National Institute of Dental and Craniofacial Research

Tool Revision History:

Version		
Number	**Date**	**Summary of Revisions Made:**

Pragmatic Return to Effective Dental Infection Control through Triage and Testing

(PREDICT)

Rutgers Single Site

Laboratory Based Testing (LAB) Patient Subjects

NIDCR Protocol Number: TBD

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Principal Investigator: Cecile A. Feldman, DMD, MBA

Grantee Institution: Rutgers University, School of Dental Medicine

NIDCR Program Official: Dena Fischer, DDS, MSD, MS

NIDCR Medical Monitor: N/A

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December 9, 2020

National Institute of Dental and Craniofacial Research

STATEMENT OF COMPLIANCE

The study will be conducted in accordance with the International Council for Harmonisation guidelines for Good Clinical Practice (GCP) (ICH E6) and the Code of Federal Regulations on the Protection of Human Subjects (45 CFR Part 46). National Institutes of Health (NIH)-funded investigators and clinical trial site staff who are responsible for the conduct, management, or oversight of NIH-funded clinical trials have completed Human Subjects Protection and ICH GCP Training.

SIGNATURE PAGE

The signatures below constitutes the approval of this protocol and the attachments, and provides the necessary assurances that this study will be conducted according to all stipulations of the protocol, including all statements regarding confidentiality, and according to local legal and regulatory requirements and applicable US federal regulations and ICH guidelines.

Principal Investigator:

Signed: _____ Date: _____

Name: Cecile A. Feldman, DMD
Title: Dean and Professor, Rutgers University, School of Dental Medicine

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LIST OF ABBREVIATIONS

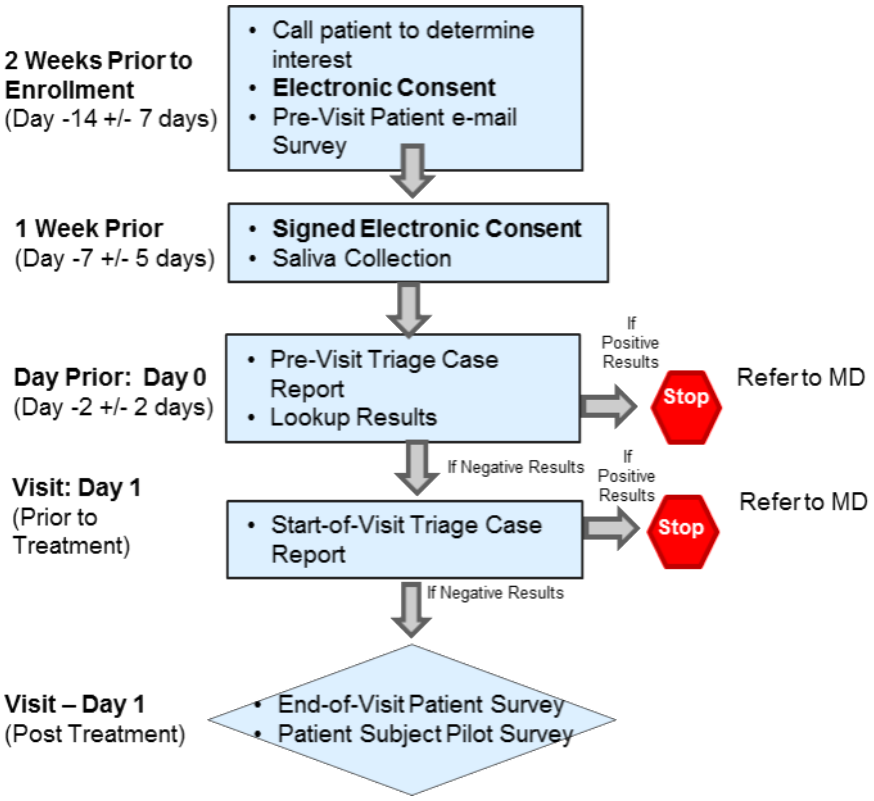
AE	Adverse Event/Adverse Experience
PBRN	Practice Based Research Network
CFR	Code of Federal Regulations
CSI	Clinical Site Investigator
CIOMS	Council for International Organizations of Medical Sciences
CONSORT	Consolidated Standards of Reporting Trials
CRF	Case Report Form
CRO	Contract Research Organization
DCC	Data Coordinating Center
DHCW	Dental Health Care Workers
DHHS	Department of Health and Human Services
DMFS	Decayed, missing, and filled tooth surfaces
DSMB	Data and Safety Monitoring Board
eCRF	Electronic Case Report Form
FDA	Food and Drug Administration
FFR	Federal Financial Report
FWA	Federalwide Assurance
GCP	Good Clinical Practice
HIPAA	Health Insurance Portability and Accountability Act
ICF	Informed Consent Form
ICH	International Council for Harmonisation
ICMJE	International Committee of Medical Journal Editors
IRB	Institutional Review Board
ISM	Independent Safety Monitor
LAB	Laboratory Based Saliva-Based COVID-19 Test
MOP	Manual of Procedures
N	Number (typically refers to participants)
NIDCR	National Institute of Dental and Craniofacial Research, NIH, DHHS
NIH	National Institutes of Health
OCTOM	Office of Clinical Trials Operations and Management, NIDCR, NIH
OHRP	Office for Human Research Protections
PHI	Protected Health Information
PI	Principal Investigator

PO	Program Official, NIDCR, NIH
POC	Point-of-Care Veritor COVID-19 Test
PREDICT	Pragmatic Return to Effective Dental Infection Control through Triage and Testing
PS	Project Scientist, NIDCR, NIH
QA	Quality Assurance
QC	Quality Control
QoL	Quality of Life
SAE	Serious Adverse Event/Serious Adverse Experience
SOP	Standard Operating Procedure
UP	Unanticipated Problem
US	United States
WHO	World Health Organization

PROTOCOL SUMMARY

Title:	Pragmatic Return to Effective Dental Infection Control through Triage and Testing
Précis:	We will conduct a feasibility study to develop and test out procedures for improved triage and COVID-19 testing of patients in dental practices to improve patient safety. This is one of several feasibility studies to be conducted in Rutgers dental clinics and in dental offices which participate in the National Dental Practice Based Research Network (PBRN). These studies will assess the feasibility of implementing COVID-related procedures in the dental setting and may provide preliminary data to inform a larger network-wide study grant application.
Objectives:	**Primary:** The primary objective of this study is to determine patient willingness to participate in a study and to test survey instruments and logistics developed for a NIH clinical study evaluating the impact of COVID-19 testing and enhanced triage in dental offices.
Population:	This study will take place at Rutgers University School of Dental Medicine. Up to twenty (20) patients will be recruited in the Rutgers School of Dental Medicine's dental clinics. Only adults who are patients who are scheduled for dental appointments will be recruited.
Number of Sites:	One (1)
Description of Intervention:	Lab-processed saliva tests (Viral PCR SARS-CoV-2 tests) will be administered to patients coming to the school for care. In addition, the use of pulse oximeters will be added to the patient COVID-19 symptom triage protocol.
Study Duration:	Twelve (12) months
Subject Participation Duration:	Two (2) weeks.
Estimated Time to Complete Enrollment:	Six (6) months

Schematic Study Design for Patient Subjects:



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2 INTRODUCTION: BACKGROUND INFORMATION AND SCIENTIFIC RATIONALE

2.1 Background Information

Description of Problem:

The COVID-19 pandemic: COVID-19 has created serious concerns about the safety of patients and dental professionals as they return to a practice environment. The spread of this ubiquitous virus was first thought to be through droplets but soon it became clear that the virus could be spread by aerosols [5,6]. Many dental procedures require the mechanical preparation of hard and soft tissue using high speed handpieces which are water cooled and generate significant aerosolized sprays. The extent to which dentally-generated aerosols linger within operatories has not been clearly tested but it is certain that both dentists, dental assistants and hygienists will be exposed to significant aerosol sprays derived from patients' oral cavities [7]. As we learn more about COVID-19 and viral transmission we understand that infection and spread of the virus is due to the viral load (or dose) and the time of contact [8,9].

