

INTERPRETATION GUIDELINES

This section contains a series of Interpretation Guidelines that describe and explain pertinent aspects of the Dental Hygienists Regulation and Scope of Practice.

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ANTIBIOTIC PREMEDICATION

(Cardiac Conditions)

ISSUE

Guidelines for antibiotic premedication of clients with specific cardiac conditions:

REFERENCE

- Practice Standards: See Tab 5

POLICY

Background

Current medical practice indicates that dental clients who are at risk for bacterial endocarditis should have prophylactic antibiotic premedication prior to specific dental procedures, including procedures regularly performed by dental hygienists during the assessment, implementation and evaluation phases of clinical patient care. Regimens updated and published by the American Heart Association (2007) are adopted as the standard for prophylactic antibiotic premedication.

Registrants are encouraged to visit the following websites for current guidelines on antibiotic premedication:

The American Heart Association: www.americanheart.org

The Canadian Dental Association: www.cda-adc.ca

The American Dental Association: www.ada.org

The Canadian Dental Hygienist's Association: www.cdha.ca

In order to meet CDHBC Practice Standards 4.1 and 5.3, dental hygienists are required to use current knowledge in their practice and to assess the client to determine whether special precautions are necessary. Dental hygienists will consult with a dentist and the client's physician to ensure that the client's needs are met.

Policy Statement

Current **indications** for prophylactic antibiotics include a client with a history of any of the following:

1. Artificial heart valves
2. A history of infective endocarditis
3. Certain heart conditions present from birth including:
 - a. unrepaired or incompletely repaired cyanotic congenital heart disease, including those with palliative shunts and conduits.
 - b. a completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention. In this case, prophylactic antibiotics are only required during the first six months after the procedure.
 - c. any repaired congenital heart defect with residual defect at the site or adjacent to the site of a prosthetic patch or a prosthetic device.
4. A cardiac transplant that develops a problem in a heart valve.

Current **contra-indications** for prophylactic antibiotics include a client with a history of:

- Mitral valve prolapse
- Rheumatic heart disease
- Bicuspid valve disease
- Calcified aortic stenosis
- Congenital heart conditions such as ventricular septal defect, atrial septal defect and hypertrophic cardiomyopathy
- Surgical repair of atrial septal defect, ventricular septal defect or patent ductus arteriosus (without residue beyond 6 months)
- Previous coronary artery bypass surgery
- Heart murmurs
- Previous Kawasaki disease
- Cardiac pacemakers and implanted defibrillators (intravascular and epicardial)
- Coronary artery disease

Prophylactic antibiotics are recommended for the following dental hygiene procedures (i.e. procedures which may cause bleeding):

- Periodontal procedures including surgery, scaling, root planing and probing
- Subgingival placement of antibiotic fibres or strips
- Intraligamentary anesthesia injections
- Polishing of teeth or implants, where bleeding is anticipated
- Initial placement of orthodontic bands, but not brackets

Prophylactic antibiotics are not recommended for the following dental procedures:

- Local anesthesia injections (other than intraligamentary)
- Placement of rubber dam
- Suture removal
- Placement of removable prosthodontic or orthodontic appliances
- Impressions
- Intra-oral radiographs
- Orthodontic appliance adjustment
- Exfoliation of primary teeth

The current prophylactic regimens (2007) are:

Situation	Agent	Regimen: Single Dose 30-60 min Before Procedure	
		Adults	Children
Oral Unable to take oral medication	Amoxicillin Ampicillin OR	2g 2g IM or IV	50mg/kg 50mg/kg IM or IV
	Cefazolin or ceftriaxone	1g IM or IV	50mg/kg IM or IV
Allergic to penicillin or ampicillin-oral	Cephalexin*† OR	2g	50mg/kg
	Clindamycin OR	600mg	20mg/kg
Allergic to penicillins or ampicillin and unable to take oral medication	Azithromycin or clarithromycin Cefazolin or ceftriaxone† OR	500mg 1g IM or IV	15mg/kg 50 mg/kg IM or IV
	Clindamycin	600mg IM or IV	20 mg/kg IM or IV

IM indicates intramuscular; IV, intravenous

*Or other first- or second-generation oral cephalosporin in equivalent adult or pediatric dosage

†Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin.

From: Wilson et al. Prevention of Endocarditis, *Circulation* 2007;116:1736-1754; originally published online Apr 19, 2007

Timing of Antibiotic Administration

An antibiotic for prophylaxis should be administered in a single dose before the procedure. If the dosage of antibiotic is *inadvertently* not administered before the procedure, the dosage may be administered up to 2 hours after the procedure. However, administration of the dosage after the procedure should be considered only when the patient did not receive the pre-procedure dose (Wilson *et al.*, 2007).

Assumptions and Rationale

Dental hygienists need to have specific information about current guidelines for antibiotic premedication because dental hygiene assessment, implementation and evaluation procedures can put the client at risk for subacute bacterial endocarditis.

ANTIBIOTIC PREMEDICATION ***(Orthopaedic Joint Replacements)***

ISSUE

Guidelines for antibiotic premedication of clients with an orthopaedic joint replacement:

REFERENCE

- Practice Standards: See Tab 5

POLICY

Background

Current scientific evidence indicates that dental clients who have undergone an orthopaedic joint replacement may be at risk for bacteremia-associated hematogenous seeding of bacteria onto joint implants in the early postoperative period and for many years following implantation. Clients with joint replacements may require prophylactic antibiotic premedication prior to specific dental procedures, including procedures regularly performed by dental hygienists during the assessment, implementation and evaluation phases of clinical patient care.

Registrants are encouraged to visit the following websites for the most current information on antibiotic premedication:

The American Academy of Orthopaedic Surgeons: www.aaos.org

The Canadian Dental Hygienist's Association: www.cdha.ca

The Canadian Dental Association: www.cda-adc.ca

The American Dental Association: www.ada.org

In order to meet CDHBC Practice Standards 4.1 and 5.3, dental hygienists are required to use current knowledge in their practice and

to assess the client to determine whether special precautions are necessary. Dental hygienists will consult with the client's orthopaedic surgeon on a case-by-case basis to collaboratively determine the need for antibiotic prophylaxis prior to invasive dental procedures, except in cases where a decision regarding the need for premedication had been previously determined by the client's surgeon and was clearly documented.

When prophylactic antibiotics are recommended, the following dental hygiene procedures are defined as invasive (i.e. procedures which may cause bleeding):

- Periodontal procedures including surgery, scaling, root planing and probing
- Intraligamentary anesthesia injections
- Subgingival placement of antibiotic fibres or strips
- Polishing of teeth or implants, where bleeding is anticipated
- Initial placement of orthodontic bands, but not brackets

Prophylactic antibiotics are not recommended for the following dental hygiene procedures:

- Local anesthesia injections (not intraligamentary)
- Placement of rubber dam
- Suture removal
- Placement of removable prosthodontic or orthodontic appliances
- Impressions
- Intra-oral radiographs
- Orthodontic appliance adjustment
- Exfoliation of primary teeth

The current (1997) prophylactic regimens are (note 1)		
Standard general prophylaxis	Amoxicillin	Adults: 2.0 g Children: 50 mg/kg orally, 1 hour before procedure
Unable to take oral Medications	Ampicillin	Adults: 2.0 g intramuscularly (IM) or intravenously (IV) Children: 50 mg/kg, 1M or IV within 30 minutes of procedure
Allergy to Penicillin (3 options)	Clindamycin	Adults: 600 mg; Children: 20 mg/kg orally, 1 hour before procedure
	Cephalexin (Note 2) or cefadroxil	Adults: 2.0 g Children: 50 mg/kg orally, 1 hour before procedure
	Azithromycin or clarithromycin	Adults: 500 mg Children: 15 mg/kg orally, 1 hour before procedure
Allergic to Penicillin and unable to take oral medications (2 options)	Clindamycin	Adults: 600 mg; Children: 20 mg/kg IV, within 30 minutes of procedure
	Cefazolin	Adults: 1.0 g Children: 25 mg/kg IM or IV within 30 minutes of procedure
Note 1: Post-operative doses are not recommended		
Note 2: <i>Cephalosporins should not be used with individuals with immediate-type reactions (urticaria, angioedema or anaphylaxis) to penicillins.</i>		
From: Dajani, A.S. et al. JAMA, Vol. 277 No. 22, p. 1794-1801 (1997). ADA News Daily (June 27, 1997) ADA/AAOS Summarize care recommendations for prosthetic patients. ADA Publishing Co.		

