College of Dental Hygienists of British Columbia

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.

TOPIC

ANTIBIOTIC PREMEDICATION (CARDIAC CONDITIONS)

Added to Handbook: February 2010
Updated: October 2018

PURPOSE

To provide guidelines on antibiotic premedication for clients with specific cardiac conditions.

BACKGROUND

Current medical practice indicates that dental clients who are at risk for infective endocarditis (IE) 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 client care. Regimens updated and published by the American Heart Association and the American College of Cardiology Foundation (2017) are adopted as the standard for prophylactic antibiotic premedication within this interpretation guideline.

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

The American Heart Association: www.americanheart.org
The American College of Cardiology: www.acc.org
The Canadian Dental Association: www.cda-adc.ca
The American Dental Association: www.ada.org

Following consideration of a client's medical status and any co-morbidities that may increase their risk of infection, a client's cardiologist, physician, or dentist may prescribe prophylactic antibiotic premedication for clients with heart conditions prior to specific dental procedures.

Current **indications** for prophylactic antibiotics, prior to dental/dental hygiene procedures that involve manipulation of gingival tissue or the periapical region of teeth, and/or perforation of the oral mucosa, are for clients with a history of any of the following:[1-3]

- Prosthetic cardiac valves, including transcatheter implanted prostheses and homografts;
- Prosthetic material used for cardiac valve repair, such as annuloplasty rings and chords;
- Previous infective endocarditis;
- Cardiac transplant with valve regurgitation due to a structurally abnormal valve.
- Specific congenital (present from birth) heart conditions:
    - Unrepaired cyanotic congenital heart disease including palliative shunts and conduits;
    - Repaired congenital heart disease, with residual shunts or valvular regurgitation at the site of or adjacent to the site of a prosthetic patch or prosthetic device;

- Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or catheter intervention, during the first 6 months after the procedure.*
  (*Prophylaxis is reasonable because endothelialization of prosthetic material occurs within 6 months after the complete repair of a congenital heart defect.)

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

When prophylactic antibiotics **are recommended**, the following dental hygiene procedures are considered to have the greatest potential to produce a bacteremia (i.e. procedures which manipulate the gingival tissues and which may cause bleeding and the presence of viable bacteria in the blood):

- Periodontal procedures including surgery, scaling, root planing and probing
- Intraligamentary anesthesia injections
- Subgingival placement of antibiotic fibers 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 through non-infected tissues (other than intraligamentary)
- Placement of rubber dam
- Suture removal
- Placement of removable prosthodontic or orthodontic appliances
- Adjustment of orthodontic appliances
- Impressions
- Intra-oral radiographs

Timing of Antibiotic Administration

An antibiotic for prophylaxis of a cardiac condition 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 client did not receive the pre-procedure dose.[2] Therefore, this protocol should be reserved for emergency situations and may not be used simply for the convenience of the office or the dental hygienist.

Clients Already Receiving Antibiotics

The 2007 guidelines state that if the client is already taking an antibiotic that is recommended for IE for another reason, rather than increasing the dose, an antibiotic from a different class should be prescribed.[2]

Prophylactic Regimen:[2]		
Situation	**Agent**	**Regimen – Single Dose 30-60 minutes before procedure**
Oral	Amoxicillin	*Adults:* 2.0 g *Children:* 50 mg/kg orally, ***1 hour before procedure***
Unable to take oral medications	Ampicillin or cefazolin or ceftriaxone	*Adults:* 2.0 g IM or IV* (ampicillin)1.0 g IM or IV (cefazolin or ceftriaxone) *Children:* 50 mg/kg, IM or IV 30 minutes prior to procedure
Allergy to oral penicillin or ampicillin	Cephalexin** †	*Adults:* 2.0 g *Children:* 50 mg/kg orally, ***1 hour before procedure***
	Clindamycin	*Adults:* 600mg *Children:* 20mg/kg orally, ***1 hour before procedure***
	Azithromycin or clarithromycin	*Adults:* 500 mg *Children:* 15 mg/kg orally, ***1 hour before procedure***
	Cephazolin or Ceftriaxone †	*Adults:* 1.0 g IM or IV *Children:* 50 mg/kg IM or IV, 30 minutes prior to procedure

Allergic to Penicillin or ampicillin and unable to take oral medications	Clindamycin	*Adults:* 600mg IV *Children:* 20 mg/kg IM or IV 30 minutes prior to procedure
*IM indicates intramuscular; IV, intravenous **Or other first or second generation oral cephalosporin in equivalent adult or pediatric dosages* *† Cephalosporins should not be used with individuals with a history of anaphylaxis, angioedema or urticaria, to penicillins or ampicillin.*		
From: Wilson et al. Prevention of Endocarditis, Circulation 2007;116;1736-1754; originally published online April 19, 2007. Available from: http://circ.ahajournals.org/content/116/15/1736.full.pdf+html		

POLICY

In order to meet CDHBC Practice Standards, dental hygienists are required to use current knowledge in their practice and to assess the client to determine whether special precautions are necessary. Ideally dental hygienists will consult with the client's cardiologist to determine the need for antibiotic prophylaxis prior to invasive dental hygiene procedures. If the dental hygienist is unable to consult with the cardiologist, a collaborative approach with the client's physician or dentist should take place to determine the client's need. Should the physician or dentist elect to take responsibility for making this determination, **the direction provided must be clearly documented in the client's chart.**

If a determination recommending antibiotic prophylaxis is made in a dental office setting, it is recommended that a letter be provided to the client to take to their treating physician informing them of the prophylactic coverage and directions that were provided.

It is recommended that the dental hygiene professional encourage clients who are at high risk for developing infective endocarditis to maintain optimal oral health to prevent bacterial seeding. This is through oral hygiene instruction to ensure effective home oral self-care and through regular professional dental hygiene maintenance appointments. Dental hygiene appointments must also ensure strict infection prevention and control measures are upheld.

REFERENCES

1. Nishimura RA, Otto CM, Bonow RO, Carabello BA, Erwin JP 3rd, Fleisher LA, Jneid H, Mack MJ, McLeod CJ, O'Gara PT, Rigolin VH, Sundt TM 3rd, Thompson A. 2017 AHA/ACC focused update of the 2014 AHA/ACC guideline for the management of patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Task force on Clinical Practice Guidelines. J Am Coll Cardiol 2017;70:252-89. Available from: http://www.onlinejacc.org/content/accj/70/2/252.full.pdf

2. Wilson W, Taubert KA, Gewitz M, Lockhart PB, Baddour LM, Levison M, et al. Prevention of infective endocarditis: Guidelines from the American Heart Association Rheumatic Fever,

Endocarditis and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young, and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and the Quality of Care and Outcomes Research Interdisciplinary Working Group. Circulation. 2007;116:1736-1754. Available from: http://circ.ahajournals.org/content/116/15/1736.full.pdf+html

3. Nishimura RA, Otto CM, Bonow RO, Carabello BA, Erwin JP III, Guyton RA, O'Gara PT, Ruiz CE, Skubas NJ, Soraiga P, Sundt TM III, Thomas JD, 2014 AHA/ACC guideline for the management of patients with valvular heart disease: executive summary: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation 2014;129:2440-2492. Available from: http://circ.ahajournals.org/content/129/23/2440.long

4. American Academy of Pediatric Dentistry. Clinical Practice Guidelines, Council on Clinical Affairs. Guideline on antibiotic prophylaxis for dental clients at risk for infection. Chicago (IL): American Academy of Pediatric Dentistry (AAPD); 2014;38 (6) 16/17 available from: http://www.aapd.org/assets/1/7/G_AntibioticProphylaxis1.PDF

5. American Dental Association. Oral Health Topics: Antibiotic Prophylaxis Prior to Dental Procedures. [www.ada.org]. c 2017. Updated September 14, 2017. Available from: http://www.ada.org/en/member-center/oral-health-topics/antibiotic-prophylaxis

BLOOD AND BODY FLUID EXPOSURE MANAGEMENT

Added to Handbook: Prior to June 2004
Revised January 2014

PURPOSE:

To minimize the risk of transmission of blood borne pathogens in persons exposed to blood or bodily fluids; and to provide guidance for the appropriate treatment, documentation and follow-up for individuals who have been involved in the exposure to blood borne pathogens.

BACKGROUND:

These guidelines are based on the BC Centre for Disease Control publication *Communicable Disease Control Blood and Body Fluid Exposure Management* (March 2010). It is not the intent of these guidelines to discuss the assessment of risk and management of exposures to pathogens other than HIV, HBV, and HCV.

All persons exposed to blood or body fluids should be assessed for potential risk of infection from HIV, HBV, and HCV, and be provided with appropriate counseling and treatment. The source of a blood borne virus (BBV) may be from a registrant or client (known or unknown). Bi-directional transmission is possible if *percutaneous, permucosal, or non-intact skin exposure to blood or bodily fluid has occurred*. Although the risk may be lower, bites and splashes to the eye should also be assessed for potential risk of infection.

Post Exposure Management Procedure:

Discuss the following with the source person:
A process must be established by which identification of the source is kept confidential.

Post-exposure treatment is required when <u>all</u> of the following conditions are present:
In all cases an accident / incident report should be completed. Each organization should ensure that it has appropriate arrangements in place for the reporting and recording of untoward incidents. *WorkSafeBC* has mandatory reporting requirements for employees and employers of BC Businesses.

1. *Cleanse:*
   - Rinse the mucous membranes or eye with water.
   - Wash skin with soap and water for 10 minutes.
   - DO NOT promote bleeding by cutting, scratching or puncturing the skin. This may damage the tissues and increase uptake of any pathogen(s).
   - Allow injury/wound site to bleed freely, and then cover lightly.
   - Do not apply bleach to the injury/wound or soak it in bleach.

2. *Triage:*

If percutaneous, permucosal, or non-intact skin exposure has occurred, the exposed person should immediately have a risk assessment performed by a qualified health professional, preferably within 2 hours of exposure.

- In the event of an exposure through the course of clinical practice, a dental hygienist should 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) and identify him/herself as a healthcare practitioner initiating protocol for a percutaneous exposure or needlestick injury. 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.
- 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.

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 on-line or in the Emergency Department or health facilities supplied with antiretroviral starter kits,
- Determine if the source of the blood or body fluid is known. If the source person discloses they are HIV+, contact the BC Centre for Excellence in HIV/AIDS to obtain advice regarding appropriate anti-retroviral therapy for the exposed person.
- Obtain the source person's consent for testing for anti-HIV, anti-HCV, HBsAg, anti-HBs, and anti-HBc. The appropriate pre- and post-test counseling should be done for each test.
- Obtaining informed consent from the source is an integral part of all post-exposure testing procedures, as is maintaining confidentiality of all information.
- If the attending physician of the source person is known, that physician may, without breaching confidentiality, or with the client's permission, provide some insight into whether or not the exposure should be regarded as higher risk.
- 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, HBV 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.

Discuss the following with the source person:

- Why/how their test results are needed for the post-exposure management of the exposed person, as well as for possible follow-up of their own test results should any be positive
- That their consent is also needed for:

    - disclosure of their test results to their own follow-up physician (so that they can be contacted if any of their test results are positive)
    - disclosure of their test results to the exposed person's follow-up physician
    - disclosure of their test results to the exposed person's worksite occupational health liaison (if applicable) and*WorkSafe BC* (in the instance of occupational exposure).
- That the exposed person will not be informed of their (the source) test results; the exposed person will only be told whether or not to continue HIV and/or HB prophylaxis.
- How they can be contacted if any of their test results are positive. The name of their follow-up physician is required if they have chosen anti-HIV testing non-nominally.HBV and HCV tests can only be done nominally.

A process must be established by which identification of the source is kept confidential.

4. *Determine the HIV, HBV 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:*

- 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, HBV or HCV).

6. *Counselling and follow up:*

- Arrange for post-exposure counselling in the health facility;
- Contact the family physician within three days of the exposure to plan 12 months of follow up; and
- 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.

7. *Document:*

- In all cases an accident / incident report should be completed. Each organization should ensure that it has appropriate arrangements in place for the reporting and recording of untoward incidents. *WorkSafeBC* has mandatory reporting requirements for employees and employers of BC Businesses.

POLICY:

Post-exposure management is required when all of the following indications are present:

- percutaneous, permucosal, or non-intact skin exposure (injury < 3 days old, or with skin having compromised integrity such as dermatitis, abrasions, scratches, burns);
- the exposure is to blood, potentially infectious body fluid or tissue; the source is considered potentially infectious (positive test, or in a higher risk group, or exposure occurred in a higher risk setting); AND
- the exposed person is considered susceptible to at least one of the following viruses: HIV, HBV, or HCV.

Post-exposure prophylaxis may be considered for bites if there is broken skin and bleeding and either:

- The person bitten is sero+ for a bloodborne pathogen and the biter has non-intact oral mucosa; OR
- The biter is sero+ for a bloodborne pathogen.

REFERENCES:

- BC Centre for Disease Control: Communicable disease control blood and body fluid exposure management. March 2010. Available from: BCCDC EPI_Guideline_(pdf)
- BC Ministry of Health: Management of percutaneous or permucosal exposure to blood and body fluid/laboratory requisition form HLTH 2339. 2011. Available from: HLTH 2339.2011 (pdf)
- Centers for Disease Control and Prevention: Infection control frequently asked questions - bloodborne Pathogens - occupational exposure. 2013. Available from: CDC Oral Health Infection Control FAQ

CHLORHEXIDINE

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on the use of chlorhexidine by dental hygienists.

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 on the federal *Food and Drugs Act* Prescription Drug List. The federal *Act* is enacted through provincial legislation. The BC legislation is the Drug Schedules Regulation to the *Pharmacy Operations and Drug Scheduling Act* of British Columbia, which lists chlorhexidine as a "Schedule I - Prescription" drug.

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

A written prescription by a dentist or physician is required for the sale of chlorhexidine to a client by a pharmacy. 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.

REFERENCES

- Government of British Columbia. Drug Schedules Regulation To The Pharmacy Operations And Drug Scheduling Act Of British Columbia. Victoria: Ministry of Health; 2013. Available from:
  BC pharmacists.org Drug Schedules Regulation (pdf)
- Government of Canada. Food and Drugs Act. Ottawa: Justice Laws Website; 2013. Available from:
  Justice.gc.ca F-27

- Government of Canada. Prescription Drug List. Ottawa: Health Canada; 2013 Dec 19. Available from: Health Canada Prescription Drug List

CONSENT OF MINORS TO TREATMENT

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on consent of minors to dental hygiene treatment.

BACKGROUND

In BC there is no legislation that requires a minimum age limit for child or youth clients to be able to consent to dental hygiene care. Under section 17 of the *Infants Act*, a child under the age of 19 may consent directly to health care treatment, without parental/guardian consent, if:

- the health care provider has made reasonable efforts to determine and has concluded that the proposed treatment is in the minor's best interest, and
- the minor has sufficient intelligence and maturity to understand the nature and consequences and the reasonably foreseeable benefits and risks of the health care proposed.

