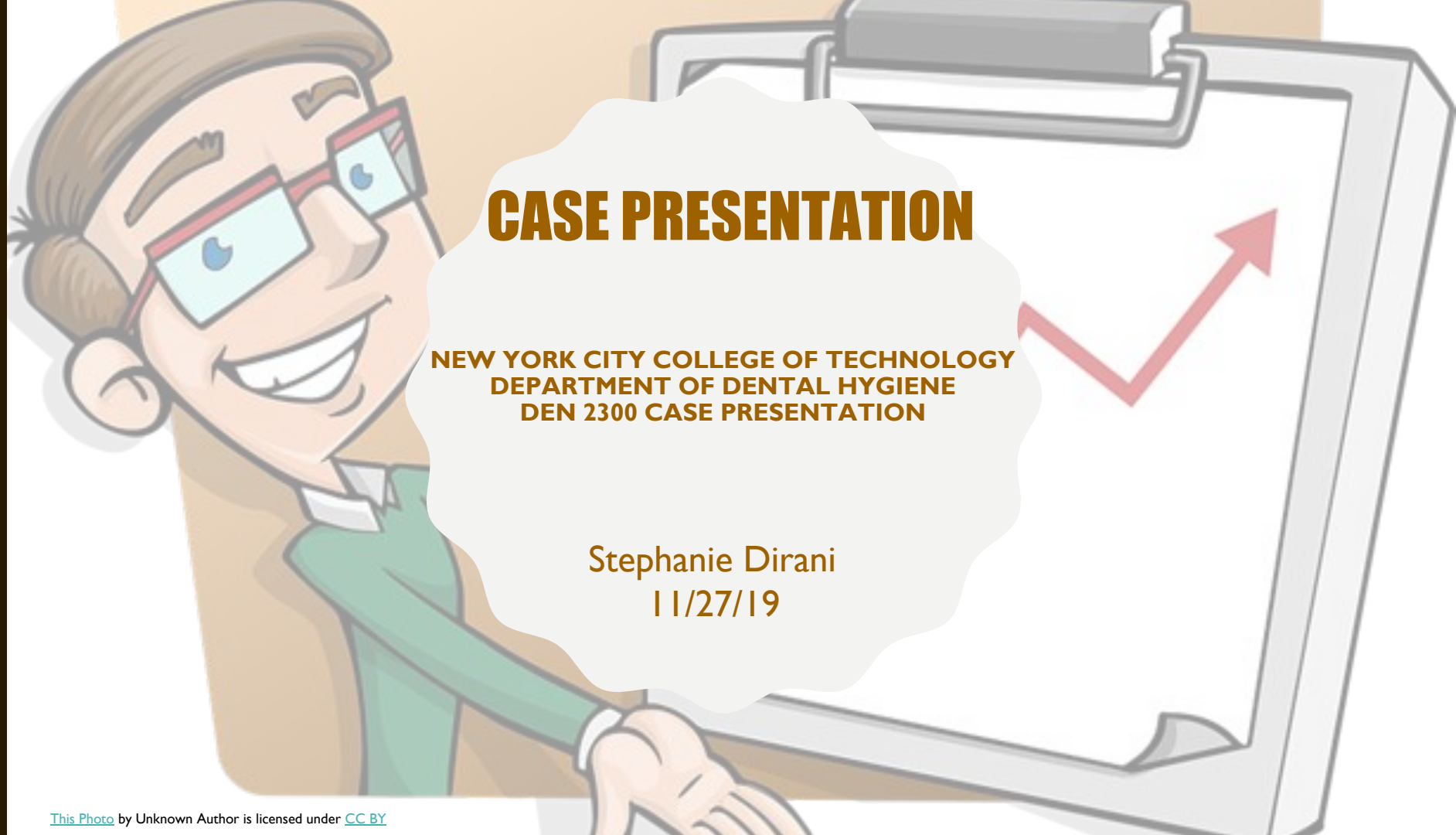


CASE PRESENTATION

NEW YORK CITY COLLEGE OF TECHNOLOGY
DEPARTMENT OF DENTAL HYGIENE
DEN 2300 CASE PRESENTATION

Stephanie Dirani
11/27/19

PATIENT PROFILE

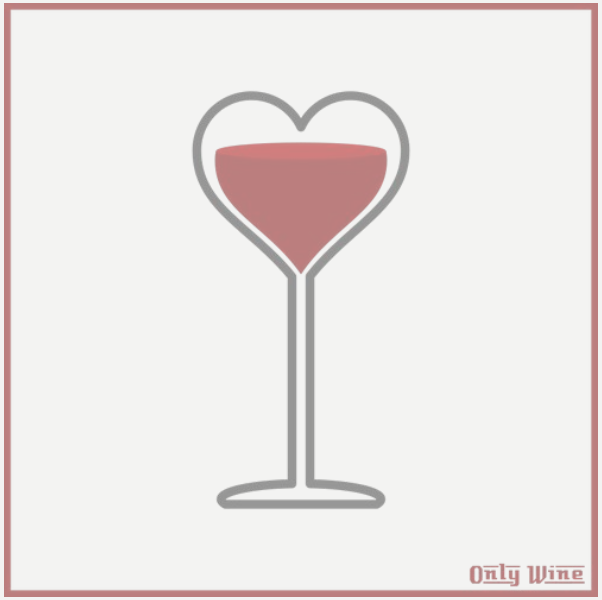
- Mr. M. is a 60 Year-old, single Caucasian male.
- Middle-class, moved to Vermont last month and works as a classical bassist for an orchestra. He has ½ a L of whiskey every night and occasionally smokes a cigar. He currently pays out-of-pocket for dental care when he travels to Florida to his dental home, but always comes to NYCCT to for his dental cleanings.
- His last dental exam was May 2019 at which he had a Bite-Wing series taken.
- Patient states brushing 1 time per day with a Sonicare brush, using regular OTC toothpaste (alternates between different brands), uses floss picks multiple times a day, and brushes his tongue occasionally.

