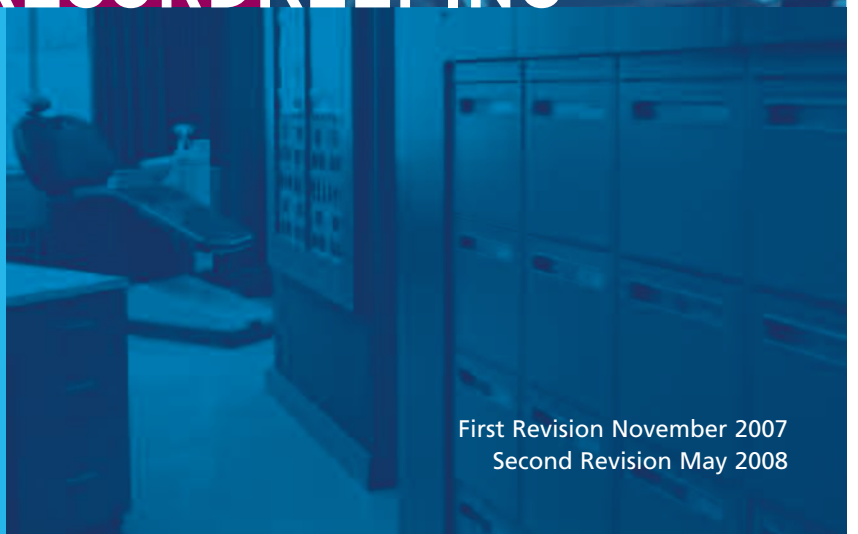




A Guide for Ontario
Dentists and
Their Patients



MEDICAL HISTORY RECORDKEEPING



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Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

MEDICAL HISTORY RECORDKEEPING

INTRODUCTION

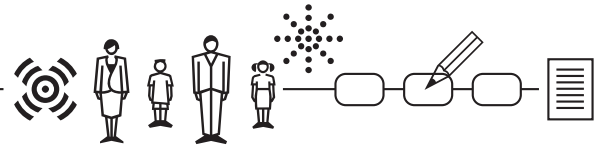
In order to allow for the provision of safe dental care, dentists must ensure that all necessary and relevant medical information is obtained prior to initiating treatment. This information should be collected in a systematic manner, recording the patient's present state of health and any serious illnesses, conditions or adverse reactions in the past that might impact upon the dental management of the patient. The Royal College of Dental Surgeons of Ontario (RCDSO) publishes Guidelines on Dental Recordkeeping, which include a sample medical history questionnaire. As part of its continuing efforts to assist and

provide guidance to its members, the College also publishes the Medical History Recordkeeping Guide, which includes additional supporting materials on this key area of dental practice.

These materials are presented as follows:

- 1 Medical History Questionnaire Companion**
- 2 Sample Medical History Questionnaire (Insert)**
- 3 Patient Information Pamphlet (Insert)**
- 4 Sample Recall History Questionnaire (Insert)**

MEDICAL HISTORY QUESTIONNAIRE COMPANION



PURPOSE OF THE QUESTIONNAIRE

The enclosed medical history questionnaire is intended to be used by the general dentist in providing routine treatment, which may include the use of local anaesthesia. For this purpose, the questionnaire is comprised of a set of questions that the College considers reasonable to assist the member in eliciting the necessary information from the patient in order to determine if invasive dental procedures can be performed safely. Invasive dental procedures include those treatments that may cause bleeding or may involve the penetration of oral tissues, and that are often stressful for the patient.

The questionnaire is provided to members for their guidance. It is not intended to represent the standard of care, nor is it intended to be used as the sole means of inquiry. In appropriate circumstances, the dentist may need to expand on the information obtained from the questionnaire; for example, with the patient who has a significant medical condition, the patient who is highly stressed, the elderly patient, the patient whose medical history is simply unclear and/or the patient requiring complicated dental treatment.

