

Draft Standard of Practice: Implant Dentistry

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Executive Summary

This Standard of Practice sets out educational and professional requirements for dentists who perform implant dentistry. It is based on current evidence and best practices, and supports the provision of safe, effective and patient-centred care.

Implant dentistry is a safe and effective option for many people. However, the potential for irreversible damage and high-risk complications require dentists to obtain adequate training, in addition to their undergraduate education, to reach and maintain competency.

Requirements in this Standard are structured around the two phases of implant dentistry, and two levels of complexity:

Phases:

- Surgical phase (placement/insertion) of dental implant(s), and
- Prosthetic phase (restoring the dental implant[s])

Levels of complexity:

- Straightforward placement and/or restoration of dental implant(s), and
- Complex placement and/or restoration of dental implant(s).

This Standard of Practice is supported by companion resources that provide supplementary information and guidance. This includes the appendices found at the end of this document as well as an Implant Dentistry FAQ.

Principles

The following principles form the foundation for the requirements set out in this Standard:

1. Dentists act, first and foremost, for the benefit of, and in service to, the health and wellbeing of patients and society.
2. Dentists protect patients by maintaining their competence, recognizing limitations, and referring patients to other health care professionals, when necessary.
3. Dentists uphold patient and public trust by disclosing harm resulting from their actions or inactions, decisions, judgment, or competence.
4. Dentists minimize harm while promoting patient choice by assessing risks, obtaining consent to treatment, and adhering to best practices that minimize the likelihood of harm or adverse events.

Educational Requirements

General Requirements

- 71
- 72 1. All dentists who perform implant dentistry must ensure that they have the necessary
- 73 training and experience to do so safely and effectively.¹ In general, the more complex the
- 74 clinical case, the greater the level of training that is required.
- 75
- 76 2. Dentists intending to perform implant dentistry (other than those exempt by provision 3
- 77 below) must meet all education requirements outlined in this Standard regardless of prior
- 78 training or experience in implant dentistry.
- 79
- 80 3. Registered specialists in oral and maxillofacial surgery, periodontics and prosthodontics who
- 81 have received comprehensive training to perform dental implant treatment as part of an
- 82 accredited postgraduate specialty training program, have the most advanced mode of
- 83 training, in their respective field, and must only meet the continuing education
- 84 requirements in this Standard.
- 85
- 86 4. Dentists who perform implant dentistry must keep records of their training in implant
- 87 dentistry, including courses they have attended, mentorship, clinical supervision and
- 88 required continuing education.²
- 89

90 **Educational Requirements for Straightforward Placement/Restoration**

91

- 92 5. Dentists who limit their practice to only one phase of dental implant treatment (i.e., surgical
- 93 or prosthetic) must successfully complete a course or courses involving a minimum of 35
- 94 hours of instruction for the practiced phase and 14 hours of instruction for the phase not
- 95 practiced.
- 96
- 97 6. Dentists who perform both phases of dental implant treatment (i.e., surgical and prosthetic)
- 98 must successfully complete a course or courses involving a minimum of 35 hours of
- 99 instruction for each of the surgical and prosthetic phases, for a total of 70 hours of training.
- 100
- 101 7. Dentists must ensure that any course(s) taken to fulfill the requirements above meet the
- 102 criteria and learning outcomes set out in Appendix 2.
- 103

104 **Educational Requirements for Complex Placement/Restoration**

105

- 106 8. Before beginning training for complex placements and/or restorations of dental implants,
- 107 dentists must have competence and experience in the straightforward placement and/or
- 108 restoration of dental implant(s).
- 109

¹ [S. 2. 5. O. Reg. 853/93, Professional Misconduct.](#)

² RCDSO does not approve courses. Dentists should consider the learning outcomes in Appendix 2 and 3 to determine if the course(s) they have taken meet this Standard.

