

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Welcome to Our Survey

The Royal College of Dental Surgeons of Ontario (RCDSO) is seeking feedback on a newly developed draft Guidance document, *Artificial Intelligence in Dentistry*. Your feedback is important to us and will help inform revisions to the document.

The survey should take approximately 15-20 minutes to complete.

Survey responses are saved when you click the 'Next' button and submitted when you click the 'Done' button. You may complete part of the survey and return later to edit your responses or finish the survey if you are using the same device and web browser that you used to start the survey.

The deadline to provide feedback is May 30, 2025.

All responses will be reviewed and a summary of the feedback will be provided to RCDSO's Council after the consultation closes. Your feedback is anonymous. Responses submitted from individuals on behalf of organizations will be attributed to the organization and not the individual.

If you would like to download a PDF list of the survey questions, [click here](#).

If you have any questions about this survey or RCDSO's Standards review and development process, please see RCDSO's [website](#) or email the Policy Team at ai@rcdso.org.

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Participant Type

To ensure that we ask you relevant questions, we have developed different question sets for different respondents. Please choose the option that best reflects the perspective you will bring to this survey.

* 1. Are you a:

- General dentist (including retired)
- Specialist dentist (including retired)
- Dental student
- Patient/Member of the public
- Oral health care professional, other than dentist (e.g., dental hygienist, denturist, dental technician, including retired)
- Non-oral health care professional (e.g., nurse, doctor, pharmacist, etc., including retired)
- Person responding on behalf of an organization
- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Specialist Type

* 2. What is your primary specialty or, if you have retired, what was your primary specialty?

- Dental Anesthesiology
- Dental Public Health
- Endodontology
- Oral and Maxillofacial Radiology
- Oral and Maxillofacial Surgery
- Oral Medicine and/or Oral Pathology
- Orthodontics and Dentofacial Orthopedics
- Pediatrics
- Periodontics
- Prosthodontics
- Other (please specify)

- I prefer not to answer

Dentist Characteristics

If you have retired, please respond to the questions on this page based on your experience when you were practicing.

* 3. Where did you complete your highest level of dental education?

- Canada
- Australia, Ireland, New Zealand, or United States of America (countries that have a mutually recognized system of accreditation of training with the RCDSO)
- Other (please specify)

- I prefer not to answer

* 4. How many years have you been in practice?

- 0-10 years
- 11-25 years
- 26+ years
- I prefer not to answer

* 5. What is your primary practice environment?

- Solo private dental clinic (one or more locations with one dentist)
- Group private dental clinic (one or more locations with more than one dentist)
- Corporate dental clinic (practice with some degree of third-party ownership and/or business support)
- Not-for-profit dental clinic (e.g., public health, community health centre, hospital, school, community-based)
- Other (please specify)

- I prefer not to answer

* 6. We would like to know more about your role(s) in your practice. Which of the following best describes your primary role(s) in dentistry? Please select all that apply.

- Owner/Principal
- Associate/Independent Contractor
- Employee
- Clinic/Practice Manager (either formally or informally)
- Other (please specify)

- I prefer not to answer

* 7. Describe the general location(s) where you work or practice. Please select all that apply.

- Extra-large urban area (population of 500,000 or more)
- Large urban area (population between 100,000 and 499,999)
- Medium urban area (population between 30,000 and 99,999)
- Small urban area (population between 1,000 and 29,999)
- Rural and/or remote (population less than 1,000)
- Other (please specify)

- I prefer not to answer

* 8. Do you currently provide clinical care?

- Yes
- No
- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Organization Type

* 9. Which organization are you responding on behalf of?

* 10. What type of organization do you represent?

- Dentist-facing organization (e.g., dental office, dental corporation, vendor in dental industry, professional association)
- Patient-facing organization (e.g. advocacy group for patients)
- Other (please specify)

- I prefer not to answer

Questions for Dentists

Artificial intelligence (AI) has growing application in dentistry for a range of administrative, operational, and clinical purposes (e.g., AI chatbots to respond to patient inquiries, AI scribes assisting with creating patient records, AI-powered administrative assistants to help improve workflow, or AI-powered diagnostic tools that help dentists detect and diagnose oral conditions).

The College is interested in learning how dentists in Ontario are currently using AI in their practices and gaining insight into their experiences with it.

* 11. Are you currently using AI in your dental practice?

- Yes
- No
- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Questions for Dentists - Use of AI

* 12. Why have you decided to adopt AI in your practice? Check all that apply.