The questionnaire may not be adequate for all practice situations, but may be more than adequate for others. For example, a member who provides advanced or complicated care may need to explore added avenues of inquiry related to his/her particular discipline. If a dentist routinely makes a particular inquiry of his/her patients, he/she may choose to adapt the questionnaire to include the inquiry. For instance, sickle cell disease is especially relevant to a dentist providing advanced forms of sedation and anaesthesia. Consequently, a member who frequently provides these services should consider adding a question to the questionnaire to determine the presence or absence of this condition. On the other hand, if a member limits his/her practice to the provision of non-invasive dental procedures, it may be appropriate to modify the questionnaire. In all circumstances, a dentist must use reasonable clinical judgement in determining what modifications are appropriate, bearing in mind that the essential objective is the safe treatment of the patient.

Any questionnaire can be worthless. It is given value by the dentist's ability to interpret the significance of the answers and, when necessary, to seek out and obtain additional information. This may be achieved through a dialogue with the patient, and by an appropriate physical examination* and/or medical consultation as needed.

* 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.

It is equally important that the patient's medical information, once obtained, should be updated on a regular basis, such as at subsequent examinations and/or prior to appointments involving invasive dental procedures. The frequency of this review will to some extent depend on the patient's health history, the age of the patient and the planned dental procedure. Updating of the medical history may be accomplished by having the patient review the original information and advise the dentist of any changes, or by the dentist specifically questioning the patient. In either case, the results of the inquiry 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 clinician that the patient should complete a new medical history questionnaire. Again, the practitioner must exercise reasonable clinical judgement in making this determination.

RATIONALE FOR QUESTIONS

The medical history questionnaire is comprised of a set of questions that the College considers reasonable, every one probing some aspect of the patient's health history. The treating clinician should be mindful of the possible treatment and management implications that may be revealed by the patient's responses to each of these questions. Reviewed together, the questions will provide a broad base of inquiry into the patient's true medical status.

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.

A patient information pamphlet is also included. This sample form may assist the member with informing the patient of the importance to complete the questionnaire accurately.

The dentist must ensure that the patient understands each of the questions, and that he/she is able to understand the patient's responses. If a language barrier exists, a translator will be necessary. Further, if the practitioner has reason to believe that the patient is incapable of providing a full and accurate health history, he/she will need to obtain other sources of information, such as a substitute-decision maker or a treating physician.

Q1. Are you being treated for any medical condition at the present or have you been treated within the past year? If so, why?

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

¹ Brady WE, Martinoff JT, "Validity of health history data collected from dental patients and patient perception of health status," JADA 1980;101: 642-646.

Q2. When was your last medical checkup?

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

Q3. Has there been any change in your general health in the past year? If yes, please explain.

Rationale: May identify any health problems that the dental practitioner needs to clarify. Has the patient seen his/her physician? What was the outcome? Is the patient under therapy? What is the outcome of this therapy? Minor problems such as colds, etc. can be quickly discounted. Major problems such as cancer, heart disease, etc. may need to have a Review of Systems (ROS) or medical consultation to clarify the current status of the problem.

Q4. Are you taking any medications, non-prescription drugs or herbal supplements of any kind? If yes, please list.

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. acetylsalicylic acid (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 you answered yes, please list using the categories below:

- a) medications
- b) latex/rubber products
- c) other (e.g. hayfever, 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: Alerts the dental practitioner to the need to avoid prescribing or using certain drugs, and the need to identify suitable replacement drugs, if necessary. Dental practitioners should appreciate the difference between adverse drug reactions and true allergies, and the need for appropriate medical evaluation, if in doubt.

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

Rationale: May identify patients who could have problems breathing and for whom specific treatment modifications may be advisable. Asthma may be triggered by stress or certain chemicals, and can vary significantly in degrees of severity. Awareness and avoidance of the triggering factors may help prevent acute attacks. Severe cases can develop life-threatening attacks. Therefore, 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). The dentist can take steps to avoid known triggering agents and make sure 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 who may need further investigations (CVS ROS, physical examination, medical consultation) to identify the severity/stability of the condition, and the need to modify dental treatment accordingly. This may be a minor modification (shorter appointments), or may indicate postponing elective care until the condition is brought under adequate control, e.g. unstable angina, uncontrolled hypertension.

Q9. Do you have or have you ever had a replacement or a 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 dental 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.² 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.

² Wilson, W et al, "Prevention of Infective Endocarditis. Guidelines From the American Heart Association," *Circulation* 2007.

Q10. Do you have a prosthetic or artificial joint?

