



COLLEGE OF REGISTERED
DENTAL HYGIENISTS
OF ALBERTA



Guidelines

Regarding
Prescription and
Non-Prescription
Drugs in Dental
Hygiene Practice

Approved by CRDHA Council
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This guideline will be updated and new evidence evaluated every 5 years, at a minimum. If indicated by the presence of new strong evidence prior to this, the guideline will be reviewed at an earlier date.

Introduction

Registered dental hygienists in Alberta strive to provide clients with optimal dental hygiene services based on individual client need. Prescribing Schedule 1 drugs (prescription drugs) and administering, distributing and recommending both prescription and non-prescription drugs are essential components of dental hygiene practice key to achieving optimal oral health outcomes for clients receiving dental hygiene services. Therefore, the standards of practice and accompanying guidelines that surround these competencies are relevant to all registered dental hygienists, and not only to those registered dental hygienists who have been issued a prescriber's identification (ID) number by the College of Registered Dental Hygienists of Alberta (CRDHA).

The following guidelines are intended as a decision-making aid to support the utilization of prescription and non-prescription drugs by registered dental hygienists in their practice. These guidelines are dynamic and are intended to reflect current best practices. Clinical practice guidelines are designed to assist the practitioner in decision making. They are designed to enhance, not replace, clinical judgment or expertise. In many instances, these guidelines reflect minimum standards. While variations may be warranted based on the needs of the individual client or practice, registered dental hygienists are cautioned that failure to follow these guidelines may constitute a breach of one or more Standards of Practice, which is "unprofessional conduct". Dental hygienists must be familiar with the guidelines, be appropriately educated and regulate their practice accordingly.

To determine how a drug is scheduled, the National Association of Pharmacy Regulatory Authorities (NAPRA) uses a drug scheduling model with a "cascading principle". A drug is first assessed using the factors for Schedule 1. If the drug has sufficient Schedule 1 factors it remains in Schedule 1. If not, the drug is assessed against the Schedule 2 factors, and if not deemed to be Schedule 2, is subsequently assessed against the Schedule 3 factors. Should the drug not meet the factors for any schedule, it becomes "unscheduled".

These scheduling factors reflect an assessment of drug-use risk to the public and establish the level of professional control required to provide safe and effective drug use for clients. In most cases, Alberta's drug schedules are consistent with NAPRA's drug schedules. In cases where the provincial drug schedule differs from NAPRA's, these exceptions are noted directly in the *Scheduled Drugs Regulation*. The updated drug schedules can be found on the Alberta College of Pharmacists (ACP) website www.pharmacists.ab.ca.

There are three schedules or four categories of drugs:

Schedule 1 Drugs (Prescription Drugs)	Schedule 3 Drugs (Non-Prescription)
Schedule 2 Drugs (Non-Prescription)	Unscheduled Drugs (Non-Prescription)
For more information about the provincial drug schedules and the cascading principles, refer to the documents "Understanding Alberta's Drug Schedules" on the ACP website, the <i>Scheduled Drugs Regulation</i> on the Queen's Printer website, and the webpage "National Drug Schedules" on the NAPRA website at www.napra.org .	

It should be noted that all drugs which are federally scheduled in Part F of the *Regulations to the Food and Drugs Act* are included in Schedule 1.

Because drug scheduling is based on factors of relative risk associated with taking drugs with or without the advice of a health care professional, the practice guidelines found in this document reflect this concept.

The Dental Hygienists Profession Regulation (the Regulation) identifies a limited number of Schedule 1 drugs that registered dental hygienists may prescribe. In order to issue prescriptions, a registered dental hygienist must hold a prescriber's identification (ID) number.

To obtain a prescriber's ID number, registered dental hygienists must meet the CRDHA's educational and experiential requirements, including successful completion of the CRDHA's pharmacy refresher course. Only once the CRDHA office has provided you with a prescriber's identification (ID) number are you able to prescribe the Schedule 1 drugs listed in the Regulation during the provision of dental hygiene services.

Key Elements of these Guidelines

1. Meet legislated requirements both provincially and nationally.
2. Be consistent with professional standards and guidelines for the protection of the public.
3. Adhere to accepted standards of practice for prescribing drugs.
4. Adhere to accepted standards of practice for non-prescription drugs.
5. Utilize, as appropriate, prescription and non-prescription drugs to optimize the outcome of dental hygiene care within the scope of practice, practice setting, and competencies of the individual registered dental hygienist.
6. Collaborate with physicians, pharmacists, dentists, and other health care professionals as necessary to provide optimal drug therapy management in dental hygiene care.
7. Communicate with the client and/or agent in an appropriate level, providing sufficient information, to ensure that the client is able to make an informed decision regarding the safety and efficacy of the proposed drug therapy.
8. Acquire, store, sell, and dispose of drugs in accordance with local, provincial, and federal standards, legislation and guidelines.
9. Enhance competency and assure quality of care through continuing education.
10. Refer to appropriate health care providers when necessary.
11. Maintain complete and accurate records of drug prescription, drug recommendation, drug monitoring, and drug distribution.
12. Participate in a drug error management program. (Refer to Appendix A: *Drug Error Management Guidelines*)
13. Participate in the Canada Vigilance Program, Health Canada's post-market surveillance program for reported adverse drug reactions. (Refer to Appendix E: *Canada Vigilance Program*)

Definitions

Administer: to supply a dose of a drug to a person for the purpose of immediate ingestion, application, inhalation, insertion, instillation, or injection.

Adverse Drug Reaction: An adverse drug reaction (ADR) is defined by Health Canada as a noxious and unintended response to a drug which occurs with use or testing for the diagnosis, treatment or prevention of a disease or the modification of an organic function. This includes any undesirable client effect suspected to be associated with drug use. ADRs as a result of prescription, non-prescription, biological (including blood products), complementary medicines (including herbals) and radiopharmaceutical drug products are monitored. Drug abuse, drug overdoses, drug interactions and unusual lack of therapeutic efficacy are also considered to be reportable as ADRs.

ADR reports are, for the most part, only suspected associations. A temporal or possible association is sufficient for a report to be made. Reporting an ADR does not imply a causal link.

ADRs that should be reported include all suspected adverse drug reactions which are:

- unexpected, regardless of their severity i.e. not consistent with product information or labelling; or
- serious, whether expected or not; or
- reactions to recently marketed drugs (on the market for less than five years) regardless of their nature or severity.

Adverse Outcome: A harmful event for a client or personnel, where transfer to hospital with or without admission was necessary. In the event of a critical incident or adverse outcome of any kind, a written incident report must be completed and reported to the CRDHA forthwith. (Refer to pg. 17 for details on the incident report.)

Agent: A parent or guardian legally authorized to act on behalf of a client.

Client: may be an individual, family, group, institution, community or population accessing the professional services of a dental hygienist.

Compound: Schedule 7.1 (Health Services Restricted Activity) of the *Government Organization Act* (GOA) defines compound as “to mix together 2 or more ingredients of which at least one is a drug for the purposes of dispensing a drug or drugs, but does not include reconstituting a drug or drugs with only water.” There are some instances in dental hygiene practice where a member might engage in compounding. For example, the mixing of Benadryl liquid and Kaopectate for a client to use as a rinse for relief of pain for aphthous ulcers.

Critical Incident: An event creating a substantial risk of serious health or safety consequences. In the event of a critical incident or adverse outcome of any kind, a written incident report must be completed and reported to the CRDHA forthwith. (Refer to pg. 17 for details on the incident report.)

Drug: In the broadest sense, drug is defined as any chemical or biological substance, (other than food), synthetic or non-synthetic, that when taken into the body produces an effect or

alters a bodily function such as prevention of a disease, relief of symptoms, or curing a disease. In this broad definition, **drug** is often used interchangeably with **medication**. The Food and Drugs Act (Canada), as well as Alberta's legislation, offer more narrow, legal definitions of the term "drug." The Food and Drugs Act also distinguishes between "drugs" and "natural health products." When you determine the "drug profile" for each client, "drug" is to be considered in this broad sense (see Drug Profile for further details).

Legal definitions of "drug" relevant for Alberta's dental hygienists are found in Canada's Food and Drugs Act and Alberta's Pharmacy and Drug Act:

Canada's Food and Drugs Act, supplies the following definition:

"drug" includes any substance or mixture of substances manufactured, sold or represented for use in

- (a) the diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms, in human beings or animals,
- (b) restoring, correcting or modifying organic functions in human beings or animals, or
- (c) disinfection in premises in which food is manufactured, prepared or kept.

Alberta's Pharmacy and Drug Act defines drug as a substance or a combination of substances referred to in section 31, 32, or 33 [of the Pharmacy and Drug Act] or defined as an emergency release drug of a special access drug and any combination of such a substance or substances with any other substance.

