# Medical History Recordkeeping

#### A Guide for Ontario Dentists and Their Patients

#### Introduction

To allow for the provision of safe dental care, dentists must ensure that all necessary and relevant medical information is obtained prior to initiating treatment. This information should be collected systematically, recording the patient's present state of health and any serious illnesses, conditions or adverse reactions in the past that might affect the dental management of the patient. The Royal College of Dental Surgeons of Ontario (RCDSO) publishes Guidelines on Dental Recordkeeping, which includes a sample medical history questionnaire.

The College also publishes the Medical History Recordkeeping Guide, which includes additional supporting materials for this key area of dental practice.

- 1. Medical History Questionnaire Companion
- 2. Sample Medical History Questionnaire
- 3. Sample Recall History Questionnaire



### Medical History Questionnaire Companion

#### Purpose of the Questionnaire

The medical history questionnaire is designed for the general dentist providing routine dental care. The questionnaire is comprised of a set of questions that the College considers reasonable to assist the dentist in obtaining the necessary information from patients to determine if invasive dental procedures can be performed safely. Invasive dental procedures include treatments that cause bleeding or involve the penetration of oral tissues, and that are often stressful.

The questionnaire is provided for guidance and is not intended to represent the standard of care or be used as the sole means of inquiry. The dentist may need to expand on the information obtained from the questionnaire; for example, with patients who have a significant medical condition, patients who are highly stressed, patients who are elderly, patients whose medical history is simply unclear and patients requiring complicated dental treatment.

The questionnaire may not be suitable for all practice situations. For example, a dentist who provides advanced or complicated care may wish to add questions related to their particular discipline. On the other hand, if a dentist limits their practice to the provision of non-invasive dental procedures, it may be appropriate to simplify the questionnaire. In all circumstances, reasonable clinical judgment must be used to determine what changes are appropriate to ensure the safe treatment of patients.

Any questionnaire can be worthless. It is given value by the dentist's ability to interpret the significance of the answers and, when necessary, seek out and obtain additional information. This may be achieved through discussion with the patient, by conducting an appropriate physical examination\* and/or medical consultation as needed, especially when the available information or the need for treatment modification is unclear.

The patient's medical information should be reviewed and updated regularly, such as at subsequent examinations and/or prior to appointments involving invasive dental procedures. The frequency of review will depend on the patient's health history and age, and the planned dental procedure. This may be accomplished by having the patient review the original information and advise the dentist of any changes, or the dentist may question the patient directly. In either case, the results must be documented in the chart records.

At some point, the accumulation of changes to the medical information or the simple passage of time may suggest to the dentist that the patient should complete a new medical history questionnaire. Again, reasonable clinical judgment must be used to determine when this is appropriate.

<sup>\*</sup> An appropriate physical examination may include a head, neck and intra-oral examination, and the taking and recording of vital signs such as heart rate and blood pressure.

#### Rationale for Questions

This section provides a rationale for including each of the questions, and briefly presents some of the treatment and management issues that should be considered. These issues may be influenced by the patient's specific situation or changes in accepted standards. Reviewed together, the questions will provide a broad base of inquiry into the patient's true medical status.

A patient information pamphlet is also included. The sample form may help the patient understand why it is important to complete the questionnaire accurately.

The dentist must ensure that the patient understands each of the questions. The dentist must also ensure that they understand the patient's responses. If there is a language barrier, a translator will be necessary. If the dentist believes that the patient is incapable of providing a full and accurate health history, they will need to consult others, such as a substitute-decision maker or a treating physician.

Q1. Are you currently being treated for any medical condition or have you been treated within the past year? If yes, please explain.

**Rationale:** May identify a significant medical problem for which the patient is currently under therapy or has sought therapy in the recent past. This question is better than "Are you in good health?" One study¹ has shown that 100% of patients with a life threatening disease answered "yes" to the latter question. Also, may identify the patient's current drug therapy.

### Q2. When was your last medical checkup?

**Rationale:** Helps to assess the value of the information on the questionnaire. The more recent the checkup, the more likely the information is to be correct. May guide the dentist to assess the patient more thoroughly or advise the patient to seek medical assessment prior to complex and/or stressful dental procedures.

