmare. I watched it with my best friend Dan and now with Lenny, it is not easy to go through. These are two people who never took an HIV test and never went to the dentist for check-ups so when they found out they were infected it was AIDS, it was too late. Even if they never took the HIV test and they went to the dentist regularly, the dentist would have picked up a sign or a symptom of HIV which at least would have enabled them to live a longer life with medications.

Today, HIV positive patients have options for HIV medications. These are the five classes of HIV drugs:

1. Reverse transcriptase (RT) inhibitors helps block an important step in the HIV life cycle

Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs) stall reproduction Of HIV

The FDA has approved these NRTIs:

| Brand Name | Generic Name | Abbreviation |
|------------|--------------|--------------|
|------------|--------------|--------------|

| | | |
|--------------------------|--|-----------------------|
| Combivir | zidovudine + lamivudine | AZT + 3TC |
| Emtriva | emtricitabine | FTC |
| Epivir | lamivudine | 3TC |
| Epzicom | Abacavir + lamivudine | ABC + 3TC |
| Hivid | zalcitabine | ddC |
| Retrovir | zidovudine | AZT or ZDV |
| Stribild | tenofovir + emtricitabine + elvitegravir | TDF + FTC + EVG |
| Trizivir | abacavir + zidovudine + lamivudine | ABC + AZT + 3TC |
| Truvada | tenofovir DF + emtricitabine | TDF + FTC |
| Videx | didanosine: buffered versions | ddl |
| Videx EC | didanosine: delayed-release capsules | ddl |
| Viread | tenofovir disoproxil fumarate (DF) | TDF or Bis (POC) PMPA |
| Zerit | stavudine | d4T |
| Ziagen | abacavir | ABC |

Non-nucleoside RT inhibitors (NNRTIs) keeps HIV from making copies of itself

2. Protease inhibitors (PI) stops HIV to create infectious viral particles

The FDA has approved these protease inhibitors:

| Brand Name | Generic Name | Abbreviation |
|--------------------------|---------------------------------------|---------------------|
| Agenerase | amprenavir | APV |
| Aptivus | tipranavir | TPV |
| Crixivan | indinavir | IDV |
| Invirase | saquinavir | SQV |
| Kaletra | lopinavir + ritonavir | LPV |
| Lexiva | fosamprenavir | FPV |
| Norvir | ritonavir | RTV |

| | | |
|--------------------------|----------------------------|-----|
| Prezista | darunavir | DRV |
| Reyataz | atazanavir | ATZ |
| Viracept | nelfinavir | NFV |

3. Fusion inhibitors help block HIV's entry into healthy cells

4. Entry Inhibitors also block HIV's entry into healthy cells

5. Integrase inhibitors block insertion of viral DNA into the host cell DNA

Other AIDS and HIV Drugs in Development

New types of AIDS and HIV drugs in development include:

- **Maturation inhibitors** that help prevent the development of HIV's internal structures
- **Assembly and budding inhibitors** that interfere with the final stage of the HIV life cycle
- **Zinc finger inhibitors** that break apart structures holding HIV's inner core together
- **Antisense drugs** that lock onto the virus to prevent it from functioning
- **Cellular metabolism modulators** that interfere with HIV's ability to make copies of itself (called replication)

Immune therapies help the body defend against HIV.

New ones in development include:

- **Gene therapies** that block HIV replication by producing immune cells that are genetically resistant to HIV infection
- **A variety of immune modulators** such as cytokines that increase the immune system's response to HIV

WebMD Medical Reference

I proceeded to get the room ready for Mimi today, but Lenny's mother walked into the office, and I just knew, he was gone. I broke down and had to leave the office for the day, I spent a couple of hours with his family. I will miss everything about him especially his warm sense of humor.

"The angels are always near to those who are grieving, to whisper to Them that their loved ones are safe in the hand of God."

-Eileen Elias Freeman

I knew deep down inside that Lenny's suffering was over and that he was now in heaven with the rest of the angels.