Drug Profile: The drug profile is part of the client's comprehensive health history and is completed for each client prior to initiating dental hygiene care. The client's drug profile, which is used to develop a care plan, aids the registered dental hygienist in determining possible contraindications and adverse effects, such as drug-drug and drug-food interactions. The drug profile includes:

- A comprehensive list of drugs (prescription and non-prescription) that the client is currently taking, or has taken, since the last update of the client's health history. When determining non-prescription drugs, the drug profile must include any drugs listed in Schedules 2 and 3 of Alberta's Drug Schedules, unscheduled drugs as well as alcohol, tobacco, and natural health products not included in the provincial drug schedules.
- Adverse drug reactions (e.g. known allergies or sensitivities)
- Client compliance
- The dental hygienist's interpretation about how the client's medications are affecting the client's systemic health and the health of the oral cavity.

Facsimile Transmissions: means transmission of the exact visual image of a document by way of electronic equipment. A prescription transmitted by facsimile can be accepted for all classes of drugs.

Health History: A complete and thorough legal document that contains information about the client's past and present medical and dental conditions, risk factors for disease, a drug profile, undiagnosed conditions and allergies or sensitivities. The health history should also include information about the client's lifestyle; cultural practices related to health and disease, past and present emotional problems, and general state of mind. This written report is obtained from the health history questionnaire, a verbal interview, and direct client observation. (Refer to Appendix G: *Client Health History* for further details)

Informed Consent: The client has been provided with information about the proposed treatment, including material effects and costs, significant risks and side effects of the proposed treatment, alternative treatments and the consequences of not having the treatment. You must also answer

the client's questions. If the client is a minor or lacks the capacity to make a decision, consent must be obtained from the client's agent. A practitioner may wish to consider the additional legal protection of a written consent form.

May/could: Freedom or liberty to follow a reasonable alternative.

Minor: In Alberta, a minor is defined as any person under the age of 18 years. *Note:* A mature minor is a person under 18 who is able to consent to his or her own medical treatment, to understand the nature and consequences of the treatment, and to decide who has access to his or her information

Must/shall: Indicates an imperative need and/or duty; an essential or indispensable item; mandatory.

Natural Health Products: (NHP's) are defined in the Health Canada's Natural Health Product Regulations under the Food and Drugs Act as vitamins, minerals, herbal remedies, homeopathic medicines, traditional medicines such as Traditional Chinese Medicines, probiotics, and other products like amino acids and essential fatty acids. Under the new Regulations, the product must be safe for consideration as an over-the-counter (OTC) product. Natural Health Products are available for self care and self selection, and do not require a prescription to be sold. Products requiring a prescription will continue to be regulated under the Food and Drug Regulations.

Non-prescription: Drugs that can be obtained without a prescription. Non-prescription drugs include any drugs listed in Schedules 2 and 3 of Alberta's Drug Schedules, unscheduled drugs as well as alcohol, tobacco, and natural health products not included in the provincial drug schedules. {See *Guidelines for Selling Prescription and Non-Prescription Drugs – Non-Prescription Drugs (Schedules 2, 3 & Unscheduled)* on pg 13 of this document.}

Prescribe: A verbal or written direction or order to provide the person therein named a stated amount of drug specified in the direction. Prescribing includes the choice of drug, dosage form and drug regimen (drug strength, dosing frequency and duration).

Prescription: A direction by a person who is authorized by an Act of the Legislature of Alberta or an Act of the Parliament of Canada to prescribe drugs, directing that a drug be dispensed to or for the patient named in the direction.

Prescription Drugs: Schedule 1 drugs require a prescription as a condition of sale. Drugs in this schedule include all the federally scheduled drugs, referred to in the Food and Drug Regulations (Canada) as Part I and II in Schedule F, and certain others which are specific to Alberta. Drugs designated as Schedule 1 in accordance with Section 34 of the Pharmacy and Drug Act (Alberta) are, therefore, subject to the same regulations as drugs listed in Part I and II in Schedule F in the Food and Drug Regulations (Canada).

Recommend: to suggest a course of action or drug therapy to a client based on professional expertise and assessed client need.

Sell: in Schedule 7.1 - Health Services Restricted Activities of the *Government Organization Act (GOA)*, sell includes:

- distribute, trade or barter for money or other valuable consideration,
- distributing and giving away without expectation or hope of compensation or reward,
- keeping for sale, and
- offering for sale.

Should: The recommended manner to obtain the standard; highly desirable.

Professional Responsibilities

The registered dental hygienist:

1. Must make a professional judgment regarding the client's condition and recommend a product, other treatment, no treatment, or referral to an appropriate health care professional.
2. Must recall or locate current knowledge of drug therapies commonly accepted in dental hygiene practice, along with knowledge of the drug, including possible drug interactions or contraindications, its risks and benefits as to the expected treatment outcomes.
3. Shall enhance competency and assure quality of care through continuing education specific to prescription drugs and the practice of dental hygiene.
4. Is responsible for communicating with the client/agent.
 - 4.1. The level of the client's/agent's understanding shall be determined in order to facilitate effective communication.
 - 4.2. Direct dialogue with the client (or agent) shall include, but is not limited to:
 - 4.2.1. confirmation of the identity of the client
 - 4.2.2. determination of health history and drug profile
 - 4.2.3. confirmation of the identity of the drug(s) being administered, distributed, prescribed, and/or recommended
 - 4.2.4. rationale for particular drug therapy and expected benefits
 - 4.2.5. dosage regime and instructions required to achieve intended therapeutic outcomes
 - 4.2.6. common or serious potential adverse reactions (e.g., side effects, drug-drug interactions, or drug-food interactions)
 - 4.2.7. management of adverse reactions (e.g., increased tooth staining, altered taste sensation, allergic reactions)
 - 4.2.8. storage requirements (if applicable).
 - 4.3. If the drug is being released to a person acting as the client's agent, the registered dental hygienist shall:
 - 4.3.1. provide the agent with the information, if the registered dental hygienist is satisfied that it is in the client's best interest to do so.
 - 4.3.2. where possible, communicate verbally by telephone with the client.
 - 4.3.3. confirm that the person is authorized to act as an agent for the client.

- 4.4. Verbal counseling shall be supplemented with written information when appropriate.
5. must monitor the client's response to drug therapy. Monitoring includes assessment of effectiveness, compliance and adverse reactions. Based on the monitored outcomes, the drug therapy may be continued, adjusted, or discontinued.
6. must provide documentation in the client's chart that is in a clear, concise, and easy to read format that includes, but is not limited to:
 - 6.1. date of interaction
 - 6.2. current client health history and drug profile
 - 6.3. drugs prescribed for the purposes of providing dental hygiene services: drug prescribed, dosage regime (strength, frequency and duration), and usage instructions
 - 6.4. non-prescription drugs recommended during the provision of dental hygiene services: drug name, dosage regime (strength, frequency and duration), and usage instructions
 - 6.5. drugs administered during the provision of dental hygiene services: drug name, drug strength, amount, route of administration, and post-operative instructions to client
 - 6.6. For Schedule 1 or Schedule 2 products that you "sell" to clients, you must also document the DIN number and a unique prescription or transaction number.
 - 6.7. rationale for particular drug therapy and recommendations
 - 6.8. client's response to drug therapy including: effectiveness, compliance, and adverse reactions
 - 6.9. plan to follow up if appropriate
 - 6.10. registered dental hygienist's initials
7. shall establish and/or participate in a drug error management program. (Refer to Appendix A: *Drug Error Management Guidelines*)
8. shall participate in Health Canada's post-market surveillance program of adverse drug reactions, the Canada Vigilance Program. (Refer to Appendix E: *Canada Vigilance Program*)
9. shall promote a collaborative approach to drug therapy within the health care team. To achieve the best outcomes from drug therapy, the involved health care professionals and clients must work together cooperatively and in partnership. Working together effectively requires trust, respect, good communication and mutual recognition, as well as understanding of each other's complementary roles. This shall include, but is not limited to the following:
 - 9.1. Communication amongst members of the client's health care team in accordance with ethical standards and legislation to protect client privacy.
 - 9.2. Contribution to improvement of the quality of client care, particularly continuity of care.
 - 9.3. Recognition that health care professionals involved with the client have complementary and supporting responsibilities in providing optimal drug therapy.

Guidelines for Prescribing Schedule 1 Drugs

All dental hygienists must be familiar with the basic concepts of prescription writing to ensure the safe use of medications and to provide appropriate and necessary drug therapy during the provision of dental hygiene services. Dental hygienist prescribers have the added responsibility of ensuring that each prescription meets the necessary legislated requirements that surround the issuance of a prescription.

