



# College of Dental Hygienists of BC

## QAP Content Subcategories – Expanded Definitions

The following expanded definitions for the CDHBC Content Subcategories are meant as a guide when developing the Online Learning Plan. The Content Subcategories are the basic sciences and dental hygiene theory that guide the Assessment, Diagnosis, Planning, Implementation and Evaluation (ADPIE) Process of Dental Hygiene Care. As with any knowledge areas, there is overlap to be expected among the various subcategories.

### A. Biological Sciences

#### A1 – General & oral microbiology/infection control

This includes an understanding of the relationship between oral and general health, oral microbes involved in oral health and disease (e.g., normal oral microflora, dental biofilm, bacteria associated with caries and gingival/periodontal diseases, oral fungal and viral infections), immunology, and the initiation/progression of disease.

This also includes prevention of disease transmission and management of exposure to infectious diseases, in the dental hygiene practice setting as outlined in:

- CDHBC Infection Prevention and Control (IPAC) Guidelines
- Related CDHBC Interpretation Guidelines such as:
  - Antibiotic Premedication (Cardiac Conditions)
  - Dental Hygienists Infected with Bloodborne Pathogens: Standards for Reporting and Guidance for Prevention of Transmission of Infection
  - Treatment of Clients with Orthopaedic Joint Replacement
- BC Centre for Disease Control guidelines (e.g. Blood and Body Fluid Exposure Management)
- WHMIS from WorkSafe BC
- Best practice standards

#### A2 – Biochemistry/nutrition/diet counseling

This includes an understanding of cellular biochemistry and the function of the 6 major classes of nutrients, as related to growth and development, and oral health/diseases. This also includes nutritional assessment, dietary modifications, and education to attain optimal oral health.

Nutritional directives, as part of the dental hygiene ADPIE process, involve the knowledge to assess eating patterns and nutrients that have a direct impact on oral disease and healing of oral tissues. This also includes providing education that is client-centered and incorporates cultural, economic and psychosocial needs.

### B. Social Sciences

#### B1 – Psychology/sociology

This includes an understanding of individual human behaviours and how individual understanding influences compliance with care and health/oral health outcomes. This also includes factors that may impact compliance with prevention strategies or act as barriers to improved oral health (e.g., race, gender, dental anxiety, social determinants of health), and factors that influence client change (e.g. client/health care professional relationship, oral health literacy, support systems and treatment needs). This would include incorporating knowledge of trauma-informed care, cultural competency, and indigenous cultural safety into practice.

#### B2 – Communication principles/behaviour management strategies

This includes principles of effective and professional verbal and non-verbal communication in a one-on-one basis and in group settings. It also includes principles of effective written communication. Behaviour management strategies include principles of change such as various behavioural change theories that can be implemented in the different areas of dental hygiene practice (e.g., client's values and beliefs, hierarchy of needs, trans-theoretical model, client's cognitive, affective, and psychomotor learning domains, motivational interviewing)

### C. Dental Sciences

#### C1 – Head, neck, oral and dental anatomy

This includes the basic dental science subject areas focused on the structures of the head, neck, and orofacial complex of the human body, including bone, TMJ, blood vessels, nerves, glands, nose, mouth, teeth, tongue, and throat. This also includes the assessments associated with the head, neck, oral, and dentition (including caries risk) as part of the client's record of care to facilitate referral and care planning needs.

#### C2 – General & oral embryology, histology

This includes an understanding of the formation and development of the oral and oro-facial structures, characteristics and composition of dental tissues, and the function of the oral/orofacial tissues. This also includes the ability to recognize and document structural deviations from normal, to facilitate referral and care planning needs.

#### C3 – Radiography knowledge, interpretation

This includes an understanding of radiation emission and propagation, quality assurance, radiographic equipment, safety, radiographic techniques, legislation related to radiography (e.g., Health Canada Safety Code 30, BC CDC Dental Fact Sheet etc.), and the evaluation and interpretation of radiographic findings (both digital and conventional film exposures) as they relate to dental hygiene practice.

