

CDSS GUIDELINES FOR IMPLANT DENTISTRY



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These are intended as guidelines for registrants of the CDSS in providing implant treatment care for their patient(s) in the province of Saskatchewan.

The CDSS guidelines contain parameters that may be used by the College and other bodies in determining whether appropriate best practices and professional responsibilities were met and maintained.

PREAMBLE

Implant dentistry is the practice pertaining to the restoration and maintenance of oral function, appearance, and health of the patient through the replacement of teeth and contiguous structures with the placement of endosseous or subperiosteal dental implants and restoration with associated prosthetic components.

This practice of implant dentistry, where a dentist may choose to provide either one or both aspects of surgical and prosthodontics, includes diagnosis and treatment planning, surgical placement of appropriate fixtures, prosthodontic restoration, and maintenance of dental implants and implant prostheses. Implants, with endosseous integration, serve as supporting units involving both fixed and removable prostheses.

Those dentists utilizing dental implants in their practices require specialized knowledge and clinical skills related to both the surgical and prosthetic phases of treatment, even though only one may be provided. These guidelines outline suggested educational and professional responsibility requirements for those dentists electing to use dental implants for their patients. These guidelines do not attempt to provide information relating to the clinical steps necessary in doing dental implants.

It is the recommendation of the CDSS that all dentists who elect to be involved in dental implant treatment have an established partnership with an oral health team that allows comprehensive treatment from diagnosis through to long term maintenance. The entire oral health care team is responsible for all implant patients for appropriate care and maintenance.

EDUCATIONAL REQUIREMENTS

In order to provide dental implant treatment a dentist should complete comprehensive educational training that reflects the complexity of the cases being undertaken and the complex nature of the subsequent treatment provided.

The complexity of treatment being offered should reflect the dentist's level of training, the experience of the dentist, and the ability to complete and manage these cases properly.

These comprehensive courses should be based on methods supported by scientific, evidence based, and peer-reviewed research covering adequate and multiple aspects of the dental implant treatment. A clinical component is necessary with mentorship from an instructor with significant experience and comprehensive formal education.

Education should include both didactic and clinical related components of adequate duration. It is recommended to have a minimum of 40 hours of surgical (including some prosthetic training) for surgically placing implants. A minimum of 20 hours of prosthetic implant instruction (didactic and clinical) is recommended along with some surgical training, in order to restore simple cases. Some of this education can be shown to have been provided at an undergraduate level. More complex implant cases will require a subsequent adequate and reasonable increased amount of experience as well as didactic, clinical, and hands-on education. Education should be continued yearly to ensure up to date knowledge and learning and a recommendation for the dentist to establish and maintain a professional portfolio as the dentist develops their education for each of the surgical and prosthetic phases - depending on the scope of practice for the dentist as to the complexity of the implant cases the dentist elects to treat.

Dentists electing to become involved in implant treatment should:

- Understand the biological basis of osseointegration (materials, biomechanics and bone physiology) for dental implants and their interactions with host tissues and the implications regarding implant loading;
- Understand the anatomical considerations and limitations in relation to implant placement;
- Understand the current diagnostic and imaging procedures that are available for the assessment of available bone quantity and quality;
- Recognize and identify local and systemic or behavioural conditions that may influence the surgical, prosthetic, or maintenance aspects of implant treatment;
- Understand sequential planning procedures for implant treatment including appropriate referral procedures;
- Understand pre-surgical prosthodontic preparation procedures, such as surgical and radiographic stents, and the basis for specific implant selection;
- Understand the various provisional and definitive prosthodontic procedures for implant supported and/or related prostheses.

Dentists that limit their implant practice to one component only (surgical or prosthetic) should take the related course or courses for each component.

The recommended minimum educational requirements suggested in these guidelines are adequate for most dentists to begin very basic implant procedures. Additional training and education should be completed before more complex implant treatment is undertaken.