Timing of Antibiotic Administration

An antibiotic for prophylaxis of a prosthetic joint should be administered in a single dose before the procedure. Post-operative doses are not recommended.

Assumptions and Rationale

Dental hygienists need to have specific information about current guidelines for antibiotic premedication and work collaboratively with the patient’s treating physician (orthopaedic surgeon). Dental hygiene assessment, implementation and evaluation procedures can put the client at risk for late implant infection of orthopaedic joint replacements.

APPROVAL OF CLASS OF FACILITY

ISSUE

Section 6(2)(b) of the Dental Hygienists Regulation requires the Board to approve a facility or class of facility in which a registrant with additional qualifications may practise exempt from the “365” day rule”.

REFERENCE

- Dental Hygienists Regulation, section 6(2)(b)

POLICY

Background

Section 6(2)(b) of the Dental Hygienists Regulation provides that a registrant “practising in a *facility or class of facility approved by the board*, who meets the additional qualifications established in the bylaws,” is exempt from the requirement of section 6(1) for a dentist’s examination (emphasis added).

Policy Statement

The following classes of facilities are approved for each Health Authority listed in the table below.

- Facilities licensed under the *Community Care and Assisted Living Act*;
- Hospitals designated under *the Hospital Act*; and
- Facilities designated under the *Mental Health Act* which provide residential care to persons unable to readily access dental services in the community.

<i>British Columbia Health Authorities</i>	
Northern Health Authority (NHA)	Vancouver Coastal Health Authority (VCHA)
Interior Health Authority (IHA)	Fraser Health Authority (FHA)
Vancouver Island Health Authority (VIHA)	Provincial Health Services Authority (PHSA)

BLOOD AND BODY FLUID EXPOSURE MANAGEMENT

Below is a summary of the procedure to follow for percutaneous exposure (blood or body fluid entering the bloodstream) or permucosal exposure (blood or body fluids coming into contact with mucous membrane or a skin wound less than 3 days old).

1. Cleanse:

- Rinse the mucous membranes or eye with water.
- Wash skin with soap and water.
- DO NOT promote bleeding by cutting, scratching or puncturing the skin.

2. Triage:

- Go to the local hospital Emergency Department as soon as possible (or an alternative site that has antiretroviral starter kits supplied by the BC Centre for Excellence in HIV/AIDS).
- If antiretroviral therapy is indicated for possible HIV exposure, it must be administered as soon as possible after exposure, preferably within 2 hours.
- Hepatitis B vaccine and hepatitis B immune globulin (HBIG) should be given preferably within 48 hours after exposure to the hepatitis B virus, but may be given for up to 7 days.
- Detailed risk assessment and management of potential exposure to ALL pathogens (HIV, HBV, and HCV) can take place in the Emergency Department or other health facility.

3. Assess the risk:

- Complete a risk assessment of the exposure, using the “Management of Percutaneous or Permucosal Exposure to Blood and Body Fluid/Laboratory Requisition” form available in the Emergency Department or health facilities supplied with antiretroviral starter kits. This will determine the risk of transmission from the exposure.
- Assess the risk of transmission from the source. If the source has recently tested negative for HIV, HBV or HCV, but is in

a high risk group (a chart is provided in the complete document), subtract 6 months from the date of the most recent blood test result. From that date, if the source has continued to participate in high risk behaviour for HIV, HCV or HCV infection, he/she should be considered potentially infectious despite their negative test result and the exposed person managed accordingly. Do not wait for the source's test results before initiating post-exposure treatment.

4. Determine the HIV, HBC and HCV status of the exposed person and previous immunization against HBV:

- If the exposed person has not recently been tested, obtain informed consent and obtain blood tests, but do not await results before commencing post-exposure treatment.

5. Determine the requirement for post-exposure management:

Post-exposure treatment is required when all of the following conditions are present:

- Percutaneous, permucosal or non-intact skin exposure has occurred
- The exposure is to blood, potentially infectious body fluid or tissue
- The source is considered potentially infectious (positive test, in a higher risk group, unreliable, or unknown)

And

- The exposed person is considered susceptible (no history of positive test to HIV, HBC or HCV).

6. Counselling

- Arrange for post-exposure counselling in the health facility, followed by counselling with the family physician or other designated physician.

7. Arrange for clinical and laboratory follow-up

- Clinical and laboratory follow-up should be arranged with the exposed person's family physician or other designated physician, following guidelines established by the Ministry of Health.

CHLORHEXIDINE

ISSUE

The use of chlorhexidine by dental hygienists.

REFERENCE

- Federal *Food and Drug Act*
- *Pharmacists, Pharmacy Operations and Drug Scheduling Act of British Columbia*

POLICY

Background

Chlorhexidine has been shown to be an effective anti-plaque and anti-gingivitis chemotherapeutic agent. Topical oral preparations of chlorhexidine and chlorhexidine salts are listed in the federal *Food and Drugs Act* as Schedule I drugs. The federal *Act* is enacted through provincial legislation. BC legislation is the *Pharmacists, Pharmacy Operations and Drug Scheduling Act of British Columbia*.

Schedule I drugs require a prescription for sale and are provided to the public by a pharmacist following the diagnosis and professional intervention of a “practitioner”. Specific practitioners who may prescribe a Schedule I drug for sale are defined by provincial legislation. This includes dentists and physicians.

Chlorhexidine is routinely used in-office by dental hygienists for irrigation, topical application and rinsing, and may be given to the client for home use as a mouth rinse or for site specific irrigation. Chlorhexidine may also be purchased by clients for home use.

Policy Statement

A written prescription by a dentist or physician is required for the sale of chlorhexidine to a client. A prescription note must be recorded in the client's record.

In-office use of chlorhexidine by dental hygienists must be documented in the client's chart, as must any chlorhexidine preparations given to a client for home use. A prescription is not required.

CONSENT OF MINORS TO TREATMENT

POLICY

Under section 17 of the *Infants Act*, children under the age of 19 can consent directly to health care treatment, without parental/guardian consent, if the minor is capable. The proposed treatment must be in the minor's best interest. A minor is capable of consenting to health care treatment if the minor has sufficient intelligence and maturity to appreciate the nature and consequences of the health care. Health care includes treatment for therapeutic, preventive, palliative, diagnostic or other health-related purposes. In an emergency, life saving treatments can be provided to a minor without consent.

The legislation does not provide age limits for determining the capability of minors consenting to health care.

Prior to obtaining consent from a minor, the dental hygienist must be convinced that the treatment is in the minor's best interest. If in any doubt, the dental hygienist should consult with a colleague.

While obtaining consent from a minor, the dental hygienist should explain the treatment to the minor, including the nature, consequences, risks and benefits of the treatment, then question the minor to ensure that all aspects of the proposed treatment are understood. It is up to the dental hygienist to determine if the minor is capable of consenting.

Record keeping should include a summary of the discussion with the minor, including notations that the:

- proposed treatment is judged to be in the minor's best interest
- proposed treatment was explained
- nature, consequences, risks and benefits were ascertained

If any of the three criteria above cannot be met, and if the proposed treatment is not an emergency, health care cannot be provided without parental/guardian consent, and the minor must consent to the disclosure of information to the parent/guardian.

Reference:

- *Infants Act* R.S.B.C. 1996 c. 46

DENTAL HYGIENE DIAGNOSIS

ISSUE

Dental hygiene diagnosis

REFERENCES

- Practice Standard 4:
"A dental hygienist must analyze the assessment information and make a dental hygiene diagnosis."
- Practice Standard Policy 4.1:
"Dental hygienists must establish a dental hygiene diagnosis by interpreting the dental hygiene assessment findings and discussing the implications of the findings with the client or the client's representative. In a clinical setting this should include the implications of conditions that are abnormal or unhealthy, and conditions that require special care."
- Excerpt from Practice Standard Policy 8.2:
"Dental hygienists must record accurate details of the dental hygiene care provided, including... an interpretation of dental hygiene assessment findings (or a dental hygiene diagnostic statement)..."
- Dental Hygiene Scope of Practice Statement, Tab 6, CDHBC Registrant's Handbook.
- Mueller-Joseph, L. and Petersen, M., Dental Hygiene Process: Diagnosis and Care Planning, Delmar, 1995.
- Darby, M.L. and Walsh, M.M., Dental Hygiene Diagnosis (Chapter 14), in Darby, M.L. and Walsh, M.M., Dental Hygiene Theory and Practice, Saunders, 1995.
- Gurenlian, J.R., Diagnostic Decision Making (Chapter 17), in Woodall, I.R., Comprehensive Dental Hygiene Care, Mosby, 1993.
- Wilkins, I., Clinical Practice of the Dental Hygienist, Lea & Febiger, 1999.