The dental hygienist is expected to identify normal dental/oral anatomy and dental materials and interpret radiographic findings that fall within the Dental Hygiene Scope of Practice. This category also includes the documentation of radiographic findings and referral needs as well as sharing the findings with the client.



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### **C4 – General & oral pathology**

This includes mechanisms of injury to cells and tissues, as well as the body's means of responding to and repairing injury. Areas of study include cellular adaptation to injury, necrosis, inflammation, wound healing, and neoplasia. Oral pathology deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It includes, but is not limited to, red & white lesions, lesions of the bone, neoplastic and non-neoplastic lesions, developmental disorders, and oral manifestations of systemic diseases.

This category also includes the vocabulary associated with describing the clinical appearance of lesions for documentation and follow-up/evaluation purposes, and considerations and/or modifications to dental hygiene care including any referral needs. Risk assessment and screening for oral and pharyngeal cancer are encompassed within this category.

### **C5 – Dental materials**

This includes an understanding of the physical properties, handling, storage and disposal of dental material(s) involved in dental hygiene practice, as well as their relationship to the oral environment (e.g., biocompatibility, biomechanics, moisture, acid levels, retention, galvanism, forces).

This category also includes knowledge of therapeutic and restorative agents (e.g., ZOE, GIC, resin composite, porcelain, metal alloys), as well as considerations for planning dental hygiene care (e.g., sport mouth-guards, whitening trays, pit and fissure sealants, dental implants, margination, finishing and polishing restorations, fixed and removable prosthesis).

## **D. Dental Hygiene Clinical Practice**

### **D1 – Health assessment/pharmacology (prescribed and non-prescribed)**

This includes all areas pertinent to the assessment of a client's overall general health including emotional and social health. The health history should incorporate information on both past and present oral/dental disease and wellness, along with previous systemic disease and/or conditions. This is completed through a comprehensive health history and medication review that would be updated at each appointment.

A medication review includes compiling a list of medications including prescriptions, over-the-counter drugs, vitamins, nutritional supplements, and herbal remedies. Knowledge of pharmacology includes the understanding of drug interactions and documenting the specific condition and/or disease a medication is being taken for, along with the dose/ frequency schedule.

This will assist in preparing a comprehensive and client-centered care plan that incorporates contraindications, modifications, and/or considerations for care including consultation and referral needs. This also includes up-to-date knowledge on prophylactic antibiotic requirements and regimens as well as planning needs based on assessing vital signs.

### **D2 – Periodontology (including assessment, diagnosis)**

This includes the study of hard and soft structures of the periodontium in states of health and disease. Clinical knowledge incorporates risk assessment of periodontal health and disease as well as assessing any systemic disease risk factors along with the oral hygiene assessment.

A comprehensive periodontal assessment (e.g., periodontal probing, loss of attachment, gingival and deposit indices, bleeding on probing, furcation involvement, mobility, bacteria culturing etc.) and consolidation of this information will contribute to the dental hygiene diagnosis (DHD) and ultimately guide dental hygiene-specific interventions related to periodontal disease. Also included in this category are the evaluation and referral strategies for all types of periodontal diseases (as outlined in the AAP Classification of Periodontal and Peri-implant Disease and Conditions 2017).

### **D3 – Non-surgical dental hygiene therapy including instrumentation (hand and powered) and ergonomics**

This encompasses the prevention and maintenance strategies to maintain a healthy periodontium and incorporates implementation strategies in the area of nonsurgical dental hygiene therapy and more specifically, the use of hand and powered instrumentation. It also incorporates the implementation of effective ergonomic principles during the implementation phase of non-surgical periodontal therapy.

This category encompasses the ADPIE process for client's needs throughout the lifespan (early childhood to elderly adult) as well as clients with orthodontics, dental implants, and fixed and removable prostheses.