- To reduce administrative burden
- Increase accuracy of diagnosis
- Improve quality of care
- Improve patient education
- Improve patient experience
- To attract patients
- To stay current with developments in the profession
- Other (please specify)

13. In what way(s) are you using AI in your practice? Check all that apply.

- Administrative and/or operational (e.g., scheduling patients, answering patient questions)
- Assisting with detecting and diagnosing conditions and diseases (e.g., analyzing x-rays)
- Treatment planning and outcome prediction
- Assisting with generating patient records (e.g., using AI scribes)
- Other (please specify)

14. **Optional:** What specific tools or products do you use?

* 15. How has your experience of using AI tools been in your practice?

- Generally positive
- Generally negative
- Neither positive nor negative
- Both positive and negative

16. **Optional:** Please feel free to elaborate on your answer above. For example, if your experience has been positive, what benefits have you experienced? If your experience has been negative, what drawbacks have you experienced?

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Questions for Dentists - Use of AI

* 17. Why have you not decided to adopt AI in your practice? Check all that apply.

- Not knowledgeable enough about the technology
- Not confident in accuracy or validity of the technology
- Not confident in data security of technology
- The risks outweigh the benefits
- Costs are too high
- Lack of regulatory standards or guidance on the topic
- I do not have decision-making authority
- Other (please specify)

* 18. If the College develops guidance on the use of AI in dentistry, to what extent would you be more likely to adopt AI?

- Much more likely
- Somewhat more likely
- No change
- Not sure
- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Continuing Education

* 19. Are you interested in continuing education opportunities on artificial intelligence in dentistry?

- Yes
- No
- I don't know

20. **Optional:** If you answered 'Yes', what specific topics would you be interested in learning about?

Questions for Patients

Artificial intelligence (AI) has growing application in dentistry for a range of administrative, operational, and clinical purposes (e.g., AI chatbots to respond to patient inquiries, AI scribes assisting with creating patient records, AI-powered administrative assistants to help improve workflow, or AI-powered diagnostic tools that help dentists detect and diagnose oral conditions).

The College is interested in learning if you have encountered or used AI tools while receiving health care (these questions are not limited to experiences receiving dental or oral healthcare).

* 21. To your knowledge, have you experienced the use of AI when visiting a healthcare professional?

- Yes
- No
- I don't know/not applicable

Questions for Patients - AI in Healthcare Experience

* 22. What type of healthcare professional was using AI?

* 23. How did the healthcare provider use AI in their practice? Check all that apply.

- Administrative and operational (e.g., scheduling patients, answering patient questions)
- Assisting with detecting and diagnosing conditions and diseases (e.g., analyzing x-rays)
- Treatment planning and outcome prediction
- Assisting with generating patient records (e.g., using AI scribes)
- Other (please specify)

* 24. How do you know that AI was being used? Check all that apply.

- I was told by the healthcare provider that AI was being used
- I was told by other staff that AI was being used
- I asked whether AI was being used
- I read a notice that AI was being used
- Other (please specify)

* 25. What was your reaction to the use of AI?

- Generally positive
- Generally negative
- Neither positive nor negative
- Both positive and negative

26. **Optional:** Please elaborate on your response above (for example, why was your reaction positive or negative?) and/or provide any other feedback on your experiences with healthcare provider use of AI.

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Draft Guidance on Artificial Intelligence in Dentistry

As AI becomes more commonplace in dentistry, a lack of clear guidance for dentists can pose risks to patients. The College has developed a draft Guidance document to support dentists in Ontario who are using AI tools in their practices and to help patients understand what to expect from dentists.

The draft document provides recommendations for dentists to help them use AI ethically and responsibly in their practices. The topics in the draft document include assessing the appropriateness of AI, using AI, transparency and disclosure that AI is being used, and protecting patient health information.

The following questions will ask you about the following content in the draft document:

- **Definition**
- **Principles**
- **Assessing the appropriateness of AI**
- **Using AI**
- **Transparency and disclosure**

It is not necessary to have read the draft Guidance document before answering this section. You will have an opportunity to provide feedback on the draft Guidance document after these questions.

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Definition

The draft Guidance defines artificial intelligence as follows:

Artificial intelligence generally refers to computer systems that can perform tasks commonly associated with human intelligence, such as finding patterns in data, problem solving, learning, and making predictions, recommendations, and decisions.

In dentistry, AI can be used for various purposes, including helping dentists with managing their practices, creating patient charts and documentation, diagnosing and detecting conditions and diseases, developing treatment plans, outcome prediction, patient monitoring, and patient education.

* 27. To what extent do you agree with the following statements about the definition:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	I don't know
The definition is clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The definition is accurate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. **Optional:** Please elaborate on your answer above. For example, if you felt that the definition was not clear or not accurate, how could the definition's clarity or accuracy be improved?