Registered dental hygienists must meet the qualifications for and hold a prescriber's identification (ID) number in accordance with provincial regulations in order to prescribe Schedule 1 drugs. A prescriber's ID number will be issued by the CRDHA to registered dental hygienists who meet the CRDHA's educational and experiential requirements, including successful completion of the CRDHA's pharmacy refresher course, and who submit an application for a prescriber's ID number.

Prescribing procedures and activities carried out by registered dental hygienists are processes that are defined by the individual client needs, the competency and professional judgment of the registered dental hygienist, the information that is available to support informed decisions, the registered dental hygienist's relationship with other members of the client's health care team, and the code of ethics, standards of practice and guidelines established by the CRDHA. (Appendices B through D provide further information on issuance of prescriptions)

1. Registered dental hygienists in Alberta who hold a prescriber's ID number:
 - 1.1. Are authorized to prescribe drugs to clients for whom prophylactic antibiotic coverage is recommended.
 - 1.2. Are authorized to prescribe drugs to treat oral conditions which they can identify and manage.
 - 1.3. May utilize non-pharmacological and pharmacological approaches to manage oral conditions.
 - 1.4. Shall not prescribe drugs for themselves.
 - 1.5. Shall only prescribe drugs for family members if they are clients of record and it is needed specifically for oral health treatment.
 - 1.6. Shall not prescribe medications for off-label use unless the drug is part of a research project to investigate use of the drug to treat a documented dental hygiene need. The research project must have received ethics approval from a duly constituted health research ethics board.
 - 1.7. Shall ensure that drug therapy is based on evidence-based clinical practice.
 - 1.8. Shall select drug therapy based on knowledge of pharmacotherapy and consideration of factors, including, but not limited to:
 - 1.8.1. expected action or therapeutic outcome

- 1.8.2. recommended dosage and dosage adjustment for specific clients
- 1.8.3. common or serious adverse effects
- 1.8.4. client's health care objectives
- 1.8.5. client specific factors such as age, weight, gender, culture, medical conditions, concurrent medications, drug allergies
- 1.8.6. contraindications
- 1.8.7. drug interactions
- 1.8.8. dosage forms available
- 1.8.9. cost effectiveness
- 1.9. Shall utilize the client's health history. (Refer to Appendix G: *Client Health History*).
- 1.10. Shall access, utilize, and contribute to the client's complete drug profile.
- 1.11. Shall collaborate with physicians, pharmacists, dentists and other health care professionals as necessary to provide optimal drug therapy outcomes.
- 1.12. Shall discuss with the client (or agent) rationale for the selection of a particular drug, implications of using drug therapy, and expected outcomes and possible risks.
- 1.13. Shall prescribe a cost-effective drug therapy, whenever possible and appropriate.
- 2. Prescribing of drugs shall be consistent with professional, provincial, and federal legislation, standards and guidelines for the protection of the public. Including, but not limited to:
 - 2.1. Prescriptions, (both written and verbal), shall be prepared accurately, clearly and completely and in accordance with legislation, standards and guidelines. (Refer to Appendix B: *Issuing Accurate and Legal Prescriptions*).
 - 2.2. Issuance of faxed prescriptions shall be in accordance with provincial and federal legislation and these guidelines, ensuring that the following principles are maintained (Refer to Appendix D: *Faxing a Prescription* for further details):
 - 2.2.1. security
 - 2.2.2. client confidentiality
 - 2.2.3. integrity of distribution
 - 2.2.4. accuracy
 - 2.2.5. client choice
 - 2.3. Issuance of prescriptions for medications for professional office use shall be in accordance with provincial and federal guidelines. (Refer to Appendix B: *Issuing Accurate and Legal Prescriptions*).
 - 2.4. Issuance of a stop order for any previous prescriptions ordered by the dental hygienist (or another dental hygienist) that need to be cancelled. (Refer to Appendix B: *Issuing Accurate and Legal Prescriptions - Stop Orders*).
 - 2.5. Monitoring and documentation of prescribing decisions shall be in accordance with the legislation and the guidelines in this document.

Guidelines for Administering and Recommending Drugs

Administering and recommending drugs are essential components of dental hygiene practice for all registered dental hygienists in Alberta.

Procedures and activities related to administering and recommending drugs are processes that are defined by the individual client's needs, the competency and professional judgment of the registered dental hygienist, the information that is available to support informed decisions, the registered dental hygienist's relationship with other members of the client's health care team, and the code of ethics, standards of practice and guidelines approved by the CRDHA.

Administration of drugs is not a restricted activity under Schedule 7.1 of the Government *Organization Act* (GOA). A dental hygienist does not have to be an authorized prescriber to administer drugs during the provision of dental hygiene services — administration of prescription and non-prescription drugs include chlorhexidine irrigation, administration of local anaesthetic, topical fluoride application and administration of a bronchodilator during a medical emergency.

There may be instances when a dental hygienist would recommend a prescription drug. Following are two examples:

Example 1. During the development of a client's care plan, the dental hygienist **non-prescriber** may **identify** the need for prescription drugs, such as antibiotic premedication or chlorhexidine rinse. In this case, the dental hygienist collaborates with a prescriber (e.g., dentist, physician) to help the client obtain the necessary drug, providing the rationale and assessment data that has led the dental hygienist to this determination.

Example 2. During the development of a client's care plan, a dental hygienist **prescriber** may determine that a drug that dental hygienists are not authorized to prescribe, such as systemic antifungals, may be the best course of action for the client. In this case, the dental hygienist collaborates with a prescriber who is authorized to prescribe the drug (e.g., dentist, physician) providing the rationale and assessment data that has led the dental hygienist to this determination.

As always, the final decision to prescribe any drug lies with the prescriber.

1. Registered dental hygienists in Alberta:
 - 1.1. Shall utilize the client's health history (Refer to Appendix G: *Client Health History*)
 - 1.2. Shall recognize the need for prophylactic antibiotic coverage in clients for whom it is recommended.
 - 1.3. Shall recognize the need for drug therapy for the treatment of oral conditions which they can identify and manage.
 - 1.4. May administer and recommend prescription drugs to treat oral conditions which they can identify and manage.

- 1.5. May administer and recommend non-prescription drugs to treat oral conditions which they can identify and manage.
- 1.6. May utilize non-pharmacological and pharmacological approaches to manage oral conditions.
- 1.7. Shall ensure that drug therapy administered or recommended is based on commonly accepted dental hygiene practice.
- 1.8. Shall collaborate with physicians, pharmacists, dentists and other health care professionals as necessary to provide optimal drug therapy outcomes.
- 1.9. Shall discuss with the client (or agent) rationale for the selection of a particular drug, implications of using drug therapy, and expected risks and outcomes.
- 1.10. Shall monitor and document their administration of drugs in accordance with any applicable federal or provincial legislation and the guidelines in this document.

Guidelines for Selling Prescription and Non-Prescription Drugs

In the *Government Organization Act Schedule 7.1 - Health Services Restricted Activities*, the term “sell” includes:

- distribute, trade or barter for money or other valuable consideration,
- distributing and giving away without expectation or hope of compensation or reward,
- keeping for sale, and
- offering for sale.

PRESCRIPTION DRUGS (SCHEDULE 1)

When a pharmacy cannot be accessed by the client, or special circumstances exist, the drug (full prescription) may be given or sold to the client from stock held by the practitioner. In these instances, the registered dental hygienist shall:

1. Sell prescription drugs in accordance with local, provincial, and federal legislation and guidelines.
2. Verify any calculations used to determine the dosage regimen.
3. Ensure that a competent second person confirms the accuracy of the product being sold and documents that confirmation.
4. Not sell expired or recalled prescription drugs.
5. Not sell prescription drugs that will expire prior to the client completing the recommended course of therapy.
6. Consult with the pharmacist to ensure a complete drug profile is maintained.
7. Ensure that prescription drugs are in the most appropriate package to ensure stability.
8. Ensure that client and prescription information is recorded and filed systematically and accurately.
9. Retain prescription records in accordance with the applicable federal and provincial legislation, practice standards, and these guidelines.
 - 9.1. The required length of time for record retention can vary based on each individual client situation. This can be due to the environment in which you practice (e.g., private practice or a hospital) or who is reimbursing you for the provision of services (e.g., private insurance or Alberta Health Care). Unless legislation requires retention for a longer period of time, (e.g. the Health Information Act), prescription records must be retained for **at least two years past the completion of therapy** (including refills) or for **42 months** (3 ½ years) whichever is greater.
10. Ensure that labelling of prescription drugs sold in-office is in accordance with applicable legislation and standards, including Health Canada’s Food and Drugs Act, the Standards and the Alberta College of Pharmacists’s (ACP’s) Labelling Standards for Prescription Drugs.
 - Health Canada’s labelling requirements for prescription drugs are found in the Regulations to the Food and Drugs Act and in the Guide for the Labelling of Drugs for Human Use.
 - ACP’s most up-to-date labelling standards can be found on their web-site.
11. Be responsible for handing the drug directly to the client or client’s agent.