Health care includes treatment for therapeutic, preventive, palliative, diagnostic or other health-related purposes.

POLICY

When obtaining consent from a minor, the dental hygienist should discuss the proposed treatment at a level that the client can understand. This includes the nature of the proposed treatment, the associated risks and benefits, and any reasonably foreseeable potential consequences of foregoing the treatment. Dental hygienists must use professional judgment to determine if the minor is capable of consenting to care.

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

- the proposed treatment was determined to be in the minor's best interest
- the proposed treatment was explained at a level that the client could understand
- the risks and benefits of the proposed treatment, and any reasonably foreseeable consequences associated with the treatment options were discussed

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. In such cases, the minor must consent to the disclosure of information to a parent/guardian for consultation.

REFERENCES

- Government of British Columbia. Infants act. Victoria: Queen's Printer; 2013. Available from: Infants Act [RSBC 1996] Chapter 223
- CDHBC Code of Ethics. Victoria: College of Dental Hygienists Of British Columbia; 2013.

CONTROLLED RELEASE PERIODONTAL CHEMOTHERAPY

Added to Handbook: Prior to June 2005
Updated: September 2013

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

- American Academy Of Periodontology Statement On Local Delivery Of Sustained Or Controlled Release Antimicrobials As Adjunctive Therapy In The Treatment Of Periodontitis. Journal of Periodontology [Internet]. 2006 [cited 2013 July 25]; 77:(8):1458-1458. Available from: joponline.org (pdf)
- Darby LM, Walsh MM. Dental Hygiene Theory And Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.
- Matesanz-Pérez P, García-Gargallo M, Figuero E, Bascones-Martínez A, Sanz M, Herrera D. A Systematic Review On The Effects Of Local Antimicrobials As Adjuncts To Subgingival Debridement, Compared With Subgingival Debridement Alone, In The Treatment Of Chronic Periodontitis. J Clin Periodontol 2013; 40(3):227-241.
- Newman MG, Takei HH, Klokkevold PR, & Carranza FA. Carranza's Clinical Periodontology. 11th ed. St, Louis: Elsevier; 2012.

DENTAL HYGIENE DIAGNOSIS

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To assist dental hygienists in applying the concept of dental hygiene diagnosis in their practice settings.

BACKGROUND

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, and should take the client's needs, values and beliefs into consideration.

Other terms commonly used for "dental hygiene diagnosis" include "assessment interpretations" and "assessment findings" and would include, but are not limited to, "periodontal status statements" or "caries risk statement" in clinical settings.

There are several practice standards that relate to the dental hygiene diagnosis. These include Practice Standard Policies 4.1, 8.2 and 8.4.

Practice Standard Policy 4.1 requires the dental hygienist to analyze the assessment information and make a dental hygiene diagnosis. This includes interpreting the dental hygiene assessment findings and discussing the implications of the findings with the client or the client's representative.

Practice Standard Policy 8.2 requires that dental hygienists record accurate details of all dental hygiene care provided including an interpretation of dental hygiene assessment findings or a dental hygiene diagnostic statement using any one of the models described in credible dental hygiene literature.

Practice Standard Policy 8.4 requires dental hygienists to document discussions around pertinent conversations including those related to the client being informed of the dental hygiene diagnosis.

POLICY

The dental hygienist will analyze and interpret the dental hygiene assessment data in order to formulate a dental hygiene diagnosis. The nature of the dental hygiene diagnosis may vary between practice settings.

In direct 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.);
- state any conditions that require care or attention during the dental hygiene appointment; and
- document the above accordingly in the client's chart

In indirect clinical dental hygiene practice settings, the dental hygienist would:

- analyze data against established measurable outcomes
- use assessment findings in determining a dental hygiene diagnosis
- document a dental hygiene diagnosis, statement of the problem or results of analysis

Dental hygienists can only diagnose conditions that are within the dental hygiene scope of practice to treat. Concerns may be identified during the assessment phase that require an appropriate referral, be it to a dentist, dental specialist, physician, or other health care provider. Referrals are not part of the dental hygiene diagnosis but rather are part of the dental hygiene treatment plan. Further information can be found in the Interpretation Guideline titled "Referrals by Dental Hygienists".

REFERENCES

- Darby LM, Walsh MM. Dental Hygiene Theory And Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.
- Newman MG, Takei HH, Klokkevold PR, & Carranza FA. Carranza's Clinical Periodontology. 11th ed. St. Louis: Elsevier; 2012.
- CDHBC Practice Standards and Practice Standard Policies. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Scope of Practice. Victoria: College of Dental Hygienists of British Columbia; 2013.
- Wilkins EM. Clinical Practice Of The Dental Hygienist. 11th ed. Philadelphia: Lippincott Williams & Wilkins; 2013.

DENTAL HYGIENISTS INFECTED WITH BLOODBORNE PATHOGENS:

Standard for Reporting and Guidance for Prevention of Transmission of Infection

Added to Handbook: Prior to June 2004
Revised January 2014

PURPOSE

This policy has been developed to:

- Articulate the CDHBC reporting requirements and provide guidelines for registrants who are infected with one or more blood-borne virus (BBV) type infections of hepatitis B virus (HBV), hepatitis C virus (HCV) or human immunodeficiency virus (HIV);
- Provide guidance on appropriate measures for preventing the transmission of infection;
- Provide recommendations for the management of dental hygienists infected with blood-borne pathogens; and
- Outline the reporting standards for a registrant who is infected with BBV.

BACKGROUND

Disease transmission from infected health-care workers to clients during exposure-prone procedures (EPPs) has been demonstrated in the literature. While the chance of transmission appears to be small, it is also recognized that dental hygienists perform invasive "exposure-prone procedures" that present the opportunity for the client to be exposed to the health care worker's blood. The risk of such transmission is diminished substantially through the strict use of Routine Practices for infection prevention and control.

Health Canada's definition of exposure-prone procedures (EPP) are those during which transmission of HBV, HCV, or HIV from a health care worker (HCW) to client is most likely to occur and include the following:

- *digital palpation of a needle tip in a body cavity, a hollow space within the body or one of its organs, or the simultaneous presence of the HCW's fingers and a needle or other sharp instrument or object in a blind or highly confined anatomic site, …; or…*
- *major cutting or removal of an oral or perioral tissue, including tooth structures, during which there is a potential for the patient's open tissues to be exposed to the blood of an injured HCW*

CDHBC's Obligations

- Develop policies that encourage a safe working environment and maximize the use of measures to prevent BBV transmission. Some of these opportunities include but are not

limited to 1) mandating the use of Routine Practices; 2) requiring registrants to report all occupational blood exposures to clients to the Registrar.

- Develop an interpretation guideline to define restrictions to practice for registrants infected with BBV.
- Conduct an individualized assessment of an infected registrant's practice and make recommendations about any necessary practice modifications.
- Endeavor to maintain the confidentiality of the affected registrant.
- Monitor, as necessary, the registrant's practice in consultation with the registrant and/or the registrant's physician.
- Inform registrants of this policy, related processes and encourage all registrants to know their own HIV, HBV and HCV status.
- Strongly encourage all registrants to obtain vaccination against HBV.

POLICY

A registrant who is infected with a BBV:

1. Is not routinely required to inform their clients of their status; however, they must notify the CDHBC Registrar of their sero-positive status. Notification must be in writing addressed in confidence to:

The Registrar of the College
of Dental Hygienists of BC
Personal and Confidential
Suite 600, 3795 Carey Road
Victoria BC V8Z 6T8

2. Must cooperate with the assessment of his/her practice by a CDHBC appointed expert;
3. Must comply with the recommendations made by the Registrar; and
4. Must inform the Registrar immediately if he/she is no longer able to comply with the recommendations, or is unable to consistently provide dental hygiene care with a high standard of infection control and/or is putting his/her client's at risk.

Should a client be exposed to blood or bodily fluids of the infected registrant, the registrant must:

- Inform the client if they have been exposed to a blood-borne pathogen and follow the guidelines for blood and body fluid exposure (See the CDHBC Interpretation Guideline titled "Blood and Body Fluid Exposure Management").

Requirements for registrants infected with HBV, HCV or HIV are as follows:

A registrant infected with Hepatitis B

If performing non-EPPs an infected registrant can practice so long as they:

- Use Routine Practices, and double glove for all aspects of client care for which gloving is recommended routinely;
- Get tested for circulating HBV plasma viral load with the most sensitive DNA assay possible, no less than every six (6) months; and
- In conjunction with this testing, provide a written report to the Registrar from their physician outlining the HBV viral load status, along with any additional information about the registrant's viral burden level and/or specific practice recommendations.

If performing EPPs an infected registrant:

- Cannot perform EPPs if HBV plasma DNA is at or above 2000 IU/mL except on patients who are HBV immune.
- Can perform EPPs if plasma DNA is below 2000 IU/mL.
- Must double glove and use Routine Practices.
- Must get tested for circulating HBV plasma viral load with the most sensitive DNA assay possible, no less than every six (6) months and provide a written report to the Registrar from their physician outlining the viral load status, along with any additional information about their viral burden level and/or specific practice recommendations.

If at any time a REGISTRANT's HBV plasma DNA is above 2000 IU/mL, they must:

- Report this to the CDHBC Registrar immediately and cease performing EPPs.

If a REGISTRANTS's HBV plasma DNA is below 2000 IU/mL they must:

- Provide the Registrar with medical evidence indicating that their HBV plasma DNA is below 2000 IU/ml, along with a history indicating how long the count has remained below 2000 IU/mL.

A registrant infected with Hepatitis C

If performing non-EPPs an infected REGISTRANT can practice so long as they:

- Use Routine Practices and double glove for all aspects of client care for which gloving is recommended routinely;
- Get tested for circulating HCV plasma viral load with the most sensitive DNA assay possible, no less than every six (6) months; and
- In conjunction with this testing, provide a written report to the Registrar from their physician outlining the HCV viral load status along with any additional information about the registrant's viral burden level and/or specific practice recommendations.

If performing EPPs an infected REGISTRANT:

- Cannot practice EPPs if they are HCV RNA positive.

If at any time an infected REGISTRANT is HCV RNA positive, they must:

- Report this to the Registrar and cease performing EPPs.

When the REGISTRANT has a sustained virologic response (SVR) defined as HCV RNA negativity in serum or plasma following completion of therapy, they may:

- Resume EPPs once an HCV RNA test using the most sensitive DNA assay possible, performed at least 12 weeks after completion of treatment is confirmed to be negative and they have reported these results to the Registrar; and
- They must get tested for circulating HCV plasma viral load with the most sensitive DNA assay possible, no less than every six (6) months and provide a written report to the Registrar from their physician outlining their continued HCV RNA serum negativity status.

A registrant infected with the Human immunodeficiency virus (HIV)

If performing non-EPPs procedures an infected registrant can practice so long as they:

- Use Routine Practices, and double glove for all aspects of client care for which gloving is recommended routinely;
- Get tested for circulating HIV plasma viral load with the most sensitive DNA assay possible, no less than every six (6) months; and
- In conjunction with this testing, provide a written report to the Registrar from their physician outlining the viral load status, along with any additional information about the registrant's viral burden level and/or specific practice recommendations.

If performing EPPs an infected REGISTRANT:

- Is not able to perform EPPs until they are on antiretroviral therapy (ART) and their HIV plasma viral load or pVL (HIV RNA in their plasma) is undetectable.
- Once they have provided the Registrar with medical evidence indicating that they are documented to have an undetectable pVL on Anti-Retroviral Therapy (ART), they may be permitted to perform EPPs using double gloves, with the proviso that their physician provides regular (every 6 month) confirmation to the Registrar that the registrant's pVL is persistently suppressed.

SUMMARY

Dental hygienists are required to protect the health and safety of their clients and this obligation includes preventing the transmission of blood-borne viruses (BBVs) from themselves to their clients. Dental hygienists who perform exposure-prone procedures should be encouraged and supported to undergo testing for BBVs; however the maintenance of confidentiality for registrants must also be respected. Any recommendations for the modification of a registrant's dental hygiene practice are based on an independent assessment of a registrant and consideration of context, pathogen, viral load, adherence to precautions, and experience and types of procedures provided by the registrant. This policy is intended to balance the rights of clients to be free from the danger of infection and the rights of an infected registrant to privacy and freedom from discrimination.

ACKNOWLEDGMENT

Portions of this policy have been adapted from the College of Dental Surgeons of BC's Blood-Borne Pathogen Policy.

REFERENCES

- BC Centre for Disease Control. BC Routine immunization schedule: Adults 18 years of age and older not immunized in childhood [Internet]. 2012 [updated 2012 Dec 13; cited 2013 Sept 12]. Available from: BCCDC Adults 18 and Older Immunizers (pdf)
- BC Centre for Disease Control. Communicable Disease Control Manual. Chapter I-Management of Specific Diseases: Hepatitis C [Internet]. 2012 [updated 2013 July; cited 2013 Sept 12]. Available from: BCCDC CPS Hep Guidelines HCV (pdf)
- BC Centre for Disease Control. Communicable Disease Control Manual. Chapter 1-Communicable Disease Control: Blood and Body Fluid Exposure Management [Internet]. 2010 [updated 2010 March; cited 2013 Sept 12]. Available from: BCCDC EPI Guideline BBF (pdf)
- Bell DM, Shapiro CN, Ciesielski CA, Chamberland ME. Preventing bloodborne pathogen transmission from health-care workers to patients: the CDC perspective. Surg Clin North Am. 1995 Dec; 75(6):1189-203.
- Corden S,Ballard AL,Ijaz S,Barbara JA,Gilbert N,Gilson RJ, et al. HBV DNA levels and transmission of hepatitis B by health care workers. J Clin Virol.2003 May: 27(1):52-8.
- Division of Nosocomial and Occupational Infections. Bureau of Infectious Diseases. Laboratory Center for Disease Control. Health Protection Branch. Health Canada. Proceedings of the Consensus Conference on Infected Health Care Worker Risk for transmission of bloodborne pathogens.Can Commun Dis Rep.1998 Jul; 24 Suppl 4:i-iii, 1-25; i-iii, 1-28.
- Enfield KB, Sharapov U, Hall K, Berg C, White-Comstock, MB, Xia G, et al. Transmission of hepatitis B virus to patients from an orthopedic surgeon. 5th Decennial International Conference on Healthcare-Associated Infections; 2010 March 18-20; Atlanta, Georgia. Available from: shea.confex.com
- Government of British Columbia. *Public Health Act*. Victoria: Queen's Printer Website; 2013. Available from: Public Health Act [SBC 2008] Chapter 28
- Government of British Columbia. *Public Health Act*: Health Act Communicable Disease Regulation. List of reportable communicable diseases in BC. Victoria: Queen's Printer; 2013. Available from: Health Act Communicable Disease Regulation
- Harpaz R,Von Seidlein L,Averhoff FM,Tormey MP,Sinha SD,Kotsopoulou K, et al. Transmission of hepatitis B virus to multiple patients from a surgeon without evidence of inadequate infection control. N Engl J Med. 1996 Feb 29; 334(9):549-54.
- Henderson DK, Dembry L, Fishman NO, Grady C, Lundstom T, Palmore TN, Sepkowitz KA, Weber DJ. SHEA guideline for management of healthcare workers who are infected with

hepatitis B virus, hepatitis C virus, and/or human immunodeficiency virus. Infect Control Hosp Epidemiol. 2010 Mar; 31(3):203-32.

