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

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**12/14/2019**

# PATIENT PROFILE

- Mr. J.G. is a 62 year old year-old African American male.
- Middle-class, lives with his wife and two children. He currently has dental insurance and a dental home.
- His last dental exam was about 1 year ago. Mr. JG does not recall the last time he received any x-rays because it was a long time ago.
- Patient states brushing 1-2 times per day with a power toothbrush, using Crest toothpaste, flosses daily, and rinses with Listerine antiseptic oral rinse.

# CHIEF COMPLAINT

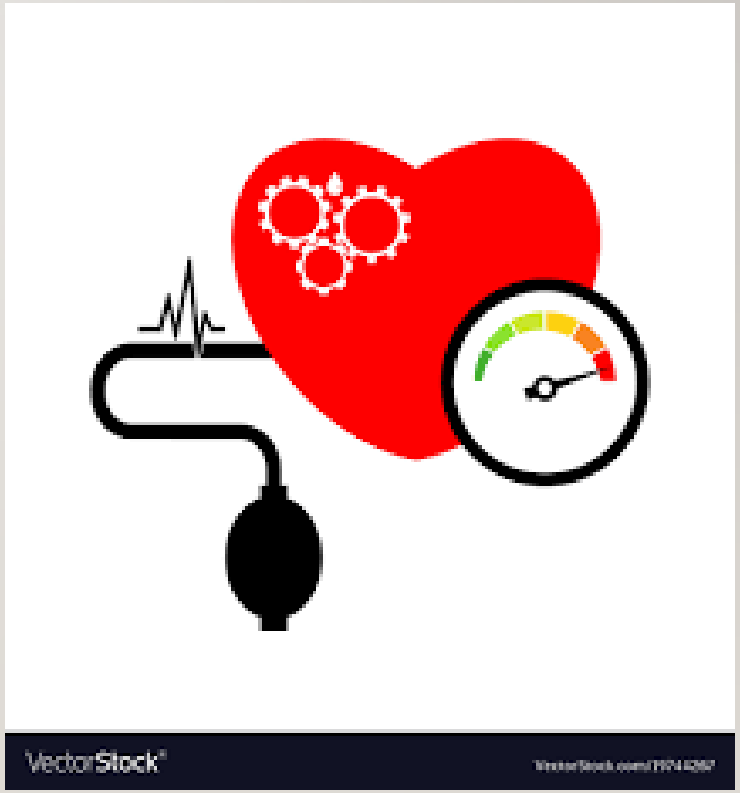
- Patient states that "My mouth feels fine."
- Mr. J.G. is seeking treatment because he is aware that he is past due for his regular cleaning.

# HEALTH HISTORY OVERVIEW

Blood Pressure: 126/90 , Pulse 71, ASA II

Medical Conditions:

- Smoker for many years (per pt.)
- Hypertension –diagnosed in 2009
- Current Medications:
- Lisinopril 20mg/day for treatment of hypertension
- Atorvastatin 20mg/ day for treatment of hypertension
- Atenolol 100mg/day for treatment of hypertension



# EXPLANATION OF CONDITION

- High blood pressure is a common condition in which the long-term force of the problems, such as heart disease. Blood against your artery walls is high enough that is may eventually cause health
- Blood pressure is determined both by the amount of blood your heart pumps and the amount of resistance to blood flow in your arteries. The more blood your heart pumps and the narrower your arteries, the higher your blood pressure. Five categories define blood pressure readings for adults:

# EXPLANATION OF CONDITION

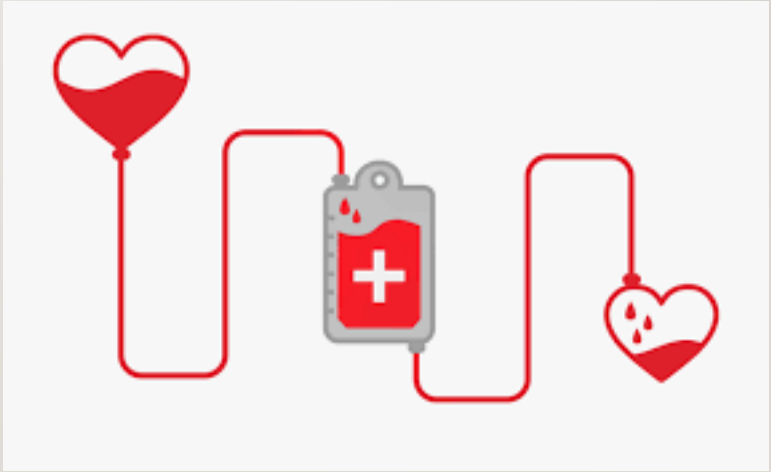
- **Healthy:** 120/80 millimeters of mercury (mm Hg).
- **Elevated:** The systolic between120 and 129 mm Hg, diastolic less than 80 mm Hg.
- **Stage 1 hypertension:** The systolic between 130 and 139 mm Hg, or diastolic between 80 and 89 mm Hg.
- **Stage 2 hypertension:** The systolic number 140 mm Hg or higher, or the diastolic number is 90 mm Hg or higher.
- **Hypertensive crisis:** The systolic number is 180 mm Hg, or the diastolic number is over 120 mm Hg. Blood pressure in this range requires urgent medical attention.

# EXPLANATION OF CONDITION

*Hypertension is generally a silent condition. Many people won't experience any symptoms. It may take years or even decades for the condition to reach levels severe enough that symptoms become obvious. Even then, these symptoms may be attributed to other issues.

**Symptoms of severe hypertension can include:**

headaches
shortness of breath
nosebleeds
flushing
dizziness
chest pain
visual changes
blood in the urine



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- Leung, Alexander A., et al. "Hypertension Canada's 2017 guidelines for diagnosis, risk assessment, prevention, and treatment of hypertension in adults." Canadian Journal of Cardiology 33.5 (2017): 557-576.
- Kaplan, Norman M. Kaplan's clinical hypertension. Lippincott Williams & Wilkins, 2010.

# HOW CONDITION IS MANAGED

- Changing your lifestyle can go a long way toward controlling high blood pressure. A doctor may recommend lifestyle changes including:
- Eating a heart-healthy diet with less salt
- Getting regular physical activity
- Maintaining a healthy weight or losing weight if you're overweight or obese
- Limiting the amount of alcohol you drink
- But sometimes lifestyle changes aren't enough. In addition to diet and exercise, a doctor may recommend medication to lower your blood pressure. My patient is currently treating his hypertension by taking Lisinopril 20mg/day , Atorvastatin 20mg/ day, and Atenolol 100mg/day for treatment of hypertension.

# DENTAL HYGIENE MANAGEMENT

- Contraindications for treatment include severe uncontrolled hypertension, refractory arrhythmias, myocardial infarction or stroke by age less than 6 months, unstable angina, coronary artery bypass graft under 3 months, congestive heart failure.
- Many antihypertensive medications like ACEIs, thiazide diuretics, loop diuretics, Beta blockers are associated with xerostomia. Its likelihood increases with the number of concomitant medications.
- Most antihypertensive drugs have drug interactions with LA (local anesthetic) and analgesics. Dental treatment in hypertensive patients necessitates special attention, because any stressful procedure may increase blood pressure and trigger acute complications such as cardiac arrest or stroke.

# REFERENCES


- High Blood Pressure (hypertension)

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- Changes You Can Make To Manage High Blood Pressure

  https://www.heart.org/en/health-topics/high-blood-pressure/changes-you-can-make-to-manage-high-blood-pressure

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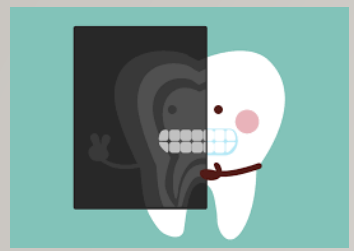
  https://www.hindawi.com/journals/isrn/2013/410740/