NON-PRESCRIPTION DRUGS (SCHEDULES 2, 3 & UNSCHEDULED)

The registered dental hygienist shall:

1. Sell non-prescription drugs in accordance with local, provincial, and federal legislation and guidelines to aid in the achievement of their client's oral health goals.
 - 1.1. **Schedule 2 Drugs:** The drugs listed in Schedule 2 do not require a prescription as a condition of sale. Schedule 2 drugs are less strictly regulated, but do require professional intervention with an appropriately qualified healthcare practitioner. These items must be sold from an area to which there is no public access and no opportunity for client self-selection.
 - 1.2. **Schedule 3 Drugs:** are suitable for client self-selection, but may pose risks for certain groups of people and should be sold where an appropriately qualified healthcare practitioner is available to provide advice when required.
 - 1.3. **Unscheduled Drugs:** can be sold without professional supervision. Labelling is believed sufficient to ensure that the client makes a safe and effective choice and uses the drug appropriately.
2. Ensure that client and non-prescription drug information is recorded and filed systematically and accurately.
3. Not sell expired and recalled non-prescription drugs.
4. Not sell non-prescription drugs that will expire prior to the client completing the recommended course of therapy.
5. Ensure that non-prescription products that are re-packaged and sold in-office to the client will be labelled in accordance with applicable legislation and the Alberta College of Pharmacists Labelling Standards. (Refer to Appendix F: *Labelling Standards* for further information)
6. Ensure that labelling on non-prescription products provided directly from the manufacturer are in accordance with labelling standards (Refer to Appendix F: *Labelling Standards* for further information)

Remember: The authority to perform the restricted activity “providing for sale or selling” does not mean that registered dental hygienists will now be able to sell drugs in the same manner as pharmacists. There is no intent for dental hygienists to establish store front sales centers for prescription or non-prescription drugs used in providing dental hygiene services. The authorization to provide for sale or sell is merely intended to provide flexibility to meet client needs where a pharmacy is not readily accessible or client compliance is an issue.

Guidelines for Storage and Disposal of Drugs

The registered dental hygienist shall:

1. Acquire, store and dispose of prescription and non-prescription drugs in accordance with local, provincial, and federal legislation and guidelines.
2. Be knowledgeable about proper storage and disposal of prescription and non-prescription drugs utilized for dental hygiene purposes.
3. Accept (or arrange for) the return of unused prescription medications, (prescribed by the registered dental hygienist) from the client for safe and proper disposal.
4. Remove unusable, outdated, mislabelled or deteriorated drugs and those subject to recall and store them in a separate area until they can be safely disposed.

Appendix A: Drug Error Management Guidelines

(revised December 2007)

Incorporating a drug error management program into your practice is an important risk reduction and error prevention strategy. The program assists in evaluating drug therapy services and provides an opportunity to institute positive changes that will minimize the likelihood of a recurrence of an error. In order to maximize client safety and minimize the risk of drug errors, **all** health care providers in your practice setting should participate in this program.

In keeping with the focus on interdisciplinary collaboration, it is recommended that dental hygienists participate in a drug error management program that closely reflects the expectations of the Alberta College of Pharmacists (ACP) and the College of Physicians and Surgeons of Alberta (CPSA). Consistency with processes used by Alberta's physicians and pharmacists allows for better analysis and information sharing with other health care professionals. The following process and sample form have been adapted from ACP's Practice Standards and Drug Error Management guidelines, which are posted on ACP's website, www.pharmacists.ab.ca.

PROCESS FOR MANAGING DRUG ERRORS

Drug error management is a three-step process:

1. Implement procedures to prevent drug errors.
2. Employ corrective measures when an error has occurred.
3. Report incident to the appropriate agencies.

Implement Procedures

Prevention strategies or procedures to prevent and reduce drug errors are often low-cost and practical initiatives that are easy to implement. An example is separating look-alike drugs in the storage room or in the operatories. Other approaches, in particular those that may be used in regional health care facilities such as hospitals and continuing care centres, may require major operational changes throughout the organization as well as significant financial expenditure.

Policies and procedures, at a level appropriate to the practice environment, should address the corrective measures and how to report drug errors.

Employ Corrective Measures

Corrective measures include investigating, evaluating, and documenting drug errors. If a client experiences harm due to a drug error, full and complete disclosure must occur. The Health Quality Council of Alberta (HQCA) defines harm as "an unexpected or normally avoidable outcome that negatively affects the patient's health and/or quality of life, which occurs or occurred in the course of health care treatment and is not due directly to the patient's illness".

Investigating Drug Errors

All drug errors should be investigated. The investigation process depends on the severity and extent of the drug error. Importantly, the investigation should occur in a timely manner to reduce the risk of a repeat incident. Part of this investigation process is having a mechanism in place to obtain feedback on the error, and if necessary, incorporate or evaluate any procedural changes.

All drug errors that occur in the practice setting should be conveyed to the owner (or designate) of the practice setting (e.g., dentist in private practice office or unit manager in a hospital setting). The client must be contacted immediately and told about the drug error as well as actions that need to be taken.

Evaluating Drug Errors

Two types of evaluation must occur. One evaluation occurs when a drug error is discovered and the other evaluation occurs after corrective action has been implemented.

1. Identify the necessary action to be taken as a result of the error. Use the results of the evaluation as an educational tool within the practice environment, with the ultimate goal of improving client safety and minimizing the risk of errors as it relates to drug therapy.
2. Determine whether the implemented action was successful in achieving the desired outcome. Drug error reports should be reviewed regularly (e.g., quarterly) with all health care providers to determine if the changes were successful in decreasing errors or if further interventions are required.

Documenting Drug Errors

Once verified, the error must be documented, including the factors that contributed to the drug error. Use the Drug Error Report form at the end of this appendix or a similar form.

The following is a list of documentation requirements:

- All known drug errors must be documented within 24 hours of the time of discovery.
- The health care provider responsible for discovering the drug error shall complete and sign a drug error report as soon as possible after the discovery.
- Reports should only contain known facts. Subjective comments should not be included in the report.
- This documentation must be in a format that can be easily audited and reviewed. It is recommended to keep the documentation for ten years.
- The Drug Error Report is used for all types of drug errors, including drug incidents and drug discrepancies (near misses). You may choose to store completed drug discrepancy reports separately from drug error/incident reports.

Report Incidents

Reporting requirements depends on the drug error severity and whether an adverse drug reaction occurred due to the drug error. Two types of reporting forms are used to report incidents: Drug Error Report and Adverse Drug Action Report. Use the reporting form required by each agency; for example, Health Canada (adverse drug reaction) and the Institute for Safe Medication Practices (ISMP) Canada (drug error) each have a customized Report. Review the information in the next table for reporting drug errors.

Reporting Drug Errors

Drug Severity	Drug Reaction Type	Report To
Critical Incident or Adverse Outcome	Adverse reaction-all types excluding idiosyncratic	CRDHA* Health Canada ISMP (optional) ♦
	Idiosyncratic reaction	CRDHA* Health Canada Drug Manufacturer ISMP (optional) ♦

Drug Severity	Drug Reaction Type	Report To
Critical Incident or Adverse Outcome (cont'd)	None	CRDHA*
Non-Critical Incident Non-Critical Incident (cont'd)	Adverse reaction-all types excluding idiosyncratic	Practice Setting† Health Canada ISMP (optional) ♦
	Idiosyncratic reaction	Practice Setting† Health Canada Drug Manufacturer ISMP (optional) ♦
	None	Practice Setting†
<p>* Submit initial report as soon as possible. Submit final report upon conclusion of investigation. Report information requirements are provided in the next section.</p> <p>♦ Further details about the Institute for Safe Medication Practices (ISMP) are found on pages 23 and 24.</p> <p>†Practice Setting may have set protocol to follow regarding reporting of both critical and non-critical incidents. You may need to report to an individual or department.</p>		

Although this section deals strictly with drug errors and the adverse reactions that may arise from these errors, it is important to remember that clients may have adverse drug reactions that are not due to drug errors. The definition of **adverse drug reaction** (page 3) provides information about when to report these adverse drug reactions to Health Canada. To determine if adverse drug reactions that are **not** the result of a drug error require the submission of an **incident report** to CRDHA, use the three definitions below.

Incident Report Requirements

Any critical incidents or adverse outcomes require that a written incident report is completed and submitted to the CRDHA forthwith. Incident reports must include the following:

1. Name, age, and sex of the person involved
2. Name of witness(es) to the incident
3. Date and name of procedure
4. Nature of the incident and treatment rendered
5. Analysis of reason(s) for the incident
6. Outcome

Use the following definitions when determining how to report drug errors:


Adverse Outcome: A harmful event for a client or personnel, where transfer to hospital with or without admission was necessary. In the event of a critical incident or adverse outcome of any kind, a written incident report must be completed and reported to the CRDHA forthwith.