- Dental hygiene diagnosis curriculum documents from Camosun College, College of New Caledonia and Vancouver Community College.

POLICY

Background

Current dental hygiene textbooks use a variety of models to define dental hygiene diagnosis. The CDHBC Practice Standard Policies include the term "dental hygiene diagnosis". The purpose of this policy is to assist dental hygiene educators, students and registrants in applying the concept of dental hygiene diagnosis in education and clinical practice settings.

Policy Statement

A dental hygiene diagnosis clarifies the actual or potential conditions or concerns of a client that can be treated within the dental hygiene scope of practice. These conditions or concerns are identified through an interpretation of the assessment data.

Other terms commonly used for "dental hygiene diagnosis" include "assessment interpretations," "assessment findings" and "periodontal status statements."

According to Practice Standard Policy 4.1, the interpretation of assessment data must be discussed with the client or the client's representative. In education or clinical practice settings, the dental hygienist would:

- state the abnormal or unhealthy condition(s) identified during interpretation of the assessment data (such as chronic generalized moderate periodontitis);
- explain to the client or their representative the evidence supporting this interpretation (such as pocketing, furcations, bleeding, horizontal bone loss, etc.); and
- state any conditions that require care or attention during the dental hygiene appointment.

Conditions diagnosed by the dental hygienist must be within the dental hygiene scope of practice. Conditions that would be treated by a dentist or referred to a dentist, dental specialist, physician, or other health care provider are identified as requiring referral. Referrals are not part of the dental hygiene diagnosis but are part of the dental hygiene treatment plan.

Practice Standard Policy 8.1 requires the dental hygienist to record an interpretation of the assessment data. In education or clinical practice settings, this includes a chart notation of the condition(s) found and the supporting evidence, or a formal dental hygiene diagnostic statement(s), using any one of the models described in current dental hygiene literature.

DENTAL HYGIENISTS INFECTED WITH BLOODBORNE PATHOGENS*

PURPOSE

This policy has been developed to:

- balance the College's mandate of public protection with the rights of dental hygienists infected with bloodborne pathogens to provide dental hygiene care
- guide the College's Bloodborne Pathogen and Inquiry Committees
- assist an infected registrant with practice modifications or restrictions.

Introduction

Dental hygienists perform invasive "exposure-prone procedures" that present the opportunity for the client to be exposed to the health care worker's blood¹. Through the strict use of universal infection control precautions, however, the risk of transmission is virtually zero.

Confidentiality

This policy is designed to ensure confidentiality. The identity of an infected registrant need not be known. If known, his/her name will be deleted from documents reviewed by College committees according to current College policies. Provided that the infected dental hygienist does not present a risk of harm to the client and is

* Bloodborne pathogens include the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). References are found in the attachment.

¹ Proceedings of the Consensus Conference on Infected Health Care Workers: Risk of Transmission of Bloodborne Pathogens," Health Canada, Health Protection Branch – Laboratory Centre for Disease Control, Canada Communicable Disease Report – Supplement, Vol. 24S4, July 15, 1998.

following all recommendations, knowledge of the registrant's identity is not required.

CDHBC's Obligations

- establish a Bloodborne Pathogen Committee to make recommendations on and monitor the practice of infected registrants².
- inform registrants of this policy and encourage all registrants to know their own HIV, HBV and HCV status
- strongly encourage all registrants to obtain vaccination against HBV.

Registrant's Obligation

A registrant who knows he/she is infected is obliged to:

- contact the Chair of the College's Bloodborne Pathogen Committee for guidance with his/her practice of dental hygiene. This contact may be in-person or anonymous through an advocate or colleague.

Guidelines

1. When a registrant who is infected with a bloodborne pathogen contacts the Committee, the Committee will:
 - a) consult with the registrant to:
 - confirm the type of dental hygiene being practiced, and
 - obtain an assessment of the registrant's own infection control standards.
 - b) ask the registrant to consult with his/her physician or pertinent health care worker on a regular basis.

² The College's Bloodborne Pathogen Committee will consist of a dental hygienist and other experts, which may include a local public health specialist, an occupational health specialist, an infection control expert, an infectious diseases specialist, and/or an expert in risk assessment, ethics or policy (see reference 1, page 10).

- c) recommend practice modifications, if necessary, to help the registrant continue practicing.
- d) set up a consultative system with the registrant's health care worker(s) to:
 - share information about procedures performed by the registrant and any practice modifications recommended by the Committee
 - share information on the registrant's health status and ability to comply with universal infection control measures.
- e) in consultation with the registrant or advocate, select a person as a long-term liaison between the registrant and the College. The liaison selected will be a health professional who is familiar with dental hygiene standards of care and practice complexities.
- f) ask the registrant's liaison to:
 - encourage stringent standards of care
 - observe the registrant practicing from time to time, to ensure that universal infection control standards are being practiced
 - advise the Committee on the registrant's infection control procedures
 - help the registrant obtain updated infection control information as it becomes available.
- g) establish a regular reporting schedule with the registrant's liaison and advise the Committee on:
 - actions the registrant is taking to minimize the risk of transmission
 - any difficulties the registrant is having complying with universal infection control standards
 - details of any exposure incidents.
- h) monitor the registrant's practice of dental hygiene.

- i) monitor any exposure incidents to ensure that recommended infection control protocols are followed to limit the transmission of bloodborne diseases.
2. If the registrant or the liaison becomes aware that the registrant is no longer able to comply with the guidelines, or is no longer able to consistently provide dental hygiene care with a high standard of infection control, or may otherwise be putting his/her clients at risk, the registrant or the liaison will inform the Registrar immediately.

References:

- "Prevention of Transmission of Hepatitis B," Canadian Medical Association Policy Summary, CMAJ, 159(1), July 14, 1998.
- "CDC Infection Control Guidelines for Dentistry," Centers for Disease Control and Prevention, May 28, 1993.
- "Management of Accidental Exposure to HIV," British Columbia Centre for Excellence in HIV/AIDS, March, 1999.

DENTAL WATERLINE CONTAMINANTS

ISSUE

Reducing contaminants in dental waterlines.

REFERENCE

- Dental Unit Waterline Contamination, Report to the QAC, April 2000
- Canadian Dental Association, *Guidelines on Dental Unit Waterline Maintenance*, 1997

POLICY

Background

Dental waterlines have been proven to carry much higher levels of bacteria than tap water. Recent studies have demonstrated that dental waterlines carry a range of 10,000 to 10,000,000 colony forming units per milliliter water (cfu/ml). This compares to the national Canadian and US drinking water standard of less than or equal to 500 cfu/ml.

Various dental associations have set the goal of reducing dental waterline bacterial counts to no more than 200 cfu/mls by 2000.

Although there is disagreement among experts as to whether the high bacterial counts in dental waterlines constitute a public health risk, it is in the public's best interest to reduce contaminants. Clients who could be at risk are those with compromised immune systems.

There are numerous products and devices available to improve the water quality in dental waterlines. None have been proven to be completely effective. A combined approach is recommended.

Policy Statement

In order to reduce dental waterline contaminants and potential effects from dental waterline water, the CDHBC *recommends* the following:

1. Avoid using heated dental unit waterlines or use equipment (e.g. air/water syringe) that has the heat source close to where the water exits.
2. Use sterile water or sterile saline solution in a hand syringe when irrigating open periodontal lesions, particularly for immuno-suppressed clients.
3. With attachments removed, flush waterlines for five to eight minutes at the beginning of each day, and for a shorter period between patients.
4. Follow manufacturer's instructions for daily and weekly maintenance of your water delivery system.
5. Provide drinking water from a source other than the air/water syringe.
6. Advise clients not to close their lips and form a seal around the suction tip unless tips are safety designed to avoid reverse flow.
7. If using a disinfectant regimen, or filtration system, follow the manufacturer's protocols for maintenance and replacement of filters, etc.

EXAMINATION

ISSUE

Registrants have requested an interpretation of the definition of the term “examined” contained in section 6(1) of the Dental Hygienists Regulation.