- Infection Prevention and Control Guidelines. Victoria: College of Dental Hygienists of British Columbia; 2012 July.
- Molyneaux P, Reid TM, Collacott I, Mcintyre PG, Dillon JF, Laing RB. Acute hepatitis B in two patients transmitted from an e antigen negative cardiothoracic surgeon. Commun Dis Public Health.2000 Dec; 3(4):250-2.
- Ngui SL, Watkins RPF, Heptonstall J, Teo CG. Selective transmission of hepatitis B after percutaneous exposure. J Infect Dis.2000 Mar; 181(3):838-43.
- CDHBC Practice Standards and Practice Standard Policies. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Interpretation Guidelines. Blood and body fluid exposure. Victoria: College of Dental Hygienists of British Columbia; 2013.
- Shafran SD, Mock D, Wong DK. The Dentist with Blood-Borne Viral Infection: What are the Risks to Patients and What is an Appropriate Approach to the Dentist? Toronto: Canadian Dental Regulatory Authorities Federation (CDRAF); 2012 Oct.
- Spijkerman IJ,van Doorn LJ,Janssen MH,Wijkmans CJ,Bilkert-Mooiman MA,Coutinho RA, et al. Transmission of hepatitis B virus from a surgeon to his patients during high risk and low risk surgical procedures during 4 years. Infect Control Hosp Epidemiol. 2002 Jun; 23(6):306-12.
- The Incident Investigation Teams and Others. Transmission of hepatitis to patients from four infected surgeons without hepatitis B e antigen. N Engl J Med. 1997 Jan 16; 336(3):178-84.

DISMISSING CLIENTS

Added to Handbook: Prior to June 2004
Last updated: January 2014

PURPOSE

To provide guidelines for dental hygienists dismissing clients.

BACKGROUND

As part of the CDHBC Practice Standards and Code of Ethics, dental hygienists have a 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 provide appropriate and competent care is compromised. It may be in the best interest of both parties for the dental hygienist to dismiss the client from their care and refer to another dental health professional. This may be related to the continued non-compliance of the client to recommended treatment, a conflict of personalities, or threatening or inappropriate behavior by a client. In situations like this, the collaborative relationship with the client may break down.

POLICY

If the dental hygienist determines that appropriate and competent care is not possible due to circumstances beyond their control, they have a duty to inform the client that treatment is not possible, and that alternative services can be arranged. Under the *BC Human Rights Code*, treatment of a client cannot be terminated on discriminatory grounds such as age, gender, sexual orientation, and religion, to name a few.

It is important for the dental hygienist to ensure that the client's oral health is not jeopardized in the dismissal process. When possible, and if the client is not refusing treatment, any dental hygiene procedures that are partially complete should be finished.

When a client is dismissed, the dental hygienist must provide the client with a letter outlining:

- the importance of finding a new dental hygienist
- a review of any outstanding treatment
- a description of risks associated with not completing treatment

The dental hygienist should also record the dismissal and reason for it in the client chart and maintain a copy of the dismissal letter. It is optional to provide names of other dental hygiene professionals who may take over care.

It may not always be necessary to formally dismiss a client if it is possible to have another dental hygienist in the same practice assume care with the client's consent.

As guided through the CDHBC documentation practice standards, it is important to keep accurate and detailed records including any communication and correspondence with the client.

REFERENCES

- CDSBC Manual for Dentists. Dismissing a patient - practical and ethical concerns. Vancouver: College of Dental Surgeons of BC; 2011. Available from: CDSBC Dimissing a Patient Information Sheet (2011 pdf)
- College of Massage Therapists of British Columbia. Bylaws, Schedule "C", Code of ethical conduct. 2013. Available from: CMT BC Bylaws Schedule "C"
- College of Registered Nurses of British Columbia. Duty to provide care [Internet]. 2012 [updated 2012 June; cited 2013 Aug 21]. Available from: CRNBC Duty to Provide Care
- Government of British Columbia. Human rights code. Victoria: Queen's Printer Website; 2013.Available from: Human Rights Code [RSBC] Chapter 210
- CDHBC Patient Relations Program. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Code of Ethics. Victoria: College of Dental Hygienists of British Columbia; 2013.

DUTY TO PROVIDE CARE

Added to Handbook: June 2004
Updated: January 2014

PURPOSE

To provide an understanding of human rights law, the CDHBC Code of Ethics and the roles and responsibilities of dental hygienists in the provision of care without discrimination.

BACKGROUND

Section 8 of the *Human Rights Code of BC*, provides that: "A person must not, without bona fide and reasonable justification.....discriminate against a person or class of persons regarding any accommodation, service or facility customarily available to the public because of the race, colour, ancestry, place of origin, religion, marital status, family status, **physical or mental disability** [emphasis added], sex, sexual orientation or age of that person or class of persons."

The *CDHBC Code of Ethics* requires that Registered Dental Hygienists shall:

- Treat clients with respect for their individual needs and values;
  The dental hygienist acknowledges the diverse needs of clients and uses a consultative approach to dental hygiene services. The dental hygienist is sensitive to but not prejudiced by factors such as the client's race, religion, gender, age, ethnic origin, social or marital status, sexual orientation, or health status.
- Uphold the principle that the public should have fair and equitable access to dental hygiene services;
  The dental hygienist promotes oral health care and access to dental hygiene services for all individuals. The dental hygienist avoids discriminatory practices and behaviours.
- Practice the principle of confidentiality;
  The dental hygienist provides dental hygiene services with consideration for the privacy of the client and maintains confidentiality of client records. The dental hygienist obtains the permission of the client to consult or confer with other health care professionals.

POLICY

Dental hygienists have legal, moral and ethical responsibilities to render necessary dental hygiene treatment to all members of the public without discrimination. A dental hygienist may not discriminate against or refuse treatment to a client on the grounds of race, national or ethnic origin, colour, religion, sex, sexual orientation, age, socioeconomic status, health status, or mental or physical disability. This includes, but is not limited to, caring for clients with HIV/AIDS, Hepatitis, Autism, Down syndrome, Visual Impairment, ADHD, Diabetes or Cardiovascular Disease.

Dental hygienists must ensure that *Routine Practices* for infection prevention and control are appropriately followed for all clients.

Dental hygienists should work in collaboration with other professionals such as interpreters and other health care providers, when appropriate, to provide optimal care for the client.

Dental hygienists have a legal and ethical obligation to ensure they have appropriate education and knowledge to safely and effectively care for clients presenting with special needs and/or complex medical conditions. If a dental hygienist does not have the appropriate knowledge to safely care for a client presenting with more complex care needs, they should ensure that the client is provided with a referral to an appropriate oral health care provider. If a referral is required, clear and effective communication is essential to ensure that the client (or their care giver) understands the nature of the concern necessitating the referral and the reasons for it.

REFERENCES

- CDHBC Code of Ethics. Victoria: College of Dental Hygienists of British Columbia; 2013.
- Government of British Columbia. Human rights Code. Victoria: Queen's Printer Website; 2013. Available from:
  Human Rights Code [RSBC 1996] Chapter 210

EXAMINATION

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To clarify the definition of the term "examined" as contained in section 6(1) of the Dental Hygienists Regulation.

BACKGROUND

It is considered important to ensure that clients have the benefit of an overall dental examination to assess general oral health. Focusing only on dental hygiene requirements may not be in the client's best interests. The Dental Hygienists Regulation states the following:

> 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.
> c. dental hygiene care is provided in accordance with any specific and appropriate instructions that may be given by a dentist.

For the purpose outlined in the Dental Hygienists Regulation, it is assumed that restorative or other dental work recorded on the chart does not constitute an examination. Additionally, the issue of whether the client is billed for the examination is not relevant.

POLICY

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 (CDSBC) practice guidelines. The type of examination performed (e.g. specific, new patient, recall or complete) may be determined by the dentist in accordance with good dental practice and CDSBC practice guidelines.

REFERENCE

- Dental Hygienists Regulation. Victoria: College of Dental Hygienists of British Columbia; 2013.

EXPOSING RADIOGRAPHS

Added to Handbook: November 2015

PURPOSE

To provide guidelines around the initiation, exposure, interpretation, and sharing of radiographs for dental hygienists.

BACKGROUND

The College recognizes the exposure of radiographs as part of the CDHBC Scope of Practice as defined in the Dental Hygienists Regulation. The regulation states that registrants of the CDHBC may "assess the status of teeth and adjacent tissues and provide preventative and therapeutic dental hygiene care for teeth and adjacent tissues."

Part of the assessment phase included in the ADPIE process of care involves a periodontal assessment, which may include a radiographic component. Quality radiographs assist in determining the extent of the periodontal disease based on alveolar bone levels as well as possible causative factors such as hard deposits. This, in combination with other assessment information, assists the dental hygienist in formulating a dental hygiene diagnosis in order to develop a dental hygiene care plan with client specific interventions.

Dental hygienists have the education to interpret normal radiographic findings related to dental/oral anatomy and dental materials, and understand how to interpret radiographic findings that fall within the Dental Hygiene Scope of Practice. Registrants also have the education to refer clients to the appropriate dental or medical professional when abnormal findings are observed on the radiograph that fall outside the Dental Hygiene Scope of Practice, or when further follow up is required.

Radiographs are considered a legal component of the client's treatment record. As such, they must be maintained in accordance with governing legislation including the CDHBC policies. As outlined in the CDHBC Practice Standard 8.6: "When a dental hygienist owns the client's records, dental hygienists must retain records in a secure manner for no less than 16 years after the last client appointment." This aligns with the Limitations Act, which requires client records to be maintained in a secure manner for a period of 16 years after the last visit.

POLICY

Dental hygienists may self-initiate the exposure of radiographs and subsequently interpret radiographic findings as they pertain to the Dental Hygiene Scope of Practice. Radiographs are considered an adjunct assessment tool that supports the dental hygienist in formulating the dental hygiene diagnosis and treatment plan. The decision to expose a radiograph should be made based

on the individual needs of the client in conjunction with relevant assessment data (e.g. not based on a standing office policy). Registrants are not allowed to self-initiate a radiographic exposure for any purpose that falls outside of the Dental Hygiene Scope of Practice without a prescription from a dentist.

The dental hygienist must obtain consent from the client prior to exposing a radiograph. Authorization must also be obtained from the client and documented in the client treatment record prior to sharing any radiographs with a dentist or another dental hygienist. Security measures should be in place when sharing radiographs via email.

Client exposure to radiographs should follow the principle of ALARA (as low as reasonably achievable). Therefore, attempts must be made whenever possible to obtain recent radiographs from another dental health care provider to avoid unnecessary exposures. Registrants must ensure the quality of the exposures.

The dental hygienist is responsible for documenting the number of radiographic exposures as well as the radiographic findings in the client's treatment record. Radiographic findings must also be discussed with the client. Any findings on the radiograph exposure that fall outside of the Dental Hygiene Scope of Practice must be referred for consultation to the client's dentist and/or other appropriate health professional. This referral must be documented in the client's treatment record.

The dental hygienist who owns the client's records, including radiographs, is responsible for keeping these in a secure manner for a period of no less than 16 years.

There may be a time when a client refuses the radiographs that have been recommended. This is a client's right; however, the client must be informed of the rationale for taking the radiographs as well as the risks associated with refusing radiographs. This information must be documented in the client's treatment record and initialed by the dental hygienist. The College has an interpretation guideline titled Informed Refusal to Consent, which should be consulted to ensure all components for informed refusal of a service are taken into consideration.

Cone beam tomography captures a 3D image of the client's head and neck region. Such images are not required when determining a dental hygiene diagnosis. As such, dental hygienists are not allowed to self-initiate cone beam tomography. A dental hygienist may only expose this type of image under the direction of a dentist and with proper education as defined in the CDHBC Scope of Practice Statement. As the majority of the image captured falls outside the scope of dental hygiene practice, the dental hygienist should ensure that the dentist completes the interpretation of the image.

REFERENCES

- CDHBC Dental Hygienists Regulation. Victoria: College of Dental Hygienists of British Columbia; 2013. Available from: http://www.cdhbc.com/Practice-Resources/Regulation-and-Bylaws/Regulation.aspx
- CDHBC Interpretation Guidelines. Victoria: College of Dental Hygienists of British Columbia; 2013. Available from: http://www.cdhbc.com/Practice-Resources/Interpretation-Guidelines/Informed-Refusal-to-Consent.aspx
- Government of BC. Limitation Act. Victoria: Queen's Printer; 2012. Available from: http://www.bclaws.ca/civix/document/id/complete/statreg/12013_01

FITNESS TO PRACTICE

Added to Handbook: February 2019

PURPOSE:

To provide guidelines for registrants regarding conditions that may impact their fitness to practice dental hygiene in a competent, safe, and ethical manner.

BACKGROUND:

Fitness to practice refers to a measure of health and wellness as it relates to one's ability to work as a professional. To be fit to practice means that a registrant is physically and mentally well enough to provide safe, competent, and ethical client care.[1]

For dental hygiene practice, fitness to practice includes having the consistent ability to:[2]

- meet the physical demands required in the practice setting (e.g. ergonomic considerations),
- think critically,
- exercise appropriate judgment,
- sustain concentration and focus while practicing dental hygiene,
- communicate effectively, and
- perform skills appropriate to the practice setting (e.g. fine motor skills, use of instruments or equipment, perform calculations such as the maximum dosages for local anesthetic),

Dental hygienists may not be fit to practice if their capacity to perform these functions is impaired.

Examples of conditions that may impair a dental hygienist's ability to provide dental hygiene care in a safe and competent manner ***may*** include, but are not limited to:

- physical injuries (e.g. broken arm/wrist/finger, carpal tunnel syndrome, repetitive strain injury)
- physical acute and/or chronic medical conditions (e.g. stroke, multiple sclerosis, Parkinson's disease, arthritis, cancer)
- physical disabilities (e.g. vision or hearing impairment, mobility impairment)
- mental illnesses (e.g. depression, schizophrenia, dementia)
- substance abuse (e.g. alcohol, non-prescription drugs)
- effects from medication regimes (e.g. narcotic pain control)

Each circumstance is different. Having one of these conditions does not necessarily mean that a dental hygienist will be considered unfit to practice.[2] The assessment must be based on such factors as the interplay between the actual condition, the type of work that the dental hygienist is engaged in, the work environment and any duty to accommodate the limitations arising from the condition.[3] When a registrant self-discloses a potential fitness issue, this enables the CDHBC to work with the

registrant to determine whether there is any risk to the public and to identify appropriate accommodations and options if necessary.[2]

RETURNING TO PRACTICE

If a registrant is unsure whether they are unfit to practice, the registrant should contact the CDHBC before returning to work. In some circumstances, it may be necessary to provide medical clearance that the registrant is fit to return to dental hygiene practice. However, CDHBC will work with the registrant to ensure that the transition back to practice takes place as quickly and as safely as possible.