- Dental Management in Patients with Hypertension: Challenges and Solutions

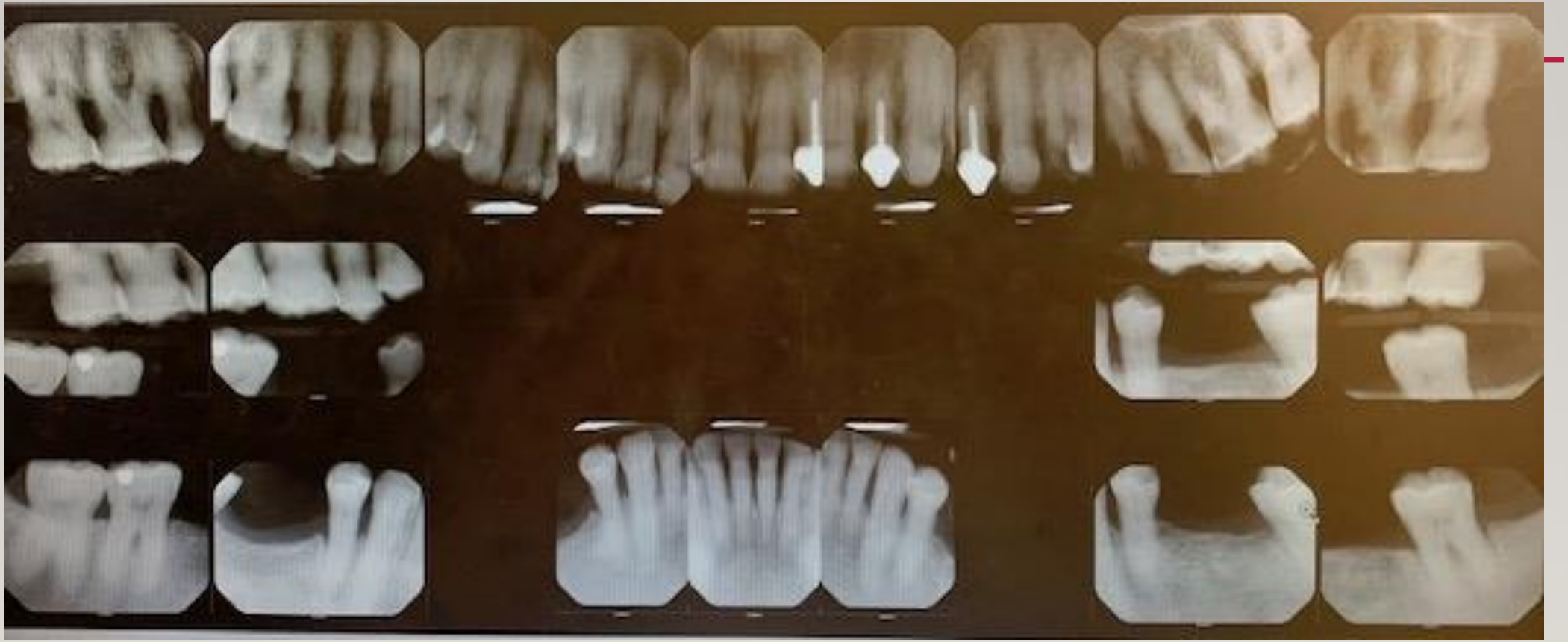
  janet Southerland-Danielle Gill-Pandu Gangula-Leslie Halpern-Cesar Cardona-Charles Mouton -