REFERENCE

- Dental Hygienists Regulation (see Tab 3)

- 6(1) No registrant may practise dental hygiene unless
- (a) prior to or during the initial appointment, the client is examined by a dentist,
 - (b) at the time of any subsequent appointment, the client has been examined by a dentist within the previous 365 days or within such shorter time as is necessary or appropriate in accordance with good dental hygiene practice or good dental practice.

POLICY

Background

It is considered important to ensure that clients have the benefit of an overall dental examination to assess general oral health. Focussing only on dental hygiene requirements may not be in the client’s best interests.

Policy Statement

The term “examined” as used in section 6(1) of the Dental Hygienists Regulation means that the dentist has performed an examination in keeping with the College of Dental Surgeons of British Columbia Practice Guidelines.

Assumptions and Rationale

- the issue of whether or not the client is billed for the examination is not relevant to this definition
- restorative or other dental work recorded on the chart does not constitute an examination
- an examination may be a specific, recall or comprehensive exam as deemed appropriate by the dentist in accordance with CDSBC Practice Guidelines.

FLUORIDES

ISSUE

How fluoride can best contribute to the prevention of tooth decay.

REFERENCE

- Probe – Scientific: Nov/Dec 2002 Volume 36, 6 (209-227)
- Daniel, S.J. & Harfst, S.A. (Eds.). (2002) *Mosby's dental hygiene concepts, cases and competencies*. St. Louis: Mosby, Elsevier Sciences.
- Flouride: A Natural Contribution to Your Dental Health, Brochure published by CDHA. (website: www.cdha.ca)
- Update: Approved by CDA Board of Governors, September 1998.
- CDA Statement on Fluoridation, March 2003. (website: www.cda-adc.ca)

POLICY

Background

The CDHBC follows recommendations set out by the CDHA, CDA and Dental Health Services in the BC Ministry of Health.

Policy Statement

To comply with the recommendations set out by the groups listed above.

FLUORIDE MECHANISM of ACTION

- a) Fluoride prevents and inhibits caries progression by:
 - Inhibiting demineralization.

- Enhancing remineralization including the deposition of a more caries resistant fluorapatite on the remineralized individual crystals.
 - Inhibition of bacterial activity.
- b) The main process by which fluoride reduces and prevents caries over a person's lifespan is through a topical mechanism of action. This includes the fluoride released in fluoridated water.
- c) Fluoride works best in the presence of saliva partly due to saliva's source for calcium and phosphate ions. Persons living with xerostomia require a saliva substitute or remineralization rinse or gel that contain a source for replacing calcium and phosphate ion to maximize the efficacy of self-applied fluorides.
- d) Caries management by risk assessment (CAMBRA) may also require a multi-faceted approach that includes pit and fissure sealants for the occlusal surfaces, anti-bacterial agents like chlorhexidine .12%, behavioural modification including education and health promotion in self care, dietary analysis, tobacco use cessation (especially spit tobacco) and the use of xylitol containing gums and candies for an added anti-caries effect.

The Role of Community Water Fluoridation to Deliver Fluoride to Groups and Individuals

Water fluoridation at recommended levels is endorsed and encouraged because:

- a) Water fluoridation is an efficacious/effective measure for preventing dental caries in all age groups.
- b) Water fluoridation provides the greatest benefits for those who have limited access to other sources of fluoride or other caries preventive technologies.
- c) At recommended doses, there is no evidence that water fluoridation presents a risk to general health.

- d) Water fluoridation is the preferable source of fluoride to prevent dental caries.

The most frequently used standard of 0.05 to 0.07 mg fluoride/kg body weight has generally been accepted as the upper limit intake for minimizing dental fluorosis and toxicity.

Fluoride Supplements

Exposure to more fluoride than is required to prevent dental caries can cause dental fluorosis, especially for children under the age of six. There is no evidence of health problems associated with fluorosis, but it is prudent to attempt to limit exposure to the optimal fluoride levels required for protection from dental caries. Although current levels of fluoride intake from all sources is difficult to establish for any geographical area, general intake should be considered when fluoride supplements are recommended.

The following suggestions are consistent with these principles:

- a) Fluoride supplements are only required for high dental caries risk clients and may be unnecessary if the client is receiving adequate fluoride from other sources.
- b) Before recommending fluoride supplements, a thorough clinical examination should be done, as well as a dental caries risk assessment.
- c) High caries risk individuals or groups may include those who do not brush their teeth (or have them brushed) with a fluoridated dentifrice twice a day or those who are assessed as susceptible to high caries activity because of community or family history.
- d) The estimation of fluoride exposure from all sources should include the use of fluoridated dentifrice and all home and child care water sources.
- e) Lozenges or chewable tablets are the preferred forms of fluoride supplementation. Drops may be required for individual clients with special needs.

- f) The use of fluoride supplements before the eruption of the first permanent tooth is generally not recommended. When fluoride supplements are indicated for caries prevention, the total daily fluoride intake from all sources should not exceed 0.05-0.07 mg fluoride per kilogram body weight, in order to minimize the risk of dental fluorosis.
- g) Following the eruption of the first permanent tooth and the associated decreased risk of dental fluorosis, fluoride supplements in the form of lozenges or chewable tablets may be used to deliver a topical dose. A lozenge or chewable tablet containing 1 mg fluoride delivers the same amount of topical fluoride as brushing with an average load (1 gm) of a 1000 ppm fluoride dentifrice.

Professionally Applied Topical Fluorides (PATF) (gels, foams and varnishes)

The **selective** use of professionally applied topical fluorides (gels, foams and varnishes) should be endorsed. The decision to use topical fluoride will be based on the assessment of caries risk of patients as determined by the dental hygienist.

PATF Gels, and Foams

- a) Semi-annual treatments of PATF with fluoride gel and foam of four minutes in duration decreased caries rates by 26 per cent in the permanent teeth of children residing in non-fluoridated areas.
- b) The efficacy of PATF with a low pH level such as acidulated phosphoric acid fluoride (1.23% APF) with a pH of 3.5 was almost twice as effective in depositing calcium fluoride compared with topical sodium fluoride with a pH of 5.5.
- c) Acidulated PATF is not recommended for all types of teeth, as it can damage porcelain and composite restorations by causing dulling or etching. It is also not recommended for those with reduced salivary flow or for those who cannot tolerate acidic fluorides. In these cases, a neutral sodium fluoride solution, gel,

varnish or foam is recommended. When using a neutral sodium fluoride solution four (4) minute tray application regimens are best.

- d) The efficacy of the shorter one-minute fluoride application time period has not been tested in human clinical trials.
- e) Fluoride gel, foam and varnish can be used with children under six years. There is no published evidence indicating that the infrequent application of these fluorides is a risk factor for enamel fluorosis.
- f) Fluoride application following extensive dental hygiene therapy is not recommended and should be postponed to a continuing care visit.
- g) In-office two-part professionally applied fluoride rinses have not been scientifically proven to reduce caries.

It is the dental hygienists' responsibility to be current and to pursue evidence-based research when following the manufacturer's guidelines when providing professional application of topical fluorides.

PATF Varnishes

- a) 5% Sodium Fluoride varnish containing 2.26% F-ion (22,600 ppm F) in an alcohol solution of natural resins is efficacious in preventing dental caries in high-risk children and adults.
- b) Fluoride varnish studies showed 23 per cent caries reduction rate with applications four times per year; and 46 to 67 per cent caries reduction rate with three applications in one week, once per year.
- c) Studies indicate that fluoride varnish may be a better choice for young children, since it is less likely than gel to be swallowed.
- d) Fluoride varnishes also have a desensitizing effect.
- e) Fluoride varnishes should be applied to clean dental tissues according to manufacturer's directions.

- f) For maximum slow release anti-caries and desensitization benefit varnishes should be left in place up to twelve hours after application.

Fluoride Self-applied Mouth Rinses

The use of dental public health school programs using fluoridated mouth rinses (currently 0.2% sodium fluoride administered weekly or biweekly) should be considered for use only in high risk populations aged 6 years and over.

Self-applied, daily rinse programs using over-the-counter or specially-formulated fluoride mouth rinses (0.05% sodium fluoride) should be used only in high risk individuals who are aged 6 years and over.

All over-the-counter fluoride mouth rinses which are used daily (0.05% sodium fluoride) should be labelled to indicate that they should not be used by children under the age of 6 years.

Self-applied Fluoride Gels (or Pastes)

Self (tooth brushing) applied fluoride gels should not be used in children under 6 years of age. The use of self-applied fluoride gels or rinses, in addition to fluoride dentifrice, is indicated only if warranted through an individual risk assessment.