CHIEF COMPLAINTS

Pt had multiple chief complaints:

- Pt states: “My tongue gets sore every once in a while near the back where my molars are. My dentist smoothed them out a little, which helped a little bit… I want to make sure the lesion on my tongue hasn’t changed…I’m here for a cleaning.”
- The pt appears to be on top of things when it comes to his dental health. He had previously been referred to an oral surgeon to get a biopsy done on his tongue and immediately did it. The pt was concerned about his tongue being sore near the base due to slight discomfort from it, and other than making sure he receives regular dental cleanings, he maintains a regular checkup on his oral pathology to make sure it doesn’t progress to anything more serious.

HEALTH HISTORY OVERVIEW



Blood Pressure: 143/75, Pulse 94, ASA II

Medical Conditions:

- Pt drinks ½ a liter of whiskey daily
- Controlled Hypertension

Current Medications:

- 1 pill Telmisartan 80 mg/day for treatment of hypertension.
- 1 pill Amlodipine 30 mg/day for treatment of hypertension.

EXPLANATION OF CONDITIONS

- **Hypertension**

"condition in which there is a sustained elevation of resting systolic BP (≥ 140 mm Hg), diastolic BP (≥ 90 mm Hg)"

  - Risk Factors: Diabetes, Smoking, Alcohol Consumption, Obesity, Elevated Cholesterol

- **There is no known Etiology for HBP.**

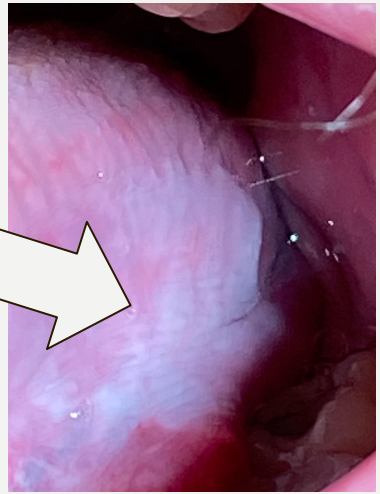
	Blood Pressure Level (mmHg)			
Category	Systolic		Diastolic	Description
Normal	< 120	and	< 80	Normal BP or rare BP elevations AND no identifiable CVD
Stage 1	120-139	or	80-89	Occasional or intermittent BP elevations **OR** early CVD
Hypertension (High Blood Pressure)				
Stage 2 Hypertension	140–159	or	90–99	Sustained BP elevations **OR** progressive CVD
Stage 3 Hypertension	≥160	or	≥100	Marked **and** sustained BP elevations OR advanced CVD

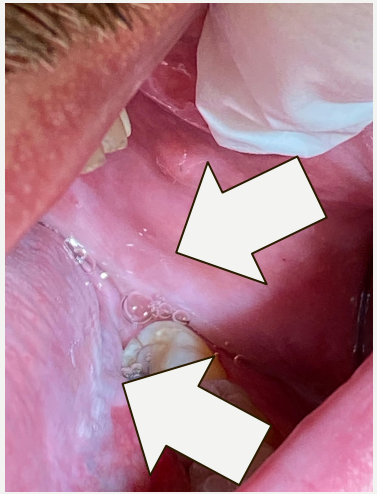
- **Symptoms are not common which is why HBP is called the silent killer. Symptoms can include: Headache, Visual Blurring, Tinnitus, Dizziness.**

Archer, Maureen. "Patients with Cardiovascular Disease In the Dental Environment." Powerpoint. 2019.

Flamer-Caldera, Lorna. "Cardiovascular Drugs Part 1." Powerpoint. 2019.

EXPLANATION OF CONDITIONS





- Leukoplakia
  - An oral lesion that doesn't wipe off. A biopsy is required to know the etiology if antifungals don't have a therapeutic effect.
- Symptoms can include a fungal infection, a white chronic hyperplastic lesion that doesn't wipe off.

Cohen-Brown, Gwen. "Mucous Membrane Diseases". Powerpoint. 2019.

HOW CONDITION IS MANAGED

Hypertension

Can be managed by :

- Weight reduction
- Decrease sodium/fat in the diet
- Decrease alcohol consumption
- Exercise
- Relaxation techniques (Yoga), stress reduction, meditation
- Stop smoking
- Medication

Pt is managing his hypertension with medication and a change in diet.
Pt is managing his Leukoplakia with regular clinical checkups and biopsies.

Archer, Maureen. "Patients with Cardiovascular Disease In the Dental Environment." Powerpoint. 2019.

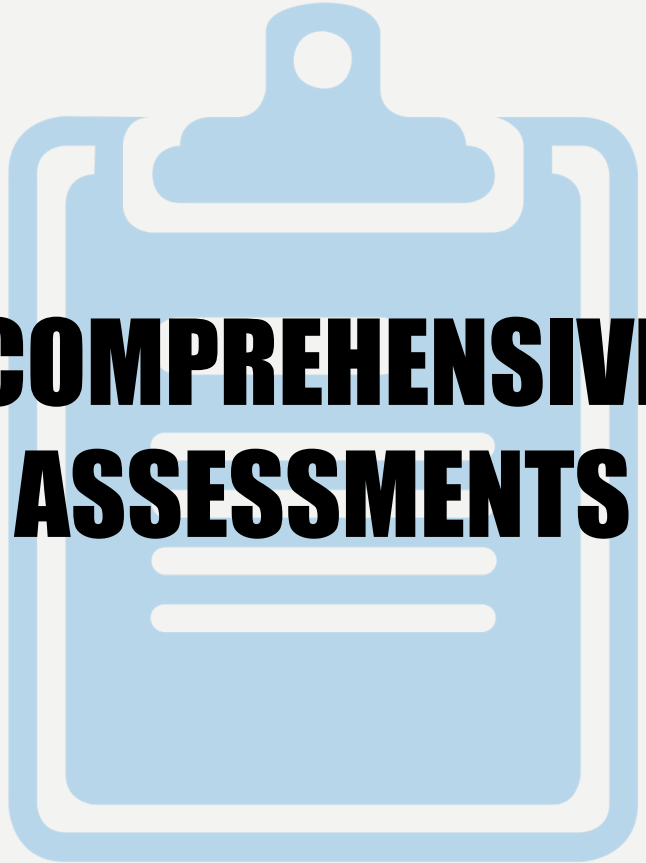
Flamer-Caldera, Lorna. "Cardiovascular Drugs Part 1." Powerpoint. 2019.

