

NEW YORK CITY COLLEGE OF
TECHNOLOGY
DEPARTMENT OF DENTAL HYGIENE
CASE STUDY PRESENTATION

BY:
LUCIDANIA NARANJO

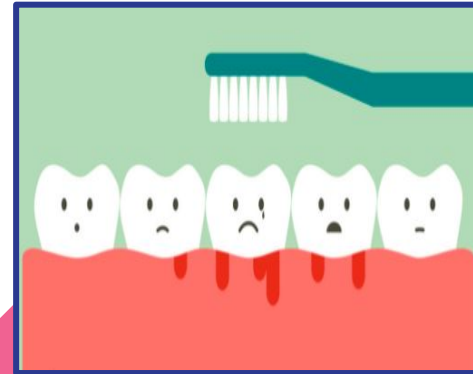
PATIENT PROFILE

- Mr. J.Q. is a 33 years old hispanic single male patient.
- Married, construction worker. Live in a middle class neighborhood in Brooklyn NY.
- His last dental exam was 6 years ago. Restoration was done during that visit. He does not remember his last dental x-rays.
- Patient use manual soft toothbrush with up and down motion. Sensodyne toothpaste. Do no use dental floss. Use listerine mouthwash once in a week. Do not use tongue cleaner.



CHIEF COMPLAINT

- Patient is coming for check-up and cleaning.
- "My tooth in the back is broken".
- "I bleed when I brush my teeth in the morning sometimes and my breath smell bad"



HEALTH HISTORY



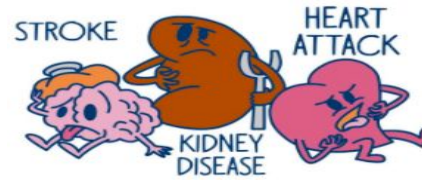
- COVID-19 screening performed: Temp 97.4
- Vitals: BP: 127/82 P: 71 ASA: II
- Patient was diagnosed with gastritis in 2019. Hypertension & high cholesterol in 2021.
- Patient reports used to smoke Marijuana 1x in a month. Since he was diagnosed with HBP and high cholesterol stopped smoking.

Currents Medications:

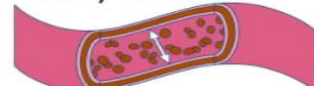
- Amlodipine 5 mg. 1x a day for hypertension
- Atorvastatin 10 mg 1x a day for high cholesterol
- Baby aspirin 81 mg. 1x a day for hypertension
- Also is taking Prilosec as needed for gastritis.

Before proceeding with assessments I confirmed with the patient that he had taken all his medications.

EXPLANATION OF THE CONDITION: HYPERTENSION



Blood pressure is the measurement of force applied to artery walls



Is a condition in which the force of the blood against the artery is too high. Hypertension is also call a silent killer.

Hypertension also is define as blood pressure above 140/90, and is considered severe if the pressure is above 180/120.

Usually, hypertension does not have symptoms, if left untreated can cause other health problems such as stroke, kidney disease, and heart disease.

RISK FACTORS:

- ❖ Obesity
- ❖ Diabetes
- ❖ Unhealthy diet
- ❖ Tobacco use
- ❖ Family history
- ❖ Physical inactivity
- ❖ Alcohol intake
- ❖ High sodium consumption
- ❖ Stress



SYMPTOMS OF SEVERE HYPERTENSION:

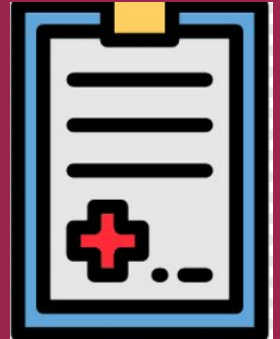
- ❖ Severe chest pain
- ❖ Severe headache
- ❖ Nauseous and vomiting
- ❖ Shortness of breath
- ❖ Severe anxiety
- ❖ Dizziness
- ❖ Tinnitus



DENTAL MANAGEMENT OF HYPERTENSION

"While there is not demonstrated direct connection between dental treatment and complication of hypertension. It is important for an oral health care provider to understand the potential risks and complication that may occur while the patient is seated in a dental chair receiving a dental treatment."