The daily use of 5000-ppm (1.1% NaF) fluoride gels in customized trays for individuals at high risk to dental caries may be appropriate. Adults who cannot tolerate trays may benefit from the therapeutic application of 5000-ppm brush-on gels. If gels are used by children under the age of 6 years this should be done only on the direction of a dental hygienist or dentist in order to minimize the risk of ingestion. If customized trays are used, only 5-10 drops of gel should be dispensed. When customized trays can't be used because of patient management considerations, the application of the gel with a toothbrush may be appropriate for high risk individuals. An adult should closely supervise this brushing.

Fluoride gels that contain .4% Stannous Fluoride (SnF) desensitize dental tissues as well as have a proven anti-caries effect. They have a mild antibacterial property towards the spirochetes that cause gingivitis. These are acidic at a 3.0 pH and release 1000 ppm of fluoride. They may stain tooth coloured restorations and dental tissues. The use of .4% SnF gels in children under 6 years, those with aesthetic whitening needs or those sensitive to acid require precaution and education.

Fluoride Dentifrices

The following guidelines are proposed for children under 6 years of age who use fluoridated toothpaste:

- a) brushing should be normally twice a day;
- b) brushing should be supervised by an adult;
- c) no more than a thin smear of toothpaste should be dispensed, preferably by the supervising adult.
- d) swallowing should be discouraged (after brushing expel, rinse with water and expel the rinse).

Seniors and Fluoride

British Columbia's seniors' population is expected to increase significantly in the next few years.

Due to decreased salivary flow, compromised manual dexterity, increased caries susceptibility, and other social factors, seniors may require comprehensive fluoride treatments.

If an aggressive program of high-potency home fluoride gel is required, salivary substitutes may be recommended as well. Fluoride toothpaste and possibly a home rinse or gel can be recommended depending on the needs of the patient.

HIV/AIDS

ISSUE

Treatment of HIV/AIDS patients.

REFERENCE

- CDHBC Code of Ethics 8. Dental hygienists shall uphold the principle that the public should have fair and equitable access to dental hygiene services.
- Practice Standards: See Tab 5
- Recommendations based on a policy statement of the College of Dental Surgeons of BC, dated September 23, 1998.

POLICY

Background

AIDS is a chronic debilitating disease which requires careful and meticulous care by health professionals. The use of universal precautions allows the dental team to treat all persons safely and effectively. The profession continues to pursue the best treatment modalities available to ensure the maximum degree of patient comfort and safety in the dental office. The dental profession has informed the public that a dental office, using universal precautions, is a safe environment for all. As such, dental hygiene care should be provided in a consistent, professional manner.

Policy Statement

Dental hygiene practitioners in British Columbia must not refuse treatment to patients who are HIV positive or have AIDS, solely due to this condition. The following statements are of importance:

1. Dental hygiene professionals have a moral and ethical responsibility to render necessary dental treatment to all members of the public.
2. By ensuring that universal precautions are routinely carried out, dental hygiene treatment can and should be provided for HIV positive/AIDS patients in the dental office as part of routine care, unless medical complications or oral conditions are such that this would be inadvisable, and would further compromise the client's health.
3. Some HIV positive patients will require referrals for specialized treatment. These referrals should occur in a routine manner and should not occur solely because the patients are HIV positive. Clear and effective communication is essential to ensure that these patients understand the nature of the problem necessitating referral and the reasons for it.

Through numerous articles published in dental journals, continuing education courses and information disseminated from the CDHBC and CDSBC, dental professionals have been informed and educated about their responsibility in treating all members of the public. This information clearly identifies and emphasizes the lack of measurable risk of transfer of infection when the dental office employs universal precautions, i.e. proper barrier techniques. This interpretation guideline reflects current knowledge and is subject to periodic review and revision.

IMPLANTED CARDIAC DEVICES

ISSUE

Current guidelines for dental hygiene clients with implanted cardiac devices: permanent pacemakers; implantable defibrillators (ICDs); hemodynamic monitors or resynchronization devices.

REFERENCE

- Darby M.L. (ed.). (2002) *Mosby's Comprehensive Review of Dental Hygiene, Fifth Edition*. St. Louis: Mosby, Elsevier Sciences.
- Daniel, S.J. & Harfst, S.A. (Eds.). (2002) *Mosby's dental hygiene concepts, cases and competencies*. St. Louis: Mosby, Elsevier Sciences.
- Nield-Gehrig, Jill S. (2000) *Fundamentals of periodontal instrumentation, fourth edition*. Philadelphia: Lippincott Williams & Wilkins.
- Darby & Walsh (eds.) (2003) *Dental hygiene theory & practice, second edition*. St. Louis: Elsevier Sciences.
- St. Jude Medical Cardiac Rhythm Management Division, Technical Services
- Guidance Corporation, Cardiac Rhythm Management Technical Services
- Medtronic Cardiac Rhythm Management
- Consultation with the College of Dental Surgeons of British Columbia, the College of Physicians and Surgeons of British Columbia, BC Medical Association, Vancouver General Hospital Heart Services Pacemaker Clinic and the Dental Hygiene Education Institutions in BC.

POLICY

Background

The Dental Hygienists Regulation, Scope of Practice, states that: (4) Subject to the bylaws, a registrant may assess the status of teeth and adjacent tissues and provide preventive and therapeutic dental hygiene care for teeth and adjacent tissues. In the clinical setting, dental hygiene assessment involves the gathering or updating of information relating to the client's general and oral health.

There have been advances in the technology and function of implanted cardiac devices. Heart failure often impairs the electrical system that controls the normal, steady rhythm of the heartbeat. Abnormal electrical signals that arise from damaged heart muscle may cause arrhythmias – heartbeats that are too slow (bradycardia), too fast (tachycardia), or irregular. Heart failure patients may be treated with permanent pacemakers, cardiac resynchronization therapy and devices (CRTs), implantable cardioverter defibrillators (ICDs) or hemodynamic monitors. A small computer or microprocessor is implanted under the skin, usually near the clavicle. Often, one or more of these features can be present in a single or 'combined' device.

Pacemakers are most commonly used to treat bradycardia. The pacemaker resets the heart rate to an appropriate pace, ensuring adequate blood and oxygen are delivered to the brain and other parts of the body. Modified pacemakers, cardiac resynchronization therapy (CRTs), are being used to directly treat heart muscle weakness in select individuals. The CRT pacemaker paces both sides of the heart simultaneously to coordinate their contractions and improve their function. Implantable Cardioverter Defibrillators (ICDs) are pacemaker-like devices that continuously monitor the heart rhythm tachycardia and deliver life-saving electrical stimulus if a dangerous heart rhythm or activity rate is detected. Hemodynamic monitors use pacemaker technology, to act as sensors and monitor the status of heart failure patients and the effects of drug therapy.

Pacemakers and ICDs are sensitive to strong electromagnetic signals that may temporarily interfere with function. Most devices are designed with safeguards that include electronic filters or insulators to ensure proper operation or shielding in the presence of electromagnetic interference (EMI). Older models are unipolar and less insulated, while newer models are bipolar and well insulated to function in the presence of external electrical fields. Date of receipt of the ICD is not a reliable indicator for ascertaining if the device is shielded or not. Reliable, yet older designs of ICDs are still being used.

Clients are often provided with a device identification card, which identifies the model number, manufacturer of the device, and medical contacts. This information will assist in identifying any contraindications for proceeding with dental hygiene treatment.

Most dental hygiene/dental procedures do not involve strong electromagnetic signals and therefore are unlikely to interfere with a shielded pacemaker or ICD. This includes dental radiographs, dental handpieces, ultrasonic scalers including Piezoelectric and sonic, ultrasonic instrument cleaning units and Transcutaneous Electrical Nerve Stimulators TENS (strong electrical current to reduce chronic pain), provided the equipment is not placed directly over the implant site.

Older ferromagnetic ultrasonic scalers and magnetostrictive Cavitron branded scalers may cause single beat inhibition on unipolar pacemakers. Activity rate responsive devices may exhibit increased pacing rates when exposed to magnetostrictive scalers. Single beat inhibition and temporary rate increases are not considered clinically significant.

Covering unshielded pacemakers with a lead apron will offer protection from electrical interference. Care should be taken to avoid draping cords over the client or having the transducer (working end)

and cabling be kept at least six inches away from the implanted cardiac device.