DENTAL HYGIENE MANAGEMENT

- For a pt on Hypertension medication, like Mr.M, it is important to be careful of orthostatic hypotension. Other symptoms that cause dental implications related to CCBs and Angiotensin II Blockers include:
  - Xerostomia
  - Dysgeusia
  - Gingival Enlargement (Pts on Amlodipine report fewer occurance of hyperplasia)
  - Meticulous oral Hygiene
  - Frequent recall appointments
- When orthostatic hypotension is a factor, you must keep in mind to raise and lower the pt slowly. Let the pt sit for a couple of minutes until their BP regulates.
- It is important to have meticulous oral hygiene and frequent recall appointments if the patient has gingival enlargement. It's also important because xerostomia increases risk of caries and other oral issues such as fissured tongue or halitosis.

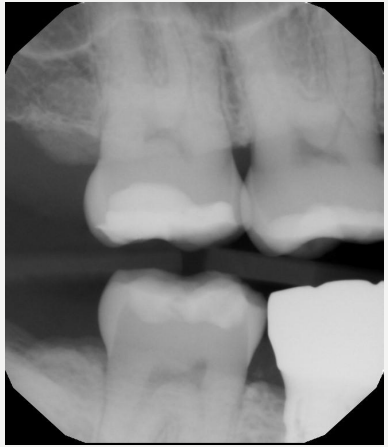
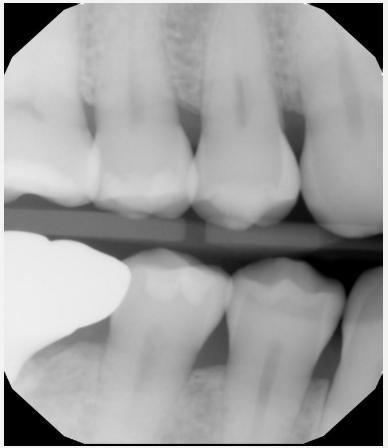
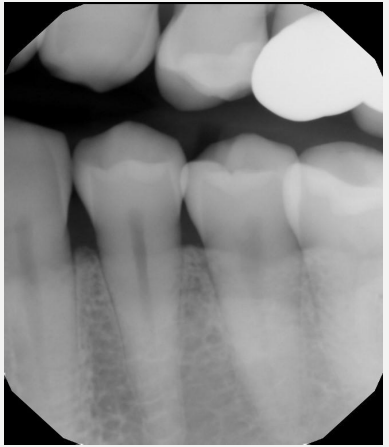
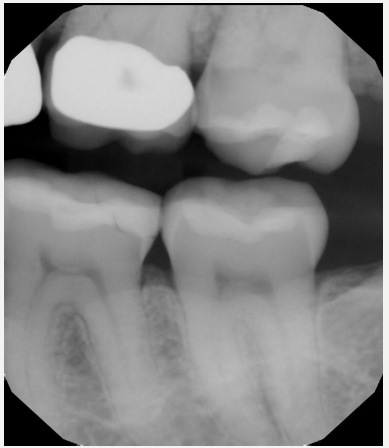
Jr., Alfred D. Wyatt. "Oral Side Effects of Medications: Metallic Taste, Bleeding, and Swelling." *WebMD*, WebMD, 15 Aug. 2018, www.webmd.com/oral-health/guide/oral-side-effects-of-medications#1.

Crossley, DDS, MS, PhD, Harold l, et al. *Drug Information Handbook for Dentistry.* Wolters Kluwer Clinical Drug Information, Inc., 2018.

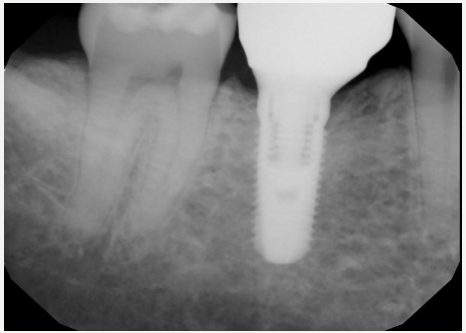


COMPREHENSIVE ASSESSMENTS

RADIOGRAPHS

1 set of BWS and a PA of implant taken on 5/14/18 at the office of Sandy Rosenberg DMD.