- ❖ Accurate and detail medical history
- ❖ Measurement of BP prior to every appointment.
- ❖ Poorly controlled hypertension patient the blood pressure has to be take before and after every dental visit.
- ❖ Patients BP over 180/110, dental treatment has to be stop and refer the patient immediately to their physician or emergency room.
- ❖ Chair position not too low. And move the chair slow as the patient seat up to avoid orthostatic hypotension.
- ❖ Local anesthesia with vasoconstrictor 1/100,000 is permissible (limit dosage 1-2 carpule per visit).



ORAL COMPLICATION ASSOCIATED WITH HYPERTENSION

Oral complications associated with taking antihypertensive medications are:

- Xerostomia
- Alterations in taste
- Gingival enlargement
- Lichenoid reactions.



EXPLANATION OF THE CONDITION: HIGH CHOLESTEROL

High cholesterol is a waxy substance found in the blood. The body needs cholesterol to build healthy cells, but high cholesterol can increase your risk of heart disease. It is detected by a blood test. It does not have symptoms. Unhealthy lifestyle can be the cause. Treatment includes medications, healthy diet and exercise. Has been link with a higher risk of cardiovascular disease.

RISK FACTORS:

- Poor diet
- Obesity
- Lack of exercise
- Smoking
- Age
- Diabetes

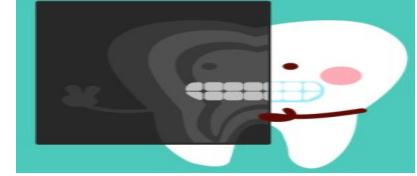
DENTAL MANAGEMENT AND ORAL IMPLICATIONS:

- Patients who take antihyperlipidemic agents have a higher risk for gum disease and developing hypertension and coronary artery disease. These patients are at increased risk for MIs and cardiac arrest.
- The patient's blood pressure and pulse rate should be taken before each appointment and recorded in the dental chart.



COMPREHENSIVE ASSESSMENTS

RADIOGRAPH



- Radiographs reveal generalized moderate horizontal bone loss (30%) & localized vertical bone loss teeth #4-D, #17-M, #29-D.
- Tooth # 17 present a deep carious lesion ODBL, #32-O, #2-OL & #3-MOL.
- Generalized interproximal calculus.

SUMMARY OF CLINICAL FINDINGS

Extraoral Examination:

NSF.

Intraoral Examination:

Enlarged tonsils, Coated tongue & Geographic tongue, Fissured tongue.

Occlusion: Bilateral Class I, determined with canines.

Overbite: 20%,

Overjet: 3 mm

Attrition: Severe attrition and erosion.