Rationale: May identify a patient who could benefit from antibiotic prophylaxis to prevent prosthetic joint infection. Certain groups of patients have been identified as being at potentially increased risk of haematogenous infections. This includes patients who are immunocompromised or immunosuppressed, patients whose joint was replaced within the last two years and/or with a history of previous joint infections, and patients with a history of certain conditions, such as insulin-dependant (Type 1) diabetes, malnourishment and/or hemophilia.

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 who could have certain serious immuno-compromising conditions which could put them at increased risk for bleeding disorders or serious infection. Medical consultation may be advisable to ascertain their status and any relevance to proposed dental care. 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 at potential risk for liver damage and, therefore, at risk for bleeding problems and/or problems metabolizing certain drugs. Patients with a prior history of certain liver diseases (e.g. hepatitis B or C) or cirrhosis of the liver may have sufficient hepatic dysfunction (i.e. loss of functioning liver cells) to warrant avoidance or reduced dosages of drugs metabolized in the liver (e.g. benzodiazepines) or to cause bleeding problems. Medical consultation with appropriate laboratory tests may be necessary to clarify the situation.

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. Some patients may develop bleeding problems secondary to another condition, such as cirrhosis of the liver. It may prove 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
- shortness of breath
- rheumatic fever
- mitral valve prolapse
- heart murmur
- pacemaker
- lung disease
- tuberculosis
- cancer
- steroid therapy
- diabetes
- stomach ulcers
- arthritis
- seizures (epilepsy)
- kidney disease
- thyroid disease
- drug/alcohol 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 modifications to dental treatment.

Chest pain, angina, heart attack, stroke, 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. the 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 dental 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). Patients who are currently undergoing chemotherapy may be immunosuppressed and prone to infection, or have reduced platelets counts and have increased risk of bleeding. They may also develop intra-oral mucositis.

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

Diabetes: Need to establish the type and severity of the disease, and the presence of complications, which are often related to the duration of the disease. Insulin-dependant diabetics are more likely to be unstable and prone to hypo-glycaemic 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: Need to establish if this is current, and may suggest the avoidance of certain analgesics, e.g. ASA.

Arthritis: Need to 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. Also, can be a consideration for antibiotic prophylaxis for patients with prosthetic joints.

Seizures (epilepsy): Need to 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: Need to 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. NSAID's. The patient may be on haemodialysis or have a kidney transplant. This could modify the timing of treatment, and create a need for antibiotic prophylaxis, potential for bleeding problems, impaired healing, etc.

Thyroid disease: Untreated or poorly controlled hyperthyroid patients are at potential risk of developing cardiac dysrhythmias, 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 dependency: Some recreational drugs (e.g. cocaine or amphetamines) can cause significant cardiac dysrhythmias, which may be exacerbated by vasoconstrictors in local anaesthetics. There is particular concern if these drugs have been used within 24 hours of an appointment at which local anaesthetic 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 used in cancer therapy, this class of medications may give rise to bisphosphonate-associated osteonecrosis (BON), resulting in the exposure of necrotic maxillary and/or mandibular bone. BON usually follows dental surgery, but may occur spontaneously and is resistant to treatment. Therefore, prevention of this serious complication is of paramount importance.³ If feasible, all patients about to receive these drugs, especially in intravenous form, should be seen by a dentist for a comprehensive examination before bisphosphonate therapy begins. The primary objectives are to complete necessary dental therapy, including the elimination of all potential sites of infection and any foreseeable dental surgery, and to attain good oral and dental health before the risk of developing BON increases. For patients already receiving bisphosphonates, maintaining optimal oral health is the primary preventive strategy, and extractions and other types of dental surgery should be avoided whenever possible. Bisphosphonate levels in bone remain high for years. Therefore, patients who have ceased taking them may be at increased risk of developing BON for a prolonged period of time.

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

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

3 Migliorati, CA et al, "Managing the care of patients with bisphosphonate-associated osteonecrosis. An Academy of Oral Medicine position paper," JADA 2005;136:1658-1668.

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 dental practitioner to be aware/vigilant of developing or undiagnosed conditions.

Q18. Do you smoke or chew tobacco products?