SUMMARY OF CLINICAL FINDINGS

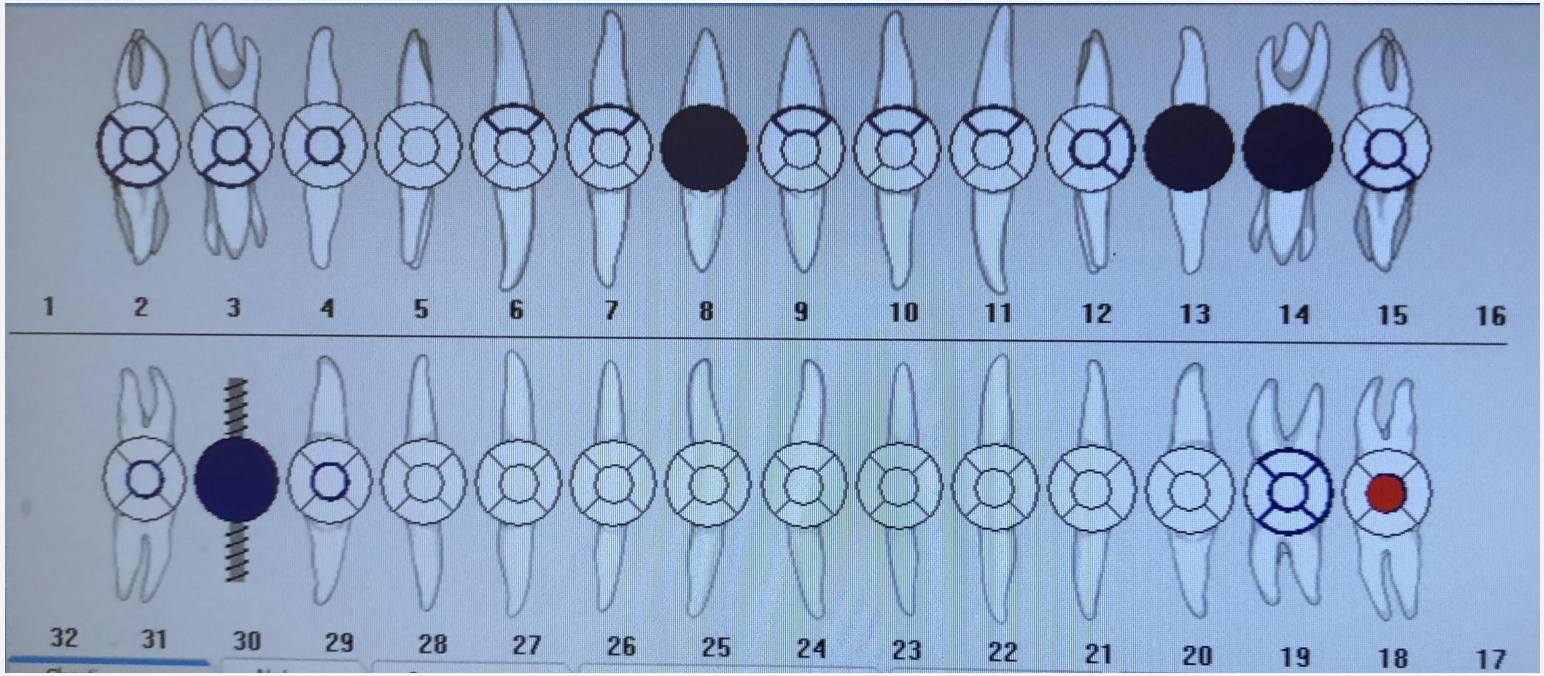
EO: WNL. Pt has generalized red and brown macules all over head and neck area. Pt gets a regular checkup 1-2x a year at the dermatologist for them.

IO: Pt has bilateral white striations on buccal mucosa consistent with lichen planus Wickham's striae, leukoplakia on lateral borders of the tongue, more prominent on the left side. Pt had it biopsied in 2017 with negative results. Pt has ankyloglossia, palatal torus, and mandibular bilateral tori. Pt has hairy tongue near the base, white in color and coated tongue. Pt has a post nasal drip which causes constant clearing of throat and results in redness and irritation.

Occlusion: Bilateral Class I, overjet 3mm and overbite of 25%. Pt has attrition on anterior teeth, #14 L and #30 O.

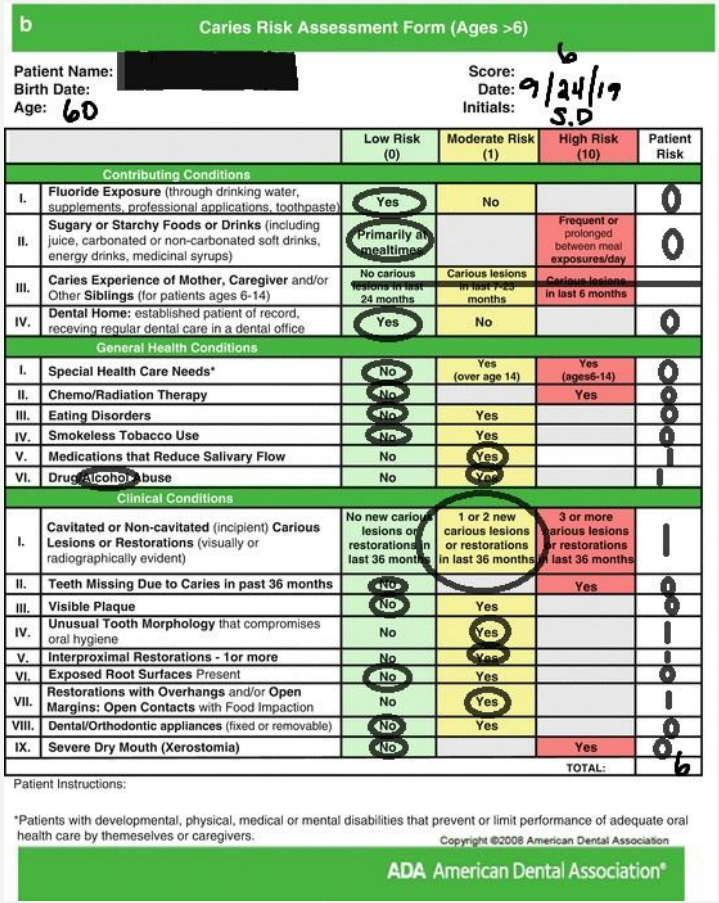
Pt has moderate subgingival deposit, minimal to moderate supragingival deposits, and tenacious moderate stain. Pt was classified as a M/ Type I (Radiographs were received after pt was assessed and completed. This is significant for DH Diagnosis in slide 16)

DENTAL CHARTING



-Multiple Class V restorations on #s 6, 7, 9, 10, 11.
-Class I and/or II on #s, 2-4, 12, 15, 19, 29, 31.
-Implant on # 30.
-PFM on tooth #s 8, 13, 14.
-Recurrent decay on # 18 O due to open occlusal margins.