Critical Incident: An event creating a substantial risk of serious health or safety consequences. In the event of a critical incident or adverse outcome of any kind, a written incident report must be completed and reported to the CRDHA forthwith.

Idiosyncratic Reaction: An unusual response to a drug that differs qualitatively from its usual, expected response.

Appendix A, Cont'd

The following is a sample drug error reporting form that may be used.

	COLLEGE OF REGISTERED DENTAL HYGIENISTS OF ALBERTA	<h3 style="margin: 0;">Drug Error Report</h3>						
<p>Error Date: <input type="checkbox"/> AM <input type="checkbox"/> PM / / /</p> <p style="text-align: center; font-size: small;">Time Day Month Year</p> <p>Discovery Date: <input type="checkbox"/> AM <input type="checkbox"/> PM / / /</p> <p style="text-align: center; font-size: small;">Time Day Month Year</p> <p>DH Prescriber Involved: _____</p> <p>Reported By: _____</p> <p style="text-align: center; font-size: small;">Name Title</p>		<p>CLIENT INFORMATION</p> <p>First Name: _____ Last Name: _____</p> <p>Address: _____</p> <p>Date of Birth: _____ Sex: _____</p> <p>Telephone: _____</p>						
<p>PRESCRIPTION ISSUED</p> <p><i>State drug, dosage regimen (strength, frequency, duration), dosage form, route, directions for use. (Can attach copy of prescription issued.)</i></p> <p>_____</p>								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">ERROR TYPE</th> <th style="width: 35%; text-align: center;"><input type="checkbox"/> CLIENT INGESTED DRUG</th> <th style="width: 35%; text-align: center;"><input type="checkbox"/> CLIENT DID NOT INGEST DRUG</th> </tr> <tr> <td style="vertical-align: top;"> <input type="checkbox"/> Incorrect dose <input type="checkbox"/> Incorrect dosage form <input type="checkbox"/> Incorrect drug <input type="checkbox"/> Incorrect quantity </td> <td style="vertical-align: top;"> <input type="checkbox"/> Incorrect client <input type="checkbox"/> Incomplete prescription <input type="checkbox"/> Incorrect generic selection <input type="checkbox"/> Incorrect brand selection </td> <td style="vertical-align: top;"> <input type="checkbox"/> Incorrect label or directions for use <input type="checkbox"/> Drug unavailable <input type="checkbox"/> Known Allergic Drug Reaction (missed) <input type="checkbox"/> Drug interaction (missed) (drug-drug, drug-food, drug-disease) </td> </tr> </table>			ERROR TYPE	<input type="checkbox"/> CLIENT INGESTED DRUG	<input type="checkbox"/> CLIENT DID NOT INGEST DRUG	<input type="checkbox"/> Incorrect dose <input type="checkbox"/> Incorrect dosage form <input type="checkbox"/> Incorrect drug <input type="checkbox"/> Incorrect quantity	<input type="checkbox"/> Incorrect client <input type="checkbox"/> Incomplete prescription <input type="checkbox"/> Incorrect generic selection <input type="checkbox"/> Incorrect brand selection	<input type="checkbox"/> Incorrect label or directions for use <input type="checkbox"/> Drug unavailable <input type="checkbox"/> Known Allergic Drug Reaction (missed) <input type="checkbox"/> Drug interaction (missed) (drug-drug, drug-food, drug-disease)
ERROR TYPE	<input type="checkbox"/> CLIENT INGESTED DRUG	<input type="checkbox"/> CLIENT DID NOT INGEST DRUG						
<input type="checkbox"/> Incorrect dose <input type="checkbox"/> Incorrect dosage form <input type="checkbox"/> Incorrect drug <input type="checkbox"/> Incorrect quantity	<input type="checkbox"/> Incorrect client <input type="checkbox"/> Incomplete prescription <input type="checkbox"/> Incorrect generic selection <input type="checkbox"/> Incorrect brand selection	<input type="checkbox"/> Incorrect label or directions for use <input type="checkbox"/> Drug unavailable <input type="checkbox"/> Known Allergic Drug Reaction (missed) <input type="checkbox"/> Drug interaction (missed) (drug-drug, drug-food, drug-disease)						
<p>STATE THE FACTS SURROUNDING THE ERROR</p> <p><i>Do not include supposition or subjective findings. To be completed by the dental hygienist involved with the error. Include contributing factors, treatment rendered, analysis of the incident, and the client outcome.</i></p> <p>_____</p> <p>_____</p> <p>_____</p>								
<p>Notification</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Client Notified <input type="checkbox"/> AM <input type="checkbox"/> PM / / /</p> <p style="text-align: center; font-size: small;">Time Day Month Year</p> <p>2. Pharmacy Notified <input type="checkbox"/> AM <input type="checkbox"/> PM / / /</p> <p style="text-align: center; font-size: small;">Time Day Month Year</p> </div> <div style="width: 50%;"> <p><input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> PHONE <input type="checkbox"/> IN PERSON <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> PHONE <input type="checkbox"/> IN PERSON <input type="checkbox"/> FAX</p> </div> </div>								
<p>SEVERITY</p> <p><input type="checkbox"/> None No change in client's condition; no medical intervention required</p> <p><input type="checkbox"/> Minor Produced a temporary systemic or localized response; no ongoing complications</p> <p><input type="checkbox"/> Major Required immediate medical intervention</p>								
<p>INVESTIGATION OF DRUG ERROR</p> <p><i>Identify the problem.</i></p> <p>_____</p> <p>_____</p>								
<p>CORRECTIVE ACTION</p> <p><i>Indicate all that apply.</i></p> <p><input type="checkbox"/> Education to be provided _____</p> <p><input type="checkbox"/> Policy/procedure change needed _____</p> <p><input type="checkbox"/> System change needed _____</p> <p><input type="checkbox"/> Communicate corrective action with staff _____</p> <p>_____</p> <p style="text-align: center; font-size: small;">Time Day Month Year Signature of Registered Dental Hygienist completing form</p>								
To be completed quarterly	<p>EVALUATION</p> <p><i>Was corrective action successful?</i></p> <p>_____</p> <p style="text-align: center; font-size: small;">Time Day Month Year Signature of Reviewer</p>							

Retain for 10 (ten) years from Discovery Date

Appendix B: Issuing Accurate and Legal Prescriptions

(revised December 2007)

Prescriptions can be issued in two formats: written (which can be faxed) and verbal.

Required Elements of Prescriptions

The following required elements apply to prescriptions completed for an individual client or for professional office use. In accordance with the Regulations to the Food and Drug Act, provincial regulation and these guidelines, a complete prescription must include:

- Name and address of client (identification of client)
- Drug name and strength, if applicable
- Route of administration, if applicable
- Quantity of drug to be dispensed
- Directions for use
- Number of refills authorized and interval between each refill, if applicable
- Prescriber's signature (for written)
- Prescriber's ID number
- Prescriber's name, address, and phone number, which can be pre-printed on the prescription form or legibly handwritten beneath the signature
- Date prescribed

In addition to the required elements for all prescriptions, facsimile transmissions **must** have the following:

- Prescriber's fax number
- Time and date of transmission
- Name and fax number of the pharmacy intended to receive the transmission
- Signed certification that:
 - (1) the prescription represents the original of the prescription drug order
 - (2) the addressee is the only intended recipient and there are no others
 - (3) the original prescription will be invalidated, securely filed, and retained so that it cannot be re-issued.

Recommended Elements

In addition to the required elements for all forms of prescriptions, it is recommended that written prescriptions also contain the client's date of birth and telephone number.

Where appropriate, it is good practice to include on the prescription the reason for therapy or the expected outcome of therapy. A clear understanding about the objectives of therapy allows the pharmacist to complement the prescriber's role through more focused counseling.

Client Identification

You must clearly identify the client so that the drug is delivered to the correct person. Identification must include the client's surname, given name and address. To prevent confusion between people with the same name, add other identifying features, such as the client's date of birth, sex, or telephone number.

All these features will aid the pharmacist in confirming the identity of the client. Date of birth, although not a required element, should be included in most instances, since this helps the pharmacist to confirm the proper dosage regimen. This is particularly significant for prescriptions issued to pediatric or geriatric clients.

A prescription must be issued only for one person. For example, if two people in the same family are to receive the same prescription drug, two separate prescriptions must be issued.

Prescription Pad

Forms must be large enough to contain complete information for each prescription.