  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5074706/


# COMPREHENSIVE ASSESSMENTS



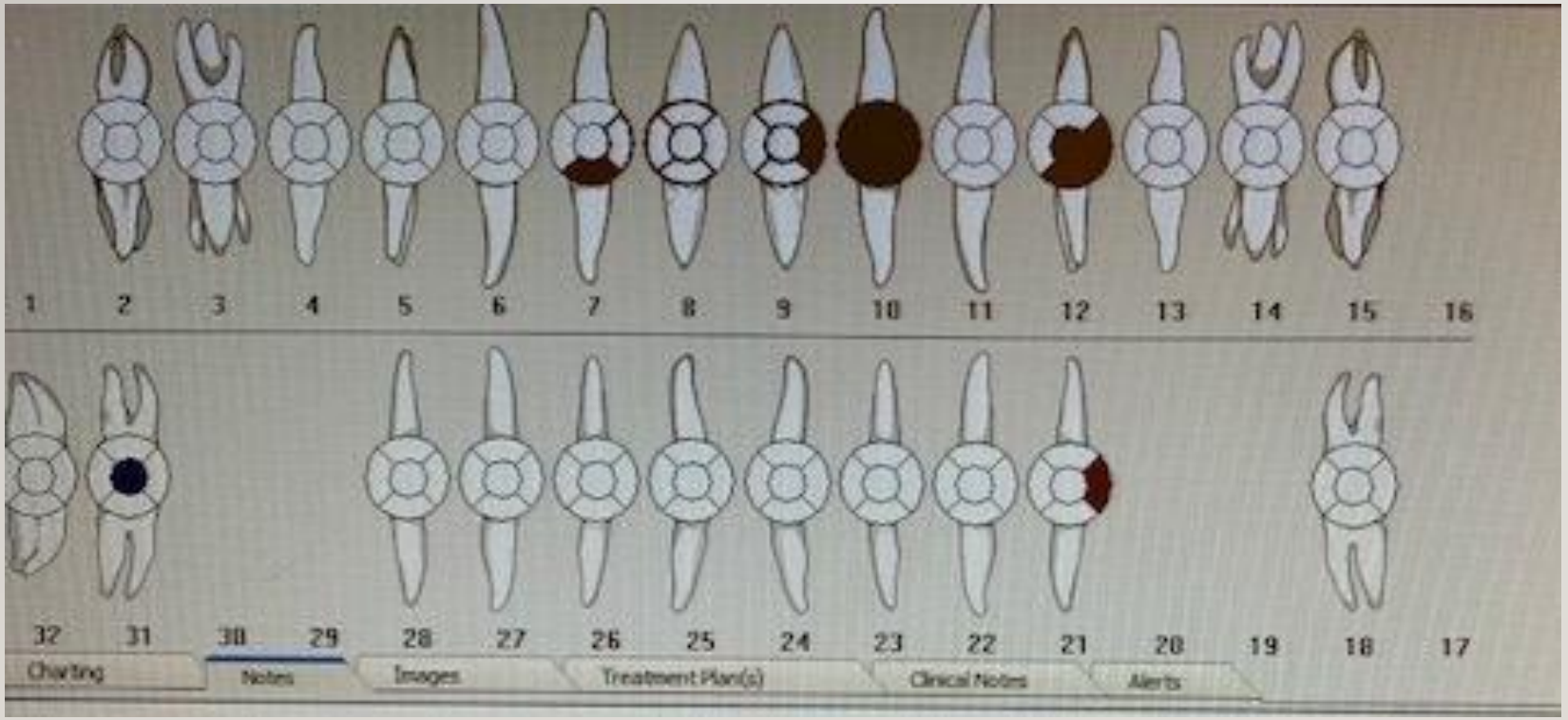
# RADIOGRAPHS



# SUMMARY OF CLINICAL FINDINGS

1. Extraoral examination was within normal limits- no variations of normal
2. Intraoral Examination: Hyper keratinization of buccal mucosa (pt. was smoker for many years), bilateral mandibular tori.
3. Bilateral class I of occlusion, 5mm overjet and 40% overbite.
4. Deposits- Generalized subgingival calculus, localized supragingival on mandibular anteriors. Moderate staining from coffee consumption.