CARIES RISK ASSESSMENT



b

Caries Risk Assessment Form (Ages >6)

Patient Name: [redacted]
Birth Date:
Age: 60

Score: 6
Date: 9/24/19
Initials: S.D

		Low Risk (0)	Moderate Risk (1)	High Risk (10)	Patient Risk
Contributing Conditions					
I.	**Fluoride Exposure** (through drinking water, supplements, professional applications, toothpaste)	Yes	No		0
II.	**Sugary or Starchy Foods or Drinks** (including juice, carbonated or non-carbonated soft drinks, energy drinks, medicinal syrups)	Primarily at mealtimes		Frequent or prolonged between meal exposures/day	0
III.	**Caries Experience of Mother, Caregiver** and/or Other **Siblings** (for patients ages 6-14)	No carious lesions in last 24 months	Carious lesions in last 7-23 months	Carious lesions in last 6 months	
IV.	**Dental Home:** established patient of record, receving regular dental care in a dental office	Yes	No		0
General Health Conditions					
I.	**Special Health Care Needs***	No	Yes (over age 14)	Yes (ages6-14)	0
II.	**Chemo/Radiation Therapy**	No		Yes	0
III.	**Eating Disorders**	No	Yes		0
IV.	**Smokeless Tobacco Use**	No	Yes		0
V.	**Medications that Reduce Salivary Flow**	No	Yes		1
VI.	**Drug/Alcohol Abuse**	No	Yes		1
Clinical Conditions					
I.	**Cavitated or Non-cavitated** (incipient) **Carious Lesions or Restorations** (visually or radiographically evident)	No new carious lesions or restorations in last 36 months	1 or 2 new carious lesions or restorations in last 36 months	3 or more carious lesions or restorations in last 36 months	1
II.	**Teeth Missing Due to Caries in past 36 months**	No		Yes	0
III.	**Visible Plaque**	No	Yes		0
IV.	**Unusual Tooth Morphology** that compromises oral hygiene	No	Yes		1
V.	**Interproximal Restorations - 1or more**	No	Yes		1
VI.	**Exposed Root Surfaces** Present	No	Yes		0
VII.	**Restorations with Overhangs** and/or **Open Margins: Open Contacts** with Food Impaction	No	Yes		1
VIII.	**Dental/Orthodontic appliances** (fixed or removable)	No	Yes		0
IX.	**Severe Dry Mouth (Xerostomia)**	No		Yes	0
				TOTAL:	6

Patient Instructions:

*Patients with developmental, physical, medical or mental disabilities that prevent or limit performance of adequate oral health care by themselves or caregivers.

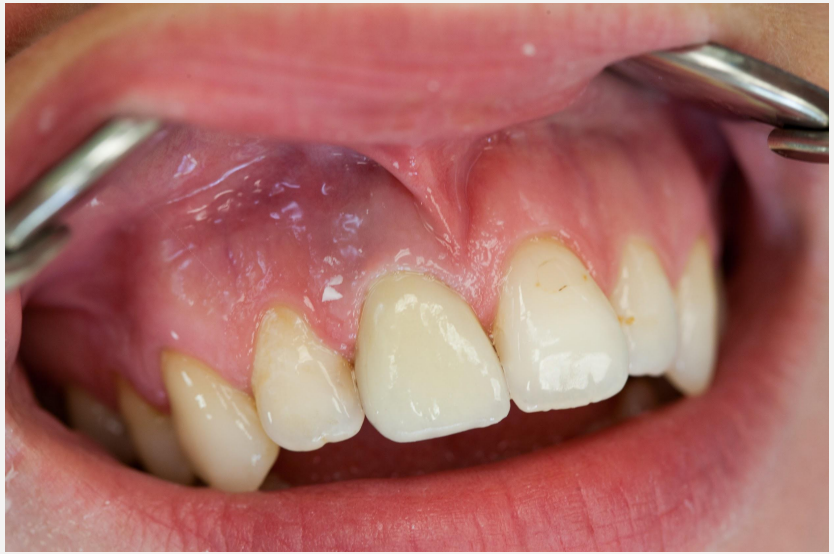
ADA American Dental Association®

- Recurrent Decay was clinically seen on # 18 O.
- BWS provided by the pts Dental office aren't the best for diagnostic use due to film placement and horizontal overlap. No carious evidence radiographically.

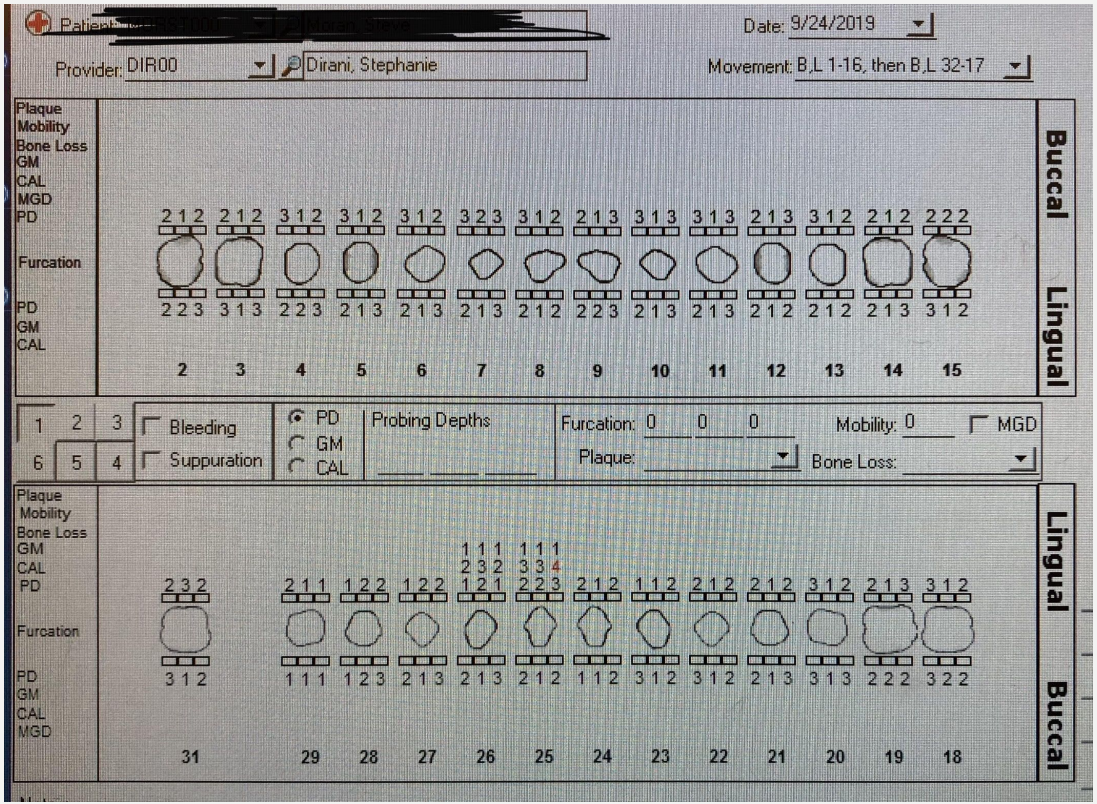
GINGIVAL DESCRIPTION & PERIODONTAL STATUS

Gingival Description: Pt has generalized minimal redness and inflammation, gingiva is moderately inflamed localized on the lingual surfaces with generalized 1-2 mm lingual recession.