Policy Statement

If a client reports having a pacemaker, or any other implanted cardiac device, recognize that medical consultation may be needed prior to dental hygiene or dental care to identify clients for whom electromagnetic interference is contraindicated.

Magnetostrictive (Cavitron) instruments may affect unshielded pacemakers and implanted cardiac devices, contraindicating their use. If the use of a magnetostrictive ultrasonic is prohibited, a sonic or piezoelectric instrument may be used or proceed with manual assessment and periodontal treatment instrumentation. Covering unshielded pacemakers with a lead apron will offer protection from electrical interference.

The presence of pacemaker or ICD indicates a medically compromised heart condition that could require treatment modifications or stress reduction protocols. Antibiotic prophylaxis is NOT recommended for cardiac pacemakers (intravascular and epicardial) and implanted defibrillators.

New technologies and the rate of replacement (every 4-6 years for some ICDs) suggest frequent review of the implanted cardiac devices.

INFORMED REFUSAL TO CONSENT

ISSUE

Informed refusal to consent to dental hygiene care

REFERENCE

- Practice Standards: see Tab 5

POLICY

Background

Legal literature states that generally, eight criteria should exist in order for a client to give informed consent to treatment:

- 1) the client must be legally competent;
- 2) the client must possess the mental capacity to authorize care;
- 3) the client must receive a proper disclosure of information from the caregiver;
- 4) the authorization should be specific to the procedure to be performed;
- 5) the client should have an opportunity to ask questions and to receive understandable answers;
- 6) the authorization obtained should be free of undue influence and coercion;
- 7) the authorization obtained should be free of misrepresentation of material information; and
- 8) the consent should be obtained by the treating professional or all of the professionals if the treatment involves a team of practitioners.

Informed refusal to consent is the logical converse of the same principles and the law upholds an individual's right to refuse treatment except when the choice goes against provincial law or threatens the well-being of others. In addition to the criteria above, the following points should be considered:

- Proper disclosure of information must include telling the client what is likely to happen to them if they decide to refuse the procedure, and ensuring that the client understands the likely problems that could be encountered in the future (an interpreter must be used if necessary; the interpreter should be asked to sign a declaration stating that they have relayed the dental hygienist's information as accurately as possible).
- Refusal to consent must be clearly documented in the client's records and must include the specific refusal and date, and the dental hygienist's initials.

Refusal to consent to a particular treatment should be reviewed periodically in a friendly and helpful manner and recorded, dated, and initialed by the dental hygienist.

Policy Statement

If a client refuses to consent to any aspects of clinical dental hygiene care, the dental hygienist must ensure that the client or their representative fully understands the treatment or process being recommended and the likely consequences of refusing the treatment at this time, and over time. All client questions must be answered. The dental hygienist dates and records the specific refusal in the client's records, and initials the entry. An interpreter must be used if there is any chance that the client may not fully understand the choice they are making. Refusal to consent should be reviewed regularly; the record entry should include the dental hygienist's initials and the date.

Assumptions and Rationale

According to the Practice Standards, dental hygienists obtain client consent for clinical care and research. Informed refusal to consent is the logical converse of the same standard and should be fully documented.

LASER USE IN PERIODONTAL THERAPY

ISSUE

Current guidelines for dental hygienists using lasers in periodontal therapy.

REFERENCE

- John Jameson, DDS, *Lasers: An Interview with Dr. Gerald Bittner, Jr.*, July 2001, Dental Economics
- William Vitale, DMD, *Lasers: Using lasers to increase revenues*, July 2001, Dental Economics
- Dr. Jefferey A. Rossmann (revised), *Lasers in Periodontics*, October 2002, Academy Report
- The Canadian Academy of Periodontology, *About Lasers* (position statement), www.cap-acp.ca
- Dr. Carrie Berkovich, *Lasers in Periodontics: The Good, the Bad and the Ugly*, April 26, 2004, Smile Implants

POLICY

Background

Laser is an acronym for Light Amplification by Stimulated Emission of Radiation.

Some specific dental lasers, such as the diode laser, can be used in dental hygiene treatment regimens by removing diseased epithelial lining of the periodontal pocket and reducing the intrasulcular bacterial population. Dental hygienists should be aware that the diode laser is also used as a soft tissue surgical laser. It is important to note that lasers have the potential to cause permanent thermal damage to bone and tooth root structure if used inappropriately.

Several controlled studies have assessed the use of laser therapy combined with conventional scaling and root planing. These investigations demonstrated no benefit or only slightly improved treatment outcomes with the addition of laser treatment. Further peer-reviewed, comparative clinical studies are required to establish the potential of lasers in periodontal therapy.

Lasers have not been proven to be effective in removing calculus from a diseased root surface.

The Canadian Academy of Periodontology (CAP) does not recommend or support the use of lasers in the treatment of periodontal disease. CAP has taken this position because long-term comparative clinical studies have not been completed on the efficacy of lasers in the treatment of periodontal disease.

Policy Statement

Dental hygiene professionals who have received the appropriate education may use laser treatment for periodontal therapy.

Laser therapy can be used as an adjunct, but not as an alternative to scaling and root planing.

Dental hygienists should be aware that gingival curettage is not within the Dental Hygiene Scope of Practice.

The College advises dental hygienists that lasers have not been proven effective in removing calculus from a diseased root surface or in producing a sterile field.

LOCAL ANAESTHETIC SUPERVISION

ISSUE

Interpretation Guideline for the administration of local anaesthetics.

REFERENCE

- Section 6(4) of the Dental Hygienists Regulation: see Tab 3.

POLICY

Background

Under section 6(4) of the Dental Hygienists Regulation:

- “No registrant may administer oral local anaesthetic except
- (a) Where a dentist is on the site and immediately available,
 - or
 - (b) In a facility if the oral local anaesthetic has been authorized by a medical practitioner or dentist and a person qualified to act in a medical emergency is immediately available”

The following interpretation is provided to assist registrants and facilities to meet the Regulation.

Policy Statement

Dental Offices

A dentist is present in the office during the administration of oral local anaesthetic and for 10 minutes thereafter.

Facilities

A person other than the dental hygienist who is qualified to act in a medical emergency must be present in the facility during the administration of oral local anaesthetic and for 10 minutes thereafter.

- A “person qualified to act in a medical emergency” is defined as the “person the facility has designated in its own policies and procedures to act in a medical emergency”.

It is the responsibility of the dental hygienist to ascertain who this person is for each facility shift during which the hygienist is practising.

NITROUS OXIDE SEDATION

ISSUE

Dental hygienists role in nitrous oxide sedation.

REFERENCES

- Nitrous Oxide Inhalation Sedation Report, Report to the QAC, April 2000
- Malamed, S.F., (1995), Sedation: A Guide of Patient Management. St. Louis, Missouri: Mosby.
- Registrant's Handbook, Tab 6, Scope of Practice Statement

POLICY

Background

As stated in the Clinical Therapy section of the Scope of Practice Statement (Registrant's Handbook, Tab 6), the dental hygienist may manage client pain, anxiety and fears. Inhalation sedation with nitrous oxide has proven to be an extremely effective and safe technique for the reduction of stress in the apprehensive or medically compromised client.

"Appropriate education" is defined on page 3 of Tab 6. Experience in providing dental hygiene services to clients sedated by nitrous oxide/oxygen gases is recognized, although the preferred "appropriate education" is formal theoretical and clinical instruction.

The following definitions have been developed to clarify the policy statement:

- "Administration" of nitrous oxide/oxygen gases: the act performed by the person who is responsible for making the decision to initiate sedation and/or adjust the flow of gases;

"Delivery" of nitrous oxide/oxygen sedation gases: performed by the person who follows the administration instructions.

Policy Statement

The "delivery" of nitrous oxide/oxygen sedation gases is within the dental hygiene scope of practice, with appropriate education.

The "administration" of nitrous oxide/oxygen sedation gases is not within the dental hygiene scope of practice.

ORTHODONTIC/PROSTHODONTIC SERVICES

ISSUE

The provision of orthodontic and prosthodontic services.

REFERENCES

- Registrant's Handbook, Tab 6, Scope of Practice Statement

POLICY

Background

As stated in the Clinical Therapy section of the Scope of Practice Statement (Tab 6), the dental hygienist initiates the clinical dental hygiene treatment plan by providing services. Based on client need, this may include "placing and removing temporary restorations including provisional prosthodontic restorations" and "performing orthodontic procedures."