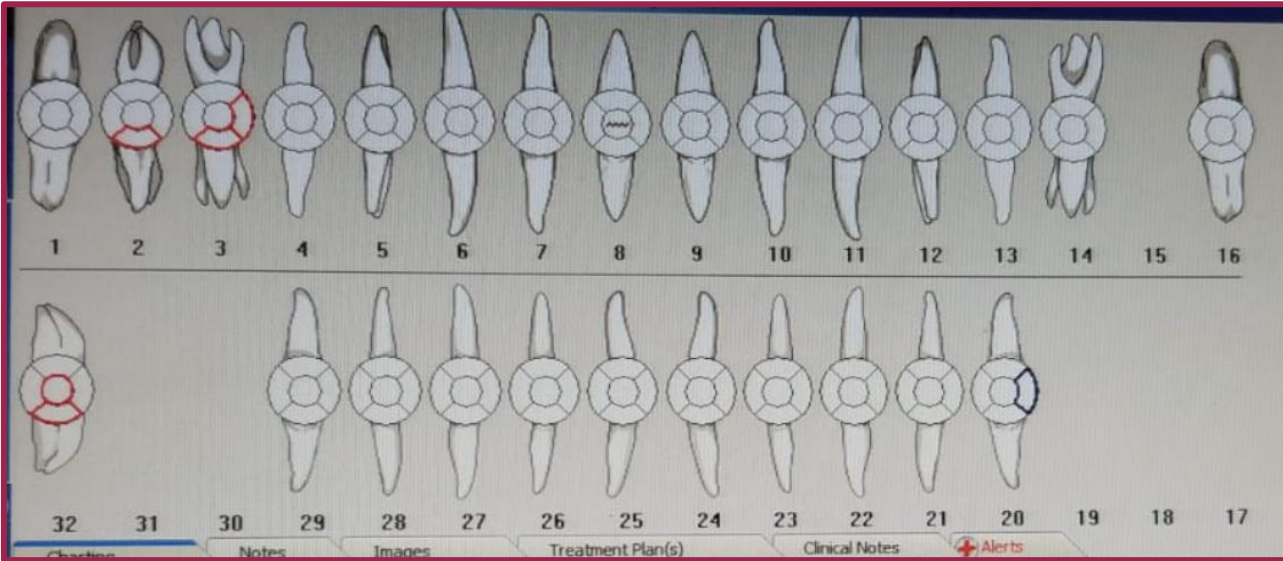
Abrasion: #'s 23-26

Crossbite on the left side molars.

Deposits:

- Generalized moderate supragingival biofilm deposit.
- Generalized moderate subgingival calculus & localized supragingival calculus lower anterior teeth.

DENTAL CHARTING



Statement of findings:

- Missing teeth # 15, #17, #18, #19, #30 & #31
- Composite restoration #20-D
- Carious lesion # 2-L, #3-DL, #32-OB

CARIES RISK ASSESSMENT

- ❖ caries risk assessment **CAMBRA** form was performed on Mr. J.Q, and indicated high caries risk due to suspicious clinical carious lesion on tooth #2-L, # 32-O
- ❖ Radiographic evidence of carious lesion noted on #3-DL.

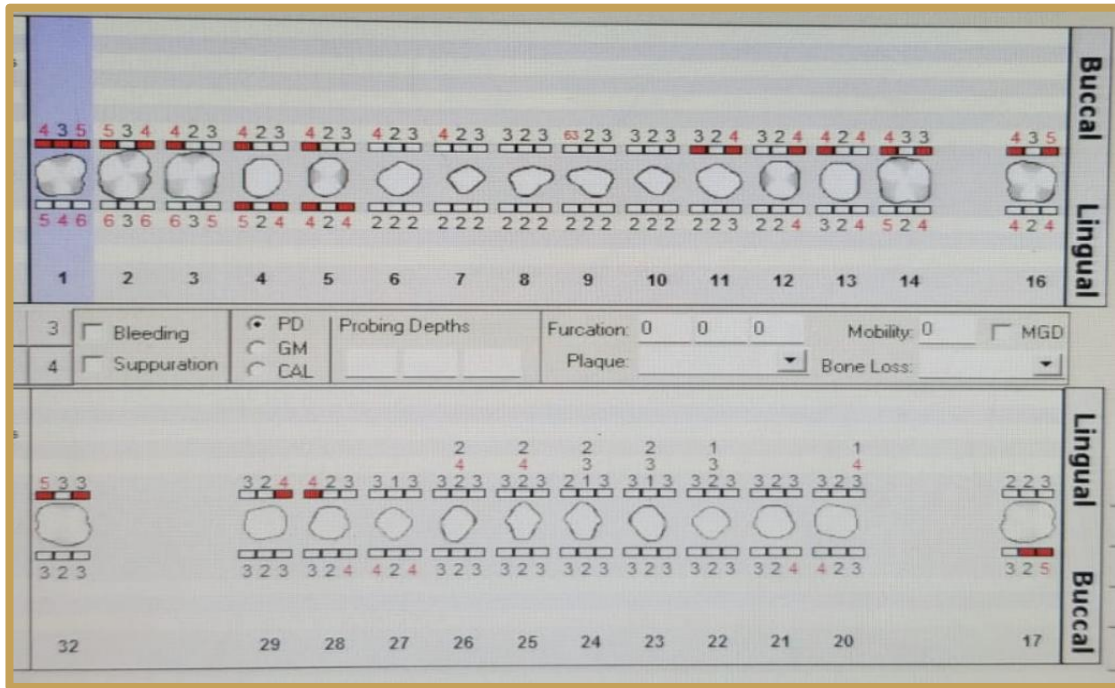


GINGIVAL DESCRIPTION & PERIODONTAL STATUS

Gingival Description:

- Patient present with generalized pigmented melanin gingiva with localized rolled edge margin on maxillary posterior teeth and lower anterior teeth lingual surface. Gingiva was shiny and non-stippled.
- Mr. J.Q. was consider Stage II Grade B due his history of smoking and bone loss (30%).
- Localized recession present on lingual surface of teeth # 20 & #23-26.
- Moderate bleeding on probing.