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Principles

The draft Guidance document on AI in Dentistry sets out broad principles which help form the foundation of the guidance that follows.

* 29. To what extent do you agree with the following principles?

Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree I don't know

The responsible and ethical use of AI in dentistry is guided by what is in the best interests of patients.

The responsible and ethical use of AI involves implementation of AI in a manner that is safe, transparent, unbiased, non-discriminatory, and safeguards patient privacy and confidentiality.

The use of AI in dentistry has the potential to benefit dentists and patients by improving the delivery of safe and quality oral health care, improving patient outcomes, and enhancing the patient experience.

AI is not a substitute for dentists' clinical or professional judgment. Dentists remain responsible and accountable for their clinical decision-making and documentation.

30. **Optional:** Please elaborate on your answers above, or provide any additional feedback you may have on the topic of principles. For example, if you disagree with any of the principles, why? What would you change? Would you add any principles?

Assessing the Appropriateness of AI

Dentists can make informed decisions about whether it is appropriate to use an AI tool in their practices by gathering information. The draft Guidance document states that prior to adopting an AI product, dentists may wish to seek information about details such as:

- **legal and regulatory compliance of the AI tool, including with applicable privacy legislation (e.g., the *Personal Health Information Protection Act, 2004*);**
- **clinical validity, safety, accuracy, and effectiveness of the AI tool;**
- **data used to train the AI tool (e.g., data diversity, timeframes, size) and any limitations (e.g., underrepresented patient demographics);**
- **how end users (e.g., health care practitioners) and impacted populations may have been involved in the design, development, and testing of the AI tool;**
- **intended uses, known limitations, associated risks, and steps taken to mitigate risks, including risk of bias;**
- **performance monitoring, updates, and handling of errors and/or adverse events.**

* 31. Is there anything that should be **added** to the list?

No

Yes (please specify)

I don't know

* 32. Is there anything that should be **removed** from this list?

No

Yes (please specify)

I don't know

* 33. Are there any items on the list that are **not** clear?

No

Yes (please specify)

I don't know

34. **Optional:** Please elaborate on your answers above or provide any additional comments on the topic of assessing the appropriateness of AI products.

* 37. **Recommendation 3:** Maintain an audit system which allows AI-generated outputs and AI-supported decision-making to be tracked and AI performance to be monitored.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	I don't know
This recommendation is easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is important for dentists to follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is reasonable for dentists to apply in practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 38. **Recommendation 4:** Review and evaluate AI-generated gaps, errors, and adverse events to identify contributing factors, implement improvements, and take appropriate corrective actions (e.g., report problems to the manufacturer and developer of the AI tool, report privacy breaches to the Information and Privacy Commissioner, ensure the tool is up-to-date, discontinue use of the AI tool)

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	I don't know
This recommendation is easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is important for dentists to follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is reasonable for dentists to apply in practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. **Optional:** Please elaborate on your answers above. For instance, if you felt any of the recommendations were not easy to understand, important, or reasonable, why not? How could the recommendations be improved?

* 42. **Recommendation 3:** Provide reasonable accommodation, when possible, to patients who express a desire for no or minimal involvement of AI in the delivery of their care.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	I don't know
This recommendation is easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is important for dentists to follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This recommendation is reasonable for dentists to apply in practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. **Optional:** Please elaborate on your answers above or provide any other feedback on the topic of transparency and disclosure. For instance, if you felt any of the above recommendations were not easy to understand, important, or reasonable, why not? How could the recommendations be improved?

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Evaluating the Draft Guidance

The following questions will require you to have read the draft Guidance document. If you indicate that you have not read the draft document, you will be advanced to the final section of the survey.

If you have not read the draft document, you can review it [here](#).

* 44. Have you read the draft *Guidance: Artificial Intelligence in Dentistry*?

Yes

No

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Evaluating the Draft Guidance

The following questions will ask you about the draft Guidance document as a whole.

* 45. Please indicate the extent to which you agree or disagree with the following statements.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	I don't know
The draft Guidance is easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The draft Guidance is comprehensive (it addresses all relevant or important issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The draft Guidance is reasonable for dentists to apply in practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

46. **Optional:** Please elaborate on your answers above. For example, if you felt the draft Guidance document was not easy to understand, comprehensive, or reasonable, why not? How could the draft Guidance document be improved?

* 47. Do you think the draft Guidance document includes any unnecessary information?

