

To: Dr. Erika Paterson

From: Brenda Martinez

Date: October 8, 2019

Subject: Research Proposal for 'Reduction of aerosol bacteria in clinical dental hygiene practice'

Introduction:

Infection control is an imperative part of working in the health care field. Health care providers working in dental offices are often presented with the task of finding ways on how to reduce the bacterial load exposure in order to protect themselves as well as the rest of the dental team. Oral antiseptic and anti-bacterial mouth-rinses have been shown to be highly effective at reducing aerosol bacteria. When administered to the patient prior to ultrasonic scaling the intra-oral bacteria emitted via aerosols is significantly reduced.

Location of study and target audience:

For this study, I will be conducting research in my place of work. Currently, I am practicing dental hygiene at Richmond Dental Clinic in Calgary, AB. This will be the location of my study. Focusing on conducting research over the next few weeks through anonymous surveys. The target audience will be the dental hygiene team.

Statement of Problem:

Dental Hygienists are not routinely administering a pre-procedural oral antiseptic rinse prior to ultrasonic scaling. This is a potential infection control hazard for the clinician, which could also affect the team as a whole. Dental hygienists are constantly exposed to viruses transmitted via aerosols, such as the cold and flu virus.

Proposed Solution:

To research the dental team's perceived benefits and challenges of using a pre-procedural rinse in a dental health care setting. Recently, the dental hygiene team was informed by management that using a pre-procedure rinse could be beneficial in the reduction/control of aerosol bacteria. This report aims to collect anonymous data and receive feedback from the dental hygiene team, using a survey. I am interested in informing management on these findings as they pertain to the dental hygiene team's perceived benefits or not regarding this new protocol.

Scope:

Generally, I am interested in finding out if dental hygienists are giving patients a pre-rinse before every appointment. Also, to determine their personal background knowledge and, perceived benefits of implementing a pre-procedural rinse. Some of the key elements of this research will be to:

- Determine if dental hygienists are giving a pre-procedural rinse at every appointment
- What are the determinants preventing dental hygienists from giving a pre-rinse?

- Does the dental hygiene team understand the reasoning and benefits behind a pre-rinse?
- What could help the dental hygiene team follow-through with the pre-rinse protocol?

Methods:

For the purpose of this report, my research will be conducted using a survey method. The audience to whom I will present the research findings will be the dentist, Dr. B. Miller, and office manager, Ms. J. Olmstead. Staff at Richmond Dental Clinic will begin using a pre-procedural antiseptic rinse, as per the recent changes in office protocol since the last staff meeting. In particular the dental hygienists providing routine ultrasonic scaling, which has aerosol emitting properties. The dental hygiene team will be the research participants.

My Qualifications:

I currently work as a registered dental hygienist in Calgary, I have been practicing dental hygiene for 6 years and have been in the dental field for 14 years. Part of my work involves ongoing continuing education on the ever-evolving dental health care profession. I have attended various courses and workshops on infection control and personal protection of dental health care professionals. As primary health care professionals, we are trained to inspect our work environment and to be aware of the potential hazards that we are constantly exposed to. Having this background knowledge will help me to carry out the research necessary for this report.

Conclusion:

Dental hygienists are not routinely administering a pre-procedural antiseptic rinse prior to ultrasonic scaling. The implementation of a Listerine mouth-rinse prior to dental hygiene for every patient, could greatly reduce the aerosol bacteria contamination hazard for dental hygienists. With cold and flu season around the corner, it is imperative that the dental hygiene team begins implementing this protocol.