PERIODONTAL CHARTING



- Generalized probing depths 2-3mm.
- Localized probing depths 4-6mm mostly on maxillary posterior teeth.
- Localized 1-2 mm of recession on mandibular of lower anterior teeth lingual

DENTAL HYGIENE DIAGNOSIS

Periodontitis Stage II Grade B

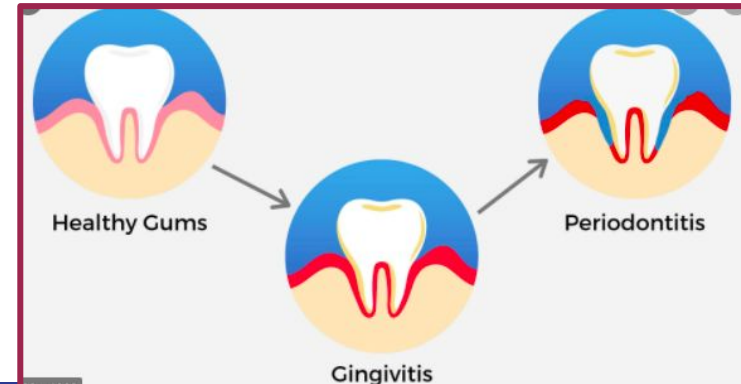
- Generalized probing depths 2-3mm.
- Localized probing depths 4-6mm mostly on maxillary posterior teeth.
- Localized 1-2 mm of recession on mandibular of lower anterior teeth lingual.
- Radiographic evidence of 30 % bone loss.
- Hypertension serves as a supporting oral complication for periodontal disease and gingival enlargement

Case Value: Heavy

- Generalized subgingival calculus and localized supragingival calculus lower anterior teeth.

High Caries Risk

- Does have active caries lesion.
- Medication induced xerostomia.
- Does not use mouthrinse with fluoride .



DENTAL HYGIENE CARE PLAN

- I formulated the treatment plan that was best suited for the patient. I explained to the patient the number of visits he will need and why, and I also explained to him what I will be doing during each visit.
- After Treatment plan was discussed, explained and informed consent obtained. Im planned to complete Mr. J.Q. in a total of four visits. Later, treatment plan was modified due to patient's working schedule and pain management .The reason is that he is a Stage II Grade B heavy patient which require time for healing and during COVID-19, in our school we are not allowed the use of cavitron. Every visit had to be hand scaled. Also, he requested the used of local anesthesia during the treatment for more comfort.

CONSENT FOR TREATMENT AND TREATMENT PLAN

1007 DENTAL TREATMENT PLAN - INFORMATION

10/15/20

Visit 1 (post-assessment) 10/15/20 (Date)

Patient Education:
 TB manual C power assisted
 Interdental Aid
 Toothpaste
 Rinse
 Radiograph Digital
 FMS BWS (V/H) Pan
 Debridement:
 Quadrant(s) 1, 2, 3, 4
 Whole Mouth
 Pain Management:
 Topical
 Oraxic
 Local Anesthesia
 Coronal Polish:
 Engine
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)

Visit 2: 10/15/20 (Date)

Patient Education:
 TB manual C power assisted
 Interdental Aid
 Toothpaste
 Rinse
 Radiograph Digital
 FMS BWS (V/H) Pan
 Debridement:
 Quadrant(s) 3, 4
 Whole Mouth
 Pain Management:
 Topical
 Oraxic
 Local Anesthesia
 Coronal Polish:
 Engine
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)

Visit 3: 10/15/20 (Date)

Patient Education:
 TB manual C power assisted
 Interdental Aid
 Toothpaste
 Rinse
 Radiograph Digital
 FMS BWS (V/H) Pan
 Debridement:
 Quadrant(s) 3, 4
 Whole Mouth
 Pain Management:
 Topical
 Oraxic
 Local Anesthesia
 Coronal Polish:
 Engine
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)

Visit 4: 10/15/20 (Date)

Patient Education:
 TB manual C power assisted
 Interdental Aid
 Toothpaste
 Rinse
 Radiograph Digital
 FMS BWS (V/H) Pan
 Debridement:
 Quadrant(s) 3, 4
 Whole Mouth
 Pain Management:
 Topical
 Oraxic
 Local Anesthesia
 Coronal Polish:
 Engine
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)

The findings of my assessments were explained to me, 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. The nature, extent, timing, and cost of these procedures, available treatment alternatives, and the advantages and disadvantages of each, including no treatment, were discussed with my student hygienist and/or clinical faculty supervisor. I understand that additional treatment may be necessary and I understand that the dental hygiene clinic has the right to refuse treatment and deny appointment scheduling after 20 missed appointments in order to manage my oral condition. I understand that the dental hygiene clinic has the right to discontinue treatment and deny appointment scheduling after 20 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.