### **D4 – Care of special needs population**

This includes the assessment, planning, implementation, and evaluation of dental hygiene care with special needs populations, including but not limited to clients with medically-compromising conditions, developmental disorders, mental health conditions, and physical disabilities. This also includes consultation and referral needs along with any modifications required for dental hygiene care.

### **D5 – Pain management & control**

This includes an understanding of the anatomy associated with oral local anesthetic (LA) injection techniques, planning pain management strategies and the administration of local and topical anaesthetic. This also includes preventing negative outcomes related to oral LA administration, an understanding of LA drugs, knowledge of the prevention and management of local and systemic complications associated with the administration of LA, determining safety related to maximum doses, and documentation in compliance with the CDHBC Practice Standards.

### **D6 – Primary prevention strategies including oral self-care**

This includes the determination of the need to plan for appropriate primary prevention strategies for all clients, including but not limited to oral self-care strategies, dental caries management, and dentin hypersensitivity management, in order to achieve better oral and overall general health.



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### D7 – Emergency prevention & interventions

This includes the assessment of situations that could lead to medical or dental emergencies, with a focus on prevention preparation and management of the most common medical and dental emergencies (e.g., syncope, heart failure, bacteremia, hypotension, hypertension, diabetes complications, aspiration of a foreign object, respiratory distress, asthma, seizures, adrenal crisis).

This may include situations when a physician consult may be needed prior to the provision of care (e.g. to determine a client's INR status or blood glucose stability) in order to reduce the risk of an emergency.

## E. Community

### E1 – Public health practice, including programming & client advocacy

This category includes an understanding of how dental public health aims to prevent and control oral disease for a community, strategies used for improving oral health for diverse populations through community-based oral health practice, program development, and outcomes assessment. This also includes the role and process of advocacy on an individual basis and in a larger arena (e.g., municipal, provincial, national) to contribute to public policy for health/oral health promotion.

### E2 – Health promotion and wellness strategies

This includes the determination of situations that require education or planning of strategies in the areas of oral health and wellness for individuals and populations. This may include, but is not limited to, interventions and education related to: stress management, tobacco cessation counseling, oral cancer prevention and self-monitoring strategies, and oral/dental injury prevention and education (e.g., sport mouthguards/helmets). Learning and teaching principles and strategies are included in this category.

### E3 – Research/epidemiology/statistics

This includes an understanding of evidence-based practice and the application of epidemiology in practice. Epidemiology encompasses the study of health and disease as they impact populations and factors that influence these stages of health and/or disease in order to manage and guide strategies to promote health.

This category also includes an understanding of research methodology and statistical analysis, as well as critical evaluation of research. This includes an understanding of research design and the ability to use a search engine to answer practice-related questions by searching, analyzing, and consolidating credible, current, and peer-reviewed research.

## F. Professional Issues

### F1 – Ethics & jurisprudence (including legislation, regulation, QA, documentation)

This includes areas pertaining to the practice of dental hygiene according to the published professional standards and the principles of ethical decision making (e.g., Health Professions Act, Dental Hygienists Regulation and CDHBC Bylaws, Scope of Practice, Practice Standards, Code of Ethics, documentation requirements). This also includes an understanding and ability to problem solve ethical dilemmas.

This category encompasses professionalism as required of a dental hygienist including but not limited to accountability, integrity and responsibility. Also included is the responsibility to consistently apply documentation standards to the client's legal record in both electronic and paper formats as outlined in the CDHBC Practice Standards.

### F2 – Collaborative relationships/ referrals/administration/practice management

This includes an understanding of developing collaborative relationships with clients and other health professionals to ensure safe, competent, and ethical dental hygiene professional care is provided, and incorporates initiating appropriate referral pathways. This also includes administration and practice management related to conflict resolution, client records and confidentiality according to governing regulations (e.g., PIPA), and time management.