Rationale: May help identify a patient's 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 patient's 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. Also allows the patient to discuss any point of concern with the dentist and staff (e.g. fear of the needle, noise of the drill) so these fears can be openly addressed.

Q20. For women only: Are you breastfeeding or pregnant? If pregnant, what is the expected delivery date?

Rationale: The trimester of pregnancy can influence what particular treatment modifications may be beneficial, e.g. avoidance of certain drugs and elective radiographs, especially in the first trimester.

FOLLOW-UP QUESTIONS AND REVIEW OF SYSTEMS

As noted earlier, the medical history questionnaire is intended to aid the general dentist in providing routine treatment, which may include the use of local anaesthesia. It is not intended to be exhaustive and must not be relied upon as the sole means of determining a patient's true medical status. Rather, the questionnaire provides a starting point to elicit information from the patient, and must be reviewed and interpreted by the treating dentist in order to determine if sufficient information has been received to provide safe dental care.

Subject to changes in the recorded information, the questionnaire should assist the clinician 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 a dialogue with the patient, and by conducting an appropriate physical examination, and/or consultation with the patient's present and prior health-care 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.

Ultimately, each dentist must exercise reasonable professional knowledge and judgement in order to clarify the information obtained from the questionnaire.

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.

In general, certain additional questions are prompted by positive responses to the questionnaire and are 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 delivering care.

For example: A patient answers “yes” to a history of asthma (Question # 7).

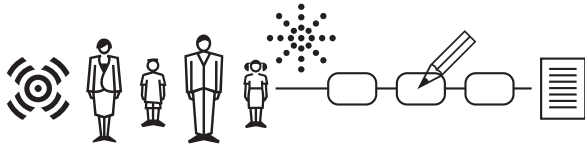
Upon further questioning, a patient whose medical history indicates a condition that was largely confined to childhood, and does not now require the use of any medications in adulthood, poses a significantly lesser risk than a patient whose condition has required recent hospitalization due to a serious asthmatic episode.

For example: A patient answers “yes” to a history of heart and/or blood pressure problems (Question # 8).

Upon further questioning, a patient whose medical history indicates a condition that is well controlled and stable with few medications poses a significantly lesser risk than a patient whose condition is poorly controlled, unstable and requires the use of a nitroglycerin patch.

A skilled clinician will use the medical history questionnaire to determine the appropriateness and extent of supplementary investigation to allow for the provision of safe dental care both in the present and in the future.

RECALL HISTORY



On a regular basis, the patient's medical history should be updated to ensure that the information remains accurate. One method is to have the patient review the information previously obtained and advise the dentist of any changes. Alternatively, the dentist may ask specific questions of the patient. In either case, the results of the inquiry must be documented in the chart records.

Appropriate questions could include:

- Has there been any change in your health, such as any serious illnesses, hospitalizations or new allergies? If yes, please specify.
- Are you taking any new medications or has there been any change in your medications? If yes, please specify.
- Have you had a new heart problem diagnosed or had any change in an existing heart problem?
- When was your last medical checkup?
- Were any problems identified? If yes, please explain.
- **For women only:** Are you breastfeeding or pregnant? If pregnant, what is the expected delivery date?

A member may choose to have the patient complete an abbreviated recall history questionnaire on a periodic basis. For convenience, a sample form is attached.

Q1. Has there been any change in your health, such as any serious illnesses, hospitalizations or new allergies? If yes, please specify.

Rationale: May identify patients who have had significant changes in their medical conditions, requiring further evaluation through Review of Systems (ROS) or medical consultation. This information may result in treatment deferral and/or modifications.

Q2. Are you taking any new medications or has there been any changes in your medications? If yes, please specify.

Rationale: Changes in medications may mean a change in an existing condition. Patients with pre-existing serious medical conditions may require an appropriate ROS to establish whether or not 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 might 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: Gives an opportunity to assess the validity of the information on the questionnaire and is an opportunity to discuss the patient's health risks and status. May prompt the dentist to advise the patient to have a medical checkup or assess the patient more thoroughly him/herself.

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

Rationale: Logical follow-up to the previous question.

Q6. For women only: Are you breastfeeding or pregnant? If pregnant, what is the expected delivery date?

Rationale: May identify women for whom it could be advisable to defer elective care, elective radiographs and avoid certain medications.



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



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