- No
 Yes (please specify)

I don't know

* 48. To what extent do you think that the draft Guidance document effectively balances protection of the public with promoting innovation in dentistry?

- Completely
 To a great extent
 To a moderate extent
 To a small extent
 Not at all
 I don't know

49. **Optional:** Please elaborate on your answer above.

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Final Feedback

50. **Optional:** Please share with us any feedback that you have not already provided related to the topic of AI in dentistry and/or the draft guidance document.

Survey Evaluation

51. **Optional:** Based on your experience completing this survey, do you have any feedback to help improve this survey or future RCDSO surveys?

Demographics

We welcome you to voluntarily share some demographic information about yourself. The RCDSO strives to protect the public interest while using processes that achieve meaningful equity, diversity, inclusion, and accessibility across all of our regulatory programs and projects.

Therefore, we are collecting demographic information to help us identify whether our consultation process is inclusive, and whether we are receiving a diversity of perspectives.

Please note that any demographic information that you provide through the survey will be anonymous, and your responses will be stored securely. Your demographic information will be aggregated for internal/external reporting purposes and will not be linked to you.

* 52. Would you like to complete these demographic questions?

Yes

No

Demographics - Continued

* 53. What is the location of your primary residence?

- Ontario
- Outside of Canada
- Another province or territory in Canada (please specify)

- I prefer not to answer

* 54. Describe the general area where your primary residence is located?

- Extra-large urban area (population of 500,000 or more)
- Large urban area (population between 100,000 and 499,999)
- Medium urban area (population between 30,000 and 99,999)
- Small urban area (population between 1,000 and 29,999)
- Rural and/or remote (population less than 1,000)
- Other (please specify)

- I prefer not to answer

* 55. How old are you?

- 19 years old or under
- 20-29 years old
- 30-39 years old
- 40-49 years old
- 50-59 years old
- 60-69 years old
- 70+ years old
- I prefer not to answer

* 56. What is the highest level of education you have completed?

- Some high school
- High school
- College degree/diploma
- Bachelor's degree
- Master's degree
- Ph.D. or higher
- Dental degree (BDS/DDS/DMD or higher)
- Other professional degree (e.g., law, medicine, engineering)
- Trade school
- Other (please specify)

- I prefer not to answer

* 57. Please indicate which of the following terms best describes your gender identity. Please select all that apply (options are listed in alphabetical order - click [here](#) for definitions of the following terms):

- Genderqueer
- Man
- Nonbinary
- Questioning
- Two-Spirit
- Woman
- Other (please specify)

- I prefer not to answer

* 58. Do you identify as trans/transgender or consider yourself to be a part of a trans/transgender community?

- Yes
- No
- Not sure
- I prefer not to answer

* 59. Please indicate which of the following terms best describe your sexual orientation.

Check as many as apply (options are in alphabetical order).

- Asexual
- Bisexual
- Gay
- Heterosexual
- Lesbian
- Pansexual
- Queer
- Questioning
- Two-Spirit
- Other (please specify)
- I prefer not to answer

* 60. Do you identify as an Indigenous person? Please select all that apply.

- Yes, First Nations (Status and Non-Status)
- Yes, Métis
- Yes, Inuit
- Yes, an Indigenous person from outside of Canada
- No
- Yes, Other (please specify)

- I prefer not to answer

61. Optional: Please describe your ethnicity in whatever terms are most meaningful to you.

* 62. Do you speak French?

- Yes, I am fluent.
- Yes, with limited fluency.
- No
- I prefer not to answer

* 63. What is your faith, religion, and/or spiritual affiliation? Please select all that apply.

- Agnostic
- Atheist
- Buddhist
- Christian
- Hindu
- Indigenous spirituality
- Jewish
- Muslim
- Sikh
- No religion or spiritual affiliation
- Other (please specify)

- I prefer not to answer

* 64. Do you identify as a person with a disability or disabilities?

- Yes
- No
- Sometimes, depending on the context
- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

Demographics (Disability Type)

* 65. Describe your disability. Please select all that apply (options are listed in alphabetical order).

- Auditory
- Cognitive (memory, focus, attention, consciousness, etc.)
- Dexterity (related to use of fingers, hands, etc.)
- Developmental
- Fatigue-related
- Flexibility
- Gastrointestinal
- Intellectual (e.g., Learning)
- Invisible
- Mobility (movement, balance, coordination, etc.)
- Mental Health-related
- Pain-related
- Sight
- Speech
- Urinary
- Other (please specify)

- I prefer not to answer

General Consultation: *Artificial Intelligence in Dentistry* Draft Guidance

End of Survey

Thank you for participating in our survey!