"Appropriate education" has been defined (Tab 6, page 3) as "acquisition of the knowledge and skills required to provide specific dental hygiene services at an entry-level standard of competence."

At the February 2001 Board meeting, the Board resolved that formal education is the appropriate education for dental hygienists providing orthodontic and prosthodontic services for which they do not have previous education (from their basic dental hygiene education program).

The Dental Hygienists Regulation does not require supervision for the provision of these services. However, because the dental hygiene scope of practice does not include orthodontic or prosthodontic diagnostic-level decision making, most services will be provided while working with a dentist.

Policy Statement

Dental hygienists providing orthodontic and prosthodontic services to their clients will have obtained education in their basic dental hygiene program or through a post-diploma formal education course for the services being provided.

PREVENTATIVE RESINS

ISSUE

Provision of preventative resins

REFERENCES

- The Dental Hygienists' Role in the Management of Pits and Fissures, Report to the QAC, April 2000
- Registrant's Handbook, Tab 6, Scope of Practice Statement
- CDHBC policy on Sealants: Assessment for Sealants and Preparing Tooth Surfaces for Sealants (Tab 7, Registrant's Handbook)

POLICY

Background

As stated in the Scope of Practice Statement in the Registrant's Handbook (Tab 6), dental hygienists may apply fissure sealants. The resins used for pit and fissure sealants are of a similar composition to the composite resins used for preventative resins. The management and application techniques of both materials are similar.

Tooth preparations for fissure sealants and preventative resins differ. To prepare a tooth surface for a sealant, the surface is cleaned and an acid etchant is applied to create retentive micropores. When the dentist prepares a tooth surface for a preventative resin, a preparation is cut into the tooth surface using a bur or an aluminum oxide air abrasion system. As stated in the Sealant policy, aluminum oxide air abrasives cut hard tissue, which is outside the dental hygiene scope of practice.

Policy Statement

Registrants may apply preventative resins on prepared teeth.

REFUSAL TO TREAT

ISSUE

Guidelines for refusing treatment to clients.

REFERENCES

- Mission Statement, College of Dental Hygienists of British Columbia
- Patient Relations Program, see Tab 11, Registrants' Handbook
- Practice Guideline #7, *Duty to Provide Care*, Registered Nurses Association of British Columbia (2001)
- Bylaws, Schedule "C", *Code of Ethical Conduct*, College of Massage Therapists of British Columbia
- *Refusal to Treat*, Rock Ethics Institute, Pennsylvania State University

Background

Dental Hygienists are professionals who may assess the status of teeth and adjacent tissues to provide preventive and therapeutic dental hygiene care to clients. The practice of dental hygiene is a collaborative relationship with the dental team and the client.

The dental hygiene professional has an obligation to maintain a professional relationship with his or her clients. The dental hygiene profession attracts supportive, caring individuals: some practice settings require dental hygienists to be physically near their clients and some procedures cause stress or discomfort to clients.

There are circumstances in which the dental hygiene professional may find he or she is unable to perform dental hygiene duties because of the stress or discomfort, threatening or inappropriate behaviour, or non-compliance of a client. It is imperative that dental hygienists be

able to provide treatment according to practice standards in a safe way.

If at any time the dental hygienist is unable to provide safe, competent care, the dental hygienist has an obligation to inform the client of his or her concerns and offer alternative options to ensure that the client's dental hygiene care is met.

Policy Statement

Dental hygiene professionals have a moral and ethical responsibility to render competent, appropriate and safe dental hygiene care to clients. However dental hygienists may encounter situations where their ability to meet practice standards and to provide appropriate and competent care is compromised by a client's distress or discomfort, threatening or inappropriate behaviour, or non-compliance.

If the hygienist determines that appropriate and competent care is not possible due to circumstances beyond their control, the dental hygienist has a duty to inform the client that treatment is not possible at that time and that alternative services can be arranged.

REGISTRANTS' RESPONSIBILITY TO REPORT CHILD ABUSE

ISSUE

Registrants' Responsibility to Report Child Abuse

REFERENCE

- *Child, Family and Community Service Act* (1996) (R.C.B.C. 1996 C. 223)
- "BC Handbook for Action on Child Abuse and Neglect", pages 16-20, available from the Ministry for Children and Families website at <http://www.mcf.gov.bc.ca> or ordered from Crown Publications at (250) 386-4636.

POLICY

Background

Under section 14 of the *Child, Family and Community Service Act* (CFCS Act) a person who has reason to believe a child has been, or is likely to be, physically harmed, sexually abused or exploited, or in need of protection, has a legal duty to promptly report the matter. Under section 14(2), the duty to report applies even if the information is privileged or confidential.

Policy Statement

Registrants who suspect that a child is being abused or neglected are required by law to promptly report their suspicions to the Ministry for Children and Families. The two toll-free, province-wide telephone numbers are 310-1234 or 1-800-663-9122.

Registrants who believe that a child is in immediate danger should also call their local police detachment.

Registrants should inform (or may choose to inform) their employer of their reporting actions.

Failure to report is an offence under the CFCS *Act*, and could result in a fine and/or imprisonment.

In summary

- Report suspicions to 310-1234 or 1-800-663-9122
- For immediate help, call your local police detachment

REQUIREMENT TO NOTIFY IF DENTAL SERVICES CANNOT BE ARRANGED

ISSUE

Exemption for Residential Care registrants from the requirement for clients to have had a dentist's examination prior to dental hygiene care.

REFERENCE

- Dental Hygienists Regulation, section 6(3): see Tab 3.

POLICY

Background

Under section 6(3) of the Dental Hygienists Regulation, residential care (RC) registrants practising in facilities must:

- Advise the client to see a dentist if the client has not been examined by a dentist within the last 365 days; and
- Notify the College of Dental Surgeons of British Columbia as soon as it is apparent that dental services cannot be arranged for clients in a facility.

In preparation for the implementation of the Residential Care registration, the following guideline is proposed to assist registrants to meet the requirements of section 6(3) above.

Policy Statement

Advising Client

During the assessment appointment, the registrant must attempt to obtain information about the date of the client's last dentist examination. This can be accomplished by asking the client, or the

client's substitute decision maker, or referring to the client's chart or consulting with facility staff.

If the client has not, or likely has not, seen a dentist within the last year, the registrant should advise the client to do so, and make a notation of this advice in the client's chart.

Notifying College of Dental Surgeons

If a facility has no dentist available to call when service is needed, and if dental services cannot be arranged, the registrant must telephone or send a letter to the College of Dental Surgeons stating that dental services are not available at that facility. A sample letter is provided in the attachment.

Date

Registrar
College of Dental Surgeons of British Columbia
500-1765 West Eighth Avenue
Vancouver, BC V6J 5C6

Dear Registrar:

I am writing further to section 6(3)(b) of the Dental Hygienists Regulation, which requires me to notify you as soon as it is apparent that dental services cannot be arranged for clients in a facility.

Please accept this letter as notice that dental services cannot be arranged for the following facility:

[name, address & contact information here]

Yours truly,

[registrant's name]

c: College of Dental Hygienists

SEALANTS

ISSUE

Assessment of teeth for sealants and preparing tooth surfaces for sealants.

POLICY: Assessment for Sealants

Background

Prior to the Dental Hygienists Regulation, dental hygienists performed duties delegated by a dentist. One of these procedures was applying fissure sealants. Under current regulation, delegation is no longer required. Dental hygienists may provide services within their scope of practice if a patient has been examined by a dentist within the past 365 days. Any specific and appropriate instructions which may be given by the dentist must be followed. However, if no instructions are given by the dentist regarding sealants, there is no limitation in regulation on the hygienist's ability to provide them.

In practical terms, a consultation between the dentist and hygienist regarding the selection of teeth for fissure sealants can occur easily in a dental office setting. In dental hygiene practices that are outside the dental office setting, however, such consultation is more difficult. The following guideline is provided to assist practitioners dealing with this issue.

Policy Statement

Dental hygienists, when assessing teeth for fissure sealant application, will use current guidelines including: a risk assessment of the individual for dental caries, a risk assessment of the teeth and consideration of continuous vs. episodic dental care services. If instructions have not been given by the examining dentist, the dental hygienist should consult him or her to determine the best interests of the client.

Assumptions and Rationale

Dental hygienists are professionals who possess the qualifications and judgement to assess the status of teeth and provide preventive care. There may be variations in the experience of caries detection and/or knowledge level to identify changes in the selection criteria for the application of fissure sealants. The needs of the client may best be served by ensuring dentists have an opportunity to offer instructions for care.