POLICY:

Like all health care professionals, dental hygienists have a responsibility to:[1]

- maintain their health and wellness in order to practice their profession safely, competently and ethically;
- regularly assess their own health in the context of their professional responsibilities;
- seek appropriate medical help and/or make adjustments to their practice if health difficulties are affecting their ability to perform their professional services;
- refrain from practice if a condition is impairing their ability to practice in a safe and competent manner;
- advise the College if there are fitness to practice issues which are impairing their ability to practice safely and competently.

CDHBC recognizes that there may be times when dental hygienists are unable to recognize that they are not fit to practice because of the effects of physical or mental health conditions or addictions. If there is a concern that a dental hygienist has a condition that is likely to impair fitness to practice, this should be reported to the CDHBC so that appropriate steps can be taken to assess the situation and then work with the registrant.

Additionally, if there is a concern that another regulated health professional might constitute a danger to the public, there is a mandatory duty for registrants to report this risk to the applicable regulatory college under s. 32.2 of the *Health Professions Act*. Members of the public are also encouraged to report any fitness to practice concerns to the appropriate College.

* Portions of this Interpretation Guideline have been developed by adapting content from other Canadian health regulators. CDHBC gratefully acknowledges the related guidelines published by the BC College of Nursing Professionals, the College of Licensed Practical Nurses of Manitoba, and the College of Physicians and Surgeons of Alberta.

REFERENCES:

1. BC College of Nursing Professionals. Fitness to Practice. 2019. Available from: https://www.bccnp.ca/Standards/RPN/resources/topics/Pages/fitness.aspx

2. College of Licensed Practice Nurses of Manitoba. Practice Direction: Fitness to Practice. September 2017. Available from: https://www.clpnm.ca/wp-content/uploads/PD-Fitness-to-Practice.pdf

3. College of Physicians and Surgeons of Alberta. Assessment and Monitoring of Medical Conditions. June 2014. Available from: http://www.cpsa.ca/physician-health-monitoring-program-phmp/phmp-policies/assessment-and-monitoring-of-medical-conditions/

FLUORIDES

Added to Handbook: Prior to June 2004
Updated: January 2014

PURPOSE

To provide guidelines on fluoride application for the prevention of dental caries.

BACKGROUND

The CDHBC stance on fluorides, for the prevention of caries, aligns with the current research provided by the Canadian Dental Hygienists Association (CDHA), the Canadian Dental Association (CDA), Health Canada, the World Health Organization (WHO), the Center for Disease Control (CDC) and the World Dental Federation (FDI).

The College recognizes the application of fluoride as part of the Dental Hygiene Scope of Practice as defined within the *Dental Hygienists Regulation*. The regulation states that registrants of the CDHBC may "*assess the status of teeth and adjacent tissues and provide preventive and therapeutic dental hygiene care for teeth and adjacent tissues*".

As part of the ADPIE process of care, the dental hygienist should complete a caries risk assessment. This caries risk assessment will assist the registrant in planning the appropriate caries management strategies based on the individual clients' needs. Caries intervention strategies should align with current literature and involve collaboration with the client's dentist when appropriate.

The CDHBC recommendations regarding fluoride align with the professional organizations' guidelines found in the reference list.

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

Health Canada recommendations for fluoride in drinking water are as follows:

- Maximum recommended concentrations should be no greater than 1.5mg/L of fluoride in drinking water. Fluoride levels set at or below this amount do not pose adverse health risks associated with: skeletal fluorosis, cancer, immunotoxicity, reproductive and developmental toxicity, genotoxicity and neurotoxicity, and moderate dental fluorosis.
- To minimize effects of dental fluorosis in combination with multiple sources of fluoride exposures, such as toothpaste and mouth rinses, optimal water fluoride concentration should be 0.7mg/L.

Fluoride Supplements

According to the CDA, fluoride supplements should only be considered for high-risk clients who have no exposure to topical or systemic fluoride. Total daily fluoride intake should not exceed 0.05-0.07mg/kg of body weight in order to reduce the risk of fluorosis. The use of supplements before the eruption of the first permanent tooth is generally not recommended.

Professionally Applied Topical Fluorides (PATFs)

The CDHBC supports the use of professionally applied topical fluorides (gels and varnishes) as a preventative measure for clients posing a moderate to high caries risk. The decision for the use of PATFs should be based on the individual client's caries risk.

The efficacies of in-office one or two-part professionally applied fluoride rinses have not been scientifically proven to reduce caries and therefore their use is not endorsed by the CDHBC.

The use of fluoride foam is not supported by the clinical evidence as being effective in those with a high caries risk; however, there is limited evidence to support the use of fluoride foam in primary teeth and newly erupted first molars. The research indicates that the application time for fluoride foam is more effective when applied for four minutes; therefore one minute applications are not endorsed.

It is the dental hygienists' responsibility to remain current with the evidence-based research related to PATFs and to follow the manufacturer's guidelines during professional application.

Self-applied Fluoride Mouth Rinses

The use of fluoridated mouth rinses in community dental public health school programs should be considered for high-risk populations aged 6 years and over. Recommendations currently indicate 10 ml of 0.2% sodium fluoride (NaF) administered weekly or biweekly.

The recommendation of self-applied fluoride rinses should be considered for home use for those clients who present with a high caries risk. For example, the daily use of 0.05% NaF for those client over 6 years of age.

Self-applied Fluoride Gels (or Pastes)

The use of self-applied fluoride gels, in addition to fluoride dentifrice, is indicated only if warranted after completion of a caries risk assessment. Professional knowledge and judgment is required when choosing a self-applied fluoride gel for a client. This relates to the appropriateness of the fluoride product for the given needs and risk factors of the client, along with consideration of undesirable side effects such as staining, metallic taste, and etching of tooth coloured restorations due to acidity.

Self-applied 0.4% SnF should not be used in children under 6 years of age. The use of a 1.1% NaF gel for children under the age of 6 years should be done only on the direction of a dental hygienist or dentist and supervised by an adult at home in order to minimize the risk of ingestion.

Fluoride Dentifrices

The following guidelines are proposed by the CDA, Health Canada and the FDI *for children who use fluoridated dentifrice*:

a. brushing with a fluoridated dentifrice should occur twice daily;
b. children from birth up to age 3 should have their teeth brushed by an adult with a rice grain sized amount of fluoridated dentifrice;
c. children aged 3-5 years should be assisted by an adult in brushing their teeth with no more than a pea sized amount of fluoridated dentifrice.

Seniors and Fluoride

Dental hygienists should follow a client-centered approach and incorporate strategies for oral disease prevention to decrease the caries risk in British Columbia's aging population. The need for caries prevention and control in this population is required as teeth are being retained for much longer than in previous generations. Consideration must be given to factors affecting the caries rate such as, diet changes, limited dexterity, social factors, decreased salivary flow, and increased risk of root caries.

Caries Management by Risk Assessment (CAMBRA) Guidelines

Protocol for 1-2 Years Old	
Risk Level	**Fluoride**
Low Risk	Tooth brushing 2x/day
Moderate risk	Tooth brushing 2x/day with a rice size of fluoridated dentifrice Fluoride varnish 2x/year
High risk	Tooth brushing 2x/day with a rice size of fluoridated dentifrice Fluoride varnish 2-4x/year

Protocol for 3-5 Years Old	
Risk Level	**Fluoride**
Low Risk	Tooth brushing 2x/day using pea sized fluoridated dentifrice
Moderate risk	Tooth brushing 2x/day with a pea size of fluoridated dentifrice Fluoride varnish 2x/year
High risk	Tooth brushing 2x/day with a pea size of fluoridated dentifrice Fluoride varnish 2-4x/year

Protocol for >6 Years and Older	
Risk Level	**Fluoride**
Low Risk	Tooth brushing 2x/day with a fluoridated dentifrice
Moderate Risk	Tooth brushing 2x/day with a fluoridated dentifrice PATF 2x/year
High Risk	Tooth brushing 2x/day with a fluoridated dentifrice PATF 2-4x/year
Extreme Risk (high risk plus dry mouth)	Tooth brushing 2x/day with a fluoridated dentifrice Appropriate fluoride rinse as needed PATF 4x/year

Adapted from: American Academy of Paediatric Dentistry: Guidelines on Caries Risk Assessment, 2011 the Journal of Dental Hygiene: The Role of Dental Hygiene in Caries Management: A New Paradigm 2010, and the Canadian Dental Association Position on Use of Fluorides in Caries Prevention 2012.

POLICY

It is the responsibility of the dental hygienist to promote caries prevention by completing an appropriate caries risk assessment for each client and incorporating appropriate evidence based strategies. Consideration should be given to the most appropriate fluoride delivery system for each client's needs, along with complementary education relating to diet, oral self care, salivary substitutes and frequent follow up for the prevention and control of dental caries.

REFERENCES

- American Academy of Paediatric Dentistry. Guidelines on Caries-risk Assessment and Management for Infants, Children, and Adolescents. 2011. Available from: AAPD Policies Guidelines Caries Risk Assessment (pdf)
- American Dental Association. Professionally applied topical fluoride Evidence-based clinical recommendations. 2006. Available from: ADA Fluoride Report (pdf)
- BC Ministry of Health. Health Link BC. Water Fluoridation. 2010. Available from: Health Link BC Water Fluoridation (pdf)
- Canadian Dental Association. CDA Position on the Use of Fluorides in Caries Prevention. 2012. Available from: CDA Position_Statements Fluoride (pdf)
- CDHA Position Statement: Community Water Fluoridation: 2011. Available from: CDHA Water Fluoridation Position Statement (pdf)
- Centre for Disease Control and Prevention. Dental fluorosis. 2012. Retrieved July 16, 2013 from: CDC Dental Fluorosis
- Darby & Walsh (eds.) (2010) *Dental hygiene theory & practice, 3rd ed.* St. Louis: Elsevier Sciences.
- Dental Hygienists Regulation
- Health Canada. It's Your Health: Fluoride and Human Health. 2010. Available from: Health Canada Fluoride and Human Health (pdf)
- Journal of Dental Hygiene. The Role of Dental Hygiene in Caries Management: A New Paradigm. 2010.
- World Dental Federation. FDI Policy Statement. Promoting dental health through fluoride toothpaste: 2008. Retrieved July 16, 2013 from: FDI Promoting Dental Health Through Fluoride Toothpaste (pdf)
- World Dental Federation. FDI Policy Statement. Promoting dental health through water fluoridation: 2008. Available from: FDI Promoting Dental Health Through Water Fluoridation (pdf)
- World Health Organization. Briefing on fluoride in drinking water. Available from: WHO Fluoride and Drinking Water (pdf)

IMPLANTED CARDIAC DEVICES

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide current guidelines for dental hygiene clients with implanted cardiac devices: cardiac resynchronization therapy devices (CRTs and/or pacemakers) and implantable cardioverter defibrillators (ICDs).

BACKGROUND

In recent years there have been advances in the technology and the function of implanted cardiac devices. These devices are being implanted to improve the function of the heart, thus improving the quality of life for those suffering with heart failure and ventricular dyssynchrony. Those with heart failure may be treated with implantable cardioverter defibrillators (ICDs) or cardiac resynchronization therapy devices (CRTs). ICD and CRT devices are small computers or microprocessors implanted subcutaneously, most commonly near the clavicle in adults. However, in children the device may also be implanted in the abdomen. Often, one or more of these implanted device's features can be present in a single or combination type device.

CRT is a pacemaker that re-synchronizes the heart's contractions caused by arrhythmias, by essentially "re-tuning" the heart's electrical conduction. They are most commonly used to treat bradycardia (slow heart rate). The pacemaker sends low energy electrical impulses to the heart, via a small insulated lead/wire. This ensures that the heart beats at the appropriate rate so that adequate blood and oxygen are delivered to the brain and other parts of the body.

Implantable cardioverter defibrillators (ICDs) are used to treat tachyarrhythmia (abnormally high heart rate). The ICD will continuously monitor the heart rhythm and deliver a low energy electrical pulse if an abnormal heart rate is detected. If this does not restore normal rhythm, newer generation ICD combination units, will then defibrillate the heart by sending higher energy life-saving electrical pulses to stimulate a normal heart rate.

Pacemakers and ICDs are sensitive to strong electromagnetic signals that may temporarily interfere with their function. Most devices are designed with safeguards that include electronic filters or insulators to ensure proper operation and reduce electromagnetic interference (EMI). The terms shielded or non-shielded are no longer referred to when discussing safeguards incorporated in the implanted devices. ICD's and pacemakers use the terminology and technology referring to unipolar or bipolar devices. ICDs on the market today are bipolar, whereas pacemakers may be either unipolar or bioloar. ICD's and pacemakers that are bipolar provide improved protection and filtering against EMI. Unipolar pacemakers provide less safeguards or filtering against EMI.

Most dental hygiene/dental procedures do not involve strong electromagnetic signals and therefore are unlikely to interfere with a pacemaker or ICD. This includes dental radiographs, dental handpieces, ultrasonic instruments (including piezoelectric, magnetostrictive, and sonic), curing lights and Transcutaneous Electrical Nerve Stimulators (TENS), provided the equipment is not placed directly over the implant site.

St. Jude Medical, Biotronik and Metronic are manufactures of commonly implanted pacemakers and ICD's in North America. Each company states on their perspective website that there are no adverse effects when using newer ultrasonic instruments on clients who have the newer bipolar implanted cardiac devices. Older ferromagnetic ultrasonic scalers may cause single beat inhibition on unipolar pacemakers. Information provided from St. Jude Medical and Boston Scientific indicates that this inhibition is not considered clinically significant. However, Boston Scientific recommends caution when using ultrasonic scalers, and discontinuing use in the event that a client with an implanted cardiac device feels lightheaded or experiences an irregular heartbeat.

It was formally thought that additional protection for a client with a pacemaker or ICD could be achieved by covering the client with a lead apron, such as an apron used for protection when exposing radiographs. However, while consulting with Boston Scientific, information provided clarified the fact that covering pacemakers and ICD's with a lead apron offers protection from ionizing radiation only and will not provide protection against EMI.

Dentsply, the manufactures of the Cavitron ® magnetostrictive power scaler, provides warnings in each service manual that accompanies all Cavitron ®units. Examples of this are the Dentsply Cavitron ® SPS™ and the Cavitron® Jet Plus™. Warnings indicate that the unit cords should be kept 6-9 inches away from the implanted cardiac device and the device leads.

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

POLICY

If a client reports having a pacemaker, or any other implanted cardiac device, dental hygienists need to recognize that the presence of this device indicates a medically compromised heart condition that could require treatment modifications, including stress reduction protocols. A thorough health history should be completed to obtain information provided on the ICD identification card along with the reason for the placement of the ICD. This will assist in informing the dental hygiene process of care.