- 110 9. Before beginning training for complex placements of dental implants, dentists must have
111 achieved a high level of general dentoalveolar surgical proficiency.
112
- 113 10. Before beginning training for complex restorations of dental implants, dentists must have
114 achieved a high level of general prosthodontics proficiency.
115
- 116 11. Dentists must ensure that any course(s) and/or mentoring/clinical supervision taken to
117 perform complex implant dentistry meet the course criteria and learning outcomes set out
118 in Appendix 3.
119

120 **Continuing Education Requirements**

121

- 122 12. Dentists who perform implant dentistry must maintain their knowledge, skills, and clinical
123 judgement by obtaining at least nine category one or two continuing education (CE) points
124 within each CE cycle and selecting courses that would allow them to build/enhance their
125 skills and understanding of treatments involving dental implants.
126

127 **Adopting New Technology, Products and Techniques**

128

- 129 13. Dentists intending to incorporate new technology,³ products and techniques must ensure
130 these are supported by adequate scientific evidence, and that necessary Health Canada
131 approvals are in place.⁴
132
- 133 14. Dentists must use their professional judgement to assess whether they require additional
134 training before using new technology, products and techniques (including new implant
135 systems or materials).
136
- 137 15. Dentists using artificial intelligence (AI) tools to perform implant dentistry must consider
138 RCDSO's Guidance document on AI.⁵
139
140

141 **Professional Requirements**

142

143 **Preliminary Evaluation, Case Selection and Treatment Plan**

144

145 *This section applies to dentists who perform the prosthetic phase of treatment.*
146

³ Including artificial intelligence (AI).

⁴ All medical devices listed for sale in Canada are listed in a searchable online Health Canada database:
www.mdall.ca or <https://health-products.canada.ca/mdall-limh/>.

⁵ See [RCDSO's Artificial Intelligence draft guidance document](#), which will be reviewed for decision by RCDSO's Council September 18, 2025.

16. Dentists must evaluate the patient to determine the appropriateness of the case for implant treatment by collecting relevant clinical and radiographic imaging records on a patient-specific basis.
17. When keeping natural teeth is still an option, dentists must carefully weigh the long-term benefits and risks⁶ of extracting natural teeth and clearly discuss with the patient why dental implants may or may not be in the patient's best interest.⁷
18. When keeping natural teeth is no longer an option and/or is not indicated, dentists must have a documented rationale for recommending extraction.
19. Dentists must establish the physical and medical suitability of the patient before prescribing implant dentistry,⁸ preferably using a validated risk assessment tool. Their evaluation must include:
1. the patient's primary concern(s) as well as functional and aesthetic expectation(s);
 2. a complete dental history;
 3. a complete medical history;
 4. an assessment including, but not limited to:
 - I. a clinical extra-/intra-oral examination;
 - II. oral hygiene status;
 - III. appropriate images of the proposed dental implant site(s) and adjacent site(s);
 - IV. appropriate diagnostic records (such as study models, photographs, radiographic imaging, etc.) and aids (diagnostic set-ups, radiographic guides, etc.) as indicated based on the complexity of the case, to determine or identify, for example:
 - i. presence of oral pathologies;
 - ii. periodontal condition of the remaining dentition;
 - iii. occlusion; presence of parafunction; etc
 - iv. the volume and quality of bone, as well as its position relative to the planned prosthesis, and the characteristics of the overlying soft tissues, as they affect the probability of successful integration and long-term maintenance;
 - v. the number and location of dental implants to be placed based on the prosthetic treatment plan and the patient's anatomy;
 - vi. risk factors that could contribute to implant failure and peri-implantitis;
 - vii. the patient's need for additional orthodontic, surgical, periodontal, endodontic or prosthodontic intervention before dental implant treatment can proceed; and
 - viii. vital structures and anatomical risks.

⁶ Including financial costs from potential complications (e.g., repair, replacement), and long-term maintenance.

⁷ See [RCDSO's Consent to Treatment Standard of Practice](#).

⁸ See [RCDSO Medical History Recordkeeping Guide](#).

20. Dentists must develop a treatment plan for the prosthetic component and provide a suggested surgical prescription setting out the preferred number and positions of dental implants to be placed.

Presurgical Assessment and Surgical Treatment Plan

This section applies to dentists who perform the surgical phase of treatment.

21. Dentists must:

- a. determine the patient's suitability for surgical treatment based on the prosthetic prescription,
- b. identify any need for additional records, imaging or any other investigations,
- c. determine the details of surgical intervention,
- d. discuss any concerns that may require modification of the prosthetic prescription with the dentist providing the prosthetic phase and arrive at an agreement with the overall treatment plan, and
- e. determine the patient's medical status, the scope of the surgical treatment plan, and patient preference when recommending sedation or general anaesthesia.⁹

Finalization of the Treatment Plan

This section applies to dentists who perform the surgical and prosthetic phases of treatment.