Pt was classified as a Type I based on PD (radiographs were not available at time of appt)



PERIODONTAL CHARTING



The pt's perio charting is within the margin of healthy probing depths. With readings of 1-3 mm It's what we like to see.

The PD match the minimal bone loss we can see in the radiographs.

The pt didn't have any BOP but had minimal generalized inflammation with some moderate inflammation on the linguals.

Although the pt has good PD he does have localized recession on #25-26 L.

DENTAL HYGIENE DIAGNOSIS

- The pt presents with 3 conditions, 2 that are part of a dental hygiene diagnosis and 1 that can be identified as a possible condition but needs to be evaluated by a specialist.
- The 3 conditions are:
  - Moderate Caries Risk due to CAMBRA, the number of restorations the pt has, and 1 active caries on # 18 O.
  - After reviewing radiographs, pt has Early Type II Periodontitis due to minimal bone loss, PD are 1-3mm with a localized 4mm on #25 M, with no BOP. Therefore, disease is stable.
  - The third condition is the Leukoplakia. It is clinically visible, and based on notes from the last visit it doesn't appear to have changed. The pt was referred to an oral surgeon to re-evaluate and biopsy the lesion to make sure there are no histological changes since his last biopsy in 2017.

DENTAL HYGIENE CARE PLAN

The DH care plan has to be threefold. It needs to address the bone loss, caries, and the leukoplakia of my pt.

1. The pts Periodontal status is stable due to no BOP. However, the pt does have an implant, and although there is no BOP, we still want to maintain the best standard of care to make sure that nothing activates the disease which can potentially cause the implant to fail. The radiographs show that there is some bone loss around the implant already. The steps to keep the disease stable revolve around recare appointments and OHI. During the oral interview, the pt stated that he doesn't clean around the implant except with a toothbrush. During OHI the pt was instructed to use floss specific for implants to make sure biofilm is properly disrupted and removed, not just from the crown of the implant but also underneath and around the implant itself. It is a big part of pt management in the long run because it is more stressful for the pt to have a failed implant and undergo a surgical procedure to remove it as well as the steps following to resolve the results of a failed implant. Other than OHI, there's also what needs to be done at the hygiene office. Regular cleanings are important, and specifically when it comes to the implant, it is important to make sure that the appropriate instruments are used to avoid damaging the titanium implant. A plastic probe to keep track of any bone loss around the implant, a plastic tip on the ultrasonic, and titanium hand instruments to avoid scratching the implant. To maintain the health of the rest of the mouth, it is important to properly debride all the surfaces of each tooth with the use of an ultrasonic and hand scaling. By having regular cleanings and controlling biofilm build up regularly, the disease can be maintained as stable.