Uniqueness of Dental Practice: Unlike many procedures in medicine, dental/patient contact is eye to eye and the close proximity between patient and dental professionals is unavoidable [10]. Furthermore, a dental procedure can often take as long as 1 hour and prolonged close contact between dentist and patient is inevitable. Despite personal protective equipment (PPE) that includes N95 masks, face shields, gowns, and high-speed suction, viral spread from infected patients is unavoidable. This suggests that the only safe solution for maintaining the health and well-being of dental professionals in the time of COVID-19 is removing virus infected patients from their offices [11].

Waiting Rooms and Airflow: Obvious issues confronting dental practices have been discussed, however, waiting rooms with patients, bathrooms and passageways are all additional areas within offices that can be of concern. Further, the airflow in confined office spaces where patients can be waiting for 30 minutes or more can be hazardous if an asymptomatic but COVID-19 infected patient is in close proximity to a susceptible patient. Patients in a dental office can be at risk for infection that can have varied presentation and severity, and may be life threatening especially in patients with pre-existing conditions [21-23].

Solutions: One way of providing the security that dental offices are safe for both the dental professional and patient is by excluding anyone who harbors the COVID-19 virus. This of course would necessitate testing every patient at every visit or by establishing the fact that patients are safe if they have neutralizing antibody to the COVID-19 virus. These solutions, at this moment, appear to be impractical particularly if the virus affects a very small percentage of the population and testing is inaccurate. A solution to this problem is imperative both for the safety and security both the patient and dental professional. But what's to be done? How do we achieve our goal of providing a safe and secure environment that allows for routine dental care?

Several challenges exist to routine and comprehensive testing: the costs, turnaround time (maximum practical utility is perhaps derived from a simple, rapid, accurate, inexpensive point-of-care test that is not technically demanding, such a test has not yet been validated). This proposal compares the use of one such candidate POC test with the current screening gold-standard.

Conclusions*:* Every day that goes by, patients are not receiving dental services because of a COVID-19 transmission concern. Understanding risk associated with COVID-19 transmission in a dental practice and the effective use of testing and other practice modifications could dramatically reduce the risk, making both dental health care providers and patients comfortable with seeking/providing essential dental services. This proposal is designed to develop procedures that address this serious problem and test the feasibility of these procedures in a pragmatic manner to address this existing insurmountable problem that can affect the future of dental practice and the dental health we have come to expect.

2.2 Rationale

Typical dental protocols recommend twice yearly visits to dentists for prevention and maintenance of oral health [12,13]. Dental patients who may be asymptomatic for medical problems are seen routinely in dental offices and can be screened for the early phases of medical disease during routine dental visits. For example, blood pressure monitoring and simple blood test for glycosylated hemoglobin (HbA1c) levels can be performed in dental offices for referral to physicians for further assessment [18,19]. This ready access to vulnerable patients can be considered as value-added should dental health professionals provide augmented diagnostic benefit to patients who are unaware of their need for medical intervention. However, in this time of uncertainty dentistry has been impacted by fear and poorly defined strategies to mitigate COVID-19, that can compromise the willingness of dental professionals to open their dental practices [20].

Little is Known Regarding the Effectiveness COVID-19 Triage in Dental Practice*:* Little is known about the effectiveness of triage protocols which have been recommended by the CDC. For example, most offices are using temporal thermometers yet many are uncalibrated. In addition, screening questions continue to evolve and the veracity of patient responses remains unverified

Little is Known Regarding the Impact of COVID-19 Testing in Dental Practice: Little is known about the value of testing and about the willingness of DHCW to implement COVID-19 testing in a dental office or the most effective use of such testing.

Ultimately, we will perform three feasibility studies (Two patient and one DHCW study) which examine the following questions:

- Perception of safety and comfort: Will patients and DHCW in an office with either LAB or POC testing feel safer and be more comfortable delivering care during a COVID-19 or other infectious disease pandemic?
- Testing preference: Do DHCW and patients prefer POC testing rather than testing that requires laboratory processing?
- Effectiveness of triage: Is the triage protocol being followed today effective or do patients and DHCW respond negatively to COVID-19 symptoms because of the fear of not being seen or being turned away from work?
- Effectiveness of triage methods: Are objective measures such as temperature and pulse oximeter readings effective in identifying “asymptomatic” cases?

2.3 Rationale

2.3.1 Potential Risks

This research involves testing procedures with varying degrees of risk to the study participants.

- Saliva Test- minimal risk. The saliva test is non-invasive, requires spitting into a tube, and is completed independently, without interaction with a member of the healthcare team.

In addition, different COVID-19 test types have varying degrees of sensitivity and specificity, which may result in false negative and false positive test results. While a false negative result may give a participant a false sense of security, this would not pose additional risks to patients or the DHCWs in the dental practice, as the patient would have been treated according to the office’s infection control protocol regardless of participation in the study. On the other hand, a false positive result will prompt the patient to undergo additional testing by their primary health care provider. Should they test positive again, they would need to follow their local health department recommendations which may require quarantine.

There is a risk of loss of confidentiality for all study participants. Precautions will be in place to minimize this risk, such as collecting only minimal identifying information, using unique study codes for participants,

collecting data using encrypted computers, and maintaining electronic data files on a password-protected computer drive, and storing data on encrypted computers or in locked cabinets (located in locked offices). Individual identifier numbers that are linked to participant contact information will be stored separately from the data. Compliance with all IRB regulations concerning data collection, data analysis, data storage, and data destruction will be strictly observed.

2.3.2 Potential Benefits

There is no benefit to patients participating in this study beyond the fact that patients would receive the results of the free COVID-19 tests they undergo.