Proper patient evaluation and treatment planning is of utmost importance in dental implant treatment.

22. Dentists must consider the need for a transitional strategy during implant treatment and be prepared to adopt a different transitional strategy based on the outcome of the surgical phase.

Surgical Treatment

This section applies to dentists who perform the surgical phase of treatment.

23. Dentists must execute the surgical treatment plan in accordance with the prosthetic treatment plan and advise the patient and the dentist performing the prosthetic phase if there was any deviation from the original prosthetic treatment plan.

Post-Surgical Follow-Up

⁹ See RCDSO's [Use of Sedation and General Anesthesia in Dental Practice Standard of Practice](#).

This section applies to dentists who perform the surgical phase of treatment.

24. Dentists must confirm appropriate clinical outcomes following surgery and monitor the patient during the healing period.

25. Dentists must assess the patient to confirm successful osseointegration of the dental implants following an appropriate healing period.

26. Dentists must assume responsibility for the management of complications related to dental implants in accordance with their role and scope of practice.

Post-Surgical Assessment and Treatment

This section applies to the dentist performing the prosthetic phase of treatment.

27. Dentists must confirm patient's suitability for the prosthetic phase, following the healing period.

28. Dentists must ensure the fabrication of an accurate definitive prosthesis that satisfies the requirements for function, cleanability, durability and aesthetics.

Long-Term Maintenance and Managing Complications

This section applies to the dentist performing the prosthetic phase.

29. Dentists must provide long-term maintenance, or refer the patient to another dentist, or provide recommendations for long-term maintenance to the patient's most responsible dentist.¹⁰

30. Dentists are advised to consider referring patients with implant treatment complications back to their original treating dental implant team (e.g., dentist, denturist, hygienist).

31. Dentists must assume responsibility for making a timely diagnosis of implant treatment complications.

32. Dentists must assume responsibility for the management of complications related to dental implants in accordance with their role and scope of practice.

¹⁰ See RCDSO's [Most Responsible Dentist Practice Advisory](#).

Patient Safety and Consent

Obtaining Consent to Treatment

33. Dentists must obtain consent prior to the initiation of dental implant treatment, in accordance with RCDSO's *Consent to Treatment* Standard of Practice.¹¹ In addition to the general requirements for obtaining consent, elements that are specific to dental implant treatment, such as the risk of dental implants failing to osseointegrate, must be addressed.

Disclosing Harm

34. Dentists must disclose relevant information about patient harm to the patient or their substitute-decision maker,¹² regardless of the cause, as soon as reasonably possible.^{13 14}

Establishing a Patient Safety Culture

35. Dentists must track and document all sentinel and adverse events arising from their performance of implant dentistry, which must include a review of relevant contributing factors and strategies to reduce patient risk.
36. Dentists are strongly advised to foster a culture of patient safety by tracking near-misses and discussing contributing factors with the dental implant team, thereby reducing patient's risk of adverse and sentinel events in the future.¹⁵
37. Dentists must only perform implant dentistry when all members of the dental implant team are acting within their scope of practice.

Recordkeeping

¹¹ See [RCDSO's Consent to Treatment Standard of Practice](#).

¹² And/or the estate trustee, as the case may be.

¹³ Healthcare Excellence (2011). Canadian disclosure guidelines: Being open with patients and families. Retrieved August 27, 2025 at <https://www.healthcareexcellence.ca/media/v4zni14t/cpsi-canadian-disclosure-guidelines-final-ua.pdf>

¹⁴ Registrants have an obligation under common law to disclose error to their patients, in keeping with a patient's right to information about their medical treatment, and the fiduciary nature of the patient-registrant relationship. Disclosure does not imply blame or fault but refers to open and timely communication with a patient or their substitute decision-maker concerning an adverse or harmful event. (Adapted from College of Physicians and Surgeons of British Columbia. Practice Standard: Disclosure of adverse or harmful events (2022). Retrieved August 27, 2025 at <https://www.cpsbc.ca/files/pdf/PSG-Disclosure-of-Adverse-or-Harmful-Events.pdf>)

¹⁵ The decision whether to disclose a no harm incident or near-miss should only be made after careful consideration of the best interests of the patient.