Q3. Has there been any change in your general health in the past year? If yes, please explain. **Rationale:** May identify health problems that the dentist needs to clarify. Minor problems, such as colds, can be quickly discounted. Major problems, such as cancer or heart disease, may require a Review of Systems (ROS) or medical consultation to clarify the patient's current status

Brady WF, Martinoff JT, "Validity of health history data collected from dental patients and patient perception of health status," JADA 1980; 101:642-646.

Q4. Are you taking any medications, nonprescription drugs or herbal supplements of any kind? If yes, please list them.

#### Rationale:

- a) Suggests an underlying medical condition and possibly the type or severity (e.g. Type 1 Diabetes).
- b) May identify a potential drug/drug interaction (e.g. ASA and anti-coagulants).
- c) May indicate immunosuppression (e.g. steroids, cytotoxic agents) or potential bleeding problems (e.g. coumadin, ASA).
- d) May indicate a potential drug/disease interaction (e.g. topical vasopressors and hypertension).
- e) May indicate intra-oral or systemic effects of dental importance (e.g. phenytoin associated gingival hyperplasia or bone marrow suppression following chemotherapy).
- f) May identify potential problems from the use of non-prescription drugs, such as increased tendency to bleed with the use of ASA or some herbal supplements (e.g. Gingko biloba may prolong clotting time when used with aspirin or other anticoagulant drugs).

Q5. Do you have any allergies? If yes, please list them using the categories below:

- a) medications
- b) latex/rubber products
- c) other (e.g. hay fever, seasonal/ environmental, foods)

#### Rationale:

- a) May indicate products to avoid and the need to identify substitutes.
- b) Allergy to latex is increasing. Appropriate substitute products may be necessary.
- c) May indicate an individual prone to other allergic reactions. For instance, allergy to some fruits (e.g. avocado, kiwi) may indicate a predisposition to latex allergy.

Q6. Have you ever had a peculiar or adverse reaction to any medicines or injections? If yes, please explain. **Rationale:** May alert the dentist to avoid prescribing or using certain drugs and the need to identify suitable replacement drugs, if necessary. Medical evaluation may be necessary to clarify if there is a true allergy.

### Q7. Do you have or have you ever had asthma?

**Rationale:** May identify breathing problems and the need for specific treatment modifications. Asthma may be triggered by stress or certain chemicals, and may vary significantly in degrees of severity. It is helpful to know what usually precipitates an attack, what the patient does to manage it, and whether the patient has ever needed hospitalization for an attack (may indicate severity of previous attacks and potential for this to occur again). Avoid known triggering agents and ensure any necessary medication, such as an inhaler, is readily available during a dental appointment.

# Q8. Do you have or have you ever had any heart or blood pressure problems?

**Rationale:** May identify patients with significant cardiovascular (CVS) problems and the need for further investigations (CVS ROS, physical examination, medical consultation) to identify the severity/stability of the condition or treatment modification. This may be minor (shorter appointments) or indicate postponing elective care until the condition is brought under adequate control (unstable angina, uncontrolled hypertension).

Q9. Do you have or have you ever had a replacement or repair of a heart valve, an infection of the heart (i.e. infective endocarditis), a heart condition from birth (i.e. congenital heart disease) or a heart transplant?

**Rationale:** May identify patients who could benefit from antibiotic prophylaxis (ABC), further investigations (e.g. CVS ROS, medical consultation, echocardiogram) or treatment modifications. ABC is reasonable for those patients with the highest risk of adverse outcome from infective endocarditis (IE), who would derive the greatest benefit from its prevention.<sup>2</sup> For this group of patients, ABC is reasonable for any dental procedure that involves manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa.

## Q10. Do you have a prosthetic or artificial joint?

Rationale: In 2016, the Canadian Dental Association, the Canadian Orthopedic Association and the Association of Medical Microbiology and Infectious Disease published a consensus statement on the management of patients with total joint replacement and other orthopedic devices. The Canadian Consensus Statement is supported by the College. In summary, routine antibiotic prophylaxis is not indicated for patients with total joint replacements, but they should achieve and maintain optimal oral health and hygiene. There are times when ABC is indicated in dentistry, either based on the type of procedure (e.g. the literature suggests that a single preoperative loading dose is effective for reducing surgical site infections for partial and full bony impacted third molars and for reducing failure of implants and bone grafts) or the patient's medical status (e.g. urgent dental extractions in the face of chemotherapy-induced neutropenia or for patients with prosthetic heart valves). However, it is NOT the presence or absence of a prosthetic joint that guides this decision, as there is a lack of evidence associating dental procedures with prosthetic joint infection.