Magnetostrictive ultrasonic instruments are not contraindicated for use on clients with an ICD or bipolar pacemaker. However, caution should always be given to ensure ultrasonic cords are kept a

minimum of 6 inches away from the implanted device. If interference with the implanted device occurs, use of the ultrasonic unit should be discontinued. Once use is discontinued the implanted device should return to normal function. Additionally, covering unshielded pacemakers with a lead apron will not offer additional protection from EMI.

Magnetostrictive (Cavitron®) instruments may affect unipolar pacemakers, thus contraindicating their use. If the use of a magnetostrictive ultrasonic is prohibited, a sonic or piezoelectric instrument may be used as an adjunct to hand debridement. If uncertain of any contradictions when using an ultrasonic scaler, the manufacturer of the implanted cardiac device should be contacted to determine compatibility or possible contraindications.

Antibiotic prophylaxis is NOT recommended for cardiac pacemakers (intravascular and epicardial) or implanted cardioverter defibrillators.

In the event of a cardiovascular emergency, for a client with an ICD or CRT, there may be the possibility that the use of an automated external defibrillator (AED) may be required. The following considerations should be kept in mind:

- Position defibrillator pads as far away from the implanted device as possible (13cm at a minimum)
- Recommend that the client have an evaluation of the implanted device by their physician to ensure that damage has not occurred.

New technologies and the rate of replacement (every 6-9 years for some ICD's and CRT) suggest frequent review of the implanted cardiac devices.

REFERENCES

- American Heart Association. Artificial Pacemaker [Internet]. 2013 [updated 2013 Jan 23; cited 2013 July 23]. Available from: AHA Artificial-Pacemaker
- American Heart Association. Devices that may Interfere with Implantable Cardioverter Defibrillators (ICDs) [Internet]. 2013 [updated 2013 Jan 23; cited 2013 July 23]. Available from: AHA Devices that may Interfere with Implantable Cardioverter Defibrillators
- Biotronik. What You Need To Know About Your Pacemaker. [pamphlet]. Berlin: Biotronik SE & Co., 2009. Available from: Biotronik (pdf)
- Boston Scientific Corporation. Dental Equipment And Implanted Pacemakers And Defibrillators. [Internet]. 2009 [Cited 2013 July 23]. Available From: http://www.bostonscientific.com/templatedata/imports/html/crm/a_closer_look/pdfs/acl_dental_equipment_020209.pdf
- Darby lm, Walsh mm. Dental Hygiene Theory And Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.

- Medtronic. Living With Your Implantable Cardioverter Defibrillator. [Pamphlet]. Tolochenaz: Switzerland, 2011. Available from: Medtronic (pdf)
- Interpretation Guidelines. Antibiotic Premedication (Cardiac Conditions). Victoria: College of Dental Hygienists of British Columbia; 2013.
- St. Jude Medical. Effect of Dental Equipment on St. Jude Medical Implantable Cardiac Rhythm Devices [Pamphlet]. California; 2009.
- St. Jude Medical. Effects of External Defibrillation/Cardioversion on St. Jude Medical Implantable Cardiac Rhythm Devices [Pamphlet]. California; 2009.
- St. Jude Medical. Electromagnetic Interference (Ei) [Internet]. 2011 [Updated 2011 June 9; Cited 2013 July 23]. Available from: St. Jude Medical (EMI)
- Verbal Consultation with Dental Consultant for British Columbia Ministry of Health; 2013 Aug 27.

INFORMED REFUSAL TO CONSENT

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on informed refusal to consent to dental hygiene care or aspects of dental hygiene care.

BACKGROUND

Section 6 of the *Health Care (Consent) and Care Facility (Admission) Act* states that specific criteria should exist in order for a client to give informed consent or refusal to treatment as follows:

1. the consent relates to the proposed health care
2. the consent is given voluntarily
3. the consent is not obtained by fraud or misrepresentation
4. the adult is capable of making a decision about whether to give or refuse consent to the proposed health care
5. the health care provider gives the adult the information a reasonable person would require to understand the proposed health care and to make a decision including information about:
    a. the condition for which the health care is proposed,
    b. the nature of the proposed health care,
    c. the risks and benefits of the proposed health care that a reasonable person would expect to be told about, and
    d. alternative courses of health care, and
6. the adult has an opportunity to ask questions and receive answers about the proposed health care

The *Health Care (Consent) and Care Faculty (Admission) Act* provides further information on the client's rights to decline proposed treatments. Section 4 of the *Act* states that:

Every adult who is capable of giving or refusing consent to health care has

a. the right to give consent or to refuse consent on any grounds, including moral or religious grounds, even if the refusal will result in death,
b. the right to select a particular form of available health care on any grounds, including moral or religious grounds,
c. the right to revoke consent,
d. the right to expect that a decision to give, refuse or revoke consent will be respected, and
e. the right to be involved to the greatest degree possible in all case planning and decision making.

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 informing the client what is likely to happen to them if they decide to refuse a proposed procedure. This also includes ensuring that the client understands the likely problems that could be encountered in the future as a result of declining a specific procedure (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 to a proposed procedure must be clearly documented in the client's records and must include the specific refusal, date and the dental hygienist's initials.

Refusal to consent to a particular treatment should be reviewed periodically in a friendly and helpful manner. This information should be documented in the client's record, dated, and initialed by the dental hygienist.

The CDHBC Code of Ethics and Practice Standards state that dental hygienists must respect the client's right to **informed** refusal for a proposed procedure and subsequently must document this **informed** refusal to consent in the client's record. Informed refusal to consent follows the ethical principle of a client's right to autonomy as it is ultimately the client's decision to make an **informed choice** on any treatments or procedures related to their oral healthcare options.

POLICY

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 must document the specific refusal and date in the client's record, and initial 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 hygienists initials and the date.

REFERENCES

- Government of British Columbia. Health Care (Consent) and Care Facility (Admission) Act. Victoria: Queen's Printer; 2013. Available from: [RSBC] Chapter 181
- CDHBC Code of Ethics. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Practice Standards and Practice Standard Policies. Victoria: College of Dental Hygienists of British Columbia; 2013.

LASER USE IN PERIODONTAL THERAPY

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines for laser use in periodontal therapy by dental hygienists.

BACKGROUND

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

Some specific dental lasers, such as the diode laser and Nd:YAG are being used in North America, where legislation permits, by dental hygienists. These lasers are being used in non-surgical periodontal treatment regimens by removing diseased epithelial lining of the periodontal pocket and reducing the intrasulcular bacterial population. Removal of the diseased epithelial lining, otherwise known as gingival curettage, whether completed using a debridement instrument or a laser is not within the scope of practice for dental hygienists in BC.

Dental hygienists should be aware that the diode laser and Nd:YAG are also used as soft tissue surgical lasers. It is important to note that lasers have the potential to cause permanent thermal damage to bone and tooth structures if used inappropriately.

There is limited research supporting the use of lasers to decrease subgingival bacterial loads in comparison to traditional non-surgical periodontal therapy. Additional studies are required to compare the effectiveness of laser pocket disinfection as an adjunct to scaling and root planning (SRP) as compared to SRP alone.

Lasers are showing potential for the removal of calculus from a diseased root surface, however, there is potential for damage to the root surface. Further research is required to determine effectiveness of lasers for SRP.

The Canadian Academy of Periodontology (CAP) does not support the use of lasers in the treatment of periodontal disease due to the lack of long-term comparative studies. Further to this, the American Academy of Periodontology (AAP) re-affirms that there is insufficient or conflicting evidence to support the use of lasers for pocket disinfection, curettage and SRP.

Further research is required in these areas to determine effectiveness and safety.

POLICY

Dental hygienists who have undertaken appropriate education may use a diode laser as an adjunct for periodontal therapy. "Appropriate education" as defined in the CDHBC Scope of Practice Statement states that the preferred "appropriate education" for laser use in periodontal therapy is formal theoretical and clinical instruction.

Dental hygienists using a diode laser must ensure the tip in not initiated. An initiated tip leads to ablating or cutting of the soft tissues, otherwise known as gingival curettage, which is not within the dental hygiene scope of practice.

Additionally, the Nd:YAG laser would not be appropriate for use by a dental hygienist for SRP, as the thermal heat generated can lead to irreversible pulpal changes within the tooth. As well, the ND:YAG is not appropriate for dental hygienists to use for the purpose of pocket disinfection as it ablates the tissues in order to destroy pathogenic bacteria.

It is not within the CDHBC Scope of Practice for dental hygienists to use lasers for the purpose of SRP or gingival curettage.

The College advises dental hygienists that there is insufficient evidence to support the use of lasers in removing calculus from diseased root surfaces or in the reduction of subgingival bacterial loads. Registrants need to consider the risks and benefits of the use of lasers in adjunctive periodontal therapy, along with current indications for their use based on scientific evidence-based resources.

The College recommends that a laser safety program be implemented prior to the use of lasers within the dental hygiene practice setting. This is to ensure the safety of the client and the clinician.

REFERENCES

- American Academy of Periodontology Statement on the Efficacy of Lasers in the Non-Surgical Treatment of Inflammatory Periodontal Disease. Journal of Periodontology [Internet]. 2011 April [cited 2013 July 25]; 82 (4): 513-514. Available from: AAP Statement on the Efficacy of Lasers in the Non-Surgical Treatment on Inflammatory Periodontal Disease(pdf)
- Canadian Academy of Periodontology [Internet]. Lasers in Periodontics (Position Statement); 2013[cited 2013 July 25]; Available from: CAP Lasers in Periodontics
- Cobb C, Low S, Coluzzi D. Lasers and the Treatment of Chronic Periodontitis. Dental Clinics North America [Internet]. 2010 [cited 2013 July 25]; 54: 35-53; Available from: http://www.dental.theclinics.com/article/S0011-8532%2809%2900072-X/abstract
- Cobb C. AAP-Commissioned Review: Lasers in Periodontics: A review of the Literature. Journal of Periodontology [Internet]. 2006 April [cited 2013 July 25]; 77 (4): 545-564. Available from: Lasers in Periodontics: A Review of the Literature

- Sgolastra F, Severino M, Gatto R, Monaco. Effectiveness Of Diode Laser As Adjunctive Therapy To Scaling and Root Planning In The Treatment of Chronic Periodontitis: A Meta-Analysis. Lasers in Medical Science [Internet]. 2012 August [cited 2013 July 25]; Available from: springer.com

LOCAL ANAESTHETIC SUPERVISION

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on the supervision requirements for administration of local anaesthetic by dental hygienists.

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 dental hygienists and facilities to meet the Regulation.

POLICY

Dental Offices

- A dentist must be 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 dental hygienist is practicing.

REFERENCE

- Dental Hygienists Regulation. Victoria: College of Dental Hygienists of British Columbia; 2013.

MARKETING

Added to Handbook: October 2014

PURPOSE

To provide guidance for appropriate marketing and advertising publications from registrants promoting their dental hygiene practice, as an adjunct to the marketing regulations set in the CDHBC Bylaws.

BACKGROUND

In its duty to protect the public, the CDHBC regulates registrant marketing. Section 69.(2) of the CDHBC Bylaws provides that marketing undertaken by registrants of the College must not be false, inaccurate, reasonably expected to mislead the public, be unverifiable or contrary to the public interest in the profession.

Any statements made in marketing or advertising publications must comply with the CDHBC Bylaws and Code of Ethics. Of particular importance are Code of Ethics principles 8 and 12 whereby dental hygienists must "uphold the principle that the public should have fair and equitable access to dental hygiene services", and "represent the values and ethics of dental hygiene before others, and maintain the public trust in dental hygienists and their profession."
Dental hygienists must uphold marketing and advertising bylaws and are accountable as individuals to consumer laws.

Marketing includes communication materials presented through mass media for the purpose of promoting professional services. This includes, but is not limited to, promotional materials presented on television, radio, newspaper, pamphlets, business cards, social media, websites and blogs.

Examples of promotional activities or materials that are contrary to the public interest include:

- Group coupon services
- Activities that are to the prejudice of insurers or other payees

POLICY

Registrants will ensure that promotional materials and activities related to their dental hygiene practice and services adhere to the CDHBC Marketing Bylaws.

Fees:

- All clients should be billed the same fees for services provided, regardless of insurance coverage.

- Offering a discount may be acceptable if the discount is applied to all qualifying clients of a demographic (e.g. university students, seniors, local sports team) without discriminating between insured and un-insured clients.
- Sliding fees are not permitted.
- When stating fees, the total cost must be transparent and represent the entire service.

Incentives:

- A dental hygienist must not advertise or offer any particular benefit to a client except where:
    - the benefit is available universally to everyone during the stated period that the offer is valid for,
    - all benefits advertised are accurate and objectively verifiable,
    - there are no hidden or misleading restrictions or qualifications required to take advantage of the offer, and
    - providing the incentive does not compromise individualized client care.
- Group coupon services are not permitted if the agency is receiving a share of the cost of the coupon (e.g. Groupon, Couvon, etc).

Endorsements and Guarantees:

- Refrain from endorsing products and/or referencing drugs within an advertisement.
- Ensure cost comparisons are factual and provide supportive evidence.
- Treatment outcomes (e.g. "tooth whitening - 20 shades brighter") may not be guaranteed as the advertised treatment may not be suitable for all clients and may in some cases be contraindicated or unnecessary. All treatment should reflect individualized client care.
- Avoid misleading and subjective wording (e.g. "gentle," "painless," "affordable").
- Comparative statements that would compare the quality of services with another dental hygienist or allied health professional must not be made.

General:

- Do not advertise services that are not within the dental hygiene scope of practice (e.g. promoting or advising on nutritional supplements, provision of nightguards, etc).
- Avoid the use of the term "dental examination" unless there is a dentist onsite, as this could imply that the dental hygienist will provide a caries diagnosis.
- In all professional advertisements, registrants may only use the name with which they are registered with the CDHBC.
- The CDHBC logo may not be used by registrants in advertising.
- The titles "specialist," "certified," "expert" or any similar term that suggests a special status or certification may not be used by a dental hygienist in advertising.
- Avoid advertising the provision of "treatment packages" unless the treatment included is clearly defined (e.g. the maximum units of treatment that will be provided before additional

costs are incurred). "Treatment packages" should also be accompanied by a disclaimer which states that treatment is subject to individualized client care.

- An advertisement must not disclose the name or identifying features of a client unless the client's prior consent has been obtained. Any enticement or benefit given to the client for consenting to this disclosure must be stated in the advertisement. Registrants who use client testimonials in advertising should use caution as the registrant is responsible for the content of the testimonial.
- When providing an explanation of services, registrants are encouraged to use terminology provided in the BCDHA Fee Guide in order to eliminate confusion and interpretation of services between registrants.
- All advertising and promotional material must be retained for a minimum period of 1 year after the date of publication or broadcast.