- 297 38. In addition to the general recordkeeping requirements, including standard surgical
298 notation,¹⁶ dentists performing the surgical phase must record the following information in
299 their surgical notes:
- 300 a. dental implant location, size and type, manufacture brand, design name of implant,
301 diameter and length, lot and/or catalogue/reference number, and expiry date, as
302 applicable;
 - 303 b. difficulties encountered during surgical treatment, if any;
 - 304 c. all materials used during surgery;
 - 305 d. size and type of abutment placed at uncover;
 - 306 e. osseointegration status using standardized measurement or descriptive criteria;
 - 307 f. any significant findings that may affect the expected outcome; and
 - 308 g. any recommendations, instructions or advice given to the patient about the surgical
309 treatment.
- 310
- 311 39. Dentists performing the surgical phase must provide the following information about the
312 dental implant to the patient in writing:
- 313 a. dental implant location;
 - 314 b. size and type;
 - 315 c. manufacture brand, design name of implant;
 - 316 d. diameter and length;
 - 317 e. lot and/or catalogue/reference number; and
 - 318 f. expiry date, as applicable.
- 319
- 320 40. In addition to the general recordkeeping requirements, including standard prosthetic
321 notation, dentists must record the following information in their prosthetic notes:
- 322 a. dental implant location, size and type, manufacture brand, design name of implant,
323 diameter and length, lot and/or catalogue/reference number, and expiry date, as
324 applicable;
 - 325 b. difficulties encountered during prosthetic treatment, if any;
 - 326 c. a record of all components secured for function in the patient's mouth;
 - 327 d. size and type of abutment used;
 - 328 e. osseointegration status using standardized measurement or descriptive criteria;
 - 329 f. type of prosthesis fabricated, and materials used;
 - 330 g. type of connection — screw or cement;
 - 331 h. any pain or discomfort reported by the patient during prosthodontic treatment,
332 particularly at the time of delivery of the prosthesis; and
 - 333 i. any recommendations, instructions or advice given to the patient about the
334 prosthodontic treatment.
- 335
- 336 41. Dentists are advised to consider maintaining working models for documentary purposes, as
337 well as long-term maintenance of the case.

¹⁶ See [RCDSO Dental Recordkeeping Guidelines](#).

Appendices

Appendix 1: Guidance for Differentiating “Straightforward” and “Complex” Cases

Few treatment episodes will fall exactly into either category; however, the definitions here should help to identify the degree of complexity and potential risks involved in individual cases. Dentists can better match cases to their level of experience and skills, as well as determine their professional development and training requirements. (Adapted from the Faculty of General Dental Practice (United Kingdom), the Royal College of Surgeons of England: “[Training Standards in Implant Dentistry](#)” (2016)).

Factor	Straightforward	Complex
Perception of Case	You can easily visualise the end result and the treatment stages are predictable. There are no aesthetic risk factors.	The end result cannot be easily visualised without extensive diagnostic and planning techniques. Requires higher level surgical and prosthetic skills. Treatment will include multiple stages to achieve the desired outcome and may involve multidisciplinary planning. The risk and the impact of complications may be higher than with straightforward cases. The aesthetic requirement or limitations of the case are high, as are the expectations of the patient.
Medical History	There are no medical risk factors.	There are physical/medical compromises, requiring special care, considerations and management.
Tooth Position	The teeth to be replaced conform to the existing arch form, and the adjacent and opposing teeth easily determine the optimal prosthetic tooth position. There are no aesthetic risk factors.	There are no adjacent teeth and/or opposing teeth, or those present are in an unsuitable position. There is a need to carry out extensive diagnostic procedures to determine the optimal tooth/implant position for aesthetics and function.
Implant Surgery	The implant surgical procedure is without anatomical risks and can be carried out without the need for significant hard and soft tissue modification, such as significant ridge reduction or significant bone grafting (e.g., onlay bone grafting and sinus grafting).	The implant surgery is a more difficult procedure that may involve: • significant alteration to anatomical structures with potential risk of damage to vital structures (e.g., significant bone reduction/modification); • anatomically related risks that require significant hard tissue reduction or grafting (including onlay bone grafting and sinus grafting);