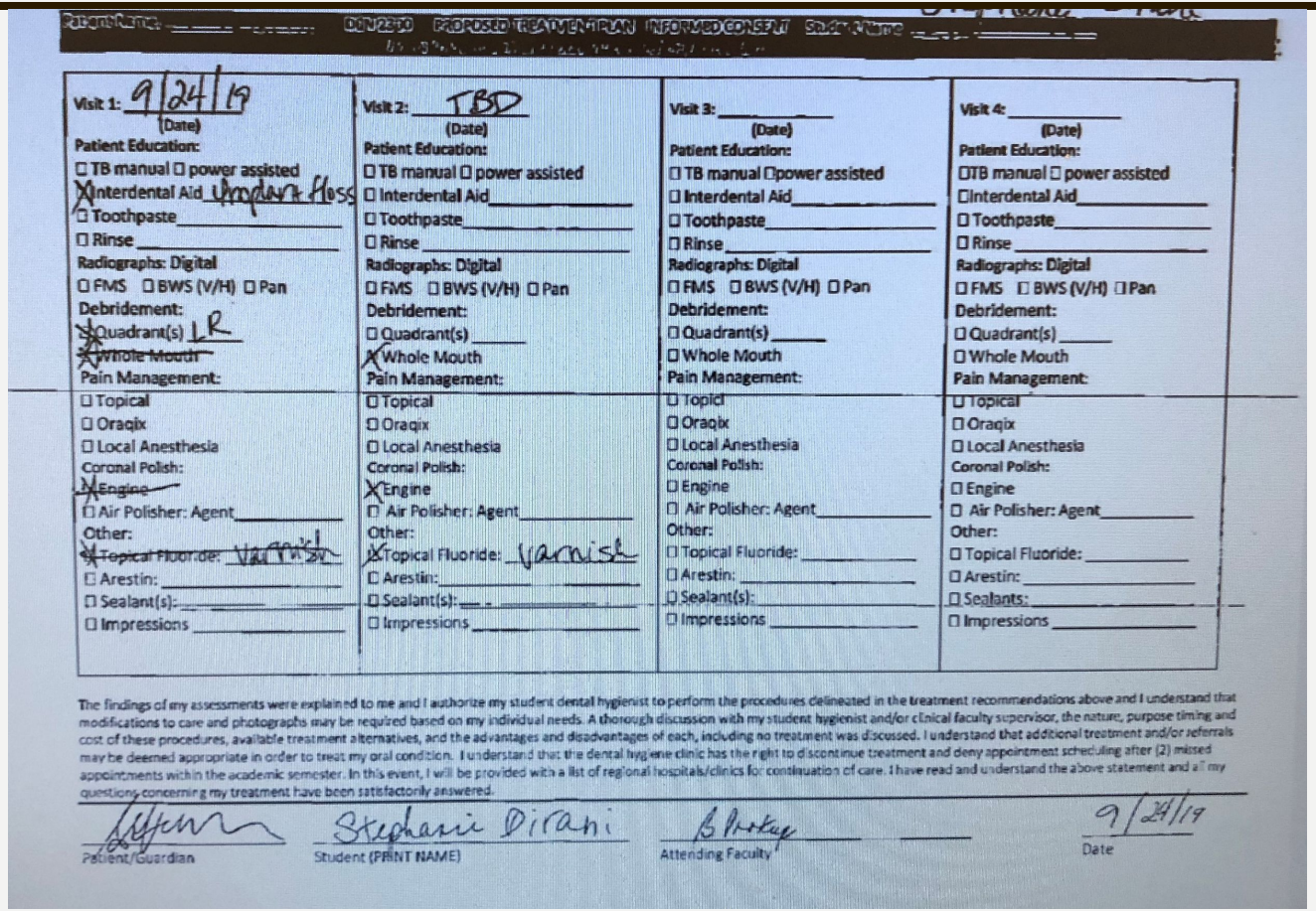
DENTAL HYGIENE CARE PLAN

2. The pt is at moderate caries risk, due to medication that can cause Xerostomia, alcohol use, an active carie, tooth morphology and restorations with open margins that increase plaque retention. OHI plays a factor here as well. But more importantly, eating habits play a role too. In regards to this pt, he has multiple restorations and a recurrent decay on the occlusal of # 18. This is due to the open margins on the restoration and plaque retention. With that in mind, there is also the fact that the pt has ½ a liter of whiskey daily. The constant exposure to the carbohydrates and sugars in alcohol means a constant drop in the pH of the oral cavity. This makes the pt susceptible to decay. The pt also has ankyloglossia, also known as a short lingual frenum. This impedes the self-cleansing mechanism of the pts tongue. It may or may not be a factor as to why the only teeth that don't have any restorations are the mandibular anteriors which are easily reached by the tongue. Regardless, it does play a factor in increasing the pts caries risk.
The solution to resolve this would be, OHI for the plaque retention to make sure that the occlusal is being brushed properly until the pt gets the restoration evaluated and restored by a dentist. With the number of restorations the pt has in his mouth, it would be best to consider a change in the pts drinking habits, not just for his oral health but for his general health as well. Other than dietary changes, the pt should be on a fluoride rinse, fluoride varnish 5% treatment, and be given a referral to see a dentist before the caries progress.

DENTAL HYGIENE CARE PLAN

3. The third part of the dental Hygiene care plan addresses the leukoplakia. There isn't much we can do as a hygienist in the office. The main thing is to track any physical changes in the lesion. The best way is to keep documentation such as pictures and a written description of the lesion, as well as what the pt is feeling in the area of the lesion. The clinician should also make sure that the lesion isn't interfering with normal function. The lesion should always be evaluated by the dentist and the pt given a referral for a biopsy with an oral surgeon. This is to determine what the lesion is being caused by and to determine the treatment if applicable.

CONSENT FOR TREATMENT/TREATMENT PLAN



PATIENT NAME: _____ DDN 2330 PROPOSED TREATMENT PLAN INFORMED CONSENT STUDENT NAME: _____

Visit 1: 9/24/19 (Date)	Visit 2: TBD (Date)	Visit 3: _____ (Date)	Visit 4: _____ (Date)
Patient Education:	**Patient Education:**	**Patient Education:**	**Patient Education:**
☐ TB manual ☐ power assisted	☐ TB manual ☐ power assisted	☐ TB manual ☐ power assisted	☐ TB manual ☐ power assisted
X Interdental Aid Implant Floss	☐ Interdental Aid _____	☐ Interdental Aid _____	☐ Interdental Aid _____
☐ Toothpaste _____	☐ Toothpaste _____	☐ Toothpaste _____	☐ Toothpaste _____
☐ Rinse _____	☐ Rinse _____	☐ Rinse _____	☐ Rinse _____
Radiographs: Digital	**Radiographs: Digital**	**Radiographs: Digital**	**Radiographs: Digital**
☐ FMS ☐ BWS (V/H) ☐ Pan	☐ FMS ☐ BWS (V/H) ☐ Pan	☐ FMS ☐ BWS (V/H) ☐ Pan	☐ FMS ☐ BWS (V/H) ☐ Pan
Debridement:	**Debridement:**	**Debridement:**	**Debridement:**
X Quadrant(s) LR	☐ Quadrant(s) _____	☐ Quadrant(s) _____	☐ Quadrant(s) _____
X ~~Whole Mouth~~	X Whole Mouth	☐ Whole Mouth	☐ Whole Mouth
Pain Management:	**Pain Management:**	**Pain Management:**	**Pain Management:**
☐ Topical	☐ Topical	☐ Topical	☐ Topical
☐ Oraqix	☐ Oraqix	☐ Oraqix	☐ Oraqix
☐ Local Anesthesia	☐ Local Anesthesia	☐ Local Anesthesia	☐ Local Anesthesia
Coronal Polish:	**Coronal Polish:**	**Coronal Polish:**	**Coronal Polish:**
X ~~Engine~~	X Engine	☐ Engine	☐ Engine
☐ Air Polisher: Agent _____	☐ Air Polisher: Agent _____	☐ Air Polisher: Agent _____	☐ Air Polisher: Agent _____
Other:	**Other:**	**Other:**	**Other:**
X ~~Topical Fluoride:~~ Varnish	X Topical Fluoride: Varnish	☐ Topical Fluoride: _____	☐ Topical Fluoride: _____
☐ Arestin: _____	☐ Arestin: _____	☐ Arestin: _____	☐ Arestin: _____
☐ Sealant(s): _____	☐ Sealant(s): _____	☐ Sealant(s): _____	☐ Sealants: _____
☐ Impressions _____	☐ Impressions _____	☐ Impressions _____	☐ Impressions _____

The findings of my assessments were explained to me and I authorize my student dental hygienist to perform the procedures delineated in the treatment recommendations above and I understand that modifications to care and photographs may be required based on my individual needs. A thorough discussion with my student hygienist and/or clinical faculty supervisor, the nature, purpose timing and cost of these procedures, available treatment alternatives, and the advantages and disadvantages of each, including no treatment was discussed. I understand that additional treatment and/or referrals may be deemed appropriate in order to treat my oral condition. I understand that the dental hygiene clinic has the right to discontinue treatment and deny appointment scheduling after (2) missed appointments within the academic semester. In this event, I will be provided with a list of regional hospitals/clinics for continuation of care. I have read and understand the above statement and all my questions concerning my treatment have been satisfactorily answered.