*"How we treat other people changes them, but even more so, how
We treat other people changes us."*

-Bryant McGill

It's been a week since Lenny has passed, and he has changed my life forever and I think I changed his last days also. I was able to bring Mitchell and Lenny together one last time, I am so happy I made that call that I was so hesitate about. I will miss the way he always made me laugh and I will miss the way we talked about my crazy dating life and how he wished he still had one. Lenny has changed my life without a doubt, I have made the decision to be transferred over to NYU Langone for good. I realized that I do very well treating compromised patients at the hospital and I do enjoy talking to them all, I am very happy there. My supervisor, on the other hand, at the downtown office was not so happy to see me leave.

Should there be boundaries between health care practitioners and their patients? This is such a hard question for me to answer because I love to talk to every patient about what is going on in their lives. I guess I am trying to figure out the answer to this question as well. It is probably not a good idea to become close with every patient but you do need to show sympathy, some kind of sign that you care. I have seen health care practitioners with absolutely no bedside manners and showed no sympathy which can be an awkward experience. There is a fine line between showing empathy and becoming too involved in a patient's life which is what I am still trying to figure out. Lenny's situation definitely affected my sleep habits, constantly worrying about him, wondering if he would be there the next day. However, sometimes you come across people that you instantly click with and Lenny was that person for me. From the first moment I set eyes on this crazy man wearing a sheet-made toga and crown asking me to order him a pizza because he was famished, this larger than life man, I knew I wanted to find out all about him.

It has been two weeks since I have seen Mimi because I left the office last week because of the circumstances surrounding Lenny. I was very curious to see what was going on in Mimi's love life, she was so happy the last time we spoke. I proceeded to get the operatory ready for Mimi to come in for another tooth to be filled. I heard the door open and I could hear Mimi's voice, she ran over and gave me a big hug and asked me where I was last week. I told her I had a family emergency and said she looked great and that I wanted to know what I missed last week between her and Tom. First Mimi told me that she started taking yoga and Pilates classes four days a week which explained her beautiful glow. Then she proceeded to reveal her left finger which occupied an enormous pear shaped diamond ring, I screamed and hugged her. She said Tom just proposed last night at a surprise weekend getaway in Connecticut during an intimate dinner. She was ecstatic as she told me the whole story with a smile that was obviously glued to her face, I was extremely happy for her. She then went on to tell me that they have been discussing

the possibility of adopting a baby born with HIV, again I screamed and hugged her. When I first met Mimi, she never thought she would be able to have a husband or family and now here she is engaged and talking about adopting. It seemed so fast from the first moment they met until now to be engaged and I mentioned my concern to Mimi but she said, "We are both HIV positive, I know we will most likely die young, we are going to live life to the fullest until then and be happy together and hopefully with a family." My response was, "Congratulations to you and Tom," I could not argue with her. Mimi said I was getting an invitation to the wedding which would take place in March of next year, I gave her a wink with a smile. The doctor finally came in and took care of Mimi's filling which went as planned, you never know with the rapid decay that can happen due to xerostomia and her lips were not dry today which also helped. I gave her a generous bag of Biotene products as usual to relieve her dry mouth symptoms. I hugged her good-bye and said I would see her next week, same time same place, she laughed.

Students taking the dental hygiene program today should be required to intern at a clinic with AIDS patients and other compromised patients for at least a year. These future health practitioners have to know how to deal with these patients with empathy and some of these students just really do not know how. They are taught everything in books and sometimes intern at a nice office with not so compromised patients. In my downtown office, we also have some students that come in to work on patients, they mostly work on other students. When I watch some of these students working I am mortified, some of them do not even say a word to the patient, they just work like robots and usually the patient looks extremely uncomfortable. I think by working on AIDS patients for a while, they will get to see all of the oral ramifications it causes and they will be forced to ask many more health questions which eventually will open their hearts to sympathize. They should know all of the HIV and AIDS symptoms that occur in the mouth because if an unknowing HIV patient comes in with one of these symptoms, the student should be able to detect it and send the patient for an HIV test. They should know the oral effects of some of these HIV medications so they will know how to treat the patient. Some would be Zidovudine which sometimes causes oral lichenoid, and Didanosine is usually known to cause xerostomia, these are a few I have learned from being at the hospital. The students can really learn a wealth of knowledge by working on HIV and AIDS patients for a year especially empathy. I think I may have a new thesis: In 2015 where HIV and AIDS still exist in our world without a cure and many people are walking around with this virus not even aware they have it should dental hygiene students continue learning in a clinic where they may run into maybe one or two HIV or AIDS patients or should they be required to do their training in an AIDS facility for at least a year so they will learn all of the symptoms of this disease so they can detect it later on in their own practices on a patient that does not know they have HIV/AIDS and to know all of the oral effects that some of these HIV medications cause so they know how to care for their patients.