		• placement of implant in combination or preceded by significant grafting; • placement of implant in non-healed sites; and • use of advanced implant designs/approaches (e.g., zygomatic implant, pterygoid implant).
Soft Tissue	There is no need to augment or alter the position of the peri-implant mucosa. Soft tissues biotype (quality and quantity) is satisfactory.	There is a need to significantly augment or alter the position of the peri-implant mucosa, requiring soft tissue grafting with autogenous tissue or a substitute.
Occlusion	The teeth can be replaced conforming to the existing occlusal scheme and at the same vertical dimension.	There is a need to substantially change the existing occlusal scheme or the occlusal vertical dimension.
Periodontal Status	The patient has healthy periodontal status.	The patient has compromised periodontum (e.g., advanced horizontal/vertical bone loss and tooth mobility) especially in the presence of risk factors such as smoking and diabetes.
Placement Timing	Implant placement in a healed site.	Immediate and early implant placement.
Loading Protocols	Implants are loaded following complete osseointegration.	Implants are loaded/temporized immediately or soon after their placement (early loading).
Prosthesis Type	Replacement of a single tooth or a small edentulous span without significant prosthetic risk factors (e.g., bruxism). Replacement of teeth with a removable overdenture supported or retained by implants without significant prosthetic risk factors.	Replacement of a tooth/teeth with any prosthesis in the presence of significant prosthetic risk factors. Replacement of teeth with a full-arch bridge.
Biologic Complications	Management of peri-implant mucositis or peri-implantitis requires non-surgical therapy.	Surgical management of peri-implantitis or implants that require removal by surgical approach.
History of implant treatment failure	There is no history of implant treatment failure or significant implant treatment complications.	There is a history of implant treatment failure or significant implant treatment complications.

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Appendix 2: Course Criteria and Learning Outcomes for Straightforward Implant Dentistry

Course Criteria

Dentists performing straightforward implant dentistry must ensure courses taken to meet the required hours of education also meet the following course criteria:

- be conducted by persons with recognized comprehensive formal, university-based training and significant experience performing dental implant procedures, preferably specialists (i.e., prosthodontists, periodontist and oral and maxillofacial surgeons);
- have didactic and clinical-related components with formal evaluation;
- have a hands-on clinical simulation component with formal evaluation; and
- teach methods and systems that have been shown to be successful and safe by published scientific research, preferably supported by well-designed, low risk of bias, longitudinal clinical studies that demonstrate the efficacy and effectiveness of the method and biocompatibility of the materials.

Learning Outcomes

Dentists performing straightforward implant dentistry must have an understanding¹⁷ of:

- the biological basis of healing and osseointegration (including materials, biomechanics and bone physiology) for dental implants and their interactions with host tissues, and the implications regarding dental implant loading;
- the anatomical considerations and limitations in relation to dental implant placement;
- diagnostic and imaging procedures that are available for the assessment of desired prosthetic tooth position and corresponding bone quantity and quality at the planned dental implant site(s);
- local systemic and behavioural conditions that may influence the surgical, prosthetic or maintenance aspects of dental implant treatment;
- sequential planning procedures for dental implant treatment;
- limitations and the need for appropriate and timely referral;
- the various site-development and implant placement surgical procedures including intra-operative complications;
- pre-surgical prosthodontic preparation procedures, such as surgical and radiographic guides, and the basis for specific dental implant selection;
- the importance of post-surgical follow-up and the management of post-surgical complications;
- the various provisional and definitive prosthodontic procedures for dental implant supported and/or retained prostheses;
- the importance of post-insertion follow-up and the management of post-insertion complications;

¹⁷ “Understanding” indicates adequate knowledge with the ability to apply, as per “Levels of Knowledge” described by the Commission on Dental Accreditation of Canada. (n.d.) retrieved August 27, 2025, at https://www.cdac-cadc.ca/wp-content/uploads/2025/03/Prosthodontics_Program_Standards_2024.pdf