REFERENCES

- Advertising Guideline. Toronto: College of Dental Hygienists of Ontario; 2013. Available from: CDHO Guideline (pdf)
- Bylaws of the College of Dental Surgeons of BC. Part 12 - Promotional Activities. Vancouver: College of Dental Surgeons of BC; 2009. Available from: CDSBC Bylaws 2012 (pdf)
- CRDHA Rules Respecting Advertising. Edmonton: College of Registered Dental Hygienists of Alberta; 2008. Available from: CRDHA Rules Respecting Advertising (pdf)
- Guidelines for Promotional Activities. Vancouver: College of Dental Surgeons of BC. Available from: CDSBC Guidelines for Promotional Activities (pdf)
- Dental Hygienists Regulation and Bylaws. Victoria: College of Dental Hygienists of BC; 2013.
- CDHBC Code of Ethics. Victoria: College of Dental Hygienists of BC; 2013.
- Permission received for use of partial content from CDHO and CRDHA May 2014

NITROUS OXIDE SEDATION

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To clarify the dental hygiene scope of practice as it relates to nitrous oxide sedation.

BACKGROUND

The CDHBC Scope of Practice Statement indicates that 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.

A dental hygienist may provide dental hygiene care to clients who are sedated by nitrous oxide/oxygen gases. However, appropriate education is required. "Appropriate education" is defined in the Scope of Practice Statement. The preferred "appropriate education" for dental hygienists treating clients who are receiving nitrous oxide sedation 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, determine the appropriate level of sedation and/or adjust the flow of gases;
- "Delivery" of nitrous oxide/oxygen sedation gases: performed by the person who follows the administration instructions. This not only includes following the administration instructions but also includes monitoring the client and terminating the gas flow.

POLICY

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.

REFERENCES

- Malamed, SF. Sedation: A Guide of Patient Management. 5th Ed. St. Louis: Mosby; 2009.
- CDHBC Scope of Practice. Victoria: College of Dental Hygienists Of British Columbia; 2013.

OROFACIAL MYOFUNCTIONAL THERAPIES

Added to Handbook: April 2013
Updated: September 2013

PURPOSE

To provide guidelines on the administration of orofacial myofunctional therapies by dental hygienists.

BACKGROUND

As stated in the Scope of Practice Statement *"dental hygienists may assess the status of teeth and adjacent tissues and provide preventative and therapeutic dental hygiene care for teeth and adjacent tissues."*

Appropriate Education is defined in the Scope of Practice Statement and applies to the acquisition of knowledge and skills required to incorporate Orofacial Myofunctional Therapies (OMT) within the dental hygiene care. The ethical obligation to maintain competence in a skill in order to continue to incorporate it within dental hygiene care also applies to OMT.

Provided that a dental hygienist follows the full Assessment, Diagnosis, Planning, Implementation, and Evaluation (ADPIE) process of care, OMT may be incorporated as an adjunct to dental hygiene care. The focus of ADPIE must remain on the muscles of the lips and tongue along with how they interact with those muscles associated with the face. Interventions provided must focus on the exercises related to soft tissues in the oral cavity proper relating to resting position and functional patterns of these muscles and those related in the face. No therapies may be provided past the oral cavity proper in the *oropharyngeal* region. For example: it would not be appropriate for a dental hygienist to provide pharyngeal muscle stimulation. Interventions in this region are restricted activities that do not fall within the dental hygiene scope of practice.

The Dental Hygienists Regulation does not require supervision for the provision of OMT. However, the dental hygiene scope of practice does not include a diagnostic-level decision making component for Orofacial Myofunctional Disorders; therefore a diagnosis would be required by a health care professional such as an orthodontist, dentist or physician.

POLICY

Dental hygiene professionals who have received the appropriate education and certification in OMT and maintain currency may incorporate OMT into their dental hygiene practice. OMT may be used as an adjunct therapy supported through the Dental Hygiene ADPIE Process of Care.

Any diagnosis of an orofacial disease and/or disorders must be made by a dentist or appropriate health professional and not by the dental hygienist. Appropriate referrals are required when care is required not relating to soft tissues of the oral cavity or when deemed appropriate. OMT therapies should be completed in collaboration with other health care professionals involved in the client's care when appropriate.

Dental hygienists must remain within the dental hygiene scope of practice when providing OMT. Therefore, treatment provided beyond the oral cavity proper into the pharyngeal region is not permitted as this is considered a restricted activity that is reserved for other health professionals such as: speech language pathologists, physicians and dentists.

In conjunction with upholding Continuing Competency expectations required by the CDHBC, a registrant practicing OMT must maintain competence by upholding appropriate continuing education specific to OMT practice.

REFERENCES

- American Speech-Language-Hearing Association. Orofacial Myofunctional Disorders (OMD) [Internet]. 2012 [Cited 2013 Sept 3]. Available from: ASHA Public Speech Disorders
- Andresen T, Bahr C, Ciranna-Raab C. Efficacy Of Osteopathy and Other Manual Treatment Approaches For Malocclusion - A Systematic Review of Evidence. Int J Osteopath Med. 2013 June; 16(2):99-113.
- Mason, RA. A Retrospective and Prospective View of Orofacial Myology. Int J Orofacial Myology 2005 Nov; 34:5-14.
- CDHBC Scope of Practice. Victoria: College Of Dental Hygienists Of British Columbia; 2013.
- The International Association of Orofacial Myology [Internet]. 2013 [Cited 2013 Sept 3]. Available From: http://www.iaom.com/

ORTHODONTIC/PROSTHODONTIC SERVICES

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on the provision of orthodontic and prosthodontic services by dental hygienists.

BACKGROUND

As stated in the Clinical Therapy section of the Scope of Practice Statement , the dental hygienist may place and remove temporary restorations and perform "orthodontic procedures", provided that appropriate education has been obtained.

"Appropriate education" has been defined 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 considered the appropriate education for dental hygienists providing orthodontic and prosthodontic services.

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

POLICY

The diagnosis and treatment related to orthodontic conditions is a restricted activity for dentists that does not fall within the dental hygiene scope of practice. Therefore, collaboration with a dentist is required when performing orthodontic procedures. As such, directions for orthodontic procedures must come to the dental hygienist after the dentist completes his/her diagnosis and treatment plan.

With regard to prosthodontic services, dental hygienists are allowed to place and remove temporary restorations and crowns utilizing temporary cements. Supervision is not required for these procedures. However, dental hygienists should work in collaboration with the dentist when possible to align care with the dentist's diagnosis and treatment plan.

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

REFERENCE

- Scope of Practice Statement. Victoria: College of Dental Hygienists of British Columbia; 2013.

PREVENTATIVE RESINS

Added to Handbook: Prior to June 2004
Updated: September 2013

PURPOSE

To provide guidelines on the provision of preventative resins by dental hygienists.

BACKGROUND

As stated in the Scope of Practice Statement, dental hygienists may apply preventative resin materials. The resins used for preventative resins are of a similar composition to the composite resins used for pit and fissure sealants. The management and application techniques of both materials are similar.

However, 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 interpretation guideline, aluminum oxide air abrasives cut hard tissue, which is outside the dental hygiene scope of practice.

POLICY

Registrants may apply preventative resins on a tooth surface that has been prepared by a dentist, provided that appropriate education has been completed. It is not within the dental hygiene scope of practice to diagnose or remove decay, as both of these are restricted activities that fall within the scope of practice that applies to dentists.

REFERENCES

- CDHBC Scope of Practice Statement. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Interpretation Guidelines. Sealants. Victoria: College of Dental Hygienists of British Columbia; 2013.

PROVISION OF ATHLETIC MOUTHGUARDS

Added to Handbook: October 2007
Updated: September 2013

PURPOSE

To clarify the scope and provision of athletic mouthguards by dental hygienists.

BACKGROUND

Custom-fitted mouthguards prevent sports injuries to the skull and dentition. Following appropriate training and through use of proper equipment, dental hygienists can assess clients' needs and fabricate custom-fitted athletic 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 athletic mouthguards.

In providing athletic mouthguards dental hygienists can work together with other health professionals to deliver health education, injury prevention, and mouthguard promotion campaigns. This may be undertaken on either a one-to-one basis or with groups of clients, parents, athletes, athletic teams, sports coaches and officials, gym teachers or others. Dental hygienists may provide athletic mouthguards as an isolated service apart from comprehensive dental hygiene care (e.g. mobile or team setting). It is recommended that the dental hygienists follow standard protocol for obtaining informed consent.

POLICY

Dental hygienists can provide custom-fitted athletic mouthguards to their clients after obtaining the appropriate education. A dental hygienist must incorporate a process of care (ADPIE) during the provision of athletic mouthguards and follow up, and retain appropriate documentation.

REFERENCE

- Scope of Practice Statement. Victoria: College of Dental Hygienists of British Columbia; 2013.

RADIATION PROTECTION PROGRAM AND SAFETY

Added to Handbook: November 2015

PURPOSE

To provide guidelines around the Radiation Protection Program for dental hygienists who own their own radiography equipment.

BACKGROUND

Radiography equipment and the exposure of dental x-rays poses a small but inherent safety risk to both the client and the operator. As such, the CDHBC Practice Standard 2 states that "a dental hygienist must practice safely." Policy 2.2 further states, "Dental hygienists must use potentially hazardous materials (such as radiation and disinfectants) safely, according to manufacturer's recommendations and government guidelines…" Policy 2.5 states, "When dental hygienists are responsible for radiography equipment, dental hygienists must comply with all aspects of the Radiation Protection Program."

The owner of dental x-ray equipment is responsible for ensuring that ionizing radiation is kept As Low As Reasonably Achievable (ALARA). As part of the Radiation Protection Program, any registrant who owns radiation-emitting equipment is required to comply with federal and provincial safety regulations as outlined in the following documents:

- Radiation Emitting Devices Act
- Health Canada Safety Code 30
- Food and Drug Act
- BC CDC Dental Fact Sheet
- Work Safe BC Occupational Health and Safety Regulations Part 7 Division 3

Federal regulations outline the standard for the construction and function of all dental x-ray equipment. Provincial regulations outline the requirements for room design, protection of clients, and protection of workers, including quality assurance related to ionizing radiation.

Any registrant who owns dental x-ray equipment is ultimately responsible for being familiar with all regulations pertaining to radiation safety. As well, the registrant who owns the x-ray equipment is responsible for implementing and maintaining radiation safety within their practice. This relates to radiation safety for staff and clients.

To ensure compliance with safety regulations, a dental hygienist must have radiographic equipment inspected upon initial installation and at regular intervals by an appropriate government agency.* This is to ensure that: radiography equipment is installed appropriately; a quality assurance

radiation program has been implemented and is being maintained; and radiographic equipment is functioning properly.

Monitoring radiation exposure is considered a component of radiation safety. Safety Code 30 provides general information on personal dosimeter monitoring. In BC, regulations for personal monitoring fall within the Occupational Health and Safety Regulations. WorkSafe BC has published guidelines for wearing personal dosimeters.** It is important to be familiar with these requirements. If questions arise related to these guidelines, they should be directed to WorkSafe BC.

POLICY

Any registrant who owns their own dental x-ray equipment must ensure they understand and implement a Radiation Protection Program within their practice setting. This includes complying with all federal and provincial regulations.

Registrants who own their own dental x-ray equipment must:

- Ensure dental x-ray equipment is inspected upon installation and prior to initial use, and on regular intervals thereafter.
- Send a certificate of inspection to the College upon renewal of registration.
- Ensure a quality assurance program is in place and maintained.
- Keep the client's dose of ionizing radiation to a minimum by adhering to the principle of ALARA.
- Comply with the Worksafe BC requirements stipulating that the owner of the x-ray equipment must:
    - "(a) maintain and make available to the Board,
        - (i) for at least 10 years, records of radiation surveys, and
        - (ii) for the period that the worker is employed plus 10 years, records of exposure monitoring and personal dosimetry data, and
    - (b) make the records available to workers."

**The BCCDC-appointed dental radiation equipment surveyor is contracted to Innovative Biomedical Engineering: 1-250-898-9089*
***Information on how and where to obtain a dosimeter can be found at Health Canada National Dosimetry Services. Additionally the BC Centre for Disease Control has a list of approved dosimetry service providers.*

REFERENCES

- CDHBC Practice Standards and Practice Standard Policies. Victoria: College of Dental Hygienists of British Columbia; 2013.
- Government of Canada. Radiation Emitting Devices Act. Minister of Justice; 2004. Available from: http://laws-lois.justice.gc.ca/PDF/R-1.pdf

- Health Canada. Health Canada Radiation Protection in Dentistry Recommended Safety Procedures for the Use of Dental X-ray Equipment Safety Code 30. 2000. Available from: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/radiation/99ehd-dhm177/99ehd-dhm177-eng.pdf
- Health Canada. Food and Drug Act R.S.C., 1985, c. F-27. Available from: http://laws-lois.justice.gc.ca/PDF/F-27.pdf
- BC Centre for Disease Control. Dental Fact Sheet [Internet]. 2012. Available from: http://www.bccdc.ca/NR/rdonlyres/631ABE5D-F8BF-4F83-A463-D26BE5CE582F/0/DentalXRayFactsOct12.pdf
- WorkSafe BC. Occupational Health and Safety Regulations - Radiation exposure. 2004. Available from: http://www2.worksafebc.com/publications/ohsregulation/part7.asp#SectionNumber:7.18

REFERRALS BY DENTAL HYGIENISTS

Added to Handbook: June 2005
Updated: September 2013

PURPOSE

To clarify the dental hygienist's role in initiating client referrals to dentists, dental specialists, and other health professionals.

BACKGROUND

The CDHBC Practice Standards indicate the registrant's responsibility in initiating the referrals, when appropriate, throughout the process of dental hygiene care. Practice Standard 5.2 discusses referrals in relation to the planning phase of care: "when indicated, dental hygienists must consult with the client's dentist, and may consult with other applicable health care providers, in order to integrate the plan for dental hygiene services into the client's total health care plan." Practice Standard 7.2 incorporates referrals based on the evaluation phase of dental hygiene care: "dental hygienists must, if indicated, recommend referral to dental and other applicable health professional(s)."

There are many situations in which a dental hygienist must need to collaborate with other health professionals and initiate referrals for client care. These may include concerns about a client's systemic health (e.g. referral to a dietician for nutritional counseling, or to a physician regarding high blood pressure or management of diabetes), or other medical-dental concerns (e.g. extra-oral or intra-oral pathologies, suspected caries, or progression of periodontal disease).
Additionally, the Dental Hygienists Regulation stipulates that dental hygienists who are exempt from the 365-day rule must recommend that a client have an examination by a dentist if it is evident that the client has not done so within the past 365 days.

POLICY

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 in order to ensure the provision of safe and ethical dental hygiene care to the public.

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

In addition, dental hygienists who are registered in the 365 Day Rule Exempt category of registration must recommend that a client have an examination by a dentist if it is evident that the client has not done so in the past 365 days, as outlined in section 6(3) of the Dental Hygienists Regulation.