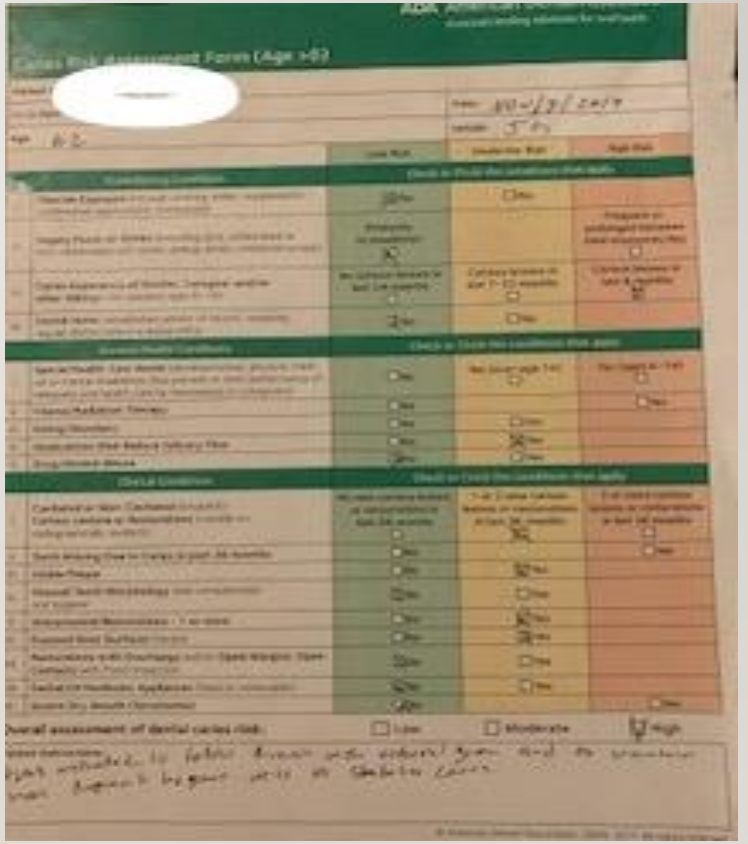
# DENTAL CHARTING




Significant findings include:
-possible carious lesions on #7, 9, 12, 21
-Composite restorations on # 7-M, 8-FDL, 9-FL,
-Class I amalgam restorations on # 12-O, 31-O
-PFM crown on 10
-Teeth clinically not present- #1, 16, 17, 19, 20, 29, 30.