Verbal Prescriptions

Recent literature on drug safety has highlighted two practices that are error-prone: the use of verbal prescriptions and the communication of a prescription to a pharmacist through an intermediary (Lesar, 2003 Nov., and Koczmar, Jelincic & Perri, 2006). Verbal or telephone prescriptions can be more easily misheard, misinterpreted, or transcribed incorrectly. In addition, the use of an intermediary to issue a verbal prescription may increase the potential for errors. It is due to these two safety concerns that CRDHA continues to uphold the following stipulations for the use of verbal or telephone prescriptions. These types of prescriptions:

1. Must be used only in emergent or urgent situations that call for immediate action or attention.
2. Can be exchanged between qualified practitioners *only* (e.g., from the dental hygienist prescriber to the pharmacist, but not from the receptionist to the pharmacist). Verbal communication between the pharmacist and the prescriber helps ensure client safety and minimizes errors.

To help minimize errors with verbal prescriptions, follow these recommended procedures:

1. Give your prescriber's ID number to the pharmacist to confirm your identity as a prescriber.
2. Ensure that you state all the required elements of a prescription clearly to the pharmacist.
3. Spell out the drug names, however simple.
4. Say and spell numbers that are prone to confusion. For example, numbers such as fifteen (15) and sixteen (16) may be heard as fifty (50) and sixty (60).
5. Ensure your availability by phone or other communication methods in case the pharmacist needs to confirm or clarify the prescription.

Drugs for Professional Use In-Office

Prescription drugs may be required for professional office use. All required elements must be present in prescriptions issued for this purpose. With these prescriptions, record the “indication for use” as “for office use”. The pharmacist will enter the prescription in a record bearing the dental hygienist prescriber’s name.

Stop Orders

As part of the evaluation process, you may determine that a prescribed drug is no longer appropriate for the client (e.g., the client is not responding to the prescribed drug or the clinical need is no longer present). You may decide to discontinue use of that drug with or without prescribing an alternative drug. A stop order directs the pharmacist to no longer dispense any of the remaining drug.

A dental hygienist prescriber can put a stop order on a prescription issued personally or by another dental hygienist prescriber. Dental hygienist prescribers **must not** place stop orders on prescriptions issued by physicians, dentists or other health care providers.

All requirements of a prescription must be met when issuing a stop order on a drug. You can place a stop order by informing the client’s pharmacist in writing or by telephone.

Documentation indicating that you have placed a stop order on a previous prescription must be included in the client chart. This documentation must include the reason for the stop order.

Appendix C: Reducing Risk of Drug Errors

(revised December 2007)

As a dental hygienist, you can do your part to prevent or reduce drug errors as you work collaboratively with other members of the client's healthcare team to ensure the safe use of drugs. The goal is to maintain the integrity of drug distribution and reduce or prevent adverse drug events.

Significance to Dental Hygiene Practice

- When confirming health history information, dental hygienists should confirm they have accurately listed the drugs, concomitant drug therapies, and client conditions. This will ensure that any possible contraindications for treatment, potential side-effects, etc. will not be missed. Gathering inaccurate information about the client could have serious adverse effects, such as incorrect conclusions about possible drug interactions (e.g., drug-drug or drug-food).
- Potential prescribing errors will be minimized if the prescribing dental hygienist takes precautions to minimize confusion.

Prescription Handwriting

Handwritten prescriptions must be accurate and legible. Legible penmanship and accurate spelling are essential. Use the following suggestions to improve the accuracy and legibility of your written prescriptions.

- Ensure all information on the prescription is accurate before issuing it to the client.
- Print your name legibly underneath your signature on each prescription.
- Make your prescription order "alteration proof" by using non-erasable ink.
- Take your time. Write slowly.
- Correct errors in the same manner as all documentation corrections.
- Print. Do not write.
- Print the drug name in block letters.
- Consider using a computer and commercially available prescription writing software.
- Use pre-printed prescription blanks for selected items

Practice Tip:

It is best to print rather than write to ensure legibility.

Drug Identification - Homonyms

Look-alike/sound-alike (LA/SA) health product names refer to names of different health products that have similarities when written or spoken. This name confusion may exist between two trade names, two generic names, or between brand and generic names. Statistics show that name confusion accounts for one of every four medication errors and that one of the most frequent causes of dispensing errors (29%) is due to look-alike/sound-alike (LA/SA) product names.

Clearly, mix-ups may result in serious consequences. To help minimize confusion, follow these guidelines when issuing prescriptions:

- Remain current in your awareness of LA/SA drug names.

- Print the full drug name in block letters; **do not abbreviate**. For drugs that are commonly mistaken, you can further reduce confusion by writing prescriptions with both the brand and generic name, if appropriate.
- Clearly specify the dosage regimen and complete directions for use to help the pharmacist differentiate between drugs.
- Include the “indication for use” to help the pharmacist differentiate between two or more possible drugs. In most cases, drugs that look or sound similar are used for different purposes.
- When issuing a verbal prescription, spell the name of the drug.

Examples of look-alike sound-alike (LA/SA) drugs are provided below:

Look-Alike And Sound-Alike Drug Examples	
Clonazepam and Clorazepate	Lasix and Losec
Ceftin and Coptin and Capoten	Nifedipine and Felodipine
Chlorhexidine and Chlorpromazine	Metronidazole and Metoprolol
Ditropan and Diazepam	Nitroglycerin and Glycerin
Decadron and Percodan	Pilocarpine and Proparacaine
Demerol and Demulen	Salagen and Selegiline
Elavil and Enbrel	Norvasc and Vasotec
Ephedrine and Epinephrine	Zantac and Xanax

The list below provides you with a few resources that can provide additional strategies to help minimize the risk of LA/SA name mix-ups.

Description	Resource
Health Canada has information regarding LA/SA names on its website, including an entire section entitled <i>Look-Alike Sound-Alike Health Product Names</i> .	http://www.hc-sc.gc.ca/dhp-mps/brgtherap/proj/alike-semblable/index_e.html
A helpful fact sheet for clients and health care providers.	www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/brgtherap/lasa-pspcs_factsheet-faitsaillant_e.pdf (or e.html)
Send your questions regarding LA/SA health products directly to Health Canada.	Email: BPTD_PPD_DPP@hc-sc.gc.ca Phone: (613) 954-1798
ISMP's <i>List of Confused Drug Names</i> . Safety bulletins are also released on ISMP's web-site as other LA/SA drugs are identified.	http://www.ismp.org/Tools/confuseddrugnames.pdf
JCAHO provides a list of the most problematic look-alike/sound-alike drug names for specific health care settings. Strategies that can be implemented are also included. Reviewed annually by JCAHO.	http://www.jointcommission.org/NR/rdonlyres/C92AAB3F-A9BD-431C-8628-11DD2D1D53CC/0/lasa.pdf

Correct Use of Abbreviations

Incorrect use and misinterpretation of abbreviations are common sources of drug errors. Commonly misinterpreted abbreviations should not be used when communicating medical or dental information. This includes in-office communications and all forms of prescriptions and labels. Employ these abbreviation strategies in all forms of communications:

- Use only the metric system of weights and measures when issuing prescriptions.
- Never abbreviate drug names.
- Avoid using abbreviations, symbols, and dose designations that are frequently misinterpreted. Only the most common Latin abbreviations should appear on the prescription (e.g. “sig”).
- *When in doubt, write it out.*

The ***Institute for Safe Medication Practices*** provides updated lists regarding abbreviations, symbols, and dose designations that have contributed to medication errors. For further information, please go to <http://www.ismp.org> or <http://www.ismp-canada.org>. The following **error-prone abbreviations, symbols and dose designations**, although not an exhaustive list, have been identified as ones that may affect dental hygienist prescribers and should be considered for handwritten, pre-printed, and electronic forms of communication:

Abbreviations	Intended Meaning	Misinterpretation	Correction
µg	Microgram	Mistaken as “mg”	Use “mcg”
BT	Bedtime	Mistaken as “BID” (twice daily)	Use “bedtime”
cc	Cubic centimeters	Mistaken as “u” (units)	Use “mL”
D/C	Discharge or discontinue	Premature discontinuation of medications if D/C (intended to mean “discharge”) has been misinterpreted as “discontinued” when followed by a list of discharge medications	Use “discharge” and “discontinue”
IJ	Injection	Mistaken as “IV” or “intrajugular”	Use “injection”
IN	Intranasal	Mistaken as “IM” or “IV”	Use “intranasal” or “NAS”
HS	Half-strength	Mistaken as bedtime	Use “half-strength” or “bedtime”
hs	At bedtime, hours of sleep	Mistaken as half-strength	
IU**	International unit	Mistaken as IV (intravenous) or 10 (ten)	Use “units”
o.d. or OD	Once daily	Mistaken as “right eye” (OD-oculus dexter), leading to oral liquid medications administered in the eye	Use “daily” or “every day”
Per os	By mouth, orally	The “os” can be mistaken as “left eye” (OS-oculus sinister)	Use “PO,” “by mouth,” or “orally”
q.d. or QD**	Every day	Mistaken as q.i.d., especially if the period after the “q” or the tail of the “q” is misunderstood as an “i”	Use “daily” or “every day”