REFERENCES

- Scope of Practice Statement. Victoria: College of Dental Hygienists of British Columbia; 2013.
- Darby M, Walsh M. Dental Hygiene Theory and Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.
- Dental Hygienists Regulation. Victoria: College of Dental Hygienists of British Columbia; 2013.

REGISTRANTS' RESPONSIBILITY TO REPORT ABUSE

Added to Handbook: Prior to June 2004
Last updated: Feb 2015

PURPOSE

To provide guidelines on registrants' responsibility to report suspected child or vulnerable adult abuse/neglect.

CHILD ABUSE

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, neglected, or in need of protection, has a legal duty to promptly report the matter. The duty to report applies even if the information is privileged or confidential.

Failure to report is an offence under section 14(6) of the *CFCS Act*, and could result in a fine and/or imprisonment.

POLICY

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 free, province-wide telephone number to report suspected child abuse is**310-1234** (no area code required). If a child is felt to be in immediate danger, the local police department should be contacted.

Where possible, documentation should be completed in the client's chart.

REFERENCES

- Government of British Columbia. BC Handbook for Action on Child Abuse and Neglect - For Service Providers. Victoria; 2007. Available from: The B.C. Handbook for Action on Child Abuse and Neglect (pdf)
- Government of British Columbia. Child, Family and Community Service Act. Victoria: Queen's Printer; 2013. Available from: Child Family and Community Service Act

VULNERABLE ADULT ABUSE

BACKGROUND

A vulnerable adult is defined by the *Adult Guardianship Act* and The Canadian Academy of Health Science as someone 19 years of age or older who may have reduced capacities as an individual (whether these are physical, cognitive, educational, financial or other). This may include (but is not limited to) populations such as seniors or individuals with diminished intellectual or cognitive

capacity. Vulnerable adult abuse is commonly identified as a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to a person, and identifies that such abuse can also result from unintentional or intentional neglect. The harm associated with abuse of vulnerable adults can manifest in a number of ways, including physical, financial, psychological, and sexual abuse.

The Canadian population is retaining their dentition for longer than in previous generations and adults are seen regularly for dental hygiene care including head, neck, and intraoral examinations. Dental hygienists are ideally positioned to recognize the signs of abuse due to the nature of dental hygienists' relationships with clients and the regularity of care.

There is no mandatory reporting requirement for members of the general public in cases of suspected abuse of vulnerable persons in BC. However, health professionals such as dental hygienists have an ethical obligation to act in the best interests of their clients as outlined in the CDHBC Code of Ethics with specific attention given to statement 10:

> **"Report to their licensing body or other appropriate agencies any illegal or unethical professional decisions or practices by dental hygienists, or others.** *The dental hygienist is committed to safe and ethical care for clients…..A dental hygienist who believes the behaviour by another is not in the best interest of the client or public will report it to the appropriate agency. It is required by law to report cases of suspected child abuse."*

If an adult is not of sound decision making capacity or is unable to seek assistance due to a physical handicap or physical restraint, the provisions of the *Adult Guardianship Act* indicate that any person may notify a "designated agency" of the suspected abuse or neglect.

This *Act* encompasses abuse that may take place in a vulnerable adult's personal residence, a relative's home, a care facility, or in a public place. The "designated agencies" to which such cases may be reported are:

- The five Regional Health Authorities
    - Fraser Health: 1-877-935-3669
    - Interior Health: 250-862-4200
    - Northern Health: 250-565-2649
    - Vancouver Coastal Health: 1-866-884-0888
    - Island Health: 250-370-8699
- Community Living BC - for eligible adults with developmental disabilities
- Providence Health Care Society - some hospital locations in Vancouver

Island Health has resource pages for Abuse and Neglect andGetting Help and Who to Call which would be helpful to keep on hand in the event of suspected abuse.

Beyond the provisions of the *Adult Guardianship Act*, additional legislation that may be applicable to cases of abuse includes the following:

- The Federal *Criminal Code* - applies to abuse that takes the form of physical or sexual assault, failing to provide the necessaries of life, unlawful confinement, fraud and theft.
- The *Community Care and Assisted Living Act* - The Residential Care Regulation (Section 77) requires licensed community care and assisted living facilities to investigate suspected cases of resident abuse and neglect, and to report findings to the resident's representative, the resident's attending physician or nurse practitioner, the resident's funding program (if applicable), and a medical health officer.
- The *Health Professions Act* - requires regulated health professionals, including dental hygienists, to report suspected abuse by another health professional to the Registrar of the other health professional's regulatory College if:
    a. the suspected abuse constitutes a form of sexual misconduct (Section 32.4), or
    b. if the registrant believes that the other health professional may be a danger to the public (Section 32.2).

POLICY

If an emergency situation is suspected whereby a vulnerable adult's life or safety is at immediate risk, the dental hygienist should contact the police at 911. In a non-emergency situation, the dental hygienist should determine whether the vulnerable person is of sound decision making capacity to consent or refuse consent to having their circumstances reported to an outside agency or organization. The dental hygienist should also consider whether the provisions of the*Adult Guardianship Act*, the *Community Care and Assisted Living Act*, or the*Health Professions Act* are applicable to the situation.

If a vulnerable adult of sound decision making capacity refuses to allow the dental hygienist to disclose their circumstances and the provisions of these Acts are not applicable, then the dental hygienist can offer supportive resources and information. This may include the provision of contact information for the office of the Public Guardian and Trustee (1-800-663-7867 or mail@trustee.bc.ca) which provides assistance to adults in need of support for personal and financial decision making. Alternately, the local Community Response Network (bccrns.ca) is a localized BC organization that provides a coordinated community response to cases of vulnerable adult abuse and neglect.

For further information on the detection and reporting of abuse of vulnerable adults please consult the Spring 2012 edition of Access titled "Elder Abuse: Detection and Reporting"; the expanded version of "Elder Abuse: Detection and Reporting" includes further information, along with a list of

references and resources. In addition, please contact the CDHBC if you wish to discuss your particular scenario regarding suspicion of vulnerable adult abuse and possible next steps:

CDHBC
Email: cdhbc@cdhbc.com
Phone: 1-800-778-8277
Fax: (250) 383-4144
Website: www.cdhbc.com

REFERENCES

- College of Dental Hygienists of BC. Elder Abuse: Detection and Reporting. Victoria: College of Dental Hygienists of British Columbia; 2012. Available from: ACCESS Spring 2012
- Furnari W. Oral health professional alert: elder abuse concern in the United States and Canada. Can J Dent Hygiene. 2011; 45(2): 98-102.
- Government of British Columbia. Adult Guardianship Act. Victoria; Queen's Printer; 2014. Available from: [RSBC 1996] Chapter 6
- Government of British Columbia. Community Care and Assisted living Act. Victoria: Queen's Printer; 2014. Available from: [SBC 2002] Chapter 75
- Government of British Columbia. Health Professions Act. Victoria: Queen's Printer; 2014. Available from: [RSBC 1996] Chapter 183
- Government of Canada. Criminal Code [Internet]. Justice Laws Website; 2014. Available from: Criminal Code R.S.C, 1985, c. C-46
- Government of Canada. National Seniors Council. Report of the national seniors council on elder abuse. Ottawa; 2007.
- CDHBC Code of Ethics. Victoria: College of Dental Hygienists of British Columbia; 2013.
- The Canadian Academy of Health Sciences. Improving Access to Oral Health Care For Vulnerable People Living in Canada [Internet]. 2014. Available from: CAHS Access to Oral Care (pdf)
- World Health Organization. Elder abuse [Internet]. 2012. [cited 2014 Nov 25]. Available from: WHO Elder Abuse

SEALANTS

Added to Handbook: Prior to June 2004
Last updated: September 2013

PURPOSE

To provide guidelines for the assessment and preparation of teeth for pit and fissure sealants by dental hygienists.

BACKGROUND

Dental sealants act as physical barriers and therefore prevent the colonization of caries-producing bacteria in the pits and fissures of teeth. The Scope of Practice Statement describes the dental hygiene scope of practice, which includes the placement of pit and fissure sealants within the implementation phase of dental hygiene care and ongoing evaluation thereafter.

In order to meet the client's oral health needs comprehensively, it is considered best practice for the dental hygienist to collaborate with the client's dentist when treatment planning pit and fissure sealants. 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 may be more challenging.

POLICY

A dental hygienist may apply pit and fissure sealants provided that the full ADPIE process of care is followed. This would include a caries risk assessment for the client, as well as an evaluation of the continuous vs. episodic dental care accessed by the client. When possible, treatment planning for pit and fissure sealants should be done in collaboration with the dentist.

Consideration for sealant placement should be based on the best available evidence related to the effectiveness of the intervention and on the knowledge of the risk factors and patterns of caries. There are a variety of sealant materials available and the dental hygienist should use professional judgment when determining which material to use. It is important to follow the manufacturer's instructions for optimum sealant placement and retention.

Dental hygienists may use Prophy-Jet type air abrasion systems to prepare tooth surfaces. However, air abrasion systems that use aluminum oxide may not be used. Cutting hard or soft tissues is considered a reserved act that falls outside of the dental hygiene scope of practice. Air abrasive systems that use aluminum oxide have the ability to cut hard tissue, even at low p.s.i.'s, and therefore should not be used by dental hygienists.

REFERENCES

- Azarapazhoo A, Main PA. Pit and Fissure Sealants in the Prevention of Dental Caries in Children and Adolescents: A Systematic Review. J Can Dent Assoc. 2008 Mar;74(2):171-7.
- Beauchamp J, Caufield PW, Crall JJ, Donly K, Feigal R, Gooch B, et al. Evidence-based Clinical Recommendations for the use of Pit-And-Fissure Sealants. J Am Dent Assoc. 2008 Mar;139(3):257-68.
- Darby LM, Walsh MM. Dental Hygiene Theory and Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.
- Wilkins EM. Clinical Practice of the Dental Hygienist. 11th ed. Philadelphia: Lippincott Williams & Wilkins; 2013.

SOCIAL MEDIA

Added to Handbook: October 2018

PURPOSE

To provide guidelines on the use of social media by dental hygienists.

BACKGROUND

The term "social media" refers to web and mobile technologies and practices that people use to search for and share content, opinions, insights, experiences, and perspectives online. It includes blogs, online forums, podcasts, and commonly recognized networking platforms such as Facebook, Twitter, Snapchat, WhatsApp, and Instagram.

The use of social media is expanding rapidly, blurring the boundaries between public and private space. Anything posted on social media lives in a virtual space and may end up in the public domain permanently, irrespective of the intent at the time of posting. Confidentiality can never be guaranteed.

Expectations of professional and ethical conduct are the same whether dental hygienists are interacting in person, or online through social media. Dental hygienists should be vigilant in avoiding online situations that may be harmful to clients and detrimental to their own credibility and reputation.

Dental hygienists should generally refrain from establishing personal connections with clients online. In some instances it may be acceptable to create an online connection with clients for professional purposes only. In these instances dental hygienists should establish a professional account that accurately conveys their credentials, and is used separately from their personal account in order to maintain appropriate boundaries. While use of a professional account may be acceptable for certain purposes, such as sharing educational resources or general information, dental hygienists are cautioned against providing clinical advice to any one individual via social media or in a public domain.

Any marketing carried out using social media must comply with the College's marketing bylaws. Additionally, dental hygienists are expected to declare conflicts of interest when using social media where applicable (e.g. corporate affiliations or sponsorships).

From a legal standpoint, dental hygienists should consider whether the content they publish violates defamation, privacy and/or plagiarism laws. From an ethical and professional standpoint, they should also consider whether client privacy expectations and confidentiality may be overtly or unintentionally compromised. Additionally, while it is not appropriate to regulate and discipline all conduct that occurs outside a dental hygienist's practice, if there is off duty conduct that threatens the public, or the public's perception of the profession, the College is justified in investigating. Under the *Health Professions Act*,

dental hygienists also have a duty to report any illegal or unethical conduct by other licensed health professionals to the appropriate regulatory college.

POLICY

Dental hygienists should exercise caution when posting personal information on social media platforms. Clear professional boundaries must be maintained, which is facilitated by use of professional accounts that are separate from personal accounts. Additionally, posting content that could be viewed as unprofessional, or that puts public trust in the profession at risk, should be avoided.

Dental hygienists must always maintain the confidentiality of client information and never post identifiable client information or images to social media – even in a closed or private online forum.

Dental hygienists should read, understand, and apply the strictest privacy settings to maintain control over access to their personal information. At the same time, it should be recognized that privacy settings are imperfect and can be compromised.

The privacy of clients, colleagues and co-workers must be respected. Dental hygienists must respect others' privacy by carefully managing information acquired from social media. Dental hygienists must also avoid searching online sources for private client information that has no relevance to the client's dental hygiene care.

Dental hygienists must be familiar with the practice standards that govern their practice, as well as applicable laws. Defamatory statements published online may result in allegations of libel or slander. Plagiarism and copyright infringement can also lead to legal action. For this reason, dental hygienists should provide credit and links when sharing information from other original sources.

Dental hygienists should represent their credentials accurately when used with social media for professional purposes. They should ensure that the content they post aligns with the dental hygiene scope of practice, practice standards, and code of ethics, and reflects information that is evidence-based or from legitimate sources. Dental hygienists should also declare conflicts of interest where applicable.

ACKNOWLEDGEMENT

The College of Dental Hygienists of British Columbia gratefully acknowledges the College of Physicians and Surgeons of British Columbia and the British Columbia College of Nursing Professionals for granting permission to adopt content from existing practice guidelines on social media.

TREATMENT of CLIENTS WITH ORTHOPAEDIC JOINT REPLACMENTS

(Previously titled ANTIBIOTIC PREMEDICATION Orthopaedic Joint Replacements)

Added to Handbook: February 2010
Updated: January 2017

PURPOSE

To provide guidelines for antibiotic premedication for clients with an orthopaedic joint replacement.

BACKGROUND

Historically, antibiotic prophylaxis prior to dental treatment was routinely prescribed to those who had a prosthetic joint replacement. The rationale was related to the risk of bacteremia-associated hematogenous seeding of bacteria onto joint implants following invasive dental/dental hygiene treatment causing potential prosthetic joint infection (PJI) and failure.

Invasive dental/dental hygiene treatment has been defined as "procedures that involve manipulation of oral soft tissues, manipulation of the periapical area of teeth, or oral mucosa perforation".[1,2] These would include, but are not limited to the following dental hygiene procedures: scaling, root planning, probing, polishing teeth (where bleeding is anticipated), initial placement of orthodontic bands, intraligamentary anesthesia injections, subgingival placement of antibiotic fibers or strips and suture removal.

Throughout the years, there have been many changes to the recommendations for prophylactic antibiotic coverage for clients with prosthetic joints who are seeking dental/dental hygiene treatment. In recent years there has been increased concern about antimicrobial resistance.[1,2,4-7] With overexposure, infectious organisms have adapted and are not being killed by antibiotics that were previously effective. With this there has been a recent advocacy for antimicrobial stewardship, with a focus on "appropriate selection, dosing, route and duration of antimicrobial therapy." [3,6-7] This has led to a critical investigation on the effectiveness of prophylactic antibiotic coverage for those with prosthetic joints.