3 OBJECTIVES AND OUTCOME MEASURES

3.0 Rutgers Feasibility Study Outcomes

PILOT Objectives	Brief Description/Justification of Outcome Measure	Outcome Measured By	Time Frame
To Determine Patient Willingness to Participate	Willingness to participate is important in determining whether patients would be willing to participate in a large-scale study	• Ratio of patients agreeing to participate as compared to all patients asked to participate • Thoroughness of consent process and ability to ask questions	***Willingness to Participate:*** • Patients – at time of consent by patients • Patients – at End-of-Study
To Determine Patient Willingness/Ability to Follow Thru with Triage, Testing and Survey Administration Procedures	Determining willingness and ability to follow thru with triage, testing and survey administration procedures is important for refining the survey procedures	• % who complete the study • % who complete surveys o Pre-Visit Patient Survey o End-of-Visit Patient Survey • % who feel testing (Saliva procedure was easy to comply with o Specimen collection o Specimen preparation for shipping o Specimen storage o Timeliness of results o Reporting of results	***% Complete Study:*** • Patients – End-Of-Visit (Day 1) ***% All Surveys Completed:*** • Patients – End-Of-Visit (Day 1) ***% Feel Testing Protocol was Easy to Comply With:*** • Patients – End-Of-Visit (Day 1)
To Determine Ease of Use with REDCap Survey Instruments • Patient Subject o Start-of-Visit Survey o End-of-Visit Survey o Triage Survey	Determining the ease of use and completeness of the REDCap instruments enables refinement of the system	• % who feel surveys are easy to complete due to administration method: o Pre-Visit Patient Survey o End-of-Visit Patient Survey o Triage Case Report • % who feel survey questions were understandable: o Pre-Visit Patient Survey o End-of-Visit Patient Survey o Triage Case Report • % completed surveys: o Pre-Visit Patient Survey o End-of-Visit Patient Survey o Triage Case Report	***% indicating surveys were easy to complete due to administration method:*** • Patients – at end of patient visit ***% indicating survey questions were easy to understand:*** • Patients – End-Of-Visit (Day 1) ***% Surveys Completed:*** • Patients – End-Of-Visit (Day 1)

3.1 Primary Outcomes for Full Study (Data Collection is Being Performed to Determine Instrument Feasibility)

Full Study Objective	Brief Description/Justification of Outcome Measure	Outcome Measured By	Time Frame
Objective 1 – Dental health care personnel and patients feel safe in the dental office	***Patient Safety and Comfort Survey*** asks patients their concerns about seeing their dentist and their perceptions about the value of different safety precautions. ***Willingness to Return for another Visit*** reflects a patient's comfort with safety practices employed by their dentist. ***Willingness to Refer Other Patients*** reflects a patient's or DHCW's safety of the dental practice.	***Patients: Patient Safety and Comfort Survey*** 4 Items asking about concern on a 4 point Likert Scale – 1=not concerned at all, 2= mild concern 3=moderate concern, 4= severe concern 6 Items asking about safety on a 3 point scale – Not at All, Not Sure, yes 5 Items asking about Importance of safety practices on a 5 point Likert Scale – 1=extremely important, 2=important, 3 = Not important or unimportant, 4 = unimportant, 5 = very unimportant How safe to do feel coming to work? 5 Point Likert scale ***Patients --Willingness to Return for another Visit:*** How likely are you to return for another visit within the next 12 months? 5 Point Likert Scale ***Willingness to Refer Other Patients:*** How likely would you refer a family or friend to this dental office? 5 Point Likert Scale	***Sense of Safety for Patients:*** • Day prior to visit • At end of visit ***Willingness to Refer Other Patients:*** • LAB Patients - Day prior to visit • All Patients - end of visit •

3.2 Secondary Outcomes for Full Study (Data Collection is Being Performed to Determine Instrument Feasibility)

Objective	Brief Description/ Justification of Outcome Measure	Outcome Measured By	Time Frame
Objective 2: Determine the Efficiency and Effectiveness of: • **Efficiency of Patient Triage Protocols** • **Effectiveness of LAB**	***Efficiency of Triage Protocols:*** • Acceptability of triage protocols is based upon resources (time and effort and facilities) required to implement the protocol ***Effectiveness of Triage Protocols*** • Dentist's willingness to continue use of triage protocols is based upon the usefulness/outcomes of the triage. ***Efficiency of Testing Protocols:*** • Acceptability of testing protocols is based upon resources (time and effort and facilities) required to implement the protocol ***Effectiveness of Testing Protocols*** • Dentist's willingness to implement testing protocols is likely to be based upon testing's ability to identify asymptomatic DHCW and patients.	***Efficiency of Triage Protocols:*** • Time needed to complete triage survey ***Effectiveness of Triage Protocols*** • Comparison of number of patients not able to have visit completed • Comparison of Triage Survey to Medical History consistent with COVID-19 symptoms for DHCW ***Efficiency of Testing Protocols:*** • Time and supplies needed to conduct LAB ***Effectiveness of Testing Protocols*** • Number of patients not able to report for their patient visits LAB offices	***Efficiency of Triage Protocols:*** • LAB Patients: Start of visit ***Effectiveness of Triage Protocols*** • Patients: End of visit ***Efficiency of Testing Protocols:*** • Patients: End-of-Visit

4 STUDY DESIGN

Description: This study will assess the feasibility of implementing one COVID-related testing procedure in the dental setting. Results from this study may provide preliminary data to inform a larger network-wide study grant application.

Study Population: The study population for this study will be patients seen at the Rutgers School of Dental Medicine.

Important Outcomes: For this study, important outcomes include percent of patients willing to participate and percent completing the protocol.

Single or Multicenter: Single- this study will utilize the Rutgers School of Dental Medicine's Newark facility.

Number of Study Groups/Arms: One (1)

Expected Duration of Subject Participation: Subjects will be actively participating in the study for 2 weeks.

Sequence of Procedures and Duration of Study Period:
Consent Process
About two weeks prior to their scheduled dental visit, patients will be contacted by the dental office to determine their willingness to participate in the study. Patients who indicate interest will be sent an email link, which opens the consent. The consent will clearly outline participant expectations and offer the opportunity for potential participants to contact the office for more information as needed. Participants who fully understand the study and elect to participate will affirm their willingness to participate by clicking the "*I agree to take part in this study*" button at the end of the consent form. Once in the office to provide their saliva sample, patients will also be asked to provide signed informed consent.

Study Procedures
Study participants will be asked to do the following:

- Two weeks before the dental visit
  - Complete an electronic survey: *Patient Pre-Visit Survey*
    - Questions explore perceptions of safety and comfort, reasons for delaying dental care, concerns about returning to dental care, safety precautions valued, importance of triage and testing, and demographics
    - Launched automatically after the completed consent
  - Receive a saliva collection kit by mail
- One week before the dental visit
  - Complete a COVID-19 saliva test
    - Spit into a tube
    - Package as directed
  - Drop off the completed test kit at the dentist's office
- Day prior to the dental visit
  - Undergo a COVID-19 triage screening over the phone*
    - Screening includes symptom questions (presence or absence of):
      - fever or chills
      - cough
      - shortness of breath or difficulty breathing
      - fatigue
      - muscle and body aches
      - headache
      - loss of taste

- loss of smell
- sore throat
- congestion or runny nose
- nausea or vomiting
- diarrhea