10/15/20

Lucasiana Narans

Student (PRINT NAME)

10/15/20

Date

The plan was altered to fit the patient, Pt is aware

1007 DENTAL TREATMENT PLAN - INFORMATION

10/15/21

Visit 1: 10/15/21 (Date)

Patient Education:
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 Interdental Aid
 Toothpaste
 Rinse
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 Whole Mouth
 Pain Management:
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 Oraxic
 Local Anesthesia
 Coronal Polish:
 Engine
 Air Polisher: Agent
 Other:
 Topical Fluoride: (method/type)

Visit 2: 10/15/21 (Date)

Patient Education:
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 Interdental Aid
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 Rinse
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 Air Polisher: Agent
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 Topical Fluoride: (method/type)

Visit 3: 10/15/21 (Date)

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 Topical Fluoride: (method/type)

Visit 4: 10/15/21 (Date)

Patient Education:
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 Other:
 Topical Fluoride: (method/type)

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, extent, timing, and cost of these procedures, available treatment alternatives, and the advantages and disadvantages of each, including no treatment was discussed. I understand that the dental hygiene clinic has the right to discontinue treatment and deny appointment scheduling after 20 missed appointments in order to manage my oral condition. I understand that the dental hygiene clinic has the right to discontinue treatment and deny appointment scheduling after 20 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.

10/15/21

Lucasiana Narans

Student (PRINT NAME)

10/15/21

Date

I planned to do Mr. J.Q. treatment in 4 visits, later his treatment plan was modified due to the patient's working schedule and local anesthesia for pain management, and patient comfort.

IMPLEMENTATION OF TREATMENT PLAN

VISIT ONE

- On the initial visit, I completed all assessment.
- I was not able to finish treatment plan, due to patient has to leave to work.
- I planned to finish treatment plan and exposed radiograph following visit.

IMPLEMENTATION OF TREATMENT PLAN

VISIT TWO

- During his second visit I was able to completed treatment plan, explained, discussed, and consent informed signed. I exposed FMS radiograph at 7mA and 70 kVp.
- I showed to the patient the areas where he has horizontal and vertical bone loss. Explained why and how that happened. Also the carious lesion visible radiographically.
- After that, I applied the disclosing solution. His plaque score index was 2.0 (poor). Biofilm was visible all surface of his teeth. For that reason I introduced Modified Bass Technique. Explained and showed the proper way of brushing his teeth.
- The patient had soft deposits, calculus, moderate bleeding on probing.
- I had my instructor for the day administered lidocaine local anesthesia for pain management during treatment.
- During this visit i was able to completed quadrants #1 & #4.

IMPLEMENTATION OF TREATMENT PLAN

VISIT TWO

- Mr. J.Q was not able to come back due to the pandemic, During his second visit I did a quick look intraoral exam to compare the tissue from last visit. I did all the assessment and I was able to completed treatment plan, explained, discussed, and consent informed signed. I exposed FMS radiograph at 7mA and 70 kVp.
- I showed to the patient the areas where he has horizontal and vertical bone loss. Explained why and how that happened. Also the carious lesion visible radiographically.
- After that, I applied the disclosing solution. His plaque score index was 2.0 (poor). Biofilm was visible all surface of his teeth. For that reason I introduced Modified Bass Technique. Explained and showed the proper way of brushing his teeth.
- The patient had soft deposits, calculus, moderate bleeding on probing.
- I had my instructor for the day administered lidocaine local anesthesia for pain management during treatment.
- During this visit i was able to completed quadrants #1 & #4.
- I gave to Mr J.Q. a dental caries referral.