- the importance of effective communication between the various members of the dental implant team and other providers, and especially with the patient.
- RCDSO’s “Guidance for Differentiating ‘Straightforward’ and ‘Complex’ Cases” (Appendix 1); and
- the importance of implant maintenance protocols and the need for regular follow up;

Appendix 3: Course/Mentoring/Clinical Supervision Learning Outcomes for Complex Implant Dentistry

Course Criteria

Dentists performing complex implant dentistry must ensure courses taken to meet the required hours of education also meet the following course criteria:

- be conducted by dental specialists (i.e., prosthodontists, periodontist and oral and maxillofacial surgeons) with significant experience performing dental implant procedures;
- have didactic and clinical-related components with formal evaluation;
- have a hands-on clinical simulation component with formal evaluation; and
- teach methods and systems that have been shown to be successful and safe by published scientific research, preferably supported by well-designed, low risk of bias, longitudinal clinical studies that demonstrate the efficacy and effectiveness of the method and biocompatibility of the materials.

Learning Outcomes (Surgical Component)

The learning outcomes below are categorized according to the Commission on Dental Accreditation of Canada’s Levels of Knowledge.^{18 19}

Dentists performing the surgical component of complex implant dentistry must have:

- in-depth understanding of the biological basis of healing and osseointegration (including materials, biomechanics and bone physiology) for dental implants and their interactions with host tissues, and the implications regarding dental implant loading;
- in-depth understanding of the anatomical considerations and limitations in relation to dental implant placement;
- in-depth understanding and are competent and experienced in the current diagnostic and imaging procedures that are available for the assessment of corresponding bone quantity and quality at the planned dental implant site(s); and recognition of the desired prosthetic tooth position. This includes:

¹⁸ See “Levels of Knowledge” by the Commission on Dental Accreditation of Canada. (n.d.) retrieved August 27, 2025, at https://www.cdac-cadc.ca/wp-content/uploads/2025/03/Prosthodontics_Program_Standards_2024.pdf

¹⁹ “In-depth” indicates a thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding; “Understanding” indicates adequate knowledge with the ability to apply; “Familiarity” indicates a simplified knowledge for the purpose of orientation and recognition of general principles; “Exposure” indicates the level of skill attained by observation of/or participation in a particular activity.

- treatment with a need to carry out extensive diagnostic procedures to determine the optimal tooth/implant position for aesthetics and function.
- in-depth understanding and are competent and experienced in managing the local, systemic and behavioural conditions that may influence the surgical, prosthetic or maintenance aspects of dental implant treatment. This includes:
 - managing patient relations, including patients with high expectations of aesthetic outcomes,
 - managing patients with physical/medical compromises, and
 - managing patients with a history of implant treatment failure or significant implant treatment complications.
- in-depth understanding and are competent and experienced in sequential planning procedures for dental implant treatment. This includes:
 - treatments where the end result cannot be easily visualised without extensive diagnostic and planning techniques, treatments requiring multiple stages to achieve the desired outcome, and treatments requiring multidisciplinary planning.
- in-depth understanding and are competent and experienced in the pre-surgical prosthodontic preparation procedures, such as surgical and radiographic guides, and the basis for specific dental implant selection;
- in-depth understanding and are competent and experienced in the various site-development and implant placement surgical procedures including intra-operative complications. This includes:
 - implant surgical treatment involving:
 - significant alteration to anatomical structures with potential risk of damage to vital structures (e.g., significant bone reduction / modification),
 - anatomically related risks that require significant hard tissue reduction or grafting (including onlay bone grafting and sinus grafting),
 - placement of implant in combination or preceded by significant grafting,
 - placement of implant in non-healed sites (such as immediate and early implant placement),
 - use of advanced implant designs/approaches (e.g., ultrashort implant, zygomatic implant, pterygoid implant), and
 - soft tissue augmentation with autogenous tissue or a substitute;
- in-depth understanding and are competent and experienced in the post-surgical follow-up and the management of post-surgical complications;
- understanding of the various provisional and definitive prosthodontic procedures for dental implant supported and/or retained prostheses. This includes:
 - treatments requiring to substantially change the existing occlusal scheme or the occlusal vertical dimension,
 - treatments involving immediate and early implant loading,
 - replacement of a tooth/teeth with any prosthesis in the presence of significant prosthetic risk factors, and

- replacement of teeth with a full-arch bridge;
- understanding of the importance of post-insertion follow-up and the management of post-insertion complications. This includes:
 - surgical management of peri-implantitis and surgical approach to removal of implants.