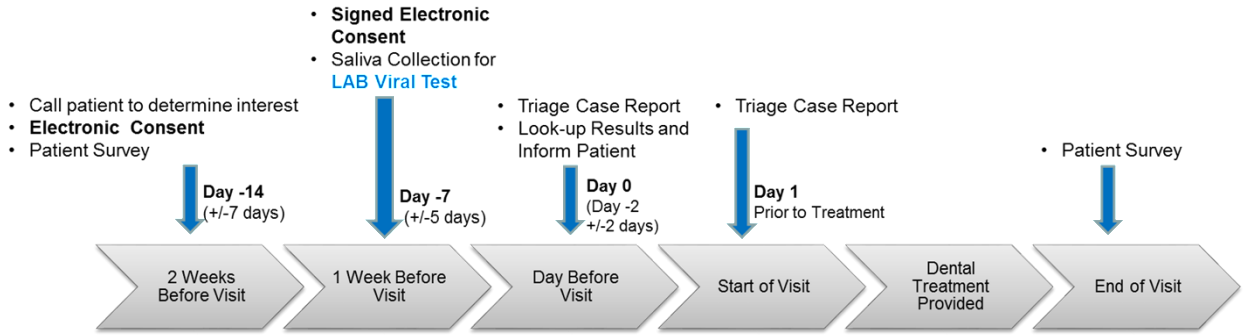
- At the start of the Dental Visit
  - Undergo a COVID-19 triage screening in the office*
    - Screening includes symptom questions, temperature check, and pulse oximeter reading
- At the End of the Dental Visit
  - Complete two electronic surveys
    - *Patient End-of-Visit Survey*
      - Questions explore perceptions with testing preferences, PPE observed, environmental controls observed, concerns about returning to dental care, safety precautions valued, importance of triage and testing, likelihood of reporting symptoms, dentists role in COVID-19 testing and vaccinations
    - *Patient Participation Survey*
      - Questions explore perceptions related to study participation including survey and testing logistics

If any aspect of the COVID-19 triage screening is positive, appointment will be postponed and the participant will be referred to their primary care physician for further testing.

- A Positive screening by reporting one or more symptoms
- A positive temperature is considered greater than 100.4 degrees F
- A positive pulse oximeter is considered when the blood oxygen saturation level is below 95%

The results of the lab processed COVID-19 test will be reported to the Clinic Director or one of the co-investigators by the lab prior to the scheduled dental visit. Results will be recorded in the *Testing Case Report* form in REDCap.

- If **POSITVE**: The Clinic Director or one of the co-investigators will communicate positive results to the participant upon receipt. Positive participants will be instructed to consult with their primary care provider for further testing.
- If **NEGATIVE**: The Clinic Director or one of the co-investigators will communicate negative results to the participant by phone on the day prior to the dental visit after the COVID-19 triage screening is performed.



Methods for Data Collection

REDCap will be used to collect and maintain all study data. For all surveys and case reports, the Research Clinical Director or co-investigator will enter data directly into REDCap. Surveys will be entered by the patient with the Clinical Director or co-investigator's assistance.

5 STUDY POPULATION

5.1 Participant Inclusion Criteria

A ***Patient*** must meet all of the following criteria to be eligible to participate in the study:

- Be a patient being treated at the Rutgers School of Dental Medicine
- Be 18 years or older
- Be able to understand the informed consent.
- Provide signed and dated informed consent form
- Be able to understand all instructions for data collection instruments in English
- Be willing and able to comply with all study procedures, including having a COVID-19 test performed

5.2 Participant Exclusion Criteria

Participants would be excluded if they participated in the feasibility study previously or if they are unwilling to have their de-identified data made available to other researchers.

5.3 Strategies for Recruitment and Retention

Target Sample Size: 20 patients.

Target Sample Size by Gender, Race, Ethnicity, and Age: Study population will be drawn from patients at the Rutgers School of Dental Medicine. It is estimated that about ½ will be female, ½ male. All will be English speaking. Age range will be between 18 and 100 years of age. Racial and ethnicity background will be reflective of the respective populations at the Rutgers Schools of Dental Medicine with about 52% being African American and 33% Hispanic.

Study Population: The patient study population will be drawn from outpatient dental clinics located at Rutgers University School of Dental Medicine.

Inclusion of Women and Minorities and Individuals of All Ages:

Women: Women will be included in this study. Pregnant women are eligible to participate.

Minorities: Minorities will be included in this study.

Recruitment Strategies: Patients treated in the Rutgers School of Dental Medicine's Oral Medicine clinic will be recruited. If 20 patients cannot be recruited in the Oral Medicine clinic, recruitment will expand to the school's other clinics. It is not anticipated that there will be difficulties recruiting sufficient patients.

Retention: In order to minimize loss of study participants and/or incomplete data collection, the following activities will take place:

- The Research Clinical Director will work with the co-investigators responsible for recruiting subjects and completing surveys.
- Participants will receive compensation.

Compensation and Scheduled Payments: Patients who complete the protocol, including the post-visit survey will be provided $100.

Additional Plans to Minimize Loss of Follow-up and Missing Data: The following will minimize loss of follow-up and/or missing data:

- When appropriate, REDCap survey data fields are set to "required".

- REDCAP validation rules on data fields to limit responses to valid responses

5.4 Participant Withdrawal or Discontinuation from Study Procedures/Intervention

5.4.1 Reasons for Participant Withdrawal or Discontinuation from Study Procedures/Intervention

Participants are free to withdraw from participation in the study at any time upon request.

An investigator may discontinue an individual's participation in an intervention or withdraw an individual from the study if:

- The participant has a serious adverse event requiring hospitalization.
- Any clinical adverse event (AE), laboratory abnormality, or other medical condition or situation occurs such that continued participation in the study would not be in the best interest of the participant.
- The participant meets an exclusion criterion (either newly developed or not previously recognized) that precludes further study participation.

5.4.2 Handling of Participant Withdrawals from Study

Participants may withdraw participation consent at any time, either verbally or in writing. Participants who further withdraw their consent for the use of data already collected must do so in writing. The Research Clinical Director or co-investigators will interview the participant and document the withdrawal of consent using the Consent Withdrawn Received Form in the REDCap system. Participants who withdraw will not be replaced.

Documentation includes the date, the reason for participant withdrawal, as well as, the upload of any written withdrawal request. Upon withdrawal, all study procedures would cease, however, the participant would be offered continued care as part of the normal standard of care.

5.5 Premature Termination or Suspension of Study

This study may be suspended or prematurely terminated if there is sufficient reasonable cause. Written notification, documenting the reason for study suspension or termination, will be provided by the suspending or terminating party to Dr. Cecile Feldman and the funding agency (NIDCR). The principal investigator will also promptly inform the IRB and NIDCR and will provide the reason(s) for the termination or suspension.

Circumstances that may warrant termination include, but are not limited to:

- Determination of unexpected, significant, or unacceptable risk to participants.
- Insufficient adherence to protocol requirements.
- Data that are not sufficiently complete and/or evaluable.
- Determination of futility.

6 STUDY SCHEDULE

6.1 Patient Subjects

The following is the schedule of events for patients participating in the study.

Visit	Day	LAB Subjects Activities Performed
2 Weeks Prior	Day -14 (+/- 7 days)	• Potential subjects contacted to introduce and determine interest in the study • Obtain electronic consent • Complete Pre-Visit Patient Survey
1 Week Prior	Day -7 (+/- 5 days)	• Obtain informed consent signatures • Provide saliva specimen
Day Prior	Day -2 (+/- 3 days)	• Perform Prior-Day Triage Survey • Obtain test results and provide to patient subject
Visit	Day 1	• Complete Start-of-Visit Survey • Complete Start-of-Visit Triage Case Report • (Provision of Dental Treatment - not part of research protocol) • Complete End-of-Visit Survey • Complete Patient Participation Questionnaire

6.2 Withdrawal Visit

Not applicable. If a subject withdraws early, there is no withdrawal visit.

6.3 Unscheduled Visit

Not applicable.