Q11. Do you have any conditions or therapies that could affect your immune system (e.g. leukemia, AIDS, HIV infection, radiotherapy, chemotherapy)?

**Rationale:** May identify patients with conditions that could put them at increased risk for bleeding disorders or serious infection. Medical consultation may be necessary. Some of these conditions or therapies may also result in oral lesions, such as candidiasis.

## Q12. Have you ever had hepatitis, jaundice or liver disease?

**Rationale:** May identify patients with liver damage, who are at risk for bleeding problems and/or problems metabolizing certain drugs. Patients with a prior history of hepatitis B, hepatitis C or cirrhosis of the liver may have sufficient hepatic dysfunction to cause bleeding problems and may warrant avoidance or reduced dosages of drugs metabolized in the liver (e.g. benzodiazepines). Medical consultation with appropriate laboratory tests may be necessary.

## Q13. Do you have a bleeding problem or bleeding disorder?

**Rationale:** May identify patients with congenital or acquired (i.e. subsequent to disease or drugs) bleeding problems. Medical consultation and appropriate laboratory tests may be necessary. It may be useful to inquire if the patient has or has ever had any problems with prolonged bleeding or excessive bruising.

# Q14. Have you ever been hospitalized for any illnesses or operations? If yes, please explain.

**Rationale:** May identify patients who have had surgical procedures or serious illness, and provides an opportunity to discuss outcomes or ongoing care (e.g. cancer, cardiac surgery).

Q15. Do you have or have you ever had any of the following? Please check.

- ☐ chest pain, angina
- ☐ heart attack
- ☐ stroke, TIA
- □ shortness of breath
- ☐ rheumatic fever
- ☐ mitral valve prolapse
- ☐ heart murmur
- □ pacemaker
- ☐ lung disease
- ☐ tuberculosis
- □ cancer
- ☐ steroid therapy
- ☐ diabetes
- □ stomach ulcers
- $\hfill\square$  arthritis
- ☐ seizures (epilepsy)
- ☐ kidney disease
- ☐ thyroid disease
- □ drug/alcohol/ cannabis use or
- dependency

  ☐ osteoporosis

  medications
  - (e.g. Fosamax, Actonel)

**Rationale:** May identify patients who have or had common potentially serious conditions, which could require either further medical consultation or treatment modifications.

Chest pain, angina, heart attack, stroke, TIA (transient ischemic attack), shortness of breath, pacemaker: May identify patients who may need further medical evaluation/consultation, referral, postponement of elective care or use of CVS protocol. This usually involves, as a minimum, a stress reduction protocol and careful appropriate use of vasopressors, when indicated.

Rheumatic fever, mitral valve prolapse, heart murmur: May identify patients who may need further medical consultation. Some patients with a history of rheumatic fever develop rheumatic heart disease (RHD), resulting in permanent cardiac damage. The diagnoses of RHD and mitral valve prolapse (MVP) encompass a broad spectrum of pathology, from minor to severe. Although ABC is no longer recommended for either of these two groups of patients, both have a higher lifetime risk of acquiring IE and may, therefore, benefit from efforts to maintain optimal oral health and hygiene. In addition, MVP may deteriorate with time. Studies indicate that compared to women, men with MVP are more likely to require surgical intervention and this risk increases with age. In rare instances, a heart murmur may indicate an underlying cyanotic congenital heart defect.

Lung disease: May identify patients who could have problems breathing and for whom specific treatment modifications may be advisable (e.g. avoidance of drugs that could depress breathing). These patients may be more comfortable in an upright position. Some of these patients may find the use of rubber dam difficult to tolerate. Some patients (e.g. those with Chronic Obstructive Pulmonary Disease [COPD]) may have co-existing cardiovascular disease, which may also require investigation and treatment modifications.

Tuberculosis: Active disease in patients who are sputum positive may warrant medical consultation and emergency dental care only with avoidance of aerosol production, and postponement of elective dental care until confirmation is obtained from a physician that the patient is non-infectious and fit for treatment. Past disease could indicate a potential for recurrence and the need to establish appropriate medical follow-up and management.