IMPLEMENTATION OF TREATMENT PLAN

VISIT THREE

- During this visit, I had to do all assessment due to patient did not come back for 6 month after his last visit due to work schedule issue. Mr. J.Q. stated he had to do an extraction of tooth # 17 due to large carious lesion. He couldn't afford the treatment.
- After I completed all assessment, soft tissue was a little inflamed. I applied disclosing solution. The biofilm was visible mostly on cervical third and interproximal area. His plaque score decrease to 1.3. During this visit, I went over again with toothbrushing technique to main sure patient understood what was taught last visit. Also, introduced dental floss technique. I explained the importance of dental floss and demonstrated the C shape flossing technique to remove the plaque on interproximal area.
- I hand scaled whole mouth using 1 ½ carpules of Oraquix 2.5 Lidocaine and 2.5 Prilocaine.
- I also recommended to the patient use of listerine antiseptic mouthwash to help with gum inflammation and plaque control.
- After completion of the quadrant I engine polished the whole mouth with medium grit prophylaxis paste to remove any stain present.
- After that, I applied 5% fluoride varnish. Gave him the post instruction after fluoride application. I also gave to Mr. J.Q. a new referral for caries evaluation.

ADULT REFERRALS

NEW YORK CITY COLLEGE OF TECHNOLOGY
City University of New York
Dental Hygiene Clinic
300 Jay Street, Brooklyn, NY 11201-1909

ADULT REFERRAL FORM
A copy of this original form has been placed in the patient's electronic record.

Date: 10/15/20

Dear Doctor,

A student, under faculty supervision, at the Dental Hygiene Clinic at the New York City College of Technology has performed a periodontal and oral disease risk assessment on: [redacted]

The patient is being referred to you for consultation and treatment in the following areas:

- Caries: Full dental Caries Evaluation
- Restorative Care: _____
- Oral Pathology: _____
- Oral Surgery: _____
- Periodontal Disease: _____
- Elevated Blood Pressure: 1st reading: _____ 2nd reading: _____
- Other: _____

Thank you,
Dental Hygiene Student: Lucidania Narain
Attending Faculty: [redacted]

I, (the patient), have been informed of the clinical findings and recommendations. I understand that failure to comply with referral recommendations may result in permanent, irreversible long-term damage in the areas indicated. I further understand that failure to comply with recommendations may result in discontinuation of treatment at the dental hygiene clinic.

Patient Signature: [Signature]

NEW YORK CITY COLLEGE OF TECHNOLOGY
City University of New York
Dental Hygiene Clinic
300 Jay Street, Brooklyn, NY 11201-1909

ADULT REFERRAL FORM
A copy of this original form has been placed in the patient's electronic record.

Date: 02/27/20

Dear Doctor,

A student, under faculty supervision, at the Dental Hygiene Clinic at the New York City College of Technology has performed a periodontal and oral disease risk assessment on: [redacted]

The patient is being referred to you for consultation and treatment in the following areas:

- Caries: Please evaluate for possible caries # 2, L # 3, L, # 17-D, # 20-DD # 32, D
- Restorative Care: _____
- Oral Pathology: _____
- Oral Surgery: _____
- Periodontal Disease: _____
- Elevated Blood Pressure: 1st reading: _____ 2nd reading: _____
- Other: _____

Thank you,
Dental Hygiene Student: Lucidania Narain
Attending Faculty: [redacted]

I, (the patient), have been informed of the clinical findings and recommendations. I understand that failure to comply with referral recommendations may result in permanent, irreversible long-term damage in the areas indicated. I further understand that failure to comply with recommendations may result in discontinuation of treatment at the dental hygiene clinic.

Patient Signature: [Signature]

CONTINUE CARE RECOMMENDATION

I recommended a 3 month recare appointment for Mr. J.Q. because of his calculus formation and active periodontal disease, also his high caries risk. Patient needs to be monitored for continue care and avoid further damage to his oral health.

I emphasized him to make an appointment with his primary care dentist for evaluation of active carious lesion.

REFLEXION



Overall, treatment for Mr. J.Q. went well. Patient left very happy after his 3rd visit.

Despite that he couldn't come more often as planned, he felt very motivated and encouraged to maintain his oral health. He did not want to lose another tooth. I felt very accomplished with the treatment provided to Mr. J.Q. it is very important as a future dental hygienist communicate with the patient and help them gained self esteem, and don't be embarrassing when talking to others by providing effective oral hygiene instructions, that later they could implement at home.