7 STUDY PROCEDURES/EVALUATIONS

As part of this study, COVID-19 triage case report will be completed, COVID-19 testing will be performed and perception and attitude surveys will be administered. During day 1, the dental visit, normal patient care will be provided to the patient subject.

For the purpose of this study, a COVID-19 positive result is not considered an adverse event though results of this test will be recorded.

Patient subjects who are COVID-19 antigen or viral positive or who triage positive without any preexisting medical condition, will not be seen for their scheduled dental visit. The subject will be referred to their physician for a definitive diagnosis and follow-up. The follow-up call will be made 1 week after (and 2 weeks after if necessary,) learning of the research study protocol call viral or antigen positive test results to record any confirmatory tests which were obtained based upon the advice of the worker's physician. The dental visit will be rescheduled once the subject has fully recovered. In the event of a dental emergency, care will be rendered via tele dentistry or referral to University Hospital Unit 1 (Oral and Maxillofacial Surgery/Dental Medicine Clinic) via University Hospital's Emergency Room.

7.1 Study Procedures/Evaluations

The following study procedures will be completed:

Patient Subjects – LAB Protocol

Procedure and Evaluations	Purpose	Completed as Part of Study	When Performed	How Completed
Obtain Informed Consent	Complete informed consent	Yes	**2 Weeks Prior** (day-14 +/-7 days) **1 Week Prior** (day-7 +/-5 days)	Electronic consent obtained prior to initiating Pre-Visit Patient Survey Electronic signatures collected via REDCap Informed Consent Form when saliva specimen brought to office
Triage Case Reports	Collect COVID-19 screening data	Yes	**Day Prior** (day -2 +/-2 days) **Visit** (day 1)	Data entered into REDCap via eCRF by Clinical Director, co-investigator or study staff member who interviews subject
Testing Case Reports	Collect information on outcomes of COVID-19 testing		**Day Prior** (day -2 +/-2 days	Saliva Viral SARS-CoV-2 test results entered into REDCap via eCRF by Research Clinical Director, co-investigator or study staff member based on testing result report obtained from secure e-mail.
Start-of-Visit Patient Survey • Safety and Comfort • COVID-19 Testing Preferences • Perception of Importance • Medical history • Likelihood to report COVID-19 symptoms	Collect outcome measures	Yes	**Visit** (day 1)	Data entered via REDCap self-administered survey.
Dental Procedures Performed	Maintain patient oral health	**NO**	**Visit**	Completed by Dental Health Care Workers
End-of-Visit Patient Survey • PPE observed in office • Environmental controls observed in office	Collect outcome measures	Yes	**Visit** (day 1)	Data entered via REDCap self-administered survey.
Patient Participation Questionnaire	Collect feasibility information on surveys and logistics	Yes	**End of Study** (Day 28)	Data entered via REDCap self-administered survey.

7.2 Laboratory Procedures/Evaluations

7.2.1 Clinical Laboratory Evaluations

Patient subjects will be tested for COVID-19 using a lab-processed saliva test.

	Patient LAB Test (PCR Viral Test)
Test Description	
Company	Rutgers
Sample collected via	Saliva collection tube with buffer
What is being Tested	SARS-CoV-2 RNA
Test Administration (specimen collection)	Saliva collection performed by subject with saliva collection tube provided by a Research Clinical Director
Test Administration (specimen processing)	RT-PCR test performed at ICPH-PHRI center, New Jersey Medical School, Newark, NJ
Results	Dichotomous (+ or -)

With regard to the quality of the COVID-19 test specimen, the following will be used to assess the quality of the specimen.

	LAB Test
Indication of Proper Processing	Accurate Diagnostic Labs will report if a sample is not able to be processed. This feedback will be used to identify insufficient training or unanticipated problems.

Compliance with study protocols will be based upon the PI and the Chief of Clinical Protocol following the REDCap dashboard. The dashboard exhibits red indicators for instruments which have been started and not completed, yellow indicators for instruments which have been completed and not verified and green indicators for instruments which have been completed and reviewed. The PI or Chief of Clinical Protocol will be responsible for reviewing each instrument and changing the status from unverified to verified. Any issues with compliance with the study protocol identified by the PI or Chief of Clinical Protocol will be reviewed with the Research Clinical Director and be used to identify any unanticipated problems and develop/implement any necessary corrective action plans.

7.2.2 Specimen Preparation, Handling, and Storage

The following details specimen preparation, handling and storage.

	LAB Test
Sample Collection & Shipping	
Sample Collection Materials	Spectrum Saliva collection system via Accurate Diagnostics
Storage of Specimen Collection Supplies and POC Test Kits	Clinical Research Center (D level of Dental School) and dental clinic dispensaries in the dental school
Transport Media	Buffer solution
Packaging Specimen for Shipping	Sealed biohazard plastic bag
Sample Processing (Performing the Test)	
Processing Supplies	RNA extraction, followed by RT-PCR
Processing Time	About four hours
Conditions for Stability and Transport Condition	
Stability prior to Use	No special storage conditions required
Stability during shipping	Yes due to transport media
Storage prior to processing	PHRI Laboratory
Stability prior to processing	Stable at room temperature
Tracking	
Labeling	Specimen ID (bar code) Subject ID (bar code)

	Subject Name Date of Specimen
Tracking of Specimen Collection Kits	REDCap System and/or Excel Worksheet
Tracking of Tests Administered	Completion of REDCap COVID-19 Test Order and Results Form (which enables the generation of a Specimen Tracking Log)
Reporting of Results	
Time from specimen collection to reporting of results	Results are normally available within 1 week
Results Reporting	Via secure e-mail and then posted into REDCap via Research Clinical Director

7.2.3 Specimen Shipment

Saliva and immediately placed into a preservative and the tube with the sample then placed into a biohazard bag.

	LAB Test
Shipment Method and Frequency	Samples will be obtained from subjects Monday thru Thursdays. Saliva samples will be placed into the pick-box located on the B level of the MSB building.)
Packaging Specimen for Shipping	Sealed plastic biohazard bag
Shipping Address	Accurate Diagnostic Labs 3000 Hadley Road South Plainfield, NJ 07080
Contact Information for Laboratory Personnel	Accurate Diagnostic Labs Phone: (732) 839-3300
Days and Times shipments are allowed	Monday thru Friday 9:00 am to 5:00 pm
Labeling Requirements for Specimen Shipping	Subject Number, Subject Name, Birth Date and Collection Tube ID/Bar Code
Special Instruction for Specimen Collection	Subject should not eat or drink for 30 minutes prior to saliva specimen collection
Special Instructions for Specimens for Shipment (i.e. dry ice, wet ice)	No special instructions
Completion of Specimen-Tracking Log	Completion of REDCap COVID-19 Test Order and Results Form (which enables the generation of a Specimen Tracking Log)

8 ASSESSMENT OF SAFETY

8.1 Definitions and Specifications of Safety Parameters

Safety monitoring for this study will focus on unanticipated problems involving risks to participants, including unanticipated problems that meet the definition of a serious adverse event.