Abbreviations	Intended Meaning	Misinterpretation	Correction
qhs	Bedtime	Mistaken as “qhr” or every hour	Use “at bedtime”
qn	Nightly	Mistaken as “qh” (every hour)	Use “at bedtime” or “nightly”
q.o.d. or QOD**	Every other day	Mistaken as “q.d.” (daily) or “q.i.d. (four times daily) if the “o” is poorly written	Use “every other day”
q1d	Daily	Mistaken as q.i.d. (four times daily)	Use “daily”
q6PM, etc.	Every evening at 6 PM	Mistaken as every 6 hours	Use “6 PM nightly” or “6 PM daily”
SC, SQ, sub q	Subcutaneous	mistaken as SL (sublingual); SQ mistaken as “5 every;” the “q” in “sub q” has been mistaken as “every” (e.g., a heparin dose ordered “sub q 2 hours before surgery” misunderstood as every 2 hours before surgery)	Use “subcut” or “subcutaneously”
i/d	One daily	Mistaken as “tid”	Use “1 daily”
TIW or tiw	3 times a week	Mistaken as “3 times a day” or “twice in a week”	Use “3 times weekly”
U or u **	Unit	Mistaken as the number 0 or 4, causing a 10-fold overdose or greater (e.g., 4U seen as “40”; or 4u seen as “44”); mistaken as “cc” so dose given in volume instead of units (e.g., 4u seen as 4cc)	Use “unit”

Dose Designations & Other Information	Intended Meaning	Misinterpretation	Correction
Trailing zero after decimal point (e.g., 1.0 mg)**	1 mg	Mistaken as 10 mg if the decimal point is not seen	1 mg; do not use trailing zeros for doses expressed in whole numbers
No leading zero before a decimal dose (e.g., .5 mg) **	0.5 mg	Mistaken as 5 mg if the decimal point is not seen	0.5 mg; use a zero before a decimal point when the dose is less than a whole unit
Drug name and dose run together (especially for problematic for drug names that end in “L” such as Inderal40 mg; Tegretol300 mg)	Inderal 40 mg Tegretol 300 mg	Mistaken as Inderal 140 mg Mistaken as Tegretol 1300 mg	Place adequate space between the drug name, dose, and unit of measure
Numerical dose and unit of measure run together (e.g., 10mg, 100mL)	10 mg 100 mL	The “m” is sometimes mistaken as a zero or two zeros, risking a 10- to 100-fold overdose	Place adequate space between the dose and unit of measure

Dose Designations & Other Information	Intended Meaning	Misinterpretation	Correction
Abbreviations such as mg. or mL. with a period following the abbreviation	mg mL	The period is unnecessary and could be mistaken as the number 1 if written poorly	Use mg, mL, etc. without a terminal period
Large doses without properly placed commas (e.g., 100000 units; 1000000 units)	100,000 units 1,000,000 units	100000 has been mistaken as 10,000 or 1,000,000; 1000000 has been mistaken as 100,000	Use commas for dosing units at or above 1,000, or use words such as 100 "thousand" or 1 million" to improve readability

Symbols	Intended Meaning	Misinterpretation	Correction
3 ℥	Dram Minim	Symbol for dram mistaken as "3" Symbol for minim mistaken as "mL"	Use the metric system
x3d	For three days	Mistaken as "3 doses"	Use "for three days"
> and <	Greater than and less than	Mistaken as opposite of intended; mistakenly use incorrect symbol; "< 10" mistaken as "40"	Use "greater than" or "less than"
/ (slash mark)	Separates two doses or indicates "per"	Mistaken as the number 1 (e.g., "25 units/10 units" misread as "25 units and 110 units")	Use "per" rather than a slash mark to separate doses
@	At	Mistaken as "2"	Use "at"
&	And	Mistaken as "2"	Use "and"
+	Plus or and	Mistaken as "4"	Use "and"
°	Hour	Mistaken as a zero (e.g., q2° seen as q 20)	Use "hr," "h," or "hour"
<p>** Identified abbreviations in all sections are also included on the USA Joint Commission on Accreditation for Healthcare Organization's "minimum list" of dangerous abbreviations, acronyms and symbols that must be included on an organization's "Do Not Use" list, effective January 1, 2004. Further information can be found on their website at www.jcaho.org.</p>			
<p>Revised from: Institute for Safe Medication Practices. (March 2004). <i>ISMP List of Error-Prone Abbreviations, Symbols, and Dose Designations</i>. ISMP</p>			

Date

The date allows the pharmacist to identify prescriptions that have not been filled at the time of issuance. You may want to indicate a cut-off date after which the prescription may not be filled or renewed.

Directions for use

As noted earlier, “complete directions for use” is a required component of all prescriptions. Placing the indication for use in the directions benefits the client, the pharmacist and the prescriber.

“**As Directed**” is not considered an acceptable direction for use. Complete directions for use consists of statements like “Take one tablet every four hours as needed for dental pain.”

Three important reasons for the requirement that complete directions for use are mandatory are:

1. Verbally communicated instructions (directions) for drug use to clients may not be recalled precisely and accurately.
2. Complete written directions (e.g., take 1 tablet daily) enable the pharmacist to counsel the client and reinforce the prescriber’s instructions.
3. Complete written directions help pharmacists maintain client profiles of information about prescriptions dispensed, directions for use, medical conditions and other pertinent information.

Dosage Regimen

The client’s sex, age, renal and hepatic function, body size, and state of health should be considered when determining the dosage regimen (strength, frequency, and duration) for the client.

Many drug products exist in different strengths. As a prescriber, you are encouraged to consult a drug reference guide to determine which strengths are available for use. When specifying the dosage, the prescriber must clearly indicate the strength of the drug as well as the quantity per dose and the route of administration. Ambiguity in this area is a frequent cause of error.

The total quantity of the drug dispensed indicates the **duration of therapy**. The duration of therapy is determined in one of two ways:

Method 1: Use both the DISP and SIG lines. Duration of therapy is determined by the total quantity of drug to be dispensed (e.g., 20 tablets) along with the “Sig”: information (e.g., take 1 tablet daily)

Method 2: Use only the SIG line with time indicated. Duration of therapy is determined by the period of time indicated in the “Sig”: (e.g., one tablet three times a day for 10 days). In this second method, the Disp line is eliminated since “for 10 days” identifies the duration of therapy.

When writing prescriptions, avoid using trailing zeros (For example, when a dose is written as 1.0 mg the decimal point may not be seen and the dose may be interpreted as 10 mg. The dose should be written as 1 mg. Similarly, when quantities less than one are written, use a leading zero to avoid errors. A dosage of .5 mg. may be seen as 5 mg. The dose should be written as 0.5 mg. Refer to the list under “Abbreviations” for further examples).

Refills

Refills for drugs prescribed by dental hygienists are not routinely required. When there is a documented dental hygiene need, and current drug therapy is achieving a desired therapeutic response, refills, if permitted by law, can be indicated on the prescription. The total quantity of the prescription must be written. Pharmacists can only dispense the total quantity. However, specified quantities may be dispensed at prescribed intervals.

Dental hygienist prescribers should utilize the following criteria to determine whether a refill is indicated:

- Is there a documented clinical need that the drug is addressing or can address?
- Is the current drug therapy achieving the desired result?
- Is the client experiencing any adverse effects from this drug use? (Issuing a prescription with refills should only be considered if the client is **not** experiencing adverse effects)
- Will continuation of this drug therapy be required long term to maintain the desired results?
- Is the dosage of the drug stable (i.e. the dosing has not recently changed nor is predicted to change in the foreseeable future)

As noted previously, under prescription requirements, if a refill is indicated, the dental hygienist prescriber must include the following refill information: number of refills authorized and interval between each refill, if applicable.

Appendix D: Faxing a Prescription

(revised December 2007)

The facsimile transmission (faxing) of a prescription for any drug is acceptable if the principles of security, client confidentiality, integrity of distribution, accuracy, and client choice are maintained. Follow these procedures to ensure the principles are preserved:

1. Send the prescription to one pharmacy only.
2. Send the prescription to a licensed or publicly funded pharmacy of the client's choice, with no intervening person having access to the prescription drug order.
3. Send the prescription directly from the prescriber using a secure, confidential, reliable and verifiable fax machine. In this instance, verifiable means that the information included on a faxed prescription must allow the pharmacist to call or fax the prescriber back to confirm the prescription information and ask any questions.
4. After transmission, the prescriber or the prescriber's agent (e.g., receptionist) must ensure that the original written prescription has been invalidated, securely filed, retained for a minimum period of no less than that defined in the statute of limitations, be available for inspection, and not transmitted elsewhere at another time.