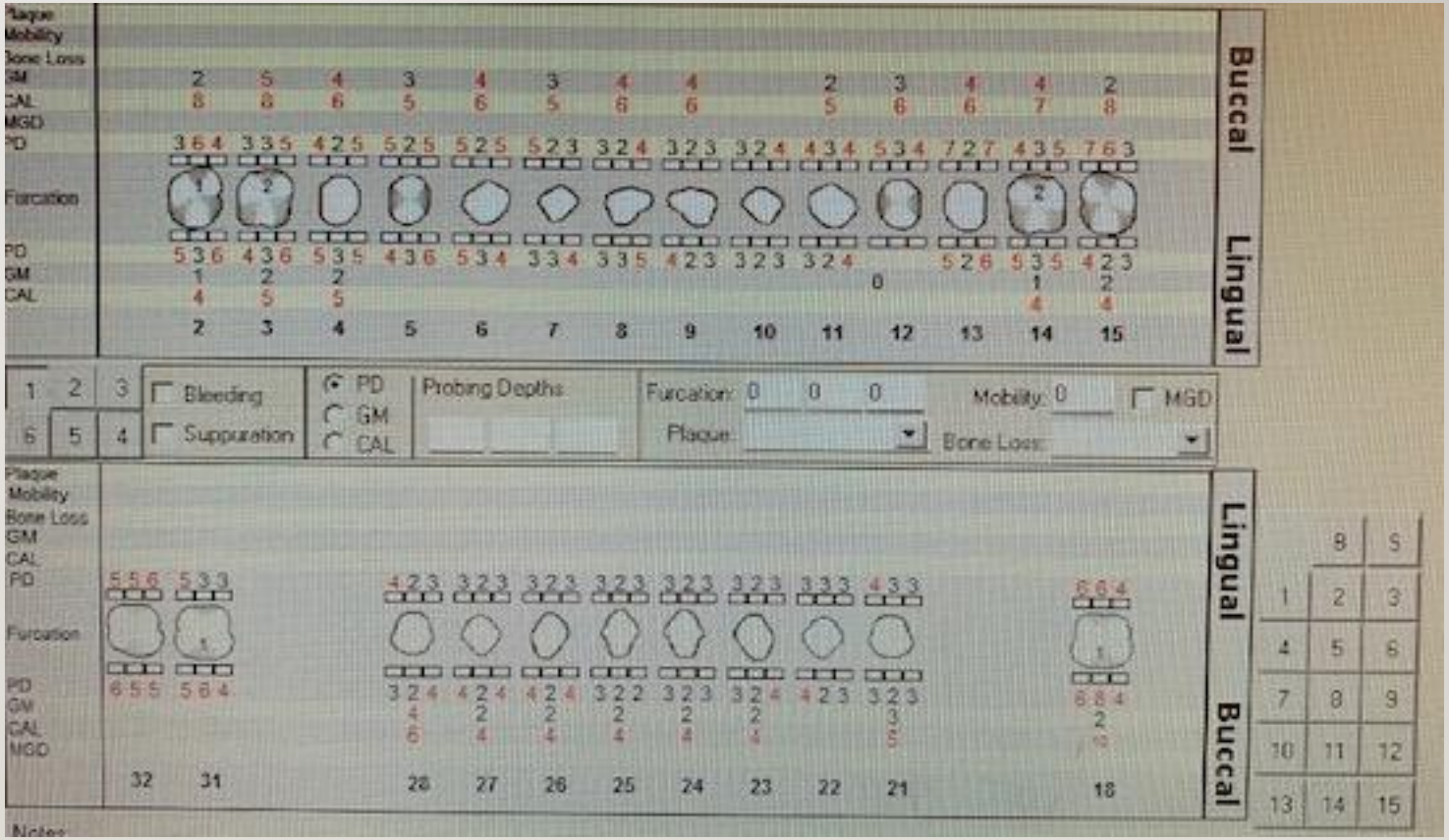
# CARIES RISK ASSESSMENT

- Decay noted on the occlusal of # 12 and 21
- Radiographic evidence of decay noted on #7, 9, 12, 15.



# PERIODONTAL CHARTING

-Periodontal charting revealed generalized recession and loss of clinical attachment level.
-Generalized 5-7mm pockets and furcation involvements on #2, 3, 14, 18 and 31.



# GINGIVAL DESCRIPTION & PERIODONTAL STATUS

**Gingival Description**: Gingiva has generalized hyperpigmentation and is fibrotic with no stippling. Generalized recession with type two embrasure spaces on mandibular anteriors.

**Periodontal status**: Heavy/ Type III and localized type IV. Type III for generalized 33% bone loss and type IV for up to 50% bone loss on mandibular anteriors. Proof of this came form periodontal charting probing depths of generalized 5-7mmpockets and visible radiographic bone loss.

# DENTAL HYGIENE DIAGNOSIS

Risk for Caries:

*Patient at a high risk for caries due to multiple risk factors such as: 3 multiple restorations, current active carious lesions, hypertensive medications which reduce salivary flow, and exposed root surfaces. Patient has also been lacking in the frequency of his dental hygiene visits which promotes the advancement of his caries.

Periodontal Diagnosis:

*Type III/localized IV active periodontitis due to generalized 5-7 mm and localized 7-8mm probe depths, moderate BOP, and radiographic evidence of severe bone loss. Grade II furcation noted on #2, 14, 18, 31.