Event	Definition	Form	Who completes REDCap form	Time Frame For Reporting to IRB	Additional Reports to
Unanticipated Problems	Any problem or event which in the opinion of the local investigator was unanticipated, reflects new or increased risk to the subjects and was possibly related to the research procedures. This includes any serious adverse event that is defined as an event which requires hospitalization and/or causes mortality	Unanticipated Problem Form	Site Director or Clinical Research Clinical Director	5 business days from the date of discovery 24 hours for hospitalization 24 hours for fatalities	**Rutgers IRB**
Protocol Deviations	Any change, divergence, or departure from the study design or procedures of a research protocol that is under the investigator's control and that has not been approved by the IRB.	Protocol Deviation/ Violation Form	Site Director or Clinical Research Clinical Director	5 business days from the date of discovery	**Rutgers IRB**
Protocol Violation	Any deviation from the IRB approved protocol that may affect the subject's rights, safety, or well-being and/or the completeness, accuracy and reliability of the study data	Protocol Deviation/ Violation Form	Site Director or Clinical Research Clinical Director	5 business days from the date of discovery	**Rutgers IRB**

Study procedures are limited to surveys and collecting capillary blood samples via finger prick. We therefore expect few, if any study related serious adverse events. In the rare event that a serious adverse event were to occur, an Unanticipated Problem form would be completed and SAE reporting timelines would be followed.

8.1.1 Unanticipated Problems

The Office for Human Research Protections (OHRP) considers unanticipated problems involving risks to subjects or others to include, in general, any incident, experience, or outcome that meets **all** of the following criteria:

- unexpected in terms of nature, severity, or frequency given (a) the research procedures that are described in the protocol-related documents, such as the IRB-approved research protocol and informed consent document; and (b) the characteristics of the subject population being studied;
- related or possibly related to participation in the research ("possibly related" means there is a reasonable possibility that the incident, experience, or outcome may have been caused by the procedures involved in the research); and
- suggests that the research places subjects or others at a greater risk of harm (including physical, psychological, economic, or social harm) than was previously known or recognized.

8.1.2 Serious Adverse Events

A serious adverse event (SAE) is one that meets one or more of the following criteria:

- Results in death
- Is life-threatening (places the subject at immediate risk of death from the event as it occurred)
- Results in inpatient hospitalization or prolongation of existing hospitalization
- Results in a persistent or significant disability or incapacity
- Results in a congenital anomaly or birth defect

- An important medical event that may not result in death, be life threatening, or require hospitalization may be considered an SAE when, based upon appropriate medical judgment, the event may jeopardize the subject and may require medical or surgical intervention to prevent one of the outcomes listed in this definition.

If a SAE becomes known, the Research Clinical Director will immediately notify the study PI. The Research Clinical Director will record the event in the REDCap Unanticipated Problem Form based upon information obtained.

8.2 Reporting Procedures

8.2.1 Unanticipated Problem Reporting

Incidents or events that meet the Office of Human Research Protection (OHRP) criteria for UPs require the creation and completion of a UP report form.

OHRP recommends that investigators include the following information when reporting an adverse event, or any other incident, experience, or outcome as an unanticipated problem to the IRB:

- appropriate identifying information for the research protocol, such as the title, investigator's name, and the IRB project number;
- a detailed description of the adverse event, incident, experience, or outcome;
- an explanation of the basis for determining that the adverse event, incident, experience, or outcome represents an unanticipated problem;
- a description of any changes to the protocol or other corrective actions that have been taken or are proposed in response to the unanticipated problem.

To satisfy the requirement for prompt reporting, UPs will be reported that are not SAEs will be reported using the following timeline:

- Unanticipated problems that are SAEs will be reported to the IRB as soon as possible, and no later than within 24 hours of the investigator becoming aware of the event.
- Any other UP will be reported to the IRB within 5 business days of the investigator becoming aware of the problem.
- All UPs should be reported to appropriate institutional officials (as required by an institution's written reporting procedures), the supporting agency head (or designee), and OHRP within one month of the IRB's receipt of the report of the problem from the investigator.

All unanticipated problems will be reported to NIDCR concurrently with reporting to the IRB. These reports will be made to NIDCR's centralized reporting system via the Clinical Research Operations and Management Support (CROMS) contractor.

9 STUDY OVERSIGHT

The investigator will be responsible for study oversight, including monitoring safety, ensuring that the study is conducted according to the protocol and ensuring data integrity. The PI will review the data for safety concerns and data trends at regular intervals, and will promptly submit reportable events to the IRB and NIDCR that arise during the conduct of the study.

10 CLINICAL SITE MONITORING

No outside clinical site monitoring will be employed for this study. The Principal Investigator(s) and staff will closely monitor the subjects as they progress through the study. They will monitor and evaluate study processes and documentation based on the International Council for Harmonisation (ICH), E6: Good Clinical Practice guidelines (GCP), and internal quality management plans. The NIDCR reserves the right to conduct independent clinical site monitoring as necessary.

11 STATISTICAL CONSIDERATIONS

11.1 Study Hypotheses.

For th**is study,** we hypothesize:

- Patients in offices with PBRN dentists and hygienists will be willing to participate
- Surveys will be easy to complete
- Testing protocols will be easy to complete

Analyses will be performed to test these hypotheses.

11.2 Sample Size Considerations

This is a feasibility study to refine trial logistics. No sample size calculations are being performed.

11.3 Final Analysis Plan

Data to be collected includes:

Item	Type of Variable
Willingness to Participate • Patient willingness to participate	• Willingness to participate (Binary – Yes/No)
Triage Survey	• Ease of Administration (3 point Likert Scale) ○ Very easy to complete survey due to administration method ○ Easy to administer complete survey due to administration method ○ Not easy to complete survey due to survey administration method • Completeness (Binary – Yes/No) • Question understandability (3 point Likert Scale) ○ Very clear to understand ○ Understandable with some clarification provided by the administrator ○ Not clear to understand
Safety Perception Survey • Start-of-Visit Patient Survey • End-of-Visit Patient Survey	• Administration method (3 point Likert Scale) ○ Very easy to complete survey due to administration method ○ Easy to complete survey due to administration method ○ Not easy to complete survey due to administration method • Completeness (Binary – Yes/No) • Question understandability (3 point Likert Scale) ○ Very clear to understand ○ Understandable with some clarification provided by the administrator ○ Not clear to understand
Testing Logistics • LAB – saliva SARS-CoV-2 viral test	• Specimen Collection (3 point Likert Scale) ○ Very easy to collect ○ Easy to collect ○ Not easy to collect • Specimen preparation for shipping (3 point Likert Scale) ○ Very easy to prepare ○ Easy to prepare ○ Not easy to prepare • Specimen storage (Binary – Easy/Not Easy) ○ Easy to Store ○ Not easy to store

	• Timeliness of results (3 point Likert Scale)
	  ○ Very timeless access to results
	  ○ Timely access to results
	  ○ Access to results not timely
	• Reporting of results (3 point Likert Scale)
	  ○ Very easy to access results
	  ○ Easy to access results
	  ○ Not easy to access results

Testing Case Report	• Completeness (Binary – Yes/No)

Descriptive statistics (frequencies) for all variables will be analyzed.

12 SOURCE DOCUMENTS AND ACCESS TO SOURCE DATA/DOCUMENTS

All study survey information will be captured electronically and stored on secure, encrypted Rutgers University servers.