Patient/Guardian — Stephanie Dirani (Student (PRINT NAME)) — Attending Faculty — 9/24/19 (Date)

IMPLEMENTATION OF TREATMENT

As discussed in the DH care plan, the following treatments were implemented:

1. OHI: Yarn floss to clean around the implant to prevent plaque retention and eventual bone loss.
2. Regular use of a fluoride rinse with clinical fluoride varnish applications due to moderate caries risk and to allow for remineralization as well as possibly arrest any decay.
3. Significant decrease in alcohol consumption to decrease caries risk, and help improve the leukoplakia due to the fact that alcohol is a risk factor. This will also help in improving HBP.
4. Debridement of whole mouth to maintain optimal oral health by disrupting and removing biofilm, stain, and tartar buildup to decrease plaque retentive factors.

IMPLEMENTATION OF TREATMENT

Visit 1: Ultrasonic and hand scaling of LR quadrant.

Visit 2: Ultrasonic and hand scaling of UR/UL/ LL quadrants.

I had 2 challenges when debriding this pt:

1. Removing tough stain.
2. Moving the tongue out of the way in order to scale the lingual surfaces.

The pts tongue is quite large, therefore I was constantly wrestling with it, but there's also the ankyloglossia which limited moving it for access to the anterior linguals.

The pt is larger in general and over 6ft tall. My biggest challenge was staying ergonomic. I couldn't get the chair low enough and if I raised mine, I didn't have enough strength from my legs. Mainly this issue impeded my work when trying to work on the mandible. I was able to work on the maxilla when sitting because the pt is normally supine. This brings me to the next thing. It's not so much a challenge with pts under 6 ft that are smaller all around. Because the pt has HBP and is on medication. I have to beware of orthostatic hypotension. This also added to the challenge of not being able to have the patient low enough to work on the mandible.

EVALUATION OF CARE – OUTCOME OF CARE - PROGNOSIS

- The pt came for a total of two visits for completion of his treatment. Although the pt couldn't come back for a re-evaluation after the completed cleaning, I can predict that I would have had similar findings after completion based on his improvement from the first cleaning.
- When the pt came in for Visit 2, the gingival tissue had improved in the LR quadrant overall, but there was still some inflammation on the lingual side. This can be expected due to the number of crowns in that quadrant. Crown margins can increase inflammation commonly because plaque builds up along that margin. There can also be the factor of irritation from poor margins. With this in mind, and the kinds of restorations the pt has in other quadrants, I believe there will be a decrease in inflammation and that the prognosis for the perio is that it will remain stable based on how often the pt comes to recalls. Caries should be easily managed with the restoration of the recurrent decay and in combination with fluoride rinse and varnish, occurance of new decay should be lower. With frequent check ups, regular biopsies, and management of the leukoplakia, there should be little change in it's status considering that there is no immunocompromise or major changes with the pt. But, the prognosis of pathology such as that is better determined by a specialist who knows more about it. As a hygienist, as long as I do my part of properly documenting the lesion and assisting with pt management, I can help make the prognosis a more positive one.

REFERRALS

Pt was given a referral for three things:

1. Implant evaluation with a dentist due to bone loss around it
2. Evaluation of Recurrent decay on #18 O with a dentist.
3. Biopsy of leukoplakia with an oral surgeon since it has been 2 years since the last one and time for the pts recall with the doctor.

CONTINUED CARE RECOMMENDATIONS

I recommended a 3 month recare due to multiple factors:

1. To regularly monitor the pt due to the systemic disease of hypertension. The pts HBP can become uncontrolled and the pt may need alterations in medication, but my role as a hygienist is also to make sure that the medication isn't compromising the pts oral health due to the fact that it can cause xerostomia, that combined with the ankyloglossia increases risks of caries, plaque retention, and other oral diseases due to loss of a self-cleaning mechanism.
2. Regularly monitor the leukoplakia and make sure there aren't any clinical changes. Change can happen in as little as a week, but weekly visits are unrealistic.
3. The rate at which the tartar and stain buildup on the pts teeth. The pt does have an implant and the last thing he needs is tartar to just sit there, increasing plaque buildup and furthering the bone loss. Other than the implant, there are multiple restorations and crowns to consider. All those restorations can possibly lead to recurrent or even new decay and it is best to catch them early in order to arrest or restore if necessary. Especially with the pts moderate caries risk.

FINAL REFLECTION

I feel that I covered everything I did and the rationale for it in previous slides. With that being said, there isn't much I would change about what I did. The only thing now that I look back at, is that I may have overwhelmed the pt with home care instruction. When we were waiting for the professor to come for a check in for my treatment plan during the first visit, I didn't want to just sit there and not do anything. My notes were typed up, everything I needed to do was done. I had a discussion with the pt about home care and explained how biofilm works and what it is. I then discussed the importance of the "brush, floss, rinse" method because I felt it would be beneficial to the pt due to all the factors of his oral health discussed throughout this presentation. I didn't squeeze all the information into 5 min, I had at least 15 min of discussion with the pt, stopping and asking if he had any questions and if he understood. During the time, I didn't feel like it was too much because of the time we had and how I approached it by asking if he was understanding what I was telling him or if there were questions. I also knew that we usually do one thing at a time with OHI. But, the questions he was asking me could be answered by introducing all three methods of homecare. It wasn't until the second visit when I was reviewing my notes that the professor said it was too much. I wouldn't change the way that it happened but if the situation was different such as in private office where you can have the pt easily come back for a short appt vs a 4 hour appt. It could easily be spread out into multiple conversations.

One other thing is that I wish the intraoral cameras were working so that I could get a really good photo of the leukoplakia.