PROFESSIONAL RESPONSIBILITIES

Proper patient evaluation and planning is of utmost importance in implant treatment. Comprehensive oral examination with completion of basic restorative and hygiene needs should be completed prior to initiation of implant treatment. Dentists providing implant treatment should attempt to ensure that no harm will be done to the patient which might result in a situation where the remaining tissues are irreversibly and detrimentally altered. Proper patient selection should include physical and medical suitability, and the implant site should receive optimum pre-operative assessment. The implant size, number, orientation and distribution should be capable of supporting the planned prosthesis.

Dentists providing implant dentistry should show evidence of significant pre-surgical provision of information and discussion with the patient and adequate consultation with all professionals involved in the treatment process. Alternative conventional dental treatment modalities should have been clearly presented and considered, along with the dental implants, as part of the treatment planning process.

Patients should be made fully aware of the risks, prognosis, and financial implications of the entire implant procedure (e.g. surgical, prosthetic, and maintenance) prior to the initiation of treatment. Prospective patients need to understand their ongoing responsibility for the long-term success of the treatment relative to oral hygiene and other professional maintenance visits, and recommended home care regimens.

In obtaining **informed consent** for dental implant treatment, the patient records should show that the following points were discussed:

- Patient's chief complaint, description of the nature of the problem, and reason and explanation of the dental implant treatment plan;
- Process in which a dental implant is placed;
- Risk factors associated with undergoing dental implant surgery;
- Discussion of availability of all treatment options (implant/non implant) including advantages, disadvantages, risks, prognosis and cost of each;
- Discussion about additional procedures that may be required (ie: sinus lifts, soft tissue grafting, bone grafting, future treatments required);
- Discussion that dental implants do fail and what happens when they do;
- Discussion of the recommended treatment;
- Discussion of importance of regular dental maintenance, including requirements for implant and restoration maintenance;
- Confirmation that medical history has been reviewed, all questions answered and addressed (if prosthetic and surgical separate this should be present in a written treatment plan letter or form).

As with all dental treatment, detailed **dental records** should be kept and maintained which should include:

- Documentation that informed consent was obtained with patient understanding treatment plan;
- Study casts (digital or printed) and other diagnostic aids, such as surgical guides, radiographic guides, diagnosis setups, and photographs, as indicated;
- Appropriate radiographs (CBCT is recommended) that have been used to show the proposed implant site(s);
- Detailed notes relative to the procedures performed and post-operative advice given to the patient including records of any educational material given to the patient;
- Documentation of ongoing clinical monitoring including radiographs where appropriate.

Surgical notes should include standard surgical notations as well as:

- Surgical procedure summary;
- Implant system used (which drill type, RPMs, torque);
- Difficulties during the surgery that were encountered, if any;
- All materials used during the surgery;
- Number and location of implants including size and type (reference number);
- Implant sticker information with reference and lot numbers, as well as expiry should be recorded in patient chart;
- Osseointegration status using standardized measurement or descriptive criteria;
- Size and type of healing abutment or cover screw placed;
- Post op instructions and any prescriptions provided.

Prosthetic notes should include notations on the prosthetic procedures performed as well as:

Regarding Impressions

- Size, location and type of implant;
- Type of impression (manual vs scan);
- Depending on type of implant connection, a radiograph is recommended to confirm seating of impression copings;
- Utilization of verification jig or relate bar, if indicated to;
- Size and type of abutment used (with abutment level impression).

Prosthesis Delivery

- Type of restoration or prosthesis fabricated, delivered, and materials used (including size and type of abutment);
- Type of connection – screw or cement;
- Torque values in N-cm for abutments and/or screws;
- Screw access hole details;
- A record of all components secured for function in the patient's mouth, including retentive inserts if utilized;
- Any recommendations, instructions, or advice given to the patient about the prosthetic treatment.

Once treatment is completed, clinical follow-up as well as maintenance and professional hygiene should be established based on the individual patient needs. Arrangements should be in place for all aspects of the treatment including follow-up. (This should be established prior to initiating any treatment).

Comprehensive training programs in the utilization of dental implants will serve to protect the public of Saskatchewan as well as afford protection for the dentist.