- Patient consents will be captured and recorded directly into the REDCap system.
- All Patient surveys will be recorded directly into REDCap via the following REDCap forms:

Patient Participants
Triage Case Report
Pre-Visit Patient Survey
End-of-Visit Patient Survey
Patient Participation Questionnaire
Testing Case Report

- Testing results will be captured in the REDCap Testing Case Report in the following ways:

	LAB
Original Source Document	Secure e-mail
Storage of Original Source Document	Electronically stored on Rutgers server
Responsibility for Entering into REDCap	Research Clinical Director or Co-Investigator
Verification of Correct Entry into REDCap	PI or Chief of Clinical Protocol

All paper based study source documents will be maintained in the Rutgers School of Dental Medicine Clinical Research Center which is located on the D Level of the Dental School Building. All documents will be secured in a locked file cabinet in the center. Access to the Clinical Research Center is limited to research center personnel via a card reader.

Study staff will maintain appropriate medical and research records for this study, in compliance with ICH E6, Section 4.9 and regulatory and institutional requirements for the protection of confidentiality of participants. Study staff will permit authorized representatives of NIDCR and regulatory agencies to examine (and when required by applicable law, to copy) research records for the purposes of quality assurance reviews, audits, and evaluation of the study safety, progress, and data validity.

13 QUALITY CONTROL AND QUALITY ASSURANCE

Quality Management (QM) measures will occur throughout this study to ensure adherence to protocol and collection of high quality data. QM activities include those measures done as part of daily standard operating procedures by staff at each site and by the data management controls built into the PREDICT REDCap to ensure adherence to the protocol and collection of complete and accurate data. QM activities will include activities undertaken at defined intervals to check that QM activities are taking place and study-related documents are up-to-date.

Staff Training

Training of all staff will be conducted and recorded in training logs. Each staff member has been identified by role. Records of completed training will be maintained in each study member's study personnel file kept on the SDM PREDICT box drive, Personnel Qualifications folder.

Training Modules	Who Will be Trained
Human Subjects, HIPAA	• All Study Personnel
General Clinical Research Training (Human Subjects, HIPAA)	• PI, Chief of Clinical Protocol
General Overall (Study Purpose, Goals and Protocol)	• All Study Personnel
REDCap System Training	• Research Clinical Directors and Research Assistants

Daily Operating Procedures

Quality management measures have been built into Clinical Protocol Core and site procedures.

Subject Completion Review

As this is a feasibility study, reviews of surveys and case reports to ensure completeness will not be completed, rather the number/percentage of incomplete survey's and forms will be analyzed as an outcome measure. Consent forms will be reviewed for completeness as part of the end-of-visit survey for patient subjects.

Data Management Controls

REDCap is a rich system which enables privileging, required data element entry and required data validation to be embedded into daily operations.

- **Privileging:** Every study staff member will be assigned a role which carries specific read/write/edit/delete privileges. Staff member will be assigned a role providing minimal rights sufficient to perform his/her responsibilities.
- **Structured Data:** Whenever possible, data will be collected via structured data responses rather than free-text. Structured data requires a respondent to check a valid response.
- **Data Validation:** Data fields will be established limiting responses to those that are reasonable. For example, year of birth would have a range of 2002 (corresponding to age 18 – the youngest eligible) to 1920 (corresponding to age 100 – more than sufficient to cover the age range of individuals having impacted 3rd molars extracted.)
- **Required Fields:** Whenever appropriate, fields have been made required so as to ensure completed forms and questionnaires.

Structured responses are required for the CRFs so only valid responses can be recorded. In addition, REDCap has been programmed with all responses being required at time of completion. Validation rules are employed where possible.

14 ETHICS/PROTECTION OF HUMAN SUBJECTS

14.1 Ethical Standard

The investigator will ensure that this study is conducted in full conformity with the principles set forth in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research, as drafted by the US National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (April 18, 1979) and codified in 45 CFR Part 46 and/or the ICH E6.

14.2 Institutional Review Board

The protocol, informed consent form(s), recruitment materials, and all participant materials will be submitted to the IRB for review and approval. Approval of both the protocol and the consent form(s) must be obtained before any participant is enrolled. Any amendment to the protocol will require review and approval by the IRB before the changes are implemented in the study.

14.3 Informed Consent Process

Informed consent is a process that is initiated prior to the individual agreeing to participate in the study and continues throughout study participation. Extensive discussion of risks and possible benefits of study participation will be provided to participants and their families, if applicable. A consent form describing in detail the study procedures and risks will be given to the participant. Consent forms will be IRB-approved, and the participant is required to read and review the document or have the document read to him or her. The investigator or designee will explain the research study to the participant and answer any questions that may arise.

For patient subjects, an electronic consent will be obtained before the Pre-Visit-Triage survey is completed. Prior to any other research activity, written consent will be obtained upon arrival at the clinic prior to any other study-related assessments or procedures.

Potential participants will be given the opportunity to think about it prior to agreeing to participate. They may withdraw consent at any time throughout the course of the study. A copy of the signed informed consent document will be given to participants for their records. The rights and welfare of the participants will be protected by emphasizing to them that the quality of their clinical care will not be adversely affected if they decline to participate in this study.

The consent process will be documented in the clinical or research record.

14.4 Exclusion of Women, Minorities, and Children (Special Populations)

Women and minorities will be eligible to participate. Children less than 18 years will not be able participate.

14.5 Subject Confidentiality

Subject confidentiality is strictly held in trust by the investigators, study staff, and the study sponsor(s) and their agents. This confidentiality is extended to cover testing of biological samples and genetic tests in addition to any study information relating to participants.

The study protocol, documentation, data, and all other information generated will be held in strict confidence. No information concerning the study or the data will be released to any unauthorized third party without prior written approval of the study sponsor.

The study monitor or other authorized representatives of NIDCR may inspect all study documents and records required to be maintained by the investigator, including but not limited to, medical records (office, clinic, or hospital) for the study participants. The clinical study site will permit access to such records.

Certificate of Confidentiality

To further protect the privacy of study participants, the Secretary, Health and Human Services (HHS), has issued a Certificate of Confidentiality (CoC) to all researchers engaged in biomedical, behavioral, clinical, or other human subjects research funded wholly or in part by the federal government. Recipients of NIH funding for human subjects research are required to protect identifiable research information from forced disclosure per the terms of the NIH Policy (https://humansubjects.nih.gov/coc/index - Certificates of Confidentiality (CoC) – Human Subjects). As set forth in 45 CFR Part 75.303(a) and NIHGPS Chapter 8.3, recipients conducting NIH-supported research covered by this Policy are required to establish and maintain effective internal controls (e.g., policies and procedures) that provide reasonable assurance that the award is managed in compliance with Federal statutes, regulations, and the terms and conditions of award. It is the NIH policy that investigators and others who have access to research records will not disclose identifying information except when the participant consents or in certain instances when federal, state, or local law or regulation requires disclosure. NIH expects investigators to inform research participants of the protections and the limits to protections provided by a Certificate issued by this Policy.

NIH Data Sharing Policies

As described in section 17, it is NIH policy that the results and accomplishments of the activities that it funds should be made available to the public (see https://grants.nih.gov/policy/shring.htm - NIH Sharing Policies and Related Guidance on NIH-Funded Research Resources). PIs and funding recipient institutions will ensure that all mechanisms used to share data include proper plans and safeguards to protect the rights and privacy of individuals who participate in NIH-sponsored research.

14.6 Future Use of Stored Specimens and Other Identifiable Data

No residual specimens will be maintained after this project is completed. All Identifiable data will be destroyed 7 years after the study is completed.