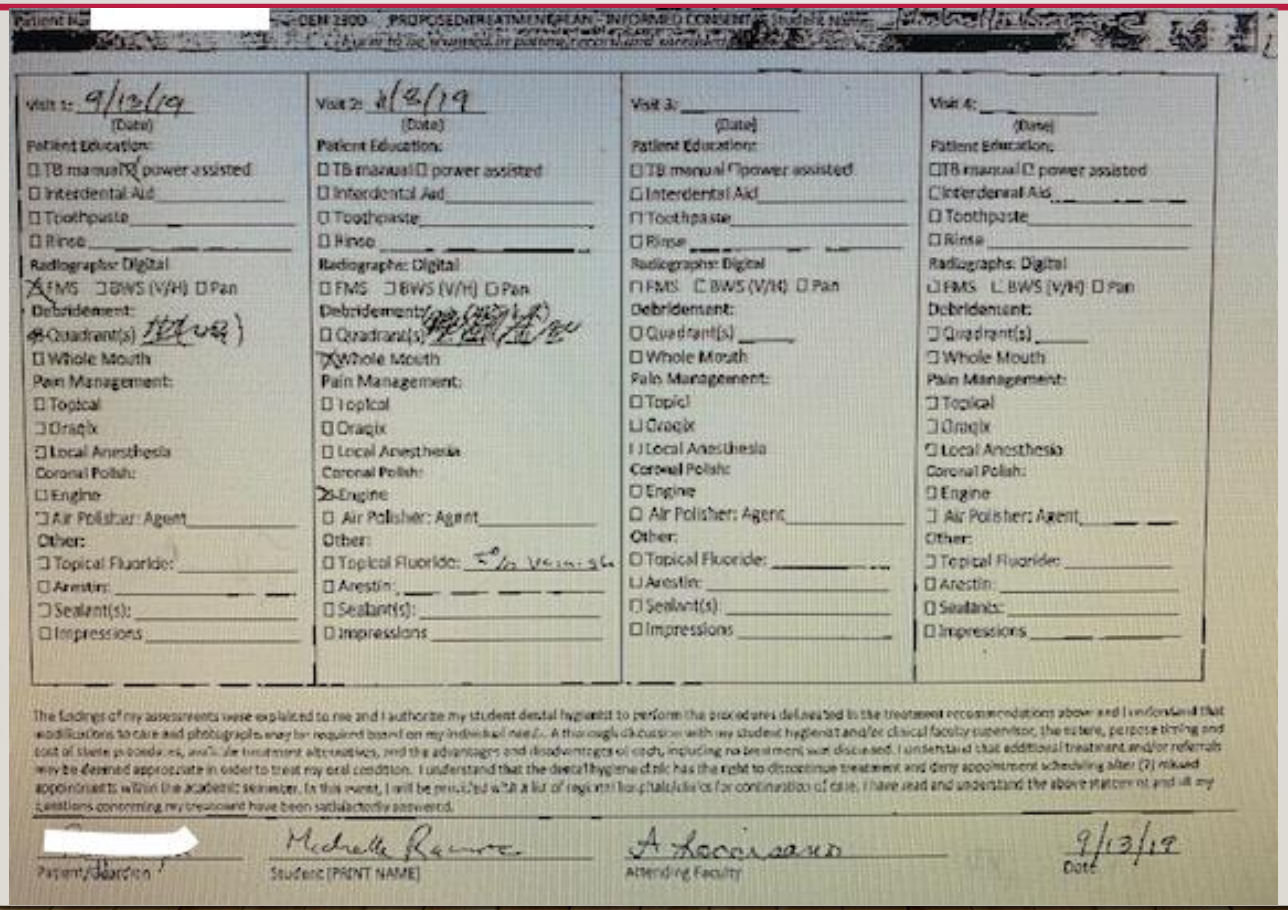
# DENTAL HYGIENE CARE PLAN


- The  dental hygiene plan for this patient is the overall stabilization and control of his periodontal disease. I plan to do this by first educating the patient on adequate and effective plaque removal procedures via power brush and floss (one per visit). I would like to monitor and help the patient visualize the current plaque accumulation by performing a plaque index so that  the patient himself can see where most of the accumulation is happening.
- Once treatment is approved by patient and an FMS is exposed, I would proceed to help deactivate the periodontal disease by providing a full mouth debridement during the second visit. This would be done with the help of both hand scaling and ultrasonic instruments.

# DENTAL HYGIENE CARE PLAN

- Since the patient has disclosed being comfortable with all assessments and without any pain, the is no need to apply any topical or local anesthetic.
- Once full debridement is completed, I would have a conversation with the patient regarding the importance of his compliance with proper homecare. I would inform the patient once more that a cleaning is only 50% of the job and that he must complete it by maintaining low levels of plaque in his mouth through continuous brushing, flossing, rinsing and 3 month re-care visits.