The following provides a brief history of decisions by the American Academy of Orthopedic Surgeons (AAOS) and the American Dental Association (ADA) since 2003:

- 2003 – AAOS/ADA recommended that antibiotic prophylaxis be given for a period of 2-years following the placement of a prosthetic joint. After the initial 2-year period, antibiotic prophylaxis was only recommended for those presenting with co-morbidities.[8,9]

- 2009 – AAOS recommended the consideration of antibiotic prophylaxis coverage for life, prior to any dental treatment that may cause bacteremia.[9,10]
- 2012 – AAOS/ADA - Recommended that dental practitioners consider discontinuing the practice of routinely prescribing prophylactic antibiotics for those with hip and knee prosthetic joints prior to dental procedures.[1,9,11]
- 2015 – ADA Council on Scientific Affairs (CSA) reviewed the 2012 AAOS/ADA literature with the addition of four more case-controlled studies. Updated conclusions were made and subsequently published which included:[4]
    - The evidence failed "to demonstrate an association between dental procedures and PJI or any effectiveness for antibiotic prophylaxis" (with moderate certainty).[4]
    - Those with prosthetic joints do not require antibiotic prophylaxis prior to dental procedures to prevent PJI.
    - The need for caution in overprescribing antibiotics due to the potential harm from antibiotic use, including antibiotic resistance.
- 2016 - AAOS and ADA jointly published the *Appropriate Use Criteria* (AUC) *for the Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures* (see Table 1).[12]
    - These provide a list of risk factors for possible PJI, such as immunocompromised status and glycemic control.
    - These also provide details on the most current antibiotic prophylactic regimen for those who present with a prosthetic joint and one or more risk factors and/or immunocompromised status.

RECOMMENDATIONS

In addition to the recent changes as noted above, in the summer of 2016, the Canadian Orthopedic Association (COA), the Canadian Dental Association (CDA) and the Association of Medical Microbiology and Infections Disease (AMMI) Canada also reviewed current evidence and have posted their consensus statement related to joint replacement and dental care on the CDA website.[3] These conclusions and recommendations align closely with those clinical recommendations made by the ADA CSA in 2015. The Consensus Statement and Recommendations of these Canadian organizations are as follows:[3]

- Patients should not be exposed to the adverse effects of antibiotics when there is no evidence that such prophylaxis is of any benefit.
- Routine antibiotic prophylaxis is not indicated for dental patients with total joint replacements, nor for patients with orthopedic pins, plates and screws.
- Patients should be in optimal oral health prior to having total joint replacement and should maintain good oral hygiene and oral health following surgery. Orofacial infections in all patients, including those with total joint prostheses, should be treated to eliminate the source of infection and prevent its spread.

Further to this, the October 21, 2016 CDA Oasis identifies the need to consider the client's overarching medical status when considering prophylactic antibiotic.[13]

The AAOS/ADA's 2016 *Appropriate Use Criteria (AUC) for the Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures* defines high-risk as those clients who are immunocompromised and/or have glycemic control concerns. The dental hygienist plays an important role in completing a thorough medical history and medication review to screen for conditions that require medical clearance for care and/or a determination to be made about antibiotic coverage.

Table 1:
Adapted from the AAOS/ADA 2016 published *Appropriate Use Criteria* (AUC) *for the Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures*[12]

Clinical situations for which a client with a prosthetic joint needs to be referred to the orthopedic surgeon or primary care physician due to a high risk or immunocompromised status when planning dental procedures that involve:
manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa.[12]

Client Profile	Status	Consultation/Referral
Immunocompromised Status/Conditions:	• AIDS • Cancer, undergoing chemotherapy • Rheumatoid arthritis and taking biologic disease modifying agents (e.g., tumor necrosis factor alpha, prednisone) • Solid organ transplant • Inherited diseases of immunodeficiency (e.g., congenital agammaglobulinemia, congenital IgA deficiency) • Bone marrow transplant	Refer to orthopedic surgeon for determination of prophylactic antibiotic coverage needs
Diabetic Glycemic Control:	• HbA1c ≥ 8 or (need to be within 3-6 months) • Blood Glucose ≥ 11.1 mmol/L (200 mg/dl) • No reading	Delay treatment until consultation with the primary care physician for an HbA1c or blood glucose test
In addition to any of the above:	• History of periprosthetic or deep prosthetic joint infection that required an operation	Refer to orthopedic surgeon for determination of prophylactic antibiotic coverage needs

For more detailed information see the AAOS Ortho Guidelines :
http://www.orthoguidelines.org/go/auc/default.cfm?auc_id=224995&actionxm=Terms

Table 1 summarizes the high risk conditions that have been identified by the AAOS and ADA.

For circumstances where antibiotic prophylaxis is warranted, the AAOS has adopted the American Heart Association (AHA) 2007 prophylactic antibiotic regimen as published in the *Circulation* 2007 article titled *Prevention of Endocarditis*.[12] The AAOS has made a minor revision by removing Clindamycin and Cefazolin as antibiotic options to reflect current medical practice, as outlined in Table 2:

Table 2: Prophylactic Regimen:[12]		
Situation	**Agent**	**Regimen – Single Dose 30-60 minutes before procedure**
Oral	Amoxicillin	*Adults:* 2.0 g *Children:* 50 mg/kg orally, ***1 hour before procedure***
Unable to take oral medications	Ampicillin or ceftriaxone	*Adults:* 2.0 g IM or IV* (ampicillin)1.0 g IM or IV (ceftriaxone) *Children:* 50 mg/kg, 1M or IV within 30 minutes of procedure
Allergy to oral penicillins or ampicillin	Cephalexin** †	*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 or ampicillin and unable to take oral medications	Ceftriaxone †	*Adults:* 1.0 g IM or IV *Children:* 50 mg/kg IM or IV, within 30 minutes of procedure
	Azithromycin or clarithromycin	*Adults:* Equivalent Dose 500mg IV *Children:* Equivalent Dose IM or IV within 30 minutes of procedure
IM indicates intramuscular; IV, intravenous *Intramuscular injections should be avoided in persons receiving anticoagulants ***Or other first or second generation oral cephalosporin in equivalent adult or pediatric dosages* † *Cephalosporins should not be used with individuals with a history of anaphylaxix, angioedema or uticaria, to penicillins or ampicillin.*		
From: American Academy of Orthopeadic Surgeons. Appropriate Use Criteria: AP Drugs From AHA Statement. 2012 Available from: https://aaos.webauthor.com/go/auc/terms.cfm?auc_id=224965&actionxm=Terms		

Timing of Antibiotic Administration

In conversations with the AAOS, it was confirmed that there is insufficient research on the effectiveness of post-operative antibiotic dosing in the event that a client, who has a prosthetic joint, inadvertently forgets to take the antibiotic prophylaxis. Until further research has been conducted the AAOS has adopted the 2007 AHA post-operative dosing recommendations.[14]

The AHA recommendation is as follows: an antibiotic for prophylaxis should be administered in a single dose before invasive dental/dental hygiene 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. This protocol should be reserved for extenuating situations and should not be used simply for the convenience of the office or the dental hygienist.

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

The American Academy of Orthopaedic Surgeons: www.aaos.org
The American Dental Association: www.ada.org
The Canadian Dental Association: www.cda-adc.ca

POLICY

As outlined in the CDHBC Code of Ethics Statements the dental hygienist is responsible for ensuring the health and welfare of the client and that dental hygiene services are provided in a safe environment using current knowledge and skills.[15] As well, dental hygienists must ensure that assessments, implementation strategies and documentation align with the CDHBC Practice Standards. A thorough review and analysis of the health history and medication profile information are required. This is necessary in order to screen for the presence of any risk factors or conditions that would require any modifications, considerations or referrals for a client with a prosthetic joint, prior to providing dental hygiene care.

The routine use of antibiotic prophylaxis is not required for most clients with a prosthetic joint replacement prior to dental hygiene procedures. If such a client presents with one or more risk factors such as an immunocompromised condition and/or poor or unknown glycemic control (as outlined in Table 1), the dental hygienist should consult with the orthopedic surgeon for a determination about appropriate antibiotic prophylaxis.[4] Ideally, the orthopaedic surgeon should be consulted for a prescription, however if this is not possible, another health care provider with prescribing rights may be engaged to provide an appropriate prescription (e.g. physician or dentist). A collaborative approach with the client's physician or dentist is recommended. **The decision for antibiotic prophylaxis coverage, and any directions provided must be clearly documented in the client's chart**.

It has been shown that asymptomatic transient bacteremia can occur after common oral activities such as tooth brushing, chewing gum, or using dental floss.[2,9,16] As such, dental hygienists should educate and encourage clients, who have had a prosthetic joint, in the effective daily removal of oral biofilm to maintain a healthy oral cavity.[11] It is also recommended that prior to having a prosthetic joint, the client should be in optimal oral health and maintain this post-surgery.[3,9]

REFERENCES

1. American Academy of Pediatric Dentistry. Guideline on Antibiotic Prophylaxis for Dental Patients at Risk for Infection. 2014. Available from: http://www.aapd.org/media/policies_guidelines/g_antibioticprophylaxis.pdf

2. *Wilson W Et Al. American Heart Association Guideline: Prevention of Infective Endocarditis. Circulation. 2007: 116:1736-1754. Available from: http://circ.ahajournals.org/content/circulationaha/116/15/1736.full.pdf*

3. Canadian Dental Association. Consensus Statement: Dental Patients with Total Joint Replacement. July 2016. Available from: https://www.cda-adc.ca/en/about/position_statements/jointreplacement/

4. Sollecito TP, Abt E, Lockhart PB, et al. The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints: Evidence-based clinical practice guideline for dental practitioners--a report of the American Dental Association Council on Scientific Affairs. *J Am Dent Assoc*. 2015; 146:11–16

5. American Dental Association Council of Scientific Affairs. Combating antibiotic resistance. *J Am Dent Assoc*. 2004; 135: 484–487

6. Glick, M., Antibiotics: the good the bad and the ugly. *J Am Dent Assoc*. 2016; 147; 771-773.

7. Centers for Disease Control and Prevention. Antibiotic/antimicrobial resistance. Available from: https://www.cdc.gov/drugresistance/about.html

8. American Dental Association; Academy of Orthopedic Surgeons: Advisory Statement Antibiotic prophylaxis for dental patients with total joint replacements. Journal of the American Dental Association. 2003:134: 895-899.

9. Young, H., Hirsh, J., Hammberberg, M., Price, C. Dental Disease and Periprosthetic Joint Infection. *Journal of Bone and Joint Surgery*. 2014:96;162-8.

10. American Academy of Orthopaedic Surgeons: Information Statement: Antibiotic Prophylaxis for patient after total joint replacement. 2009. Available from: http://orthodoc.aaos.org/davidgrimmmd/Antibiotic%20Prophylaxis%20for%20Patients%20after%20Total%20Joint%20Replacement.pdf

11. American Academy of Orthopaedic Surgeons; American Dental Association. Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures: Evidence-Based Guideline and Evidence Report. Rosemont, IL: American Academy of Orthopaedic Surgeons; American Dental Association; 2012. Available from: http://www.ada.org/~/media/ADA/Member%20Center/FIles/PUDP_guideline.ashx

12. American Academy of Orthopaedic Surgeons: Appropriate Use Criteria (AUC) for the Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures. 2016. Available from: http://www.aaos.org/PDUPAUC/

13. Canadian Dental Association. New Consensus Statement on Dental Patients with Total Joint Replacement. CDA Oasis. 2016; October, 21. Available from: http://oasisdiscussions.ca/2016/10/21/cstjr/

14. Verbal consultation with the American Academy of Orthopaedic Surgeons; 2016, October 19.

15. CDHBC Practice Standards and Code of Ethics. Victoria: College of Dental Hygienists of British Columbia; 2013.

16. Watters W 3rd, Rethman MP, Hanson NB, et al. Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures. *J Am Acad Orthop Surg*. 2013; 21: 180–189. Available from: http://www.aaos.org/research/guidelines/PUDP/dentalexecsumm.pdf

Previously Titled: **ANTIBIOTIC PREMEDICATION (Orthopaedic Joint Replacements**

VITAL TOOTH WHITENING AND THE PROVISION OF BLEACHING TRAYS

Added to Handbook: July 2008
Updated: September 2013

PURPOSE

To provide guidelines for the provision of bleaching trays and the removal of stain by vital tooth whitening.

BACKGROUND

Health Canada considers tooth whitening to be a cosmetic procedure and in BC vital tooth whitening is not considered a restricted activity. Dental hygienists, in accordance with section 4 of the Dental Hygienists Regulation, may "assess the status of teeth and adjacent tissues and provide preventive and therapeutic dental hygiene care for teeth and adjacent tissues". The dental hygiene scope of practice includes removing stain using various methods. 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, including solutions that are activated with heat or light, and others that are activated 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 whitening.

Section 6(1)(c) of the Dental Hygienists Regulation states that dental hygiene services are provided in accordance with any instructions that may be given by a dentist. Effects of tooth whitening may impact dental treatment. Registrants considering tooth whitening for their clients should consult with the client's dentist to ensure that the procedure fits with the overall treatment plan and is in the best interest of the client.

It is a legal and professional responsibility to follow the CDHBC Regulations and Practice Standard Polices. These policies outline the ADPIE process of care and apply to the process of vital tooth whitening. Professional judgment is used to determine the appropriate assessments required to develop a dental hygiene care plan. The care plan should incorporate appropriate referrals, along with informing the client of the risks associated with the whitening procedure, obtaining informed consent, and evaluating the results of the procedure.

POLICY

Dental hygienists are educated to perform the various steps for vital tooth whitening with the exception of the use of lasers. Taking impressions and fitting bleaching trays are not considered restricted activities in BC. As such, these services may be completed by dental hygienists provided that the appropriate ADPIE process of care is followed and that appropriate education related to the whitening process has been completed. "Appropriate education" is defined in the Scope of Practice Statement and for vital tooth whitening would consist of self-study, formal or continuing education sessions.

Dental hygienists may remove stain using tooth whitening products provided they adhere to the manufacturer's directions for the products and ensure the proper use of equipment involved in the whitening process. Whitening gels may be provided to clients for use in custom-fitted bleaching trays. Appropriate instructions must be provided that align with the manufacturer's directions.
It is recommended that registrants considering tooth whitening for their clients consult with the client's dentist to ensure the procedure fits with the overall treatment plan for the client.

REFERENCES

- Darby LM, Walsh MM. Dental Hygiene Theory and Practice. 3rd ed. St. Louis: Saunders Elsevier; 2010.
- Dental Hygienists Regulation. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Practice Standards and Practice Standard Policies. Victoria: College of Dental Hygienists of British Columbia; 2013.
- CDHBC Scope of Practice. Victoria: College of Dental Hygienists of British Columbia; 2013.