15 DATA HANDLING AND RECORD KEEPING

The Research Clinical Director and co-investigators are responsible for ensuring the accuracy, completeness, legibility, and timeliness of the data reported. All source documents should be completed in a neat, legible manner to ensure accurate interpretation of data. The investigators will maintain adequate case histories of study participants, including accurate case report forms (CRFs), and source documentation.

15.1 Data Management Responsibilities

Data collection and accurate documentation are the responsibility of Research Clinical Director and co-investigators.

15.2 Data Capture Methods

Other than the Testing Case Report, all data for the study be electronically captured. Various devices will be used including:

- Laptop and desktop computers to complete surveys and forms directly into REDCap, the electronic data capture system for the study
- iPads to complete surveys, forms and capture electronic signatures directly into REDCap
- Bar code scanner to label study specimens

All study data will be centrally stored on the Rutgers REDCap data management system, and study-related documentation will be maintained on RSDM PREDICT Box drive. REDCap is a secure web application which is password protected and compliant with 21 CFR Part 11. Study data and documentation will be available to the study PI and core personnel in real time, per allowable permissions.

15.3 Types of Data

Types of data to be collected include patient perceptions and attitudes, medical history, COVID-19 like symptoms, temperature, pulse oximeter readings and COVID-19 test results.

15.4 Schedule and Content of Reports

The following reports/dashboards will be developed:

Report/ Dashboard	Frequency	Purpose	Content	Reviewed by
Unanticipated Problem (including Serious Adverse events and protocol deviations) Report	End of Study	To review unanticipated problems and provide an opportunity to refine protocol	• Listing of unanticipated problem reports • Frequency of types of UP's	• PI • Chief of Clinical Protocol • Study Co-Investigators • Research Assistant

There will be no interim analysis performed. Data analysis is detailed in Section 12.4.

15.5 Study Records Retention

Per Rutgers Research Regulatory Affairs, research that involves collection of protected health information (PHI) is subject to the HIPAA regulations. Research records including signed consent forms that contain

the HIPAA authorization must be retained for 6 years after the date on which the subject signed the consent form or the date when it last was in effect, whichever is later.

15.6 Protocol Deviations

A protocol deviation is any change, divergence, or departure from the study design or procedures of a research protocol that is under the investigator's control and that has not been approved by the IRB. Upon discovery, the Principal Investigator is responsible for reporting protocol deviations to the IRB.

A protocol violation is a deviation from the IRB approved protocol that may affect the subject's rights, safety, or well-being and/or the completeness, accuracy and reliability of the study data. Protocol Violations must be submitted for Full Board IRB review. If the deviation meets any of the following criteria, it is considered a protocol violation.

Protocol deviations and protocol violations can be broken down into the following two categories: Minor deviation or violation OR Major deviation or violation.

- Minor Deviations and/or Minor Violations: A minor deviation or minor violation is viewed by the IRB as an event that does not impact subject safety, compromise the integrity of study data and/or affect a subject's willingness to participate in the study. Minor deviations or violations will be reviewed under expedited procedures by a single reviewer. The reviewer will determine whether the event is accepted as a minor deviation/violation and can recommend a corrective course of action. The deviation will be sent to the fully convened IRB meeting where the board will discuss and determine if any additional actions are required, where applicable and as necessary. If the event meets any of the following criteria, it is considered a minor deviation or minor violation: Examples (Minor)
- Major Deviations and/or Major Violations: A major deviation or violation is viewed by the IRB as an event that may impact subject safety, affect the integrity of study data and/or affect a subject's willingness to participate in the study. Major protocol deviations/violations are treated as noncompliance. These reports will be reviewed at the fully convened IRB meeting where the board will discuss the major deviations and/or major violations and determine of the appropriate course of action. If the event meets any of the following criteria, it is considered a major deviation or major violation: Examples (Major)

All deviations and violations from the protocol will be recorded on the Protocol Deviation/Violation Reporting Form no later than 5 business days after study staff become aware of the deviation and forwarded to the study PI for review and reported promptly to the IRB. All protocol deviations and violations will be reviewed monthly during the PREDICT Steering Committee Meeting.

16 PUBLICATION/DATA SHARING

This study will comply with all applicable NIH Data Sharing Policies. See *https://grants.nih.gov/policy/sharing.htm* for policies and resources.

Dissemination at Scientific Meetings: Presentations at scientific meetings will be delivered to assist in dissemination of results as soon as possible when final results pertaining to the primary variables are available. Meetings at which presentations will be made include, but will not be limited to, American and International Association of Dental Research (AADR and IADR), the American Dental Association (ADA), and International Association for the Study of Pain (IASP) and addiction meetings. NIH grant support will be acknowledged during all presentations.

Publication and Authorship Policies:
Findings will be published in peer-reviewed journals. Journals selected will be indexed in PubMed. Accepted manuscripts will be submitted to PubMed Central as per NIH policy. Examples of journals in which final results may be published include the Journal of Dental Research and the Journal of the American Dental Association. Other medical journals, including journals on pain and addiction will be considered for manuscript publications. Final versions of the peer reviewed manuscripts will be made available to the public, generally within 3 months but no later than 12 months after the official date of publication. NIH grant support will be acknowledged in all publications.

Proposals from study investigators for writing and submitting abstracts and manuscripts for publication will be presented to a committee for approval, comprised of the study PI, chief clinical officer, chief pharmacology officer and chief statistician. Included in the proposal is data needed for the publication, analyses to be performed, proposed authorship and order of authorship, and/or journal in which the manuscript will be published. If a submission for an approved proposal is not completed within 11 months of approval, other authors can submit a similar proposal to the committee for approval.

The following ICMJE guidelines will be adopted and followed in determining authorship:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

NIH Public Access Policy
The NIH *Public Access Policy* requires scientists to submit final peer-reviewed journal manuscripts that arise from NIH funds to *PubMed Central* immediately upon acceptance for publication. This ensures that the public has access to the published results of NIH funded research.

Data Sharing
The PI will share the individual non-identified subject data no later than acceptance for the publication's main findings from the final data analysis or 18 months after completion of the study, whichever is earlier. As NIDCR does not have a data repository at the initiation of this feasibility study, data will be provided to the PBRN Network Coordinating Center who will have the responsibility for posting the data. All study data will be collected in REDCAP with the REDCap project along with all non-identified data collected. The PBRN resource center will convert the data into both SAS and ASCII formats for posting. Data to be posted will include the study protocol and the data set in both SAS and ASCII formats, and data dictionary.

Upon written request to the PI, survey instruments or other materials developed for use during the clinical trial will be made electronically available to other researchers.

17 LITERATURE REFERENCES

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SUPPLEMENTAL MATERIALS

None

APPENDICES

Table of Contents

APPENDIX A: SCHEDULE OF EVENTS

LAB Patient Subject

Procedures	2 Weeks Prior to Visit (Day -14 +/- 7 days)	Week Prior to Day -7 (+/- 5 days)	Day Prior to Visit Day -2 (+/- 2 days)	Visit Day 1
Obtain Consent	X			
Collect Saliva (LAB) Sample		X		
Drop of Saliva Sample at Dental Office		X		
Triage Survey			X	X
Start-of-Visit Survey	X			
End-of Visit Survey				X
Patient Participation Questionnaire				X
Provision of Dental Care (Not part of study)				X