# CONSENT FOR TREATMENT/TREATMENT PLAN



Patient #: [redacted] DEN 2300 PROPOSED TREATMENT PLAN - INFORMED CONSENT Student Name:

| Visit 1: 9/13/19 (Date) | Visit 2: 9/13/19 (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 |
| ☐ Interdental Aid _____ | ☐ 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: |
| ☐ Quadrant(s) UR UL | ☐ Quadrant(s) | ☐ Quadrant(s) _____ | ☐ Quadrant(s) _____ |
| ☐ Whole Mouth | ☒ 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: |
| ☐ Engine | ☒ Engine | ☐ Engine | ☐ Engine |
| ☐ Air Polisher: Agent _____ | ☐ Air Polisher: Agent _____ | ☐ Air Polisher: Agent _____ | ☐ Air Polisher: Agent _____ |
| Other: | Other: | Other: | Other: |
| ☐ Topical Fluoride: _____ | ☐ Topical Fluoride: 5% 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, and the 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 registered hygienists/clinics for continuation of care. I have read and understand the above statements and all my questions concerning my treatment have been satisfactorily answered.

[redacted] Patient/Guardian | Michelle Ramos Student (PRINT NAME) | A Loomis Attending Faculty | 9/13/19 Date

# IMPLEMENTATION –TREATMENT

Visit 1 (9/13/2019)

-Plaque index and OHI (power brush)

-Recommend power brush to patient for a more effective removal of plaque

-Expose FMS

-Provide referral for current carious lesions and evident bone loss

# IMPLEMENTATION –TREATMENT

Visit 2 (11/28/2019)

Review medical history with patient and make sure there have been no major changes since previous visit.
-Ask patient if he was able to follow through with the given referral from first visit
-Ask patient if he got a chance to try out the
recommended power brush from first appointment and if so, how has he felt using it.
-Perform another plaque index to see if there has been improvement in plaque removal from first visit and proceed to OHI(flossing)
-Full mouth debridement via ultrasonic and hand instruments- no anesthetic needed for patient comfort.

# IMPLEMENTATION –TREATMENT

Visit 2 (11/28/2019)- continued

- Polish with fine paste
- Apply 5% NaF sodium Fluoride varnish
- Motivate patient to return for his next visit by providing a three month re-care appointment date

# IMPLEMENTATION –TREATMENT CONTINUED

- For full mouth debridement I used both my hand scaling and ultrasonic instruments.
- I started each quadrants with my triple bend ultrasonic tip, followed by the double bend. After this, I used my explored to asses the proficiency of the calculus removal and proceeded to use my hand instruments to removed and remaining calculus or biofilm.
- The only real challenge faced with this patient was that the calculus present was very tenacious and required more effort to be removed.

# EVALUATION OF CARE – OUTCOME OF CARE - PROGNOSIS

- Upon the second visit, I noticed a sense of determination from the patient regarding the stabilization of his periodontal disease. This fact alone, made me feel that the prognosis would be a promising. Once full debridement was completed, the patient seemed very comfortable and satisfied and thus motivated to maintain good oral health.
- The outcome of treatment and OHI will be conducted during the patient's 3 month re-care visit (2/2020)

# REFERRALS

A referral was given to the patient for two things:

- **Caries evaluation** on #12, 14, 15, 21
- **Periodontal evaluation** for bone loss up to 50%

# CONTINUED CARE RECOMMENDATIONS

- For this patient, I am recommending 3 month continuous re-cares because of his current active periodontal status. Clinical evidence showed severe bone loss and calculus accumulation. The patient must maintain a controlled/low level of biofilm and calculus in order to prevent further bone loss. Frequent hygiene visits will aid in achieving this goal.

# FINAL REFLECTION

- I feel very satisfied with the overall outcome of this patient's treatment. From the very beginning I feel that a clinician-patient connection was established which allowed for better patient compliance. I feel al though it is less likely to achieve patient compliance when no relationship is established this is why connecting/relating to my patients is my first goal.
- If I had to choose one thing that I believe did not go as well as I would have hoped I guess I would choose the temporary pain felt in my hands during and after debridement. I went home that day with a slight discomfort on both hands and I believe it was due to the fact that my patient had very tenacious calculus and perhaps my ergonomics started to go off during treatment.
- If I could go back, I would split the treatment plan into 3 total visits in order to put less strain on my hands and on the patient's mouth. Hopefully, the patient's case value will be no more than a medium or maybe even a light.