

British Columbia College of Oral Health Professionals Mailing Address 110 - 1765 8th Ave W Vancouver, BC V6J 5C6 Phone: 672.202.0448 Toll free: 1.888.202.0448 info@oralhealthbc.ca www.oralhealthbc.ca

Expectations for clinical and ethical practice

Interpretation Guidelines: Controlled Release Periodontal Chemotherapy

Applies to Dental Hygienists

There are three main ways that the BC College of Oral Health Professionals protects the public:



The British Columbia College of Oral Health Professionals (BCCOHP) was created on September 1, 2022 through the amalgamation of four health regulatory colleges: the College of Dental Hygienists of BC, the College of Dental Surgeons of BC, the College of Dental Technicians of BC, and the College of Denturists of BC. All current requirements for standards of clinical and ethical practice issued by the four colleges remain in place upon amalgamation. This document was created by the College of Dental Hygienists of British Columbia and will be updated to reflect the amalgamation.

Controlled Release Periodontal Chemotherapy

May 5, 2020 Update: The CDHBC Interpretation Guidelines are under review. The content of these guidelines remains in place at this time; however, they need to be applied in the context of the new Dental Hygienists Regulation and CDHBC Bylaws. Readers are welcome to contact the CDHBC office if they have questions about the application of these guidelines in the interim time.

PURPOSE

To provide guidelines on the use of controlled-release chemotherapeutic agents by dental hygienists.

BACKGROUND

The aim of incorporating locally delivered antimicrobial agents is to control gingivitis and periodontitis by decreasing the bacterial load and pathogenic potential. The use of dentifrices, mouth rinses and irrigation for the treatment of periodontitis is impaired by the inability of these delivery systems to reach the base of periodontal pockets and/or maintain agents for sufficient duration at requisite concentrations, which is why locally delivered agents were introduced. Chemotherapeutics alone are unlikely to be effective in the presence of subgingival calculus, underscoring the importance of subgingival mechanical debridement.

The only clinically efficacious means of administering antimicrobial agents for the treatment of periodontal disease are by systemic administration and controlled release devices. The local delivery of controlled release antimicrobials provides a means of professionally administering chemotherapeutic agents directly into the periodontal pocket in order to provide slow release of the drug. With the direct placement of the drug in the periodontal pocket, the chance of drug resistance is decreased. The goal of chemotherapy is to alter the periodontal flora or inhibit the host response in such a way that the periodontal status improves. Doxycycline hyclate gel (Atridox®), Minocycline HCl microspheres (Arestin®), and Chlorhexidine gluconate chip (PerioChip®) are examples of such devices.

Results of present studies suggest that most local delivery systems used in conjunction with subgingival debridement appear to be capable of reducing probing depths and achieving modest gains in clinical attachment.

POLICY

The delivery of subgingival, controlled-release chemotherapeutic delivery systems is within the dental hygiene scope of practice, provided that appropriate education is obtained, along with consideration for case selection and precautions and contraindications related to the product being used. For all products, the manufacturer's directions need to be followed.

The prescription of a chemotherapeutic agent is not within the dental hygiene scope of practice. Documentation of the prescription from the client's dentist must be included in the client's chart.

The dental hygienist's decision to use locally delivered antimicrobials should be based upon consideration of the client's medical and dental history, clinical assessment findings, scientific evidence, and client preferences.

REFERENCES

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