The following guidelines have been adapted from Kumar J., Siegal. Guidelines for sealant use: recommendations, Journal of Public Health Dentistry, 1995; 55 (Special Issue):261-273:

The risk assessment for dental caries of the individual should include:

- caries experience (both primary and permanent teeth)
- previous dental care
- use of preventive practices
- family/medical histories
- changes in habits, life circumstances, health status, and medication use

The risk assessment of teeth should include:

- risk for developing dental caries
- level of caries activity
- pit and fissure morphology
- caries pattern
- life expectancy of primary teeth
- status of proximal surfaces
- eruption status
- ability to isolate the tooth
- tooth type and susceptibility

It is also important to consider:

- availability of dental care options
- utilization of dental care (continuous vs. episodic)

POLICY: Preparing Tooth Surfaces for Sealants

Background

The College has received queries about the use of air abrasive systems to prepare tooth surfaces for sealants.

Policy Statement

Registrants may use Prophy-Jet type air abrasion systems to prepare tooth surfaces. Air abrasion systems that use aluminum oxide may not be used.

Assumptions and Rationale

According to section 4 of the Dental Hygienists Regulation, registrants provide “preventive and therapeutic” services. The understanding is that this does not include cutting hard or soft tissues. Air abrasive systems that use aluminum oxide have the ability to cut hard tissue, even at low p.s.i.’s. Therefore, these systems should be avoided.

TOOTH BLEACHING AND THE PROVISION OF BLEACHING TRAYS

ISSUE

The provision of bleaching trays by dental hygienists and the removal of stain by tooth bleaching.

REFERENCES

- Microabrasion and Vital Tooth Bleaching, Report to the QAC, January 1998
- Scope of Practice Statement, Tab 6, Registrant's Handbook
- Dental Hygienists Regulation, Tab 3, Registrant's Handbook

POLICY

Background

According to section 4 of the Dental Hygienists Regulation, registrants of the CDHBC may "assess the status of teeth and adjacent tissues and provide preventive and therapeutic dental hygiene care..." (Tab 3). This includes "removing stain using various methods" (Scope of Practice Statement - Tab 6). Stain removal is therapeutic in that it contributes to the client's emotional well-being and is a motivational factor for oral hygiene practices. There are numerous in-office and at-home whitening products available to remove stain, some cured with heat or light and others cured chemically. Dental hygienists are educated to perform all steps of the various methods including the manufacturing and placement of bleaching trays. The only exception is the use of lasers for the purpose of bleaching.

Section 6(1)(c) of the Regulation states that dental hygiene services are provided according to any instructions that may be given by a dentist. Because the effects of tooth bleaching may impact on dental

treatment, registrants considering tooth bleaching for their clients should consult with the client's dentist to ensure the procedure fits with the overall treatment plan for the client. Tooth bleaching may result in an esthetic imbalance with existing tooth-coloured and porcelain restorations. Consulting with the dentist is in the client's best interests.

In order to provide tooth bleaching services, the registrant must have "appropriate education" regarding the bleaching process. "Appropriate education" is defined on page 3 of Tab 6 in the Registrant's Handbook. Appropriate education for tooth bleaching would consist of self-study, or formal or continuing education sessions.

Custom-fitted bleaching trays can be used to deliver bleaching agents to the dentition in order to remove intrinsic and extrinsic stain. Dental hygienists may, following appropriate education and through the use of proper equipment, manufacture and deliver bleaching trays. Bleaching gels can be used by clients in the trays provided by dental hygienists according to the manufacturer's directions.

Policy Statement

Dental hygienists may remove stain using tooth bleaching products. Dental hygienists are educated to perform the various steps of this procedure, except for the use of lasers. Appropriate theoretical education is needed regarding the tooth bleaching process. It is recommended that registrants considering tooth bleaching for their clients consult with the client's dentist to ensure the procedure fits with the overall treatment plan for the client. Dental hygienists may also provide custom-fitted bleaching trays to their clients with the appropriate education.

PERIODONTAL CHEMOTHERAPY

ISSUE

The use of controlled-release chemotherapeutic agents by dental hygienists.

REFERENCES

- *Periodontics Information Centre: UCLA.*
<http://www.dent.ucla.edu/pic/index.html>.
- Darby, M.L. and Walsh, M.M. Dental Hygiene Theory and Practice, 2nd Edition W.B. Saunders Company, 2003.
- *Finkelman RD, Williams RC.* Local delivery of chemotherapeutic agents in periodontal therapy: has its time arrived? J Clin Periodontology 1998 Nov.
- Johnson, DK, Perez, DC: Local Delivery of chemotherapeutic agents in periodontal therapy
Clinical Update, July 2000.

POLICY

Background

Chemotherapy involves treatment with a drug or chemical agent. The use of locally delivered antimicrobial agents to control gingivitis and periodontitis has been focused on control of plaque and gingivitis. 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.*

The only clinically efficacious means of administering antimicrobial agents for the treatment of periodontal disease are systemic administration and controlled release devices.** Controlled release devices provide a means of administering antimicrobial agents directly into the periodontal pocket without the side effects associated with systemic drug administration.***

The controlled-release system theoretically produces more constant, prolonged concentration profiles. 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 gel (Atridox), chlorhexedine chip (perio chip) are examples of such devices.

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

Local drug delivery, as an adjunct to conventional care, should be reserved for non-responding sites or patients with recurrent disease who need an alternative treatment approach.

The main determinants of successful periodontal maintenance therapy are dental professionals' ability to combat periodontal infections and patients' compliance with prescribed follow-up care.

Policy Statement

Mechanical and chemical antimicrobial intervention is the mainstay of preventive periodontal therapy.

Chemotherapeutics alone are unlikely to be effective in the presence of subgingival calculus, underscoring the importance of subgingival mechanical debridement.

The delivery of subgingival, controlled-release chemotherapeutic delivery systems is within the dental hygiene scope of practice, with appropriate education and consideration for precautions and contraindications about the product being used. The prescription of a chemotherapeutic agent is not within the dental hygiene scope of practice.

* *Darby and Walsh*

** *Darby and Walsh*

*** *Darby and Walsh*

REFERRALS BY DENTAL HYGIENISTS

REFERENCES

- College of Dental Hygienists of British Columbia, Registrant's Handbook, Tab 6, page 6
- Darby and Walsh, "Dental Hygiene Theory and Practice", 2nd Edition, Darby, Michael Leonard, Walsh, Margaret, ISBN 07216925 Saunders, Published September 2003.

POLICY

Background

In the scope of practice statement included in the Registrant's handbook, it is clearly stated that "the need for further care [for a patient] is discussed and planned, as well as the needs for on-going maintenance and referral".

The reevaluation appointment guide in the Darby and Walsh text (page 468) includes referrals to periodontists and other specialists in the care-planning section. It states that "the decision to care for the client in the general dental practice or to refer to a periodontal practice is based on:

- Type and severity of the disease
- Dental hygienist's skill level
- Time allotted to maintain periodontally involved clients."

Policy Statement

In British Columbia, it is the responsibility of a dental hygienist to develop and implement a process for consultation and/or referral with other health professionals to ensure the provision of safe and ethical dental hygiene care to the public.

In the patient's best interest, the dental hygienist should establish a collaborative approach with the patient's dentist to mutually assess the need for further care from the appropriate specialist or other health care professional(s). Dental hygienists are encouraged to consider continuing competency courses in identification of oral pathologies, so that they can communicate in a knowledgeable and collegial manner.

PROVISION OF ATHLETIC MOUTHGUARDS

ISSUE

The provision of sports mouthguards by dental hygienists.

REFERENCES

Registrant's Handbook, Tab 6, Scope of Practice Statement

POLICY

Background

Custom-fitted mouthguards prevent sports injuries to the skull and dentition. Dental Hygienists may, following appropriate training and through use of proper equipment, manufacture sports mouthguards. Dental hygienists can evaluate the condition of mouthguards at dental hygiene visits for wear, tears, deterioration or unsatisfactory retention and provide intervention and education on the use of sports mouthguards.

In providing athletic mouthguards a dental hygienist can work together with other health professionals to deliver health education, injury prevention, and mouth guard promotion campaigns on either a one-to-one basis or to groups of clients, parents, athletes, athletic teams, sports coaches and officials, gym teachers or others.

Policy Statement

Dental hygienists can provide custom-fitted athletic mouthguards to their clients after obtaining the appropriate education.