Cancer: May identify a patient who could need treatment modifications based on past or present cancer therapy (e.g. radiation to the head and neck area, bone marrow transplant, use of intravenous bisphosphonates and other antiresorptive or antiangiogenic therapies that could put them at risk of medication-related osteonecrosis of the jaw [MRONJ]).<sup>3</sup> Patients who are currently undergoing chemotherapy may be immunosuppressed and prone to infection, or have reduced platelet counts and have increased risk of bleeding. They may also develop intra-oral mucositis.

Steroid therapy: May identify patients who have significant disease and could need steroid supplementation prior to stressful dental procedures. Also, may alert the dentist to potential serious side effects of this medication.

*Diabetes*: Establish the type and severity of the disease, and the presence of complications, which are often related to the duration of the disease. Insulin-dependent diabetics are more likely to be unstable and prone to hypoglycemic reactions. Atherosclerotic heart disease occurs at a younger age in diabetic patients and is more likely to be present without typical symptoms. Diabetic patients are also more likely to develop kidney disease, blindness, xerostomia, periodontal disease, burning mouth syndrome, and have problems related to impaired healing.

Stomach ulcers: Establish if this is current. May suggest the avoidance of certain analgesics (e.g. ASA).

Arthritis: Establish the type (rheumatoid vs. osteo), severity and treatment. Rheumatoid can affect the temporomandibular joint (TMJ) and may be part of a general autoimmune process, which could cause other oral problems (e.g. dry mouth, oral ulceration).

Seizures (epilepsy): Establish the type, frequency, severity and etiologic factors so that appropriate preventive and management strategies can be planned. Medication used to control epilepsy may cause gingival hyperplasia. This may be ameliorated by improved oral hygiene.

Kidney disease: Establish the type and severity, and whether or not there is impaired renal function. If renal function is impaired, the dosage regimens for certain drugs may need to be modified (e.g. NSAIDs). The patient may be on hemodialysis or have a kidney transplant. This could modify the timing of treatment, and promote bleeding problems, impaired healing, increased risk of infection, etc.

Thyroid disease: Untreated or poorly controlled hyperthyroid patients are at potential risk of developing cardiac dysrythmias, subsequent to stress or inappropriate use of vasoconstrictors. Medical consultation and postponement of elective dental care is usually advisable until these conditions are stable.

Drug/alcohol/cannabis use or dependency: Some recreational drugs (e.g. cocaine or amphetamines) can cause significant cardiac dysrhythmias, which may be exacerbated by vasoconstrictors in local anesthetics. There is particular concern if these drugs have been used within 24 hours of an appointment at which local anesthesia will be used. Patients with a history of intravenous drug abuse are at risk for several infectious diseases, such as hepatitis B and C (which could cause liver damage) and AIDS. May also identify patients with an alcohol dependency problem and who may have some degree of liver dysfunction. This could result in bleeding problems and/or the need to avoid drugs metabolized in the liver.

Osteoporosis medications (e.g. Fosamax, Actonel): Oral bisphosphonates are frequently prescribed for the prevention or treatment of osteoporosis (e.g. in post-menopausal women). Although far more common with the intravenous forms typically used in cancer therapy, this class of medications may give rise to MRONJ, resulting in the exposure of necrotic maxillary and/or mandibular bone. Dentoalveolar surgery is considered a major risk factor for MRONJ, but it may occur spontaneously and is resistant to treatment. Consequently, prevention is of paramount importance. Bisphosphonate levels in bone remain high for years. Therefore, patients who have ceased taking them may be at increased risk of developing MRONJ for a prolonged period of time.

Q16. Are there any conditions or diseases not listed above that you have or have had?

If yes, please explain.

Rationale: Catch-all question to pick up other conditions that could have been missed.

Q17. Are there any diseases or medical problems that run in your family (e.g. diabetes, cancer or heart disease)? **Rationale:** May identify patients who are at increased risk for certain conditions. Allows the dentist to be vigilant for developing or undiagnosed conditions.

Q18. Do you smoke or chew tobacco products?

**Rationale:** May identify patients at risk for smoking-related systemic and oral complications (e.g. CVS disease, lung disease, oral cancer, periodontal problems, impaired healing). Also identifies patients who may benefit from smoking cessation programs. Heavy alcohol intake combined with smoking increases the risk of oral cancer.