"Some people come into our lives and quickly go. Some stay for a while, leave footprints on our hearts, and we are never, ever the same."

-Flavia Weedn

Lenny was only in my life for approximately six weeks but definitely left a footprint in my heart forever. I have now been at the hospital full time for a week and it is amazing. The patients that I have seen and what they have been through I cannot even describe which brings me back to my thesis. Dental hygiene students should absolutely experience working in a facility with AIDS patients so that they gain the experience identifying all of the oral symptoms and also have an opportunity to experience compassion for these compromised patients. Because, manifestations in the mouth is often an early sign of HIV infesi, this will lead to early detection for many patients.

I am seeing Mimi today, she is getting her last cavity filled and then she will be on a three month maintenance program. She comes in every three months, instead of the usual six months, for a cleaning and check-up because of her xerostomia which causes rapid tooth decay. The doctor is hoping by doing this so he can catch the decay sooner to fill a small cavity and prevent any future extractions. I had the room all set up for Mimi with the usual bag of Biotine products to give to her. I heard her walk in saying hello to everyone, she walked over and gave me a hug. She was her usual cheerful self and she looked absolutely incredible with a healthy glow on her face. Mimi said that she is continuing to take yoga four times a week and started heat yoga one day a week, she feels great and has more energy. She said she had dropped her Pilates class, it was not for her, she was just very bored during the routine. I sat Mimi down in the chair and the doctor came in to get her anesthetized, he left the room to give the Novocain some time to work. Mimi showed me a picture of the most gorgeous wedding dress I had ever seen, it was hers. She said it was a Pnina Tornai dress, which I have never heard of, but apparently is a huge designer of wedding dresses. She said that she purchased it at Kleinfeld Bridal on 20th Street, when she tried it on she said she cried. It had a beautiful corset top with glistening crystals all over and the bottom was a princess ball gown with breath taking crystal flowers everywhere. She decided not to wear a veil and wanted to put her hair up in a messy bun with baby breath all over her do. I told her she was going to look like a princess, she is so beautiful and this dress is only going to push her over the edge, she laughed. The doctor came in and started to proceed to prep the tooth for a filling, it all went as planned and the decay was about the same as the last visit, not any deeper. Mimi rinsed and stood up, I gave her the Biotine products and she said that we should do lunch one day, I said yes, of course and she left. Then I thought to myself, would this be a good idea, would I get too attached as I did with Lenny? But I am pretty attached to Mimi now, this is where I am trying to figure out that line, but I did say that sometimes we run across those people in our lives that we just click with and Lenny and Mimi were those people for me.

What sunshine is to flowers, smiles are to humanity. These are but trifles, to be sure; but, scattered along life's pathway, the good they do is inconceivable.

-Joseph Addison

Smile--that is what some of these dental hygiene students need to do with their patients because it really does make a difference to a person. Patients need to feel that their health care providers really care about them, engage in conversation, and show empathy towards patients. I truly believe this is our duty as health care providers to be nurturing and to be very much like a therapist and a lot of these students lack this quality.

In 2009 there was an estimated 48,100 new HIV infections and 21% were unaware that they were infected with this disease. Most of these people will never take an HIV test because they never envision that anything as horrific could happen to them. This is why it is so important to go to the dentist every six months, a health provider can see HIV/AIDS symptoms in a patient's mouth and send them for an HIV test if needed. We need to make sure that our future hygienists are able to identify these symptoms as soon as a patient sits in their chair. They should also be aware of medications that HIV/AIDS patients are taking and their side effects so that they know how to treat the patient. For example, Mimi has xerostomia, a dry mouth condition, this is due to one of the medications that she is taking for HIV. The health care provider has to know to use more water in any procedure and not to pull so hard with the mirror on the cheeks and lips because it will cause cracking on the lips and bruising on the cheeks. They also should know to always moisturize the patients lips right before starting a procedure and to always give samples of toothpaste, rinse and topical for dry mouth.