Practitioners are reminded of the importance of:

- effective communication between the various members of the dental implant team and other providers, and especially with the patient,
- RCDSO's "Guidance for Differentiating 'Straightforward' and 'Complex' Cases" (Appendix 1)
- appropriate and timely referrals,
- implant maintenance protocols, and
- appropriate time management

Learning Outcomes (Prosthodontic Component)

Dentists performing the prosthodontic component of complex implant dentistry must have:

- in-depth understanding of the biological basis of healing and osseointegration (including materials, biomechanics and bone physiology) for dental implants and their interactions with host tissues, and the implications regarding dental implant loading;
- in-depth understanding of the anatomical considerations and limitations in relation to dental implant placement;
- in-depth understanding and are competent and experienced in the current diagnostic and imaging procedures that are available for the assessment of desired prosthetic tooth position and corresponding bone quantity and quality at the planned dental implant site(s). This includes:
 - treatment with a need to carry out extensive diagnostic procedures to determine the optimal tooth/implant position for aesthetics and function.
- in-depth understanding and are competent and experienced in managing the local, systemic and behavioural conditions that may influence the surgical, prosthetic or maintenance aspects of dental implant treatment. This includes:
 - managing patient relations, including patients with high expectations of aesthetic outcomes,
 - managing patients with physical/medical compromises, and
 - managing patients with a history of implant treatment failure or significant implant treatment complications.
- in-depth understanding and are competent and experienced in the sequential planning procedures for dental implant treatment. This includes:
 - treatments where the end result cannot be easily visualised without extensive diagnostic and planning techniques, treatments requiring multiple stages to

- 506 achieve the desired outcome, and treatments requiring multidisciplinary
507 planning;
- 508 • in-depth understanding and are competent and experienced in the pre-surgical
509 prosthodontic preparation procedures, such as surgical and radiographic guides, and the
510 basis for specific dental implant selection;
 - 511 • understanding of the various site-development and implant placement surgical
512 procedures including intra-operative complications. This includes:
 - 513 ○ implant surgical treatment involving:
 - 514 ■ significant alteration to anatomical structures with potential risk of
515 damage to vital structures (e.g., significant bone reduction/modification),
 - 516 ■ anatomically related risks that require significant hard tissue reduction or
517 grafting (including onlay bone grafting and sinus grafting),
 - 518 ■ placement of implant in combination or preceded by significant grafting,
 - 519 ■ placement of implant in non-healed sites (such as immediate and early
520 implant placement),
 - 521 ■ use of advanced implant designs/ approaches (e.g., ultrashort implant,
522 zygomatic implant, pterygoid implant), and
 - 523 ■ soft tissue augmentation with autogenous tissue or a substitute.
 - 524 • understanding of the importance of post-surgical follow-up and the management of
525 post-surgical complications;
 - 526 • in-depth understanding and are competent and experienced in the various provisional
527 and definitive prosthodontic procedures for dental implant supported and/or retained
528 prostheses. This includes:
 - 529 ○ treatments requiring to substantially change the existing occlusal scheme or the
530 occlusal vertical dimension,
 - 531 ○ treatments involving immediate and early implant loading,
 - 532 ○ replacement of a tooth/teeth with any prosthesis in the presence of significant
533 prosthetic risk factors, and
 - 534 ○ replacement of teeth with a full-arch bridge;
 - 535 • in-depth understanding and are competent and experienced in the post-insertion
536 follow-up and the management of post-insertion complications. This includes:
 - 537 ○ surgical management of periimplantitis and surgical approach to removal of
538 implants.

539
540 Practitioners are reminded of the importance of:

- 541 • effective communication between the various members of the dental implant team
542 and other providers, and especially with the patient,
- 543 • RCDSO's "Guidance for Differentiating 'Straightforward' and 'Complex' Cases"
544 (Appendix 1),
- 545 • appropriate and timely referrals,
- 546 • implant maintenance protocols, and
- 547 • the need for regular follow up.