Invalidating Faxed Prescriptions:

It is important to invalidate faxed prescriptions so that they cannot be retransmitted. To invalidate a prescription, the following information should be legibly handwritten or stamped on the original prescription after it has been transmitted:

1. Date and time the prescription was faxed
2. Name of the pharmacy it was faxed to
3. Name or signature of the person (prescriber or the prescriber's agent) who faxed the prescription

Be sure that when a prescription is invalidated, critical information such as the dosage regimen and drug name are still legible. Attaching a copy of the fax transmission information may also be helpful documentation since it shows evidence of the time, date and whether a fax was successfully transmitted.

Electronic Transmissions

1. E-mailed prescriptions are not considered acceptable or valid.
2. Neither federal nor provincial health legislation recognizes electronic prescriptions and electronic signatures.

Did you know? The Office of the Information and Privacy Commissioner of Alberta provides *Guidelines on Facsimile Transmission* for public bodies and custodians. You can access these guidelines at www.oipc.ab.ca/ims/client/upload/Guidelines_on_Facisimile_Transmission.pdf.

Appendix D, continued

Faxing a Prescription

The following is a sample prescription form that may be used by the prescriber when faxing prescription orders:

SAMPLE PRESCRIBER'S LETTERHEAD

Prescriber name/ Clinic name

Prescriber address

Prescriber telephone number/ facsimile number

Confidential Facsimile Transmission:	
Pharmacy name: _____	
Pharmacy fax #: _____	Number of pages sent: 1
Date: _____	Time: _____

Client Information

First Name: _____ **Last Name:** _____

Address: _____

Date of Birth: _____ **Sex:** _____ **Telephone:** _____

A copy of this original prescription has been sent with the client for the pharmacy to verify the accuracy of the faxed prescription: ☐ Yes ☐ No

Please note: If a copy of this original prescription is sent with the client, the words **"For Verification Purposes: Prescription Previously Faxed"** will be on the copy.

Rx

Prescriber Certification

This prescription represents the original of the prescription drug order. The pharmacy addressee noted above is the only intended recipient and there are no others. The original prescription will be invalidated and securely filed, and it will not be transmitted elsewhere at another time.

Prescriber's Name: (print) _____ **(signature)** _____

Prescriber's ID #: _____ **Date:** _____

Verification: This certifies the above prescription has been transmitted only to the pharmacy indicated:

Sender's Name: (print) _____ **(signature)** _____

INVALIDATION CONFIRMATION (For in-office use only, following successful transmission of prescription)

I confirm that the following prescription has been invalidated: ☐ Yes

A copy of the fax transmission information is attached to the prescription: ☐ Yes ☐ No

Date and Time fax sent: _____

Name: (print) _____ (signature) _____

If the reader of this message is not the intended recipient, you are hereby notified that this information is private and confidential. Any distribution or copying of this document is strictly prohibited. If you have received this transmission in error, please contact us immediately by telephone and return the original facsimile to us at the above address by regular mail. Thank You.

Appendix E: Canada Vigilance Program

Health Canada has renamed the Canadian Adverse Drug Reaction Monitoring Program to the *Canada Vigilance Program*. The purpose remains the same — that collects and assesses reports of suspected adverse reactions to health products marketed in Canada. Post-market surveillance enables Health Canada to monitor the safety profile of health products once they are marketed to ensure that the benefits of the products continue to outweigh the risks. The information collected by the program can be accessed through the Canada Vigilance Online Database.

The Canada Vigilance Program is supported by seven Canada Vigilance Regional Offices who provide a regional point-of-contact for health professionals and consumers. Reports are collected by the regional offices before being forwarded to the Canada Vigilance National Office for further analysis.

The Canada Vigilance Program provides a variety of tools for health professionals and consumers to report suspected adverse reactions. Reporting is simple and can be done online, by phone or by submitting the Canada Vigilance Reporting Form by fax or mail.

Go to Health Canada's web site to view the most recent version of the Canada Vigilance Reporting guidelines and the reporting form that must be used.

Appendix F: Labelling Standards

These Labelling Standards provide the requirements for prescription and non-prescription drugs.

The majority of oral care products you will “sell” to your clients do not require a prescription. These drugs may be Schedule 2 products identified in the Dental Hygienists Profession Regulation, Schedule 3, unscheduled drugs, or natural health products. However, because of the higher strengths of many of the products you may provide to your clients and the potential for misuse or adverse events, many are still considered “for professional use” by Health Canada. Dental products included in Health Canada’s “Professional Use Standards” exceed the acceptable limits set for over-the-counter dental products. Formulations in this category include dentifrices, treatment gels/rinses, and varnishes.

A. Labelling Standard for Prescription Drugs Sold In-Office and Non-Prescription Drugs Re-Packaged and Sold In-Office

All **prescription drugs** that are sent home with the client should be correctly and legibly labelled. The prescription label should be accurate according to the prescription and contain the information required under this standard, which encompasses federal and provincial legislation. When a client has special needs, such as visual impairment or does not read English, you may use a label that facilitates better understanding, such as larger font or a label that has clear visual explanations. The label must contain:

- Client name
- Clinic name, address and telephone number
- Prescriber’s name
- Description of the drug in English including
 - drug name (generic) brand name(if applicable), manufacturer
 - drug strength and quantity
- Instructions for use (Supplement the label instructions with additional written and/or verbal instructions as necessary)
- Date
- Unique prescription number
- Expiry date if appropriate

Label Placement. If it is not practical to place the label directly onto the drug package, attach the complete label to an outer container. The inside drug package **must** still have another label that has the client’s name, drug name, and strength. Remember, these two packages will likely get separated, causing potential confusion about the drug within the container. Without that inner label, an adverse drug event may occur.

If you are re-packaging and providing non-prescription drugs to your clients, ensure that you meet Health Canada’s applicable labelling standard. The labelling standard you will

have to meet is dependent on the product you are re-packaging. The table provided at the end of this Appendix shows Health Canada's Labelling Standards for Oral Care Products.

Packaging: The packaging should ensure safety, integrity and stability of the drug. Give careful consideration to the drug's sensitivity to light and temperature.

Child-resistant packaging should be used, unless otherwise indicated. One example would be if a client had rheumatoid arthritis and could not open a package with a child-resistant cap. In these cases, the dental hygienist must be sure to warn the client of the potential risk of not having child-resistant packaging.

Practice Tip: If the same dental hygienist is prescribing and providing the drug to a client, another competent second person must confirm the accuracy of the drug and the drug labelling prior to providing the drug to the client.

B. Labelling Standards for Non-Prescription Dental and Oral Care Products for Professional Use (straight from the Manufacturer) and Sold In-office:

For most of the dental/oral care products you will provide to your clients, the appropriate labelling information comes directly from the manufacturer. No additional labelling will have to be incorporated before you give these products to the client provided the manufacturer meets the labelling requirements.

Health Canada develops standards that the manufacturer must meet before providing these products to the consumer or health professionals. These standards vary depending on whether the non-prescription product is categorized by Health Canada as a drug or an NHP. Currently, Health Canada also has labelling standards for dental and oral products for professional use. Health Canada can revise the standards, so always refer to their website for the latest drug or NHP labelling information.

Appendix G: Client Health History

A complete and thorough legal document that contains information about the client's past and present medical and dental conditions, risk factors for disease, a drug profile, undiagnosed conditions and allergies or sensitivities. The health history should also include information about the client's lifestyle; cultural practices related to health and disease, past and present emotional problems, and general state of mind. This written report is obtained from the health history questionnaire, a verbal interview, and direct client observation.

Determination of client health history, (including the drug profile), shall include, but is not limited to, assessment of:

- disease states, health (or medical) conditions
- allergies and sensitivities
- possible side effects and interactions
- risk factors (e.g., family medical history, diet)
- drug and natural health product therapies
- social history e.g. alcohol and/or tobacco use
- client compliance

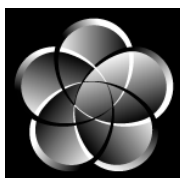
Remember: A **complete drug profile** is part of the client's comprehensive health history. The drug profile includes a comprehensive list of drugs (prescription and non-prescription) that the client is currently taking, or has taken, since the last update of the client's health history. Non-prescription drugs must include drugs listed in Schedules 2 and 3 of Alberta's Drug Schedules, unscheduled drugs, alcohol, tobacco, and natural health products not encompassed in the provincial drug schedules. The drug profile should also include any known allergies or sensitivities that the client has to any drugs. The client drug profile is used when developing a care plan and will aid the registered dental hygienist in determining possible contraindications and adverse effects such as drug-drug interactions and drug-food interactions.

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