The dental hygienists of the future should be required to volunteer at an AIDS facility for one year before graduating. This will allow them to spot oral HIV/AIDS symptoms on a regular basis and they will become very familiar with the manifestations and the side effects of the drugs that these patients are taking. They will be able to save a life one day when an unaware patient sits in their chair and the hygienist spots an HIV/AIDS symptom and then sends them to be tested. This will help prolong a life if the HIV is caught before it turns into the direction of AIDS. Also by practicing at an AIDS facility for a year before graduating, these students will eventually show compassion towards their patients. A lot of HIV/AIDS patients are in pain or dying and most of them have incredible stories that they are usually wanting and willing to share with their health care providers, how could someone not be more sympathetic or nurturing. This is an experience that all the students should go through, it will make them that much better and stronger at their careers.

The ultimate objective of this paper is to make it mandatory that dental hygiene students must volunteer at a HIV/AIDS facility for one year prior to graduating. By doing this they will then be able to identify many oral symptoms of HIV/AIDS which will be very beneficial to the unaware HIV/AIDS patients, become familiar with all the medications taken and their side effects, to become more empathetic towards patients, and to make people aware how important it is to see a dental professional every six months for cleanings and check-ups because one day it may save a life.

I have learned a lot in doing this research paper which I never expected. I arranged it so I could work at the hospital one day a week and follow an AIDS and HIV patient for this research project, which later became close with. I have now transferred over to NYU Langone full time because I love the challenging work there. There are many more compromised patients at the hospital that really need a lot more attention and I need to have more patience with them. Had I not taken this class, I would never have had the opportunity to meet Mimi and Lenny or to pursue a career at the hospital. Thank you

Professor.

Every new beginning comes from some other beginning's end

-Seneca

Bibliography

Altman, Lawrence K. "AIDS and a Dentist's Secrets." *The New York Times*. The New York Times, 05 June 1993. Web. 08 Feb. 2015. <<http://www.nytimes.com/1993/06/06/weekinreview/aids-and-a-dentist-s-secrets.html>>.

Carter, Michael, and Greta Hughson. "Mouth Problems." *HIV & AIDS Information* :: NAM Publications, 30 May 2012. Web. 16 Feb. 2015. <http://www.aidsmap.com/Mouth-problems/page/1044711/>.

Cherney, Kristeen. "HIV Mouth Sores: What They Look Like and How to Treat Them." *HIV Mouth Sores: What They Look Like and How to Treat Them*. Healthline Networks, 17 Sept. 2013. Web. 22 Feb. 2015. <http://www.healthline.com/health-slideshow/hiv-mouth-sores#9>.

Cichocki, R.N. Mark. "HIV and Dental Care - Healthcare and Infections." *About Health*. About.com, 13 June 2014. Web. 22 Feb. 2015. http://aids.about.com/od/dentalinformation/a/dental_care.htm?utm_term=articles+on+hiv+and+the+oral+manifestations&utm_content=p1-main-4-title&utm_medium=sem-sub&utm_source=msn&utm_campaign=adid-78dfc960-a31c-4eca-b9d5-076123332c9f-0-ab_msb_ocode-12617&ad=semD&an=msn_s&am=broad&q=articles+on+hiv+and+the+oral+manifestations&dq=&o=12617&l=sem&qsrc=1&askid=78dfc960-a31c-4eca-b9d5-076123332c9f-0-ab_msb.

CDC. "Basic Statistics." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 25 Nov. 2014. Web. 06 Feb. 2015. <<http://www.cdc.gov/hiv/basics/statistics.html>>.