Q19. Are you nervous during dental treatment?

**Rationale:** May identify patients who could benefit from additional techniques (e.g. conscious sedation) during dental treatment. Allows the patient to discuss any point of concerns with the dentist and staff (e.g. fear of needles, noise of the drill) so they can be addressed.

Q20. Are you breastfeeding or pregnant? If pregnant, what is the expected delivery date? **Rationale:** May identify patients who could need treatment modifications. It may be advisable to defer elective care, elective radiographs and avoid certain drugs, especially in the first trimester.

Q21. Do you identify as a patient with a disability? If yes, please explain.

**Rationale:** Allows the dentist to be aware of a patient's disability and ask about their needs for accommodation. Ask the patient: "How can I help you?"

#### Follow-Up Questions and Review of Systems

Subject to changes in the recorded information, the questionnaire should assist the dentist in identifying a patient whose medical history is apparently clear and uncomplicated, and whose treatment may be conducted safely with a minimum of treatment modifications. The questionnaire should also assist in identifying a patient whose medical history is complex or clouded, and for whom additional information is necessary to clarify any positive or unclear responses before initiating care.

The treating dentist may obtain the additional information through discussion with the patient, by conducting an appropriate physical examination and/or consultation with the patient's present and prior healthcare providers. For example, the patient may reveal the existence of a congenital heart defect or murmur, but be unsure regarding its nature; ideally, the dentist will consult with the patient's physician and determine if antibiotic prophylaxis is required.

Responses to initial questions that indicate a potentially serious medical condition may warrant follow-up with an appropriate review of the system affected (ROS). A history of prior heart attack, for instance, could necessitate a review of the cardiovascular system.

Certain additional questions are prompted by responses to the questionnaire and used to review the affected system, such as:

- · What is the precise medical condition or diagnosis?
- · When was it diagnosed?
- Who is the physician treating the problem?
- · When did you see this physician last and how often do you usually see this doctor?
- · How is your condition being treated now?
- · What medications are you taking and in what dosages are you taking them?
- · Have you taken these medications today?
- Have there been any changes in your condition or in the management of your condition, including the medications taken and their dosages?
- · Has your condition ever required hospitalization? Please explain.
- Is your condition now under control or has there been a recurrence of any problems?
- · Have you recently experienced any problems?

Answers to these questions may prompt further lines of inquiry. The aim is to obtain the clearest indication of the patient's true medical status, which will assist in determining the risks to providing dental care.

#### Recall History

The patient's medical information should be reviewed and updated regularly to ensure that it remains accurate. The dentist may have the patient review the information previously obtained and advise of any changes, or the dentist may ask specific questions of the patient. In either case, the results of the inquiry must be documented.

Alternatively, a dentist may choose to have the patient complete an abbreviated recall history questionnaire. For convenience, a sample form is attached.

Appropriate questions may include the following:

Q1. Has there been any change in your health, such as any serious illnesses, hospitalizations or new allergies? If yes, please explain. **Rationale:** May identify patients who have had significant changes in their medical conditions, requiring further evaluation through a ROS or medical consultation. This information may result in treatment deferral or modifications.

Q2. Are you taking any new medications or have there been any change in your medications? If yes, please explain. **Rationale:** Changes in medications may indicate a change in an existing condition. Patients with pre-existing serious medical conditions may require an appropriate ROS to establish if there has been a change in the severity or stability of the condition.

Q3. Have you had a new heart problem diagnosed or had any change in an existing heart problem?

**Rationale:** May identify patients who could require treatment modifications or further cardiac evaluation/assessment (ROS). Patients with a cardiac problem should have a current cardiac ROS as necessary.

Q4. When was your last medical checkup?

**Rationale:** Helps to assess the value of the information provided and creates an opportunity to discuss the patient's health risks and status. May guide the dentist to assess the patient more thoroughly or advise the patient to seek medical assessment prior to complex and/or stressful dental procedures.

Q5. Were any problems identified? If yes, please explain.

Rationale: Logical follow-up to the previous question.

Q6. Are you breastfeeding or pregnant? If pregnant, what is the expected delivery date? **Rationale:** May identify patients who could need treatment modifications. It may be advisable to defer elective care, elective radiographs and avoid certain medications, especially in the first trimester.

If you have any questions or comments, please do not hesitate to contact us.



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