Chris, Dr. "Kaposi Sarcoma (Cancer) in AIDS and HIV Negative Patients FAQ." *Healthhypecom*. Healthhype.com, 5 Jan. 2015. Web. 01 Mar. 2015. <http://www.healthhype.com/kaposi-sarcoma-cancer-in-aids-and-hiv-negative-patients->

[faq.html](#).

Johnson, Bonnie. "A Life Stolen Early." - *HIV/AIDS, Battling Illnesses, Coping and Overcoming Illness : People.com*. People, 22 Oct. 1990. Web. 16 Feb. 2015.
<http://www.people.com/people/archive/article/0,,20113381,00.html>.

Derrer, David T., MD. "AIDS, HIV Medications Chart: Brands, Uses, Effects, Dosage, & More." *WebMD*. WebMD, 16 Aug. 2014. Web. 06 Apr. 2015.
<http://www.webmd.com/hiv-aids/guide/aids-hiv-medication>.

Johnson, NW. "The Mouth in HIV/AIDS: Markers of Disease Status and Management Challenges for the Dental Profession." *Australian Dental Journal*. Australian Dental Association, 21 May 2010. Web. 1 Mar. 2015.
<[http%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2F10.1111%2Fj.1834-7819.2010.01203.x%2Ffull](http://onlinelibrary.wiley.com/doi/10.1111/j.1834-7819.2010.01203.x)>.

Lincoln, Abraham. "Life Quotes." *BrainyQuote*. Xplore, 2001. Web. 26 Feb. 2015.
http://www.brainyquote.com/quotes/topics/topic_life.html.

Bryant. "Change at FinestQuotes.com." *FinestQuotes*. Finestquotes.com, n.d. Web. 11 Apr. 2015. http://www.finestquotes.com/select_quote-category-Change-page-0.htm.

NIDCR. "Mouth Problems and HIV." *Mouth Problems and HIV*. National Institute of Health, 1 Aug. 2014. Web. 22 Feb. 2015.
<http://www.nidcr.nih.gov/OralHealth/Topics/HIV/MouthProblemsHIV/>

Nordqvist, Christian. "What Is Dry Mouth (xerostomia)? What Causes Dry Mouth?" *Medical News Today*. MediLexicon International, 05 May 2010. Web. 16 Feb. 2015.
<http://www.medicalnewstoday.com/articles/187640.php>.

"Opportunistic Infections (OIs)." *Opportunistic Infections (OIs)*. AIDSmeds, 07 Jan. 2011. Web. 08 Feb. 2015. <http://aidsmeds.com/articles/OIs_4898.shtml>.

Palmolive, Colgate. "Dental Problems Associated with HIV/AIDS." *Dental Problems Associated with HIV/AIDS*. Colgate, 1 Jan. 2015. Web. 01 Mar. 2015.
<http://www.colgate.com/app/CP/US/EN/OC/Information/Articles/Oral-and-Dental-Health-Basics/Medical-Conditions/HIV-AIDS-and-Oral-Health/article/Dental-Problems-Associated-with-HIV-AIDS.cvsp>.

Paz, Octavio, Eliot Weinberger, and Elizabeth Bishop. *The Poems of Octavio Paz*. New York: New Directions, 2012. Print.

Anthony J., DrPH, Susan H. Davide, RDH, MS, MEd, Marilyn Cortell, RDH, MS, FAADH, Winnie Furnari, RDH, MS, FAADH, and Janet Tuthill, RDH, MA. "The Role of Dental Hygienists in Conducting Rapid HIV Testing." *The Role of Dental Hygienists in Conducting Rapid HIV Testing*. The Journal of Dental Hygiene, Fall 2012. Web. 26 Apr. 2015.

http://www.academia.edu/2647850/The_Role_of_Dental_Hygienists_in_Conducting_Rapid_HIV_Testing.

Shilts, Randy. *And the Band Played On: Politics, People, and the AIDS Epidemic*. New York: St. Martin's, 1987. Print.

University of Chicago. "Shape-shifting molecule tricks viruses into mutating themselves to death." ScienceDaily. ScienceDaily, 15 April 2015.

www.sciencedaily.com/releases/